



North South University

Department of Electrical & Computer Engineering

Final Project Report

Course Code: CSE311L

Course Title: Database Management System Lab

Section: 09

Project Name:

Income and Expense Management System

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Submitted by:

- | | |
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Introduction:

The Daily Income and Expense Management System is a reasonable project. An Income and Expense Management System is a digital interface that manages all the expenses and documentation of anyone's expenditure. Due to its increasing demand, we are going to implement an Income and Expense management system by which users can manage all their income and expenses in a simple way. This is a charming project for finding out costs dependent on CRUD activities. In personal life and business market, an Income and Expense Manager will include a variety of functionality that is similar to corporate but will have features such as generating daily or monthly reports, visualizing the expenses using graphs, managing income, and expenses, etc. Users can make the rundown of pay sources with the salary. And one can compute costs subtleties and found the actual financial plan for the running month. By using this platform, one can easily expense according to his/her income. We simply need to type the amount of salary source and sum in the content fields and snap on the spare catch to include the data record.

About Income and Expense Manager:

The Income and expense management system have been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. The Daily Income and Expense Management System is a software application or web-based technology, that enables the management of the incomes and expenses of users. An Income and Expense Management System is a digital interface that manages all the expenses and documentation of anyone's expenditure. Talking about the highlights of this structure, the main objective of the project on the Income and Expense management system is to manage the details of users' incomes and expenses, Categories, Users, Registration. It manages all the information about income, expenses, registrations, and budget. The project is totally built administrative and thus only the administrator is guaranteed access. It tracks all the details about the expenses. Show it on the calendar and also generate a graph based on the expenses where users can visualize their expenses.

Repository link:

https://github.com/Dip-Biswas/CSE311?fbclid=IwAR0XTY3ZONTeGsKgf_egojV_XJWQ3oKPRAcFbWLCbxXPJhs9Bq1GoHIV4ss

Purpose and benefits of Income and Expense manager:

- Increasing compliance and accountability:
- Real-time visibility and transparency: Income and expense manager helps its users to analyze their data so they can make strategic decisions based on their spending and avoid unnecessary expenses. The expense report data they track will depend on their daily or monthly incomes and expenses.
- Intuitive dashboard: The income and expense manager have an excellent dashboard. Users can go to whatever pages they want from the dashboard with just one click. Users can see their total income and expenses, budget, and recent expenses in the dashboard.

- Fast and simple process: The income and expense manager is super fast and active. Moreover, users don't have to face any complexity in updating their daily income and expenses. All the processes are simple and user-friendly.
- Less errors and delays: Users will hardly face any errors and delays while using the income and expense manager. All the pages are well organized and responsible. They don't have to face any delays.
- Simplified reporting: Users can generate a report (daily or monthly) based on their income and expenses. This will help them to visualize their expenses based on their income. And they can cut off their unnecessary expenses.

Features:

- Managing users: The Income and Expense manager manages its users by a user ID. First users have to create an account using their name, email, and password. Here email is unique.
- Add Income and Expenses: Users can add incomes on a daily or monthly basis. Also, they can add their expenses on a daily basis according to the categories.
- Add budget: Users can set a budget for how much they want to expend for a month.
- Track expenses: Users can track their expenses. They just select a date, in which day they want to see their expenses and they will see the details of that date's expense. They can also track by month.
- Generate expense report: Users can generate a monthly report containing each and every day's detailed information about expenses.
- Manage expenses: Users can delete or edit their previously added expenses.
- Calendar: Users can see their daily expenses with just one click on the dates of the calendar. They just need to click on the date on which date's information they want to see on the calendar and they will see their expenses on that date.
- Graphs: Graphs is one of the best features of this project. Users can see their monthly expense shown on a bar graph where they can realize their expenses according to their income. Mostly they can visualize their expenses.

User Story

Use case 1: Dip wants to create an account on Income and Expense manager so that he can store his daily income and expenses data.

- a. He opens the site and goes to sign up page
- b. Then he creates an account and adds his daily Income and Expenses

Use case 2: Tanvir wants to track his previous income and expenses data that he has already stored

- a. First of all, he logged into the income and expense manager
- b. Then he goes to the tracker page and selects a date or a month, he wants to show the data
- c. Afterwards a pdf report has generated showing all his previous data

