

















User Manual

Cultural Heritage Inventory of Bangladesh



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User Manual of Cultural Heritage Inventory of Bangladesh

Table of Contents

Tał	ole of	Contents	i
List	t of F	igures	.ii
Abl	orevi	ations and Acronyms	iv
1	Inti	roduction	.1
1	.1	Background	.1
1	.2	System Overview	.2
1	.3	Web	.2
1	.4	Application Platform	.2
1	.5	Tools Used	.2
	1.5.	1.1 ASP.NET Core	.2
	1.5.	1.2 Oracle	.3
2	Ove	erview of the CHIB	.5
2	.1	Dashboard	.6
2	.2	Inventory Viewer	.7
2	.3	Map Viewer	.9
2	.4	Reporting	.9
2	.5	Help	12
3	Usa	ge Guidelines	13
3	8.1	User Registration	13
3	.2	Login	14
3	.3	Inventory Entry	15
	3.3.	1.1 Intangible	15
	3.3.	1.2 Section 1: Indentification	16
	3.3.	1.3 Section 2: Characteristics	17
	3.3.	1.4 Section 3: State (viability)	18
	3.3.	1.5 Section 4: Documentation/ Consent	19
	3.3.	1.6 Section 5: Resource Person	19
	3.3.	1.7 Section 6: Safeguarding	20
	3.3.	1.8 Section 7: References	21
	3.3.	1.9 Section 8: Modalities	21
	3.3.	1.10 Section 9: Suggestions	22
	3.3.	1.11 Section 10: Upload Document	22
4	Her	itage Hub of Bangladesh App2	24

List of Figures

Fig 1.1: Using web browser access Database through IIS/ASP.Net Core	2
Figure 2.1: Home Page of CHIB	5
Figure 2.2: Dashboard	6
Figure 2.3.1: Intangible Cultural Heritage List	7
Figure 2.3.2: View of Intangible Cultural Heritage	8
Figure 2.4: Advance Map Viewer	9
Figure 2.5: Advance Reporting	
Figure 2.6: Details View (part-1)	
Figure 2.7: Details View (part-2)	
Figure 2.8: Details View (part-3)	
Figure 3.1: User Menu	
Figure 3.2: User Registration Form	
Figure 3.3: Registration Success Confirmation Message	14
Figure 3.4: User Menu	14
Figure 3.5: Login	15
Figure 3.6: Section-1	16
Figure 3.7: Section-2	
Figure 3.8: Section-3	
Figure 3.9: Section-4	
Figure 3.10: Section-5	20
Figure 3.11: Section-6	20
Figure 3.12: Section-7	21
Figure 3.13: Section-8	21
Figure 3.14: Section-9	
Figure 3.15: Section-10	23
Figure 4.1: App Icon	24
Figure 4.2: App Initialization	24
Figure 4.3: Get Started	25
Figure 4.4: App Dashboard (part-1)	25
Figure 4.5: App Dashboard (part-2)	
Figure 4.6: App Navigation Bar (<i>public mode</i>)	26

Figure 4.7: Intangible List (<i>approved</i>)	27
Figure 4.8: Attachment's Indicator	27
Figure 4.9: Section wise Deatil View of a Heritage	28
Figure 4.10: Expanded View of a Heritage with Attachments	28
Figure 4.11: Viewing of Attached Documents	29
Figure 4.12: Figures of User Registration Process	29
Figure 4.13: Successful Message	30
Figure 4.14: Figures of Sign in Process	30
Figure 4.15: Figures of New Items	31
Figure 4.16: Add New Inventory Form	31
Figure 4.17: Figures of Entry Form Sections	32

Abbreviations and Acronyms

BNM	Bangladesh National Museum
CEGIS	Center for Environmental and Geographic Information Services
CHIB	Cultural Heritage Inventory of Bangladesh
GIS	Geographic Information Systems
HTML	Hypertext Markup Language
MVC	Model View Control
0/S	Operating System
BCC	Bangladesh Computer Council
BNDA	Bangladesh National Digital Architecture
UNESCO	United Nations Educational, Scientific and Cultural Organization
URL	Uniform Resource Locator
NID	National Identity

1 Introduction

1.1 Background

The Bangladesh National Museum (BNM) contains about 87 thousand objects of different types. Buddhist and Brahminical stone sculptures, architectural pieces, Arabic and Persian inscriptions are the most significant objects of this museum from the point of view of artistic value and iconographic importance. The coin cabinet of the National Museum is especially rich for the study of the history and numismatics of medieval Eastern India. Also, the Museum has a good collection of Sanskrit and Bengali manuscripts, written on hand-made paper and palm leaf. Among the terracotta objects in the museum, there are plaques, figures, stamped and inscribed slabs, votive seals, molded and decorated bricks representing different phases of this art of Bengal. Paintings in the museum collection range in date from the 17th century. They include lacquer-painted wooden manuscript covers, late Mughal miniature, and watercolor drawings of Eid and Muharram processions of Dhaka. The contemporary art gallery is rich in paintings, sculptures, and tapestries of famous artists of Bangladesh. Besides, medieval arms and weapons, porcelain, metalwork, specimens of famous filigree work of Dhaka, exquisite embroidered quilts, outlandish pieces of ivory works, superb wooden furniture dioramas of folk and tribal life, model of boats of Bangladesh, tribal and folk arts and crafts are displayed in the galleries. With a gallery of Shilpachariya Zainul Abedin's paintings, the contemporary art gallery is rich with paintings, sculptures, and tapestries of famous artists of Bangladesh. Collection of natural history specimens including shells. The documents of the Liberation War (1971), mementos of martyred intellectuals (1971), and the Language Movement (1952) have added an enhanced dimension to the Bangladesh National Museum. Details information and color photographs of all these objects are preserved systematically and stored in a secured digital database system. This movement helps to prevent the loss of historical information on these valuable archaeological objects.

The term 'cultural heritage' has changed content considerably in recent decades, partially owing to the instruments developed by UNESCO. Previously collections of monuments and objects are mainly called cultural heritage but now Cultural heritage does not end at monuments and collections of objects. It also includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe, or the knowledge and skills to produce traditional crafts. While fragile, intangible cultural heritage is an important factor in maintaining cultural diversity in the face of growing globalization. An understanding of the intangible cultural heritage of different communities helps with intercultural dialogue and encourages mutual respect for other ways of life.

The importance of cultural heritage is the cultural manifestation itself but rather the wealth of knowledge and skills that is transmitted through it from one generation to the next. The social and economic value of this transmission of knowledge is relevant for majority groups and mainstream social groups within a State and is as important for developing States as for developed ones.

With an aim to digitize and computerize the Bangladesh National Museum, an image-based Cultural Heritage inventory will launch to protect the national and natural history of Cultural Heritage and the cultural objects of BNM. The program covers transparent statistics accountability and serves researchers and UNESCO to easy access to the Cultural Heritage of Bangladesh.

1.2 System Overview

GIS based Web Inventory for the Cultural Heritage of Bangladesh (CHIB) has been developed using ASP.Net Core (C#) MVC, HTML, CSS, CSS3, Bootstrap (v5.3), JavaScript, jQuery, AJAX and Leaflet (a JavaScript library for interactive maps) as front end and Oracle 19.3c as back end. Microsoft .NET v8.0 has been used as the base platform in the core development. The key features of the development environment are described below.

