



**Daffodil**  
*International*  
**University**

## **Project Report**

**Course Code** : CSE415  
**Course Title** : Web Engineering Lab  
**Project Title** : Expense Recorder

*Submitted To*

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Department of CSE

**Daffodil International University**

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## OVERVIEW

Nowadays we spend a lot of small expenses which we don't account for when we go somewhere or travel; as a result we don't have much in hand for future savings in the month end. We also don't know the reason for the situation. As we don't track our small expenses, many times throughout the month, we expense a lot that is much more than we can imagine. But we can easily reduce unnecessary expenses if we have a record of every expense throughout the month. To help and improve empty hand situation, we build this application called "Expense Recorder".

The purpose of this application is to save the records of a user expenses throughout the month. This will help the user to track expenses by types and for future savings, user can easily take decision what expenses need to be reduced or modified. User will have a neat pie chart to track in which category and how much he expense.

## PROJECT TEAM

- Md. Nure Alom --- CEO, Developer --- [nure15-2791@diu.edu.bd](mailto:nure15-2791@diu.edu.bd)
- Mafia Islam Sinthia --- MD & Developer --- [mafia15-2815@diu.edu.bd](mailto:mafia15-2815@diu.edu.bd)

## GOALS

- Release the project by June 2023
- 2k new user within July 2023
- 5k new user within August 2023
- 2k regular user within August 2023
- Increase server capacity by 50% within August 2023
- Decrease false result show by 100% within August 2023
- Increase newsletter signups by 30% every month

## PHASES

- Phase 0 → Develop and Distribute fully working website (Currently Working)
- Phase 1 → Basic expense recorder website (Current Project)
- Phase 2 → CRM Integration
- Phase 3 → AI Implementation
- Phase 4 → Affiliate with restaurants and food delivery service to serve the user