1.3 Web

The Web is a system of interlinked documents that runs over the Internet. With a Web browser, a user views web page that may contain text, images, and other multimedia and navigates between them using hyperlinks.

Advantage:

- Make Database available to all internal users through intranet.
- No need to install on every user's machine
- Make all tools available on a single page
- Centralized control



Fig 1.1: Using web browser access Database through IIS/ASP.Net Core

1.4 Application Platform

A Windows based application platform should have following two characteristics:

- Capable of being run on different windows servers
- Should provide output for display by any Internet browser (Mozilla, Opera, Netscape, Internet Explorer, Google Chrome etc)

1.5 Tools Used

1.5.1.1 ASP.NET Core

ASP.NET Core, represents a significant milestone in the evolution of this powerful web framework. Renowned for its versatility and cross-platform capabilities, ASP.NET Core continues to empower developers with a robust and open-source platform for building modern, high-performance web applications.

Important Features

- **Cutting-edge Technology**: ASP.NET Core represents a cutting-edge evolution in web development, offering a host of features that streamline the creation of robust and scalable applications. This innovative framework boasts an Easy Programming Model, making tasks such as data display, user input validation, and file uploads remarkably straightforward. With support for over 25 .NET languages, including built-in compatibility for C#, VB.NET and JScript.NET, ASP.NET Core provides unparalleled flexibility in language selection.
- **Rich Class Framework**: The framework leverages a Rich Class Framework comprising over 4500 classes, encapsulating extensive functionality and facilitating comprehensive application development. Compiled execution ensures optimal performance by automatically detecting changes, dynamically compiling files, and storing the results for efficient reuse in subsequent requests. ASP.NET Core excels in performance optimization with Rich Output Caching, significantly enhancing scalability.
- **Reliability**: Reliability is a cornerstone of ASP.NET Core, guaranteeing uninterrupted availability for users. The framework features advanced error detection and recovery mechanisms, including Memory Leak, Deadlock, and Crash Protection, ensuring the continuous operation of your application.
- **Process Simplifying**: Ease of Deployment is another hallmark, simplifying the process of deploying server applications. ASP.NET Core enables painless deployment by allowing entire applications to be copied to the server, akin to deploying a simple HTML page.
- **Dynamic**: Dynamic Update of Running Applications is a standout feature, permitting the updating of compiled components without requiring a web server restart. This flexibility enables seamless updates and maintenance.
- Web Services Facilitates: Support for XML Web Services facilitates cross-platform and crosslanguage communication, empowering applications to share data over the Internet effortlessly. ASP.NET Core is compatible with leading web servers, including Microsoft IIS and others, ensuring adaptability to diverse hosting environments.

Moreover, ASP.NET Core provides Multiple Database Support, catering to a range of database systems such as Dbase, Informix, Microsoft SQL Server, MySQL, Oracle, PostgreSQL, Sybase, and ODBC. This versatility makes ASP.NET Core an ideal choice for developers seeking a comprehensive and adaptable framework for modern web application development.

Web address: <u>https://learn.microsoft.com/en-us/aspnet/core/introduction-to-aspnet-core?view=aspnetcore-7.0</u>

1.5.1.2 Oracle

Oracle is an integrated, standards-based database management software platform that helps organizations to build comprehensive, enterprise-scale analytic solutions that deliver actionable insights through familiar tools.

Important Features

- Secured
- Server Manageability
- Alert and Pipe events
- Easy application distribution
- High Availability—Always On
- Session Pooling

- High performance and Scalability
- Programmability
- Stream Insight Complex Event Processing
- Support different O/S (Linux, Windows, Solaris, and more)

Web Address: <u>http://www.oracle.com</u>

2 Overview of the CHIB

The development of a web-based GIS inventory for the intangible cultural heritage of Bangladesh represents a groundbreaking initiative in cultural preservation. Seamlessly integrating cutting-edge technology with historical treasures, the platform offers an immersive experience for enthusiasts, researchers, and curious minds eager to explore the nation's vibrant past.

The URL of CHIB is <u>https://heritagehub.gov.bd</u> Click on the URL or Enter URL at the address bar of your browser and press '*Enter*' key from the keyboard. The home page will appear. With six main modules including Dashboard, Inventory Entry, Inventory Viewer, Map Viewer, Reporting and Export Tool, and User Management and Access Control, this advanced web system ensures efficient data input, interactive exploration, and secure collaboration. Fully compatible with modern desktop browsers, smartphones, iPads, and tablets, the system's visual representation in Figure 2.1 showcases an intuitive home page, making the exploration of Bangladesh's cultural richness accessible and engaging for a diverse audience.



Figure 2.1: Home Page of CHIB

2.1 Dashboard

A dynamic dashboard has been developed to provide users with an overview of various information, presenting the total number of available data in a concise format tailored to different user levels. This dashboard employs a variety of visualization tools, including number cards, bar charts, pie charts, line charts, tables, and map views, effectively summarizing and displaying data in a visually compelling manner.



Figure 2.2: Dashboard

2.2 Inventory Viewer

The Inventory Viewer is a robust component of our cultural heritage preservation platform, offering a comprehensive exploration of heritage data categorized into three distinct sub-menus: Intangible, Tangible, and Natural. Each page within the Inventory Viewer provides users with a refined and user-friendly interface, enriched with data filter options allowing for precise searches by Division, District, and Upazila. The data is organized in a structured table featuring columns such as Division, District, Community, Name of the Heritage, Short Title of the Heritage, Concerned Community(ies)/ Group(s), Threats in Practice, Present Condition, Document, Images, and Video. This thoughtful organization ensures that users can seamlessly navigate and engage with the cultural heritage information they seek, promoting a deeper understanding and appreciation of the diverse heritage landscape across Bangladesh.

Tota	I Record's : 134										Page Size:	10
Di	vision:		All	~	District: All	✓ Up	azila:		All	× R	eset Filter	Fil
*	Division 2	District	Community	Name of the Heritage	Short Title of the Heritage	Concerned Community(ies)/Group(s	i) Practice	Present Condition	Document	Images	Video 12	1
1.	Chattogram	Rangamati	Chakma	Sangrain 'Relong Pwe' (water pouring)	'Relong Pwe' or 'Water Festival' of Marma Community falls in the doman of 'Social practices, rituals and festive events'			Still maintaining	POF	Rat		Dete
2.	Sylhet	Moulvibazar	Meitei	Rasleela					POF			Deta
3.	Khulna	Kushtia	Rural	Baul Gurubad	'Gurubad', fidelity and devotion toward the preceptor, is at the heart of the radical belief system of the Bauls, or mystical seers, falling in the ICH domain of 'Knowledge and Practices Concerning Nature and the Universe'.			Still maintaining	J. POF			Deta
4.	Sylhet	Moulvibazar	Meitei	The Laiharaoba Festival of Meitei Manipuris					POF			Deta
5.	Chattogram	Chattogram	Rural	Chattgaian Rural Traditional Proverb	This is under the ICH domain of Oral traditions & expressions.			Threatened with extinction	POF			Dete
6.	Sylhet	Moulvibazar	Meitei	Thabol Chongba	A manipuri dance for young men and women			Still maintaining	POF	Vertie		Deta
7.	Sylhet	Moulvibazar	Meitei	Khamba Thoibi					L. POF			Deta
8.	Sylhet	Moulvibazar	Meitei	Nata Pala					J., POF	-		Deta
9.	Sylhet	Moulvibazar	Bishnupriya	Priesthood of the Manipuri community of Bangladesh	Priesthood and priests of the both the Bishnupriyas and Melteis are at the core of this Manipuri community, with its font of Knowledge and practices concerning nature and the universe			Still maintaining	POF	5	D	Deta
10.	Mymensingh	Jamalpur	Rural	Meyeli Geet (Folk songs of Women)	Meyeli Geet of Jamalpur are the songs sung by women, falling in ICH Domain 2 of performing arts			Developing or Expanding	POF			Deta
					1 2 3 4	5 14 Next »						
					Our F	Partners						
	সাং	ধনা	e e e			Wom	nen (BRAC	1	-final ata	-	MA.

Figure 2.3.1: Intangible Cultural Heritage List

Engli	sh Bangla	section-sistance or the element (vialality) + Threate to the element
Heritag	e Information	riveats to the enactment
	+	Enactment Threats Description
Heritage Location		Tourism and commercialism is harming the authenticity of the featival. But, of greater significance is the long bistory of conflict with the Chitagong Hill Tracts, between the indigenous people from the minority ethnic communities, and the settlers from outside.
Division	Details Address	Threats to the transmission (if any)
Chattogram		Of major consideration Local majority population sometimes creates pressure and other religious practitioners issue statements discouraging the outural practices of the ethnic minority that makes them insecure and unsafe, while discouraging the young
District	Geolocation(Latitude)	generation. Thrast to appreciated tennible elements and represes (if any)
Rangamati		No, there is no threat, but also no support in a Muslim majority country like Bangladesh
Upazila	Geolocation(Longitude)	Viability of associated intangible elements (if any)
		Some NGO's are working for their health care and to improve their financial stability but still nobody is working to
		protectypreserve were residents or motions.
Community Category	Community	Safeguarding is primarily by the community itself. A few years back the ethnic communities of Bangladesh proposed following
Small Ethnic Groups	Chakma	safeguarding measureage establishmeter of a tribial cultural institute. By appointment of indigenous language teached in every primary school in CHI and cy bioadscating programmes on undigenous culture and heretage. There supportions also include e one more chapter based on indigenous culture in tot books at primary and junior levels, i) listicoucling teachem training on indigenous languages at Rangersol FPL and gi patiety gue a measure to protect culture and heretage or 11 ethnic communities indigenous languages at Rangersol FPL and gi patiety gue a measure to protect culture and heretage or 11 ethnic communities with the state of the school of t
Name of the Heritage, (as used by the community or group co	incerned)	in CHT. They emphasised primary education in students' mother languages. Speakers said this in a daylong workshop titled 'Adhivashi Sangskriti Sangrakthaney Suparishmala Pranavan o Amader Karaniva' organised by local NGO Zabarang Kalvan
Sangrain 'Relong Pwe' (water pouring)		Samity https://unpo.org/article/7595
Short title of the Heritage, (maximally informative with refere	nce to relevant heritage area)	= Section-4: Data gathering/documentation, Consent and preparation of inventory entries +
'Relong Pwe' or 'Water Festival' of Marma Community falls in	the doman of 'Social practices, rituals and festive events'	Consent of community/group/individuats concerned for data collection with a view to inventorying
Concerned Community(ies)/Group(s), (who recognize the elem	ment as part of their cultural heritage)	1. Mong Circle 2. Marma Unnayan Sangsad. 3. Kongsai Marma (Dancer) 4. Ulha Ching Marma (Dancer) WEIU
		Restrictions on use of collected date, (if any)
Physical location(s) of the element/how often it is practiced		Every information's needs to reconfirmed by community
The Festival is performed wherever the Marma live. The M	arma people, formerly known as Moghs or Maghs, are the second-	
Hill Districts. Some Marmas live in Bangladesh's coastal di	stricts of Cox's Bazar and Patuakhali, while others live in India and	Data provider/Resource person (persons/groups, community representatives)
Myanmar. There are over 210,000 Marmas living in Ba Bangladesh's Chittagong Hill Tracts their home, where they h	angladesh. Since the 16th century, the Marma have considered have established the Bohmond and Mong Circles (chiefdoms).	Kongsai Marma Mobile: +8801556774131
Short description of the Heritage (preferably within 250words		Date of data collection
'Rilong Pwe' is a water festival of the Marma/Mogh indigen	bus community in Bangladesh. The festival is celebrated during New	Plane(s) of data collection
Year of the "Mraima" calender. It is a blessing ceremony whout of the four-day feeting, are spent bidding farewell to the	hich is celebrated by the all members of the community. Three days,	Via internet, during COVID19 Pandemic.
On the first day of the festival, both male and female mem	bers of the Marma tribe form a procession to take their images of	E Section & Safamardian techniques
Buddha down to the riverfront. The images are washed on a in preparation for reinstalling them at the temple or in their	raft with either a mixture of sandalwood and water, or milk and water shrines at their homes. ?The festival is celebrated in several parts	Sectorio, anequaruna techniques
during the day. A water festival competition is specially par performance of traditional dances. The community also ce	ticipated in by young, unmarried boys and girls, which also includes elebrates the festival early in the morning by showering elders with	Existing satisfy and ingless adopted by the community for the satisfy and ingle the Perinage None
water, as well as showering the Buddha statue in the mona	stery. Anybody can join the festival irrespective of caste, creed and	Suggestions for safeguarding of the Heritage from the community
friend. Everyone is determined to start with new hope and	new way of life. The community also go to the temple, wash the	1. Create awareness 2. Take workshops 3. Establishing Sustainable tourism 4 Financial Security 5. Encourage Researchers
Buddha statues, recite the eight precepts and take the five or temple take this opportunity to remind everyone of the dhan	aths before circumambulating the pagoda together. The monks in the ma; the right way of living and practicing as Buddhist. The elders are	
worshiped and they bless the young ones for a bright future.		References to/in literature
Domains of the Heritage (applicable fields)		1. Barua, Bijoy. 2010. 'Ethnic Minorities, Indigenous Knowledge, and Livelihoods: Struggle for Survival in Southeastern
 Oral Traditions and Expressions Performing Arts 		Califyreastic in integrations intervenue and comming in search action and annual representation of therebytinen, concentric and Culture, edited by DIp Kapoor and Edward Shizha. New York Palgrave Macmillan, 2: Hammed, M.L. Baka, 2006, "Assimilation: A College of the information Culture and Culture 1: Surger of Ethiode Material 1727.8: 3: Mohommed, Alu Ude, 2020
 Social Customs and Traditions Knowledge and Practices related to Nature and Universe 		in Language, Communication and Thought: A Study on Linguistic Discrimination against the Indigenous People of the Chitragong HII Tracts Bandadoch: STUDIES IN LITERATURE AND LANGUAGE 1 (1): 25.37.4 van Schendel William Wolfgang Mey and
Traditional Craftsmanship Suggested Demoin		Aditya Kumar Dewan. 2000. The Chittagong Hill Tracts: Living in a Borderland. Bangkok: White Lotus Co. Ltd.
		Audiovisual materials or archives
Section-2: Characteristics of the element	+	https://www.youtube.com/watch?v-70pnkdhYHvw.https://www.youtube.com/watch?v-Ag0q46t0eNg
Practitioners(s)/performer(s) directly involved in the representation of the second se	tation or practice of the Heritage (including roles, name, age, gender,	Viscography or archives None
The entire community is involved in the celebration of the	is Fastival Documentation was made with the halo of following	Parallel 9. Modelliles for underland the information contained in the investory entry.
community members: Kongshai Marma, 25, Male, Dancer Uh	laching Marma, 25, Male, Dancer	sector of would be a sector of opparing the momentation contained in the inventory entry
Other tradition bearers (individuals/groups and their roles))		Uses Compiler (persons/groups, including community representatives, who compiled the information) Resource person will regularly help to update.
Marma Shilpi Ghosthi, Marma Unnayan Sangsad and Bangla	adesh Marma students council: These are community organisations	Date of Community Consent
which organise the event.		
Language(s), register(s), speech level(s) involved		Consent of community/group/individuals concerned for data collection with a view to inventorying
Arakanese (also known as Rakhine /r?'ka?n/; Burmese: ???? related to Burmese, of which it is often considered a dialect	??????, MLCTS: ra.hkuing bhasa [??k?à?? bà?à]) is a language closely . "Arakan" is the former name for the Rakhine region. Arakanese can	Resource person asked their community chief and got full permission.
be divided into three dialects: Sittwe-Marma (about two thin the Rakhine, Marma and Kamein peoples	ds of speakers), Ramree, and Thandwe.[3] It is the native language of	Present Condition of Heritage
Associated tonella elemente 4/4>		will manualing Reference of the second condition of the Maritana (#>
Associated tangible elements USEd (if any) Traditional Marma drace, traditional water hand tradition	al musical instrumente	Stiell maintaining
Human marrie areas, reducinal water powraita tradition		= Section 9: Community suppositions
now are women and people of other genders associated with	uns nerwaye?	Occupit 2: Continuing suggestion The second secon
ritual involves everyone.	we is especially important for the unmarried singles but the entire	over description of suggestions for sareguarding of the element by community members/experts/holders, (if any) As above.
Division of labour during the practice of this Heritage		Brief description of restrictions on use of data collected, (If any).
The labour is equally distributed into mens and womans but	mainly arranged by the young generation.	Not applicable.
Elements to which other customary practices or practices ma	y be connected or accessed in any respect of the heritage (if any)	
Relong Pwe is a festival open to all.		Consent Document/পশত গব Uploaded Document/ব্যাগৃহত সাব
Modes of transmission to others in the community		PDF PDF
The indigenous Marma people learns about the Rilong PWF I	Festival from their ancestors.	 Download/ভাইনগোন্ত Download/ভাইনগোন্ত
Organizations concerned (non-generations)	ad others)	upposed incluses united to set
Marma Shilpi Gosthi and Marma Unnavan Sangsari		
, englise et en		