## PROJECT STRUCTURE

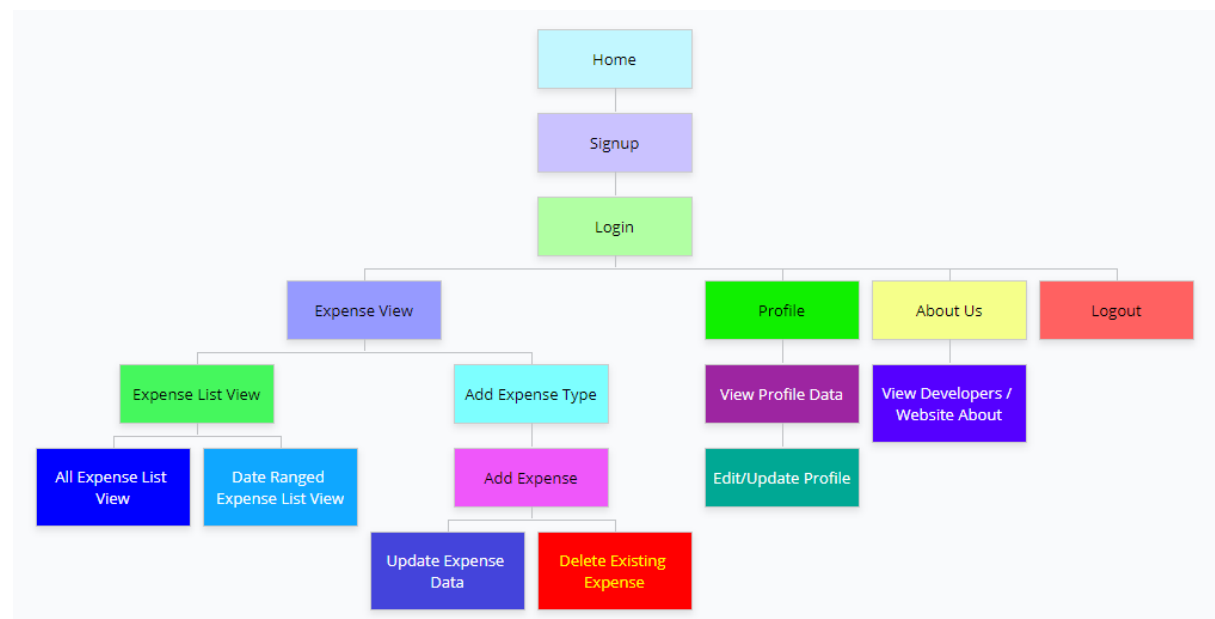


Fig: Project Workflow

- At the time of loading the application, user will be asked for username and password to login to his account in the **Login Page**. Using login credential provided in the signup page (*Username* and *Password*), user can login to an account. Here a warning message will be shown if user entered the wrong username or password. Forgot password is unavailable for now as we are building the application locally.
- A friendly **Signup page** is linked to the login page which is designed for the user to register as a new user. In the signup page user will be asked for his *Full Name*, *Unique Username*, *Recovery Data* and *Password*. Here, unique username is a must and after every keystroke in the username input field, that username will be checked by the system for availability at that moment. For *unavailable username*, a warning message will appear in the signup page. Using unique & available username, user can sign up as the submit button will be in disabled mode if the username is not available. After signing up successfully, user will be redirected to *Login page*.
- After login, user will have all of his expenses throughout the month in the **Expenses page**. If the user is new or didn't have any expense type, user will be asked for adding his own expenses type categories at first in the same page. Expense type adding date will automatically be generated by the system. Expense type and date along with the user id will be saved to database.
- After adding at least one expense type, user can add expenses selecting a desired category from **Add Expense modal**. *Payee*, *Amount* and auto-generated *Current Date* along with

the user id and expense type id will be recorded to track user and expenses type for future use.

- Users have access to view his all-time expenses and user also can select date range of his expenses to view in the expenses page. For better understanding a **pie chart** will be generated by the system using categorized expenses type and expense percentages will be shown in the pie chart by category.
- User can also see profile information from **Profile page** linked in the navigation bar and update any information from that page if want to.
- Users have access to view developer information from **About Us page**.
- All of the operation will check for user validity before loading or fetching data using encrypted user credential. A php build-in 64-bit encryption-decryption method will be used for user authenticity.

## CONTENT TYPE DATA

Signup:

- Full Name
- Username
- Recovery Info
- Password

Login:

- Username
- Password

Add New Expense Type:

- User ID
- Authenticity
- New Expense Type

Edit Expense Type Title:

- Authenticity
- User ID
- Expense Type ID

#### Add New Expense:

- Authenticity
- User ID
- Expense Type ID
- Payee
- Amount

#### Update Expense:

- Authenticity
- Expense Type ID
- Expense ID

#### Delete Expense:

- Authenticity
- User ID
- Expense ID

#### Profile:


- Authenticity
- User ID

#### Pie Chart:

- Authenticity
- User ID
- Expense Type ID
- Expense ID

## PAGE TEMPLATES AND DESIGN

### 1. Login page

 Expense Recorder

#### Login Form

[Forgotten Password?](#)[LOGIN](#)

Don't have an account? [Signup](#)

2. Signup page

Expense Recorder

Signup Form

Signup

Already have an account? [Login](#)

3. Home page

Expense Recorder

MAFIA ISLAM SINTHIA



My Expenses

#	Date	Payee	Amount	Action
---	------	-------	--------	--------

Expenses


CanvasJS Trial

CanvasJS.com



4. Add New Expense Type

Add New Expense



+ Add New Expense Type

Payee

Amount

Add Expense

Fig: Add New Expense Type Option


localhost says

Enter new expense type:

OK

Cancel

Add N



Payee

Amount

Add Expense

Fig: Prompt Box for New Expense Type

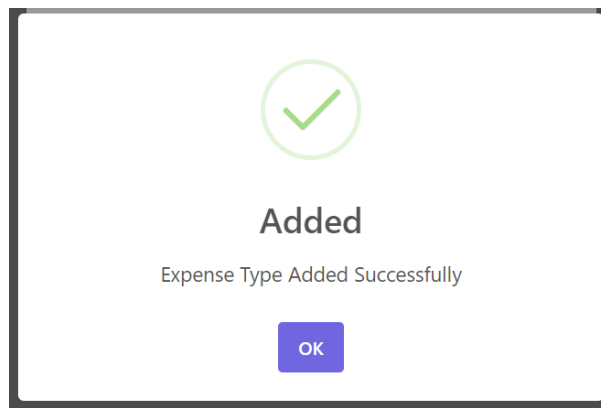


Fig: Confirmation for Expense Type addition

## 5. Add New Expense

Fig: Add New Expense Modal

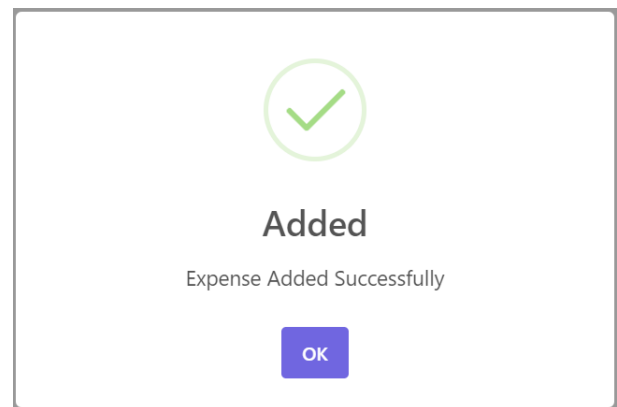


Fig: Confirmation for Expense addition

## 6. My Expenses List

My Expenses				
#	Date	Payee	Amount	Action
1	2023-06-07	KFC	500	 
2	2023-06-07	Child 1	1000	 
3	2023-06-07	Burger King	499	 
4	2023-06-07	Child 2	500	 

Fig: My Expense List view with update and Delete option

## 7. Pie Chart View

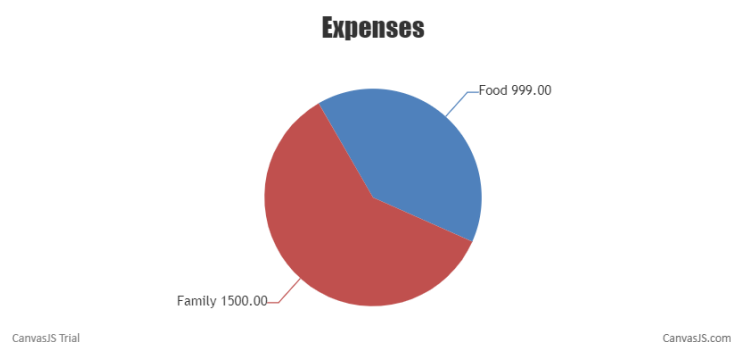
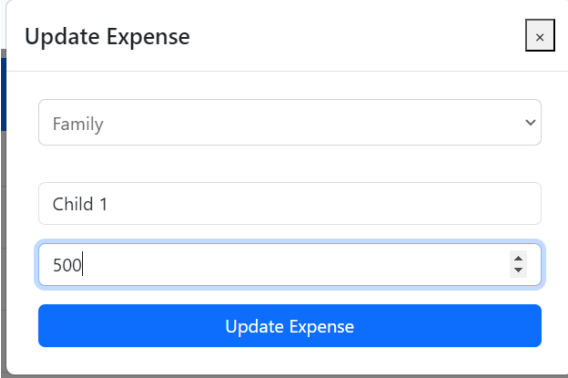


Fig: Pie Chart View according to Expense Type



## 8. Update Expense



Update Expense

Family

Child 1

500

Update Expense

Fig: Update Expense Modal

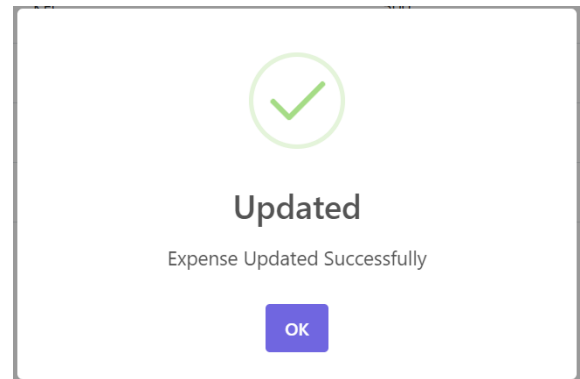


Fig: Expense Update Confirmation

## 9. Delete Expense

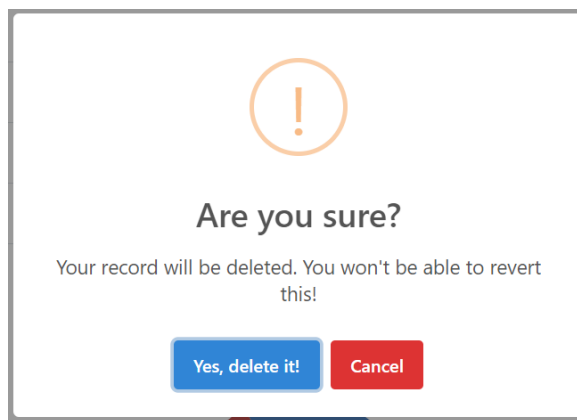


Fig: Delete Confirmation from user modal

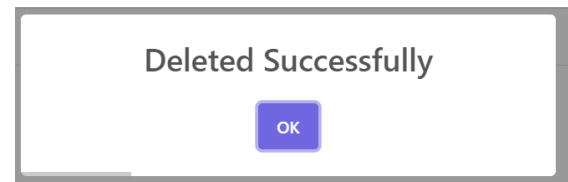
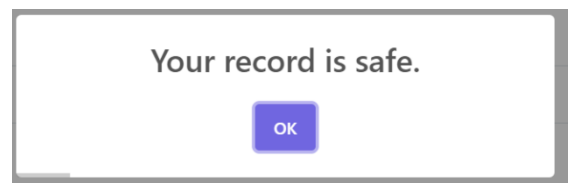