Figure 2.3.2: View of Intangible Cultural Heritage

2.3 Map Viewer

The Map Viewer, a pivotal feature within our cultural heritage preservation platform, offers a dynamic and immersive experience with three distinct sub-menus: Advance Map, Intangible Map, Tangible Map, and Natural Map. The Advance Map sub-menu serves as a comprehensive display, integrating all available information with advanced features for a holistic view. Meanwhile, the Intangible Map, Tangible Map, and Natural Map sub-menus provide specialized maps focusing on individual data categories. Users can seamlessly navigate and explore the geographical distribution of intangible, tangible, and natural heritage, gaining valuable insights into the diverse cultural landscape of Bangladesh through an interactive and visually engaging map interface.



Figure 2.4: Advance Map Viewer

The Map Viewer boasts a versatile set of features designed to enhance user interaction and exploration. With a user-friendly interface, the map includes a District-wise data filtering option, allowing users to hone in on specific geographic areas of interest. The inclusion of a legend ensures clarity and context, elucidating the significance of various data points. An inset map provides an overarching view, facilitating orientation within the broader geographical context. The addition of a ruler allows for precise measurements, while zoom in and zoom out features provide flexibility in navigating the map. These integrated tools collectively empower users to customize their map-viewing experience, fostering a more insightful and interactive exploration of the cultural heritage landscape.

2.4 Reporting

The Reporting Menu is a comprehensive tool within our cultural heritage preservation platform, offering advanced functionalities for insightful analysis. Users can leverage the Advance Report Searching feature, enabling precise and efficient retrieval of information. Additionally, the menu provides categorical data reporting options for Intangible, Tangible, and Natural heritage. Each reporting category is accompanied by a short description, offering context and insights.

The Reporting Menu incorporates a dynamic map with data points, providing a spatial representation of the heritage landscape. Divisional-wise data visualization enhances the understanding of regional distribution, while bar charts and pie charts offer graphical representations for a quick and comprehensive overview of heritage data.



National Map

ICH Inventory

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With an aim to digitize and computerize the Bangladesh National Museum, an image-based Cultural Heritage inventory will launch to protect the national and natural history of Cultural Heritage and the cultural objects of BNM. The program covers transparent statistics accountability and serves researchers and UNESCO to easy access to the Cultural Heritage of Bangladesh.

Division wise Information

	Distant.		Eler	nent		
	DIVISION	Intangible	Tangible	Natural	Total	
T	2	3	4	5	6	7
1.	Dhaka	26	0	0	26	Map List
2.	Rajshahi	10	0	0	10	Map List
3.	Chattogram	8	0	0	8	Map List
4.	Khulna	12	0	0	12	Map List
5.	Barishal	10	0	0	10	Map List
6.	Sylhet	21	0	0	21	Map List
7.	Rangpur	8	0	0	8	Map List
8.	Mymensingh	14	0	0	14	Map List
	Total:	109	0	0	109	







🕽 Dhaka 💿 Rajshahi 🔍 Chattogram 🔍 Khulna 💿 Barishal 🔍 Sylhet 🔎 Rangpur 🔶 Mymensir

Heritage List (109)



Figure 2.5: Advance Reporting

Furthermore, users can explore heritages short list card view, presenting key data in a concise format. For those seeking detailed information, a convenient Details link button "*More Details*" is available, seamlessly transitioning users to a comprehensive data view.

	English Bangla
	Heritage Information
Ξ Section-1: Identification of the element	nt +
Heritage Location	
Division	Details Address
Dhaka	
District	
Tangail	Geolocation(Latitude)
Upazila	Geolocation(Longitude)
Community Category	Community
Others	Manasamangal Performers
Name of the Heritage, (as used by the commu	unity or group concerned)
Beillar Nachari/Lachari (Behular Nachari)	100232
Short title of the Heritage, (maximally informa	ative with reference to relevant heritage area)
In Tangail district of Bangladesh popular fol In Tangail region BeillarNachari/Lachari na mostly performed on the occasion of Mar arranged for reedom from the fear of snakes	ilk performance of snake goddess Mansa is called Beillar Nachari/Lachari (Behular Nachari). arrative is performed by Muslimsof marginalized communities. This kind offolik-theatre is nas Auja in the month of Stabon, or on Stabon Shonkranti. These ritulaperformances are es, and for good luck. Performers charge 8 to 10 thousand taka for one night's performance.





Figure 2.7: Details View (part-2)



Figure 2.8: Details View (part-3)

The Details Data View provides users with a comprehensive and in-depth exploration of cultural heritage information. Within this view, users can access a wealth of detailed content, including Consent Documents, Uploaded Documents, Pictures, and Videos associated with the specific heritage item. This comprehensive approach ensures that users can delve deeply into the historical and cultural context of each heritage element, fostering a richer understanding and appreciation. The inclusion of diverse media types, from documents to images and videos, aims to provide a multifaceted and immersive experience, allowing users to engage with the cultural heritage in a meaningful and comprehensive manner.

2.5 Help

The Help Menu serves as a valuable resource within our cultural heritage preservation platform, offering users the guidance they need for a seamless experience. Here, users can access a detailed User Manual that provides comprehensive instructions on operating the application, ensuring a smooth navigation and utilization of features. Additionally, the Help Menu includes a Guideline section, offering step-by-step instructions on adding new heritage information. This ensures that users, whether enthusiasts, researchers, or contributors, can effortlessly contribute to the platform, enriching the cultural heritage database. This multifaceted Help Menu aims to empower users with the information and tools they need to actively engage with and contribute to the preservation of Bangladesh's rich cultural heritage.

3 Usage Guidelines

3.1 User Registration

Embark on an enriching cultural journey by registering on Heritage Hub, where the preservation and celebration of Bangladesh's cultural richness begin with a straightforward and secure process. To start, the user needs an email address and a robust password, ensuring the security of their account. Confirm the password for an additional layer of protection. Tailor the Heritage Hub experience by selecting the user group, offering personalized insights into the cultural legacy. Enhance the profile by providing the name, designation, organization name, and address. Foster connections by choosing a community from existing options or adding a new one. Specify the nationality and provide identification details like NID/Birth ID/Passport. Ensure seamless communication by including the phone and mobile numbers. Geographically position by selecting the division, district, and upazila. Complete the registration by adding the address and a brief biography, inviting the user to actively contribute to and engage with the cultural wealth of Bangladesh.



Email*	Emai	I	0	Name*	Name		
Password*	Pass	word	Ø	Designation	Desig	nation	
Confirm Pass	word*	Confirm Passv	vord	Organization	Name	Organization Name	
User Group*	Selec	ct Group	~	Organization	Address	Organization Add	ress
Community	Selec	ct Community				~	0 C
Nationality*	Bang	Iadeshi		Division*	Select	Division	~
NID/Passport	NID	/Birth ID/Passpo	ort	District*	Select	District	~
Phone No.	Phon	ie No.		Upazila*	Select	Upazila	~
Mobile No.*	Mobi	ile No.		Address*	Addre	SS	
	Bri	ief Biography of	Use				

Figure 3.1: User Menu



The Heritage Hub platform accommodates three distinct user roles: Contributor, Moderator, and Approver. Contributors have the privilege to add new heritage information to the platform, providing a diverse and dynamic range of content. Moderators play a pivotal role by moderating the contributed data, ensuring its accuracy and completeness. They have the authority to recommend adjustments or improvements. The final step involves Approvers, who review and approve data based on the recommendations provided by Moderators, ensuring a comprehensive and validated collection of heritage information on the platform. This tiered system ensures a collaborative and thorough approach to curating the heritage database.



Figure 3.3: Registration Success Confirmation Message

3.2 Login

Accessing this system requires users to log in using their registered user ID/ email and password. User have the option to check the "Remember me?" box to store their login credentials securely. If they ever forget their password, a password recovery process can be initiated by clicking on the "Forgot your password?" link.

If users would like to register as new users, they can do so with ease by going to the registration form, which they can reach by choosing the "Register as a new user" option. With the added benefit of password recovery for peace of mind, this simple login and registration process guarantees a user-friendly experience.



Figure 3.4: User Menu

User Lo	ogin		×
💄 User	ID/Email		
9 *	User ID		
🔒 Pass	sword		
₽*	Password	Ø	
Rem	ember me?	Log in	
Forgot	your password ?		
Don't ha	ave a User Id ? Register user		

Figure 3.5: Login

3.3 Inventory Entry

The inventory entry system offers three distinct sub-menus for adding new cultural heritages, allowing users to input information for intangible, tangible, and natural heritage on dedicated entry pages. This structured approach ensures that the specific characteristics of each type of heritage are accurately captured and preserved.

3.3.1.1 Intangible

The "Intangible" category encompasses a range of features designed to capture diverse information. These include:

- Section-1: Identification
- Section-2: Characteristics
- Section-3: State (viability)
- Section-4: Documentation/Consent
- Section-5: Resource Person

- Section-6: Safeguarding
- Section-7: References
- Section-8: Modalities
- Section-9: Suggestions
- Section-10: Upload Document

Each section within the "Intangible" category is meticulously designed to gather precise and relevant information, ensuring that every aspect of the intangible heritage entry is thoroughly documented. Section-1 focuses on the identification of the heritage, capturing its name, origin, and historical significance. Section-2 delves into the characteristics, detailing its unique features, cultural relevance, and forms of expression. Section-3 assesses the current state and viability, evaluating the risks and challenges to its preservation. Section-4 addresses documentation and consent, ensuring ethical compliance and proper authorizations. Section-5 identifies key resource persons who hold knowledge about the heritage. Section-6 outlines safeguarding measures, specifying actions needed to protect and sustain the heritage. Section-7 provides references to sources, enhancing the credibility of the entry. Section-8 discusses the modalities of transmission, exploring how the heritage is passed down through generations. Section-9 offers suggestions for further action, and Section-10 allows for the upload of supporting documents, ensuring that the entry is comprehensive and well-supported.

3.3.1.2 Section 1: Indentification

The "Identification" section facilitates the input of crucial details for intangible heritage entries, covering aspects such as Heritage Location, Community, Name of the Heritage, Concerned Community(ies)/Group(s), Physical location(s), Short description of the Heritage, and Domain of the Heritage. To enhance user efficiency, a "*Save and Next*" button is included, enabling the preservation of entered data while seamlessly progressing to the next section for additional information.

It is noted that users have the ability to switch between languages, with both English and Bangla forms readily available.