Fig: Expense Delete confirmation alerts

## 10. Profile Page



Fig: Profile Page with user Information Given in Signin Page

## 11. About Us Page

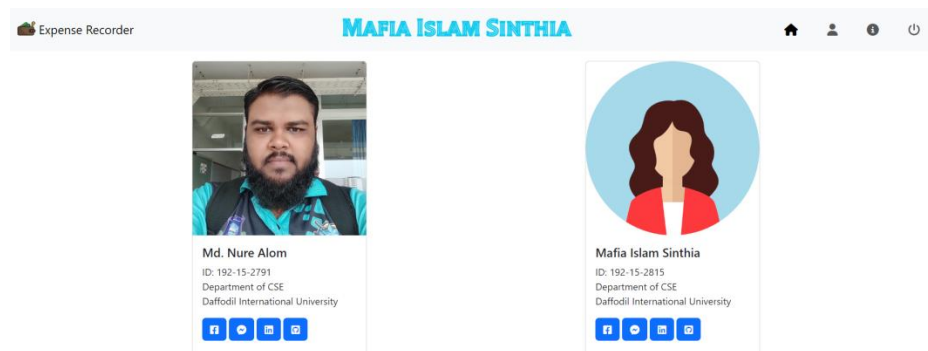


Fig: About Us page with Developer Information

## 12. Database

The screenshot shows the phpMyAdmin interface for the 'expense\_recorder' database. The left sidebar shows the database structure with tables: chart\_data, expenses, exp\_type, and users. The main panel shows the 'Structure' tab for the 'users' table. The table structure is as follows:

Table	Action	Rows	Type	Collation	Size	Overhead
chart_data	Browse Structure Search Insert Edit Drop View	~0	View	---	-	-
expenses	Browse Structure Search Insert Empty Drop	32	InnoDB	utf8mb4_general_ci	16.0 KiB	-
exp_type	Browse Structure Search Insert Empty Drop	21	InnoDB	utf8mb4_general_ci	16.0 KiB	-
users	Browse Structure Search Insert Empty Drop	19	InnoDB	utf8mb4_general_ci	48.0 KiB	-
4 tables	Sum	~72	InnoDB	utf8mb4_general_ci	80.0 KiB	0 B

### 12.1. users Table

The screenshot shows the phpMyAdmin interface for the 'users' table. The table contains 19 rows of data. The columns are: id, full\_name, username, recovery, and password. The data is as follows:

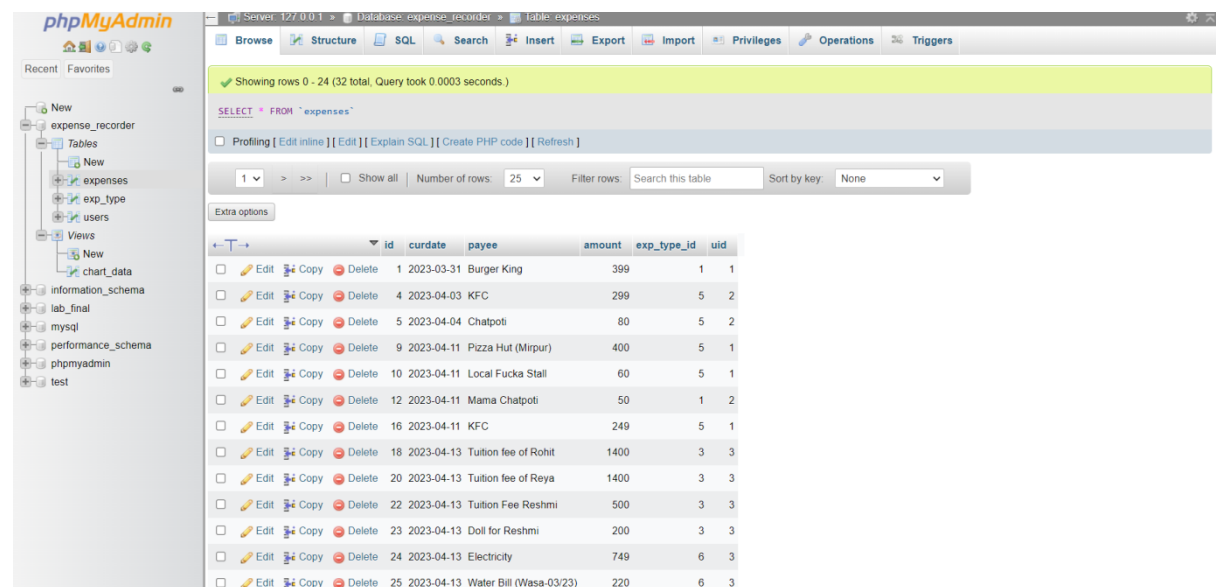
id	full_name	username	recovery	password
1	Super Admin	root	root@exp.com	complex6459asdffagsd23565464l@#%*&'(j553
2	Admin	admin	admin@exp.com	l@#sasefas646
3	User	user001	user001@exp.com	123abc#
4	User2	user002	user002@exp.com	1234
5	Manik Mia	manik	manikmia@gmail.com	manik684
6	MD Nure Alam	nure152791	nur.diu.2791@diu.edu	A014520a*
7	MD Ripon	ripon	ripon@gmail.com	12345
8	Raju Mia	raju45	raju45@mail.com	11223344
9	User003	user003	user003@yaho.com	12345
10	User003	user004	user004@mai.com	12345
11	Animous	abcd	abcd@exp.com	1234
12	MD Nure Alam	admin44	admin44@exp.com	A014520a*
13	Rahim Ullah	rahim	rahim.13@edu.bd	112233

### 12.2. exp\_type Table

The screenshot shows the phpMyAdmin interface for the 'exp\_type' table. The table contains 21 rows of data. The columns are: id, curdate, title, and uid. The data is as follows:

id	curdate	title	uid
1	2023-03-31	Food	2
2	2023-04-01	Fuel	2
3	2023-04-03	Family	3
4	2023-04-03	Utility	2
5	2023-04-01	Food	1
6	2023-04-04	Utility	3
7	2023-04-04	Fuel	4
8	2023-06-06	Food	11
9	2023-06-06	Utility	11
10	2023-06-06	Food	10
11	2023-06-06	Utility	10
12	2023-06-06	Food	9

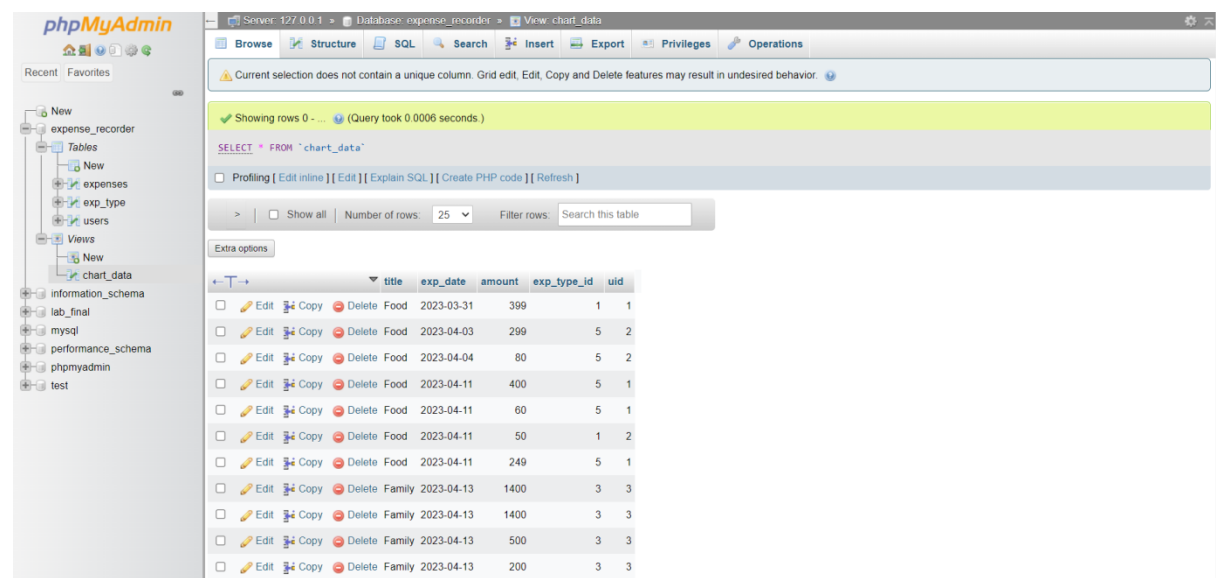
## 12.3. expenses Table



The screenshot shows the phpMyAdmin interface for the 'expenses' table. The table has 7 columns: id, curdate, payee, amount, exp\_type\_id, uid, and uid. The data is displayed in a grid with 25 rows. Each row includes edit, copy, and delete icons. The table is titled 'expenses' and the query shown is 'SELECT \* FROM `expenses`'.