	Heritage Information Collection Form	
tangible Cultural		
Section-1: Identification	Ξ Section-1: Identification of the Element	
October 0. Observativity	🗆 Herita	ge Location
Section-2: Characteristics	Division	Details Address
Section-3: State (viability)	All V	
	District	Geolocation(Latitude)
Section-4: Documentation/Consent	All ~	
Section-5: Resource Person	D Upazila	Geolocation(Longitude)
Sector 5. Resource reason	All V	
Section-6: Safeguarding	Select Community Category	Select Community
	Select Category V	Select Community
Section-7: References	Name of the Heritage (as used by the community (or group concerned)
Section-8: Modalities		group concerned)
Section-9: Suggestions	Short title of the Heritage, (maximally informative)	with reference to relevant heritage area)
Section-10: Upload Document		
	Concerned Community(ies)/Group(s), (who recogn	ize the element as part of their cultural heritage)
	Physical location(s) of the element/how often it is	practiced
	Short description of the Heritage, (preferably within a short description of the Heritage)	n 250words)
	Short description of the Heritage, (preferably within the second seco	n 250words)
	Short description of the Heritage, (preferably within the second seco	n 250words)
	Short description of the Heritage, (preferably within the second seco	n 250words)
	Short description of the Heritage, (preferably within the second seco	n 250words)
	 Short description of the Heritage, (preferably within Domain of the Heritage (select one or more/sugged) 	n 250words) st alternative domain)
	Short description of the Heritage, (preferably within Domain of the Heritage (select one or more/sugger Oral Traditions and Expressions	n 250words) st alternative domain)
	Short description of the Heritage, (preferably within Domain of the Heritage (select one or more/sugger Oral Traditions and Expressions Performing Arts Social Customs and Traditions	n 250words) st alternative domain)
	Short description of the Heritage, (preferably within Domain of the Heritage (select one or more/sugger Oral Traditions and Expressions Performing Arts Social Customs and Traditions Knowledge and Practices related to Nature and U Traditional Cratsmanship	n 250words) st alternative domain) Iniverse

Figure 3.6: Section-1

3.3.1.3 Section 2: Characteristics

The "Characteristics" section comprehensively captures key facets of the intangible heritage, encompassing details such as practitioners/performers and their roles, names, ages, genders, and professional categories, along with other tradition bearers and associated tangible elements. It delves into the linguistic aspects, including language(s), register(s), and speech level(s), and explores the involvement of women and individuals of diverse genders in the heritage. Additionally, the division of labor, connections to other customary practices, modes of transmission within the community, and involvement of concerned organizations, including non-governmental entities, are systematically documented, providing a holistic understanding of the heritage's characteristics.

tangible Cultural	
Section-1: Identification	\blacksquare Element \blacksquare Section-2: Characteristics of the Element
Section-2: Characteristics	Practitioners(s)/performer(s) directly involved in the representation or practice of the Heritage (including roles, name, age, gender, social status, and/or professional category etc.)
ection-3: State (viability)	
ection-4: Documentation/Consent	Other tradition bearers (individuals/groups and their roles))
ection-5: Resource Person	
ection-6: Safeguarding	Language(s), register(s), speech level(s) involved
ection-7: References	Associated tangible elements used (if any)
ection-8: Modalities	
ection-9: Suggestions	
ection-10: Upload Document	How are women and people of other genders associated with this Heritage?
	Division of labour during the practice of this Heritage
	Elements to which other customary practices or practices may be connected or accessed in any respect o the heritage (if any)
	Modes of transmission to others in the community
	Organizations concerned (non-governmental organizations and others)
	Back to Previous Save & Ne

Figure 3.7: Section-2

3.3.1.4 Section 3: State (viability)

The "State (viability)" section assesses the threats to the enactment of the intangible heritage, presenting various options including Yes, No, Urgent Safeguard Needed, and specific challenges such as Resistance from Religious Parties and Other Organizations, Modern Machineries and Urbanization, Industrialization and Modern Technology, and more. Users can choose from a range of options that address threats such as religious instability, adoption of DJ culture, diminishing faith in rituals, and security concerns. The section also prompts the user to provide a detailed description of the threats to enactment, transmission, and associated tangible elements and resources. Additionally, it inquires about the viability of associated intangible elements and whether any safeguarding measures have been implemented to preserve the heritage practices.

Intangible Cultural	
Section-1: Identification	■ Ξ Section-3: State of the Element (viability)
Section-2: Characteristics	Threats to the enactment (if any)
	Select Threat V
Section-3: State (viability)	Enactment Threats Description
Section-4: Documentation/Consent	
Section-5: Resource Person	Threats to the transmission (if any)
Section-6: Safeguarding	
Section-7: References	Threat to associated tangible elements and resources (if any)
Section-8: Modalities	Viability of associated intangible elements (if any)
Section-9: Suggestions	
Section-10: Upload Document	Have been taken any safeguarding measures to preserve this Heritage practices? (if any)
	Back to Previous Save & Nex

Figure 3.8: Section-3

3.3.1.5 Section 4: Documentation/ Consent

The "Documentation/Consent" section is vital for ensuring that the necessary legal and ethical protocols are followed. This section provides space for recording documentation related to the intangible heritage and obtaining consent from the relevant community or individuals involved. Users can upload scanned consent forms, legal documents, or any other relevant paperwork to support the heritage entry. This ensures that the documentation is properly maintained and that the heritage entry complies with any applicable legal or cultural guidelines.

Intangible Cultural	~
Section-1: Identification	\equiv Section-4: Data Gathering/Documentation, Consent and Preparation of Inventory entries –
Section-2: Characteristics	Consent of community/group/individuals concerned for data collection with a view to inventorying
Section-3: State (viability)	
Section-4: Documentation/Consent	Restrictions on use of collected data, (if any)
Section-5: Resource Person	
Section-6: Safeguarding	Back to Previous Save & Next>>
Section-7: References	
Section-8: Modalities	
Section-9: Suggestions	
Section-10: Upload Document	

Figure 3.9: Section-4

3.3.1.6 Section 5: Resource Person

The "Resource Person" section allows users to input details about individuals who possess significant knowledge or expertise regarding the intangible heritage. Information such as the name, contact details, role, and level of expertise of each resource person can be entered here. This section ensures that there is a direct link to knowledgeable individuals who can provide further insights or assist in the preservation and promotion of the heritage.

Intangible Cultural	~
Section-1: Identification	Ξ Section-5: Resource Person –
Section-2: Characteristics	Data provider/Resource person (persons/groups, community representatives)
Section-3: State (viability)	
Section-4: Documentation/Consent	Date of Collection
	DD-MM-YYYY
Section-5: Resource Person	Place(s) of data collection
Section-6: Safeguarding	
Section-7: References	Back to Previous Save & Next>>
Section-8: Modalities	
Section-9: Suggestions	
Section-10: Upload Document	

Figure 3.10: Section-5

3.3.1.7 Section 6: Safeguarding

The "Safeguarding" section is dedicated to documenting measures that have been or could be taken to protect and preserve the intangible heritage. Users can record existing safeguarding initiatives, propose new measures, or highlight the need for additional support or resources. This section is crucial for developing strategies to ensure the long-term viability of the heritage, addressing threats, and engaging with relevant stakeholders for effective safeguarding efforts.

Section-1:	Identification .	
Section-2:	Characteristics	Existing safeguarding techniques adopted by the community for the safeguarding of the Heritage
Section-3:	State (viability)	
Section-4:	Documentation/Consent ()	Suggestions for safeguarding of the Heritage from the community
Section-5:	Resource Person ()	
Section-6:	Safeguarding	Back to Previous Save & Next>>
Section-7:	References	
Section-8:	Modalities	
Section-9:	Suggestions	
Section-10	: Upload Document	

Figure 3.11: Section-6

3.3.1.8 Section 7: References

The "References" section allows users to list bibliographical references, sources of information, or any other documentation that supports the intangible heritage entry. This section is important for verifying the authenticity of the information provided and for guiding future researchers or practitioners who wish to learn more about the heritage.