	id	curdate	payee	amount	exp_type_id	uid
<input type="checkbox"/>	1	2023-03-31	Burger King	399	1	1
<input type="checkbox"/>	4	2023-04-03	KFC	299	5	2
<input type="checkbox"/>	5	2023-04-04	Chatpoti	80	5	2
<input type="checkbox"/>	9	2023-04-11	Pizza Hut (Mirpur)	400	5	1
<input type="checkbox"/>	10	2023-04-11	Local Fuka Stall	60	5	1
<input type="checkbox"/>	12	2023-04-11	Mama Chatpoti	50	1	2
<input type="checkbox"/>	16	2023-04-11	KFC	249	5	1
<input type="checkbox"/>	18	2023-04-13	Tuition fee of Rohit	1400	3	3
<input type="checkbox"/>	20	2023-04-13	Tuition fee of Reya	1400	3	3
<input type="checkbox"/>	22	2023-04-13	Tuition Fee Reshmi	500	3	3
<input type="checkbox"/>	23	2023-04-13	Doll for Reshmi	200	3	3
<input type="checkbox"/>	24	2023-04-13	Electricity	749	6	3
<input type="checkbox"/>	25	2023-04-13	Water Bill (Wasa-03/23)	220	6	3

## 12.4. chart\_data View



The screenshot shows the phpMyAdmin interface for the 'chart\_data' view. The view has 6 columns: title, exp\_date, amount, exp\_type\_id, uid, and uid. The data is displayed in a grid with 13 rows. Each row includes edit, copy, and delete icons. The view is titled 'chart\_data' and the query shown is 'SELECT \* FROM `chart\_data`'.

	title	exp_date	amount	exp_type_id	uid
<input type="checkbox"/>	Food	2023-03-31	399	1	1
<input type="checkbox"/>	Food	2023-04-03	299	5	2
<input type="checkbox"/>	Food	2023-04-04	80	5	2
<input type="checkbox"/>	Food	2023-04-11	400	5	1
<input type="checkbox"/>	Food	2023-04-11	60	5	1
<input type="checkbox"/>	Food	2023-04-11	50	1	2
<input type="checkbox"/>	Food	2023-04-11	249	5	1
<input type="checkbox"/>	Family	2023-04-13	1400	3	3
<input type="checkbox"/>	Family	2023-04-13	1400	3	3
<input type="checkbox"/>	Family	2023-04-13	500	3	3
<input type="checkbox"/>	Family	2023-04-13	200	3	3

## RESPONSIVE DESIGN

Responsive design for websites offers a multitude of benefits, including improved user experience across different devices and screen sizes, increased mobile traffic and engagement, cost and time efficiency by eliminating the need for separate versions, enhanced search engine optimization and visibility, improved conversion rates, adaptability to future devices, and simplified content management. By adopting responsive design, you can create a user-friendly and accessible website that adapts seamlessly to various devices, resulting in a positive user experience, higher engagement, and better overall performance. For our website, responsive design is not that good till now. This is the next highest prioritized work after launch. Hope to implement this very soon.

## **Coding Language Usages**

Front-End:

- HTML (Structure)
- CSS (Design)
- JavaScript (Validation)

Back-End:

- PHP (Server-Site Code)

Framework/Library:

- Bootstrap v5.3.0-alpha3 (Front-End)
- jQuery v3.6.4 (Perform cross-origin operations)
- Sweet Alert (Customized Alert Library)
- CanvaJS (Pie-Chart)
- XAMPP Control Panel (Local Server)

## **HOSTING**

The project is under development. So, the project is hosted locally as the developers are within the same organization and locally connected using private network.

## **DEADLINE**

Total time to implement the project is around six months. Starting from the January this year, we are expecting it to complete within June. Functionalities are under development and most of the work has been done and majority of them passed the testing phase.

## **BUDGETS**

As the project needs much more research time, the budget is much more than usual. Approximate budget for this project from our side is around 3-3.5 lacks BDT.