Intangible Cultural	v
Section-1: Identification	E Section-7: References to Literature, Discography, Audiovisual Materials or Archives
Section-2: Characteristics	References to/in literature
Section-3: State (viability)	
Section-4: Documentation/Consent	
Section-5: Resource Person	
Section-6: Safeguarding	Audiovisual materials or archives
Section-7: References	
Section-8: Modalities	C Discography or archites
Section-9: Suggestions	
Section-10: Upload Document	Back to Previous Save & Next>>

Figure 3.12: Section-7

3.3.1.9 Section 8: Modalities

The "Modalities" section provides space for users to outline the methods, techniques, or practices associated with the intangible heritage. This includes details on how the heritage is practiced, transmitted, or maintained within the community. Users can document traditional practices, ceremonies, rituals, or any other relevant modalities that are integral to the heritage.

Intangible Cultural	~
Section-1: Identification	Ξ Section-8: Modalities for updating the Information contained in the Inventory entry –
Section-2: Characteristics	Data Compiler (persons/groups, including community representatives, who compiled the information)
Section-3: State (viability)	
Section-4: Documentation/Consent	Date of Community Consent
	DD-MM-YYYY
Section-5: Resource Person	Consent of community/group/individuals concerned for data collection with a view to inventorying
Section-6: Safeguarding	
	Present Condition of Heritage
Section-7: References	Select Condition V
	Brief description of Present condition of the Heritage, (if any)
Section-8: Modalities	
Section-9: Suggestions	
	Back to Previous Save & Next>>
Section-10: Upload Document	

Figure 3.13: Section-8

3.3.1.10 Section 9: Suggestions

The "Suggestions" section invites users to provide recommendations or feedback on how the intangible heritage entry process can be improved. This can include suggestions for additional fields, improvements to existing sections, or general comments on the inventory system. This section is an opportunity for users to contribute to the ongoing enhancement of the heritage documentation process.



Figure 3.14: Section-9

3.3.1.11 Section 10: Upload Document

The "Upload Document" section facilitates the inclusion of essential files and media to enrich the intangible heritage entry. Users can upload a Consent Document in PDF format, if available, with a maximum size limit of 10MB. Similarly, the section allows for the upload of Heritage Details Document in PDF format, also with a maximum size of 10MB. Additionally, users can enhance the information with visual elements by uploading Heritage Images, limited to a maximum number of 3 with maximum size of 5MB per image. For a more immersive experience, the option to Upload a Video is provided, with a maximum file size of 250MB, enabling users to capture and share dynamic aspects of the heritage.

Note: Uploading large files (doc/pdf/image/video) may take longer than expected or could fail to upload, due to your current internet speed. To avoid potential issues, we recommend using a faster internet connection or reducing the file size before uploading.



Figure 3.15: Section-10

To streamline the data entry process and ensure completeness, a "*Save and Final Submit*" button is provided, allowing users to save their progress and, when ready, submit the entire entry for a comprehensive and conclusive record of the intangible heritage information.

4 Heritage Hub of Bangladesh App

Introducing the Heritage Hub of Bangladesh app—a simple and convenient way to explore a world of cultural heritage! This app is designed to offer users an easy and enjoyable experience, making it effortless to discover and interact with a wide range of cultural legacies. With a clean and intuitive interface, the Heritage Hub app allows users to smoothly navigate through different heritage categories, including intangible, tangible, and natural heritage.



Figure 4.1: App Icon

The Heritage Hub App greets users with a carefully designed starting interface that blends functionality with aesthetics.



Figure 4.2: App Initialization

The starting interface features a clean and user-friendly design, ensuring a smooth onboarding experience. Intuitive icons and streamlined navigation paths guide users through the app's various features, making heritage exploration both easy and enjoyable.



Figure 4.3: Get Started

Upon launch, users are welcomed by an elegant home screen with an intuitive navigation menu, providing easy access to various heritage categories, including intangible, tangible, and natural heritage. The app's visually engaging design highlights curated content, inviting users to explore the rich tapestry of cultural legacies at their fingertips.



Figure 4.4: App Dashboard (part-1)

The Dashboard of the Heritage Hub App is carefully designed to give users a clear and efficient overview of heritage data. The bar chart and summary panel provide a quick look at key statistics and highlights, giving users an easy way to see the rich cultural content in the app. This panel serves as a helpful starting point, showing important information at a glance. Alongside the summary panel is the distributed data table, organized by Division, which neatly arranges heritage information. This feature

ensures that the app's extensive cultural content is presented in an organized and easy-to-understand way.



Figure 4.5: App Dashboard (part-2)

The app navigation menu provides users with a clean and organized interface, offering easy access to different sections of the app. The menu features intuitive icons and expandable categories, ensuring smooth navigation through various heritage options. Its user-friendly design enhances the overall app experience, making it simple for users to explore and interact with the app's content.

Image: Sign up Image: Sign up		♦ ₹42 \$\$ 51%
 View Heritages Intangible Tangible Natural Quotes Consortium About Sign up Sign in 	User	ngladesh
 Intangible Tangible Tangible Natural Quotes Consortium About Sign up Sign in gible Nature 	💼 View Heritages	
 Tangible Natural Quotes Consortium About Sign up Sign in gible Nature 	🔇 Intangible	
Natural Quotes Consortium About Sign up Sign in Sign in	🕤 Tangible	
Puetes ••••••••••••••••••••••••••••••••••••	🔇 Natural	
Consortium About Sign up → Sign in gible Nature	📙 Quotes	atural
 About Bign up → Sign in Bign in 	🤨 Consortium	
Sign up -2 Sign in upble	6 About	Datural
→ ⊃ Sign in	💕 Sign up	- Astorat
igible Nature	→ Sign in	iry
		igible Natura

Figure 4.6: App Navigation Bar (public mode)

The "*View Heritages*" section of the Heritage Hub App allows users to explore approved cultural heritage data that is available for public viewing. This feature categorizes heritages into three main types: intangible, tangible, and natural, enabling users to easily navigate and explore each category. Users can browse through heritage content in a structured, section-wise format, making it simple to find and access specific information. Additionally, any attachments associated with the heritages, such as images, documents, or videos, are also viewable, providing a richer and more detailed experience. This comprehensive approach ensures that all relevant cultural information is easily accessible and well-organized for users.

	2:33	▼∡i∡i ≅ 69%
Data searching	← Intangible List	
lucincy	Q Search	
	Mata Pala Moutvibazar, Sythet	0
	Priesthood of ti Manipuri comm of Bangladesh Moutvibazar, Sythet	he unity
	Meyeli Geet (Fo songs of Wome Jamalpur, Mymensin	lk n) O
	Gosai Gaan Thakurgaon, Rangpu ≝ ■ ●	•
	< ●	

Figure 4.7: Intangible List (*approved*)



Figure 4.8: Attachment's Indicator

The entry is visually represented with icons indicating the availability of various attachments: a PDF document, an image gallery, and a video. These icons suggest that users can access detailed written content, visual imagery, and multimedia related to this heritage. Additionally, the eye icon signifies that this entry is available for public viewing in details, allowing users to explore and engage with the cultural heritage through multiple forms of media.

To view detailed information about any heritage site, simply tap on the blue "eye" icon, which will open a detail widget displaying data across ten sections. These sections include: the identification of the heritage element, its characteristics, and its current state or viability. Additionally, the widget provides information on data gathering and documentation, including consent and the preparation of inventory entries. It also details resource persons involved, safeguarding techniques, and references to relevant literature, discography, audiovisual materials, or archives. The final sections cover the modalities for updating the inventory entry, community suggestions, and a feature for uploading related documents.



Figure 4.9: Section wise Deatil View of a Heritage

To view detailed information, tap on any accordion panel, and it will expand as shown below:

2:34 ♥∡1∡1 ≅ 69%		2:34 ♥∡1∡1 €
← Priesthood of the Manipuri c		← Priesthood of the Manipur
Section-1 Identification of the Element		7 Section-7 References to Literature, Discography, Audiovisual Materials or Archives
Division: Sylhet District: Moulvibazar Upazila: N/A Details Address: N/A		8 Section-8 Modalities for updating the information contained in the Inventory Entry'
• Geolocation (Latitude): 0.00 • Geolocation (Longitude): 0.00		9 Section-9 Community Suggestions
» Community • Community Category: N/A • Community: Bishnupriya	Attached	10 Section-10 Uploaded Documents
 » Heritage Info • Name of the Heritage: 	Documents	View Consent Document
Priesthood of the Manipuri community of Bangladesh		Heritage Images
Short title of the Heritage:		Heritage Video
Priesthood and priests of the both the Bishnupriyas and Meiteis are at the core of this Manipuri community, with its font of Romwledee and practices concerning nature		
< • •		< ● ■

Figure 4.10: Expanded View of a Heritage with Attachments

Users can attach up to four types of categorical files. For the **Consent Document**, a single file can be uploaded in PDF, JPG, JPEG, or PNG format. The **Heritage Details** section allows for the attachment of a PDF file only. In the **Heritage Images** section, users can upload up to 5 files in JPG, JPEG, or PNG format, with each file having a maximum size of 3MB, and files can be selected from different folders. For the **Heritage Video**, users can attach a single video file, with a maximum size of 250MB.



Figure 4.11: Viewing of Attached Documents

To explore more features of the HeritageHub Bangladesh app, you need to log in. If you're a new user, you'll need to register first. To do so, swipe from the far left of the screen to the right to open the navigation drawer, then select the "Sign Up" option.

	11:12	▼∡⊡ 100%	11:12	♥∡∠ ∎100%	11:18 ♥∡∠! 🗋 100%
Heritage Hub of Bangladesh		gladesh	← User Registratio	on	← Sign in
Heritage	User		Note		
Information See cultural heritage videos and mare			If you want to registe Approver/ Moderator/	er as a "Admin/ / Verifier" user,	Login
Cultural Horitago	💼 View Heritages	×	you must require an approval by CHIB syste	administrative madmin.	Walcome to Havitage Hub of Papaladoch
	📕 Quotes		Email*	0	wercome to heritage hub or bangtadesh
30% 30% 70%	Consortium		Email is required!		
50% 40% 30%	1 About		Password*		User ID/ Email
			Password is required!		Password
Individual O Total	😯 Sign up	i l	Confirm Password*		
Data Summary	→ Sign in		User Group*	•	Forgot Password?
Elements Intangible Targible Natural		Naturat	User group is required!)	Don't have an account?
Division wise Summary			Name*		Login
# Division Intangible Tangible Natura		neible Natur:	The name is required!		Registration has been successfully completed.
ancion mangine total		Bure rootori	Decionation*		
	•		•		
Swipe to Open	Sign up M	enu	Registration F	orm with	Success Notification of

Navigation Drawer

Required Fileds Indicator

User Registration

Figure 4.12: Figures of User Registration Process

To register as a new user on the HeritageHub Bangladesh app, you need to provide some essential information. Start by entering your email address and creating a strong password, which you'll need to confirm. You'll also need to select your user group and provide your full name. If applicable, include your designation, organization name, and organization address. Additionally, you can choose your community from the available options. Specify your nationality and enter your NID or Passport number, followed by your phone and mobile numbers. You'll also need to select your division, district, and upazila, and provide your complete address. Finally, include a brief biography to complete your registration.

After completing the registration, tap the "**Submit**" button. If your registration is successful, you'll be directed to the login page and receive a success notification. If the registration is unsuccessful, a non-success notification will be displayed.



Figure 4.13: Successful Message

Now you are able to Sign in to the app. Open navigation drawer and tap on Sign in menu.



Figure 4.14: Figures of Sign in Process

After a successful login, users will gain access to additional features, including the ability to add new heritages such as Intangible, Tangible, and Natural. Users can also view heritages that have been temporarily added. These new features will be visible in both the navigation menu and the dashboard menu for easy access. On the Dashboard page, users will find multiple sections designed for smooth operations. The Inventory Entry section allows users to add new cultural heritages. The View Temporary Inventory section lets users view cultural heritages that have been temporarily added,

with the option to update them later. The Inventory Viewer section is used to view approved or published cultural heritages.



New Items in Navigation Drawer

New Items in Dashboard

Figure 4.15: Figures of New Items

Let's discuss how to add new cultural heritage information. First, navigate to the Inventory Entry section on the Dashboard. Then, tap on either Intangible, Tangible, or Natural depending on the type of heritage you want to add. This will guide you through the process of entering the relevant details for the selected heritage category.

3:56 ♥∡í∡í ≜ 98%	3:56 🖤 🔬 🏄 98%	3:56
÷ · · · · · · · · ·	← Intangible Cultural	← Intangible Cultural
Notes	1: Identification Z: Characteristics 3: State	1: Identification Z: Characteristics 3: State
Divi Each section includes a bottom save and next button to temporarily save the	Division	0/2500
Se information in the phone's memory.	Select Division 👻	
Dist Since & Next	District	Short Description of the Heritage ()
Mandatory fields are marked and required to be filled up before	Select District	0/4000
Se statut		Domain of the Heritage
Users to upload Document section allows users to upload files or documents related to the beritage item.	Field Tooltins	Oral Traditions and Expressions
D		Performing Arts
when the icon (red circle) is clicked on each file upload button.		Social Curter and Table Street
8: Modalities 9: Suggestions 10: Usload Document	0/2500	Knowledg
Consert Document	Geolocation (Latitude)	Nature ar Save and Move
Heritage Details Docurrent		Traditiona TO FORWARD
Harritage Images		Suggester
Соп	Community Category	
Set	Details Address.	Save & Next
• • •	-	• • •
Short Guidelines in Popup	Section-1 (Part-1)	Section-1 (Part-2)

Figure 4.16: Add New Inventory Form

When a new blank form opens, a short guideline will appear to assist the user. This guideline will provide instructions on how to add information, how to temporarily save the entered data, and how to move to the next section of the form. This ensures a smooth and informed process for adding new cultural heritage details. Here are all the sections:





Section 10, Upload Document, is the most crucial part of the form, where you can attach necessary files such as Consent Documents, Heritage Details, Heritage Images, and Heritage Videos. Once all the required documents are uploaded, use the Final Submit button to submit the data to the database server via the API.