Use case 3: Anysha wants to know the month-wise expenses

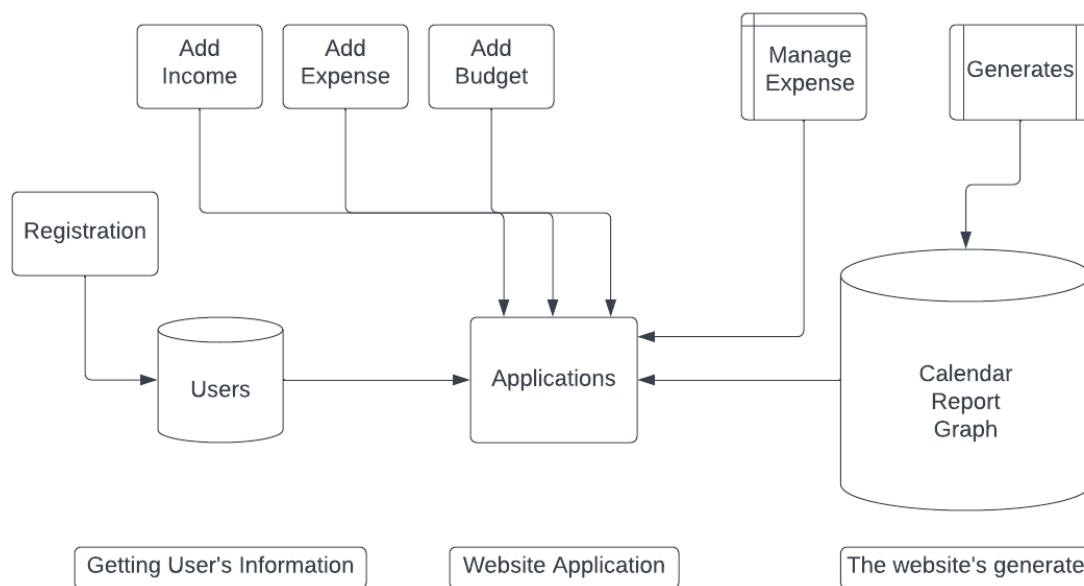
- First of all, she logged into the income and expense manager
- Then she goes to the graphs page
- Here she has seen the month-wise expenses with bar graphs by which she can easily understand in which months she expends more and in which less.

Limitations:

- Users have to entry every data manually.
- The category divided may be blunder or messy.
- The user must have some technical knowledge.

Solution Description

Architecture:



Advantages:

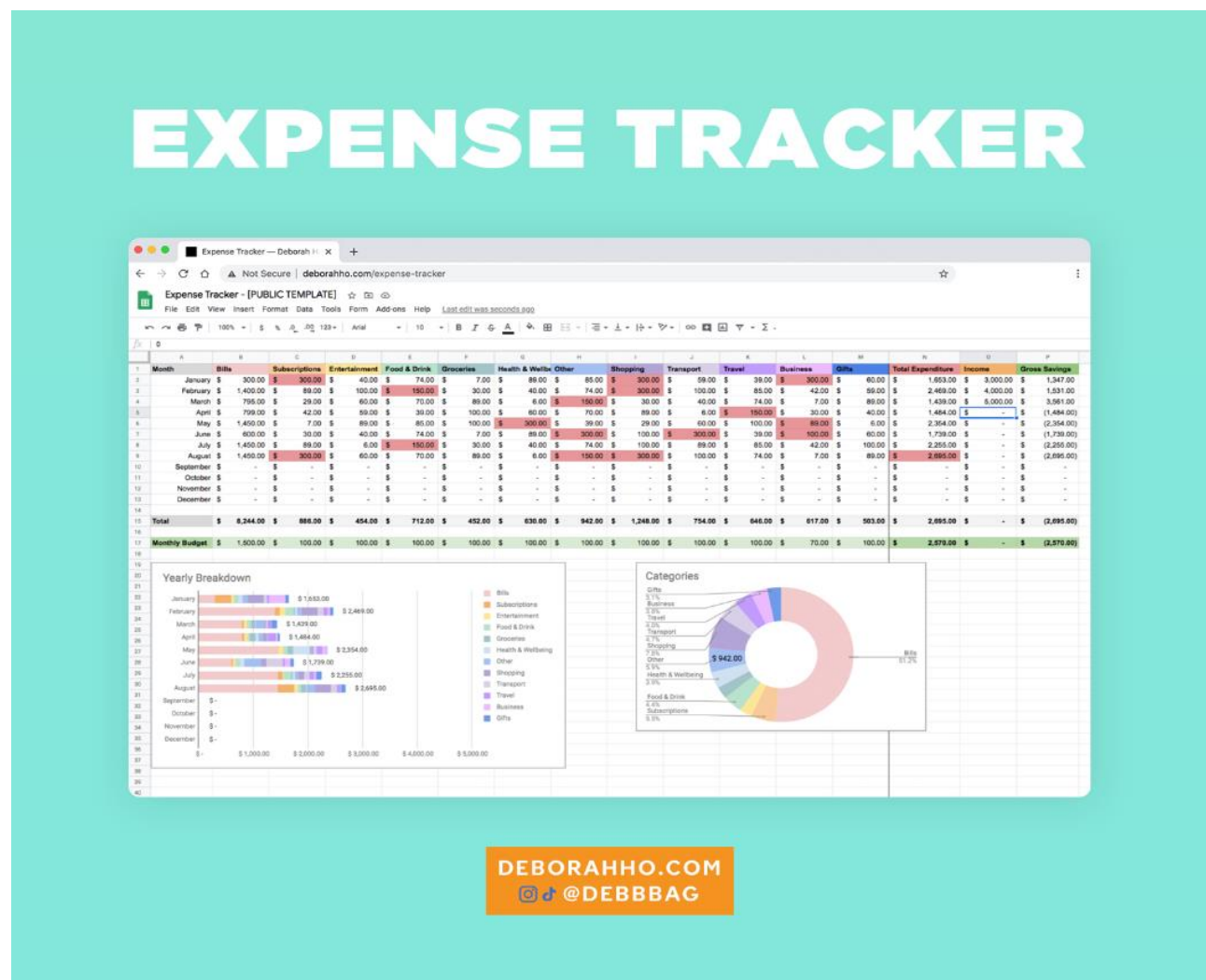
There are a number of advantages to using the Income and Expense manager. Such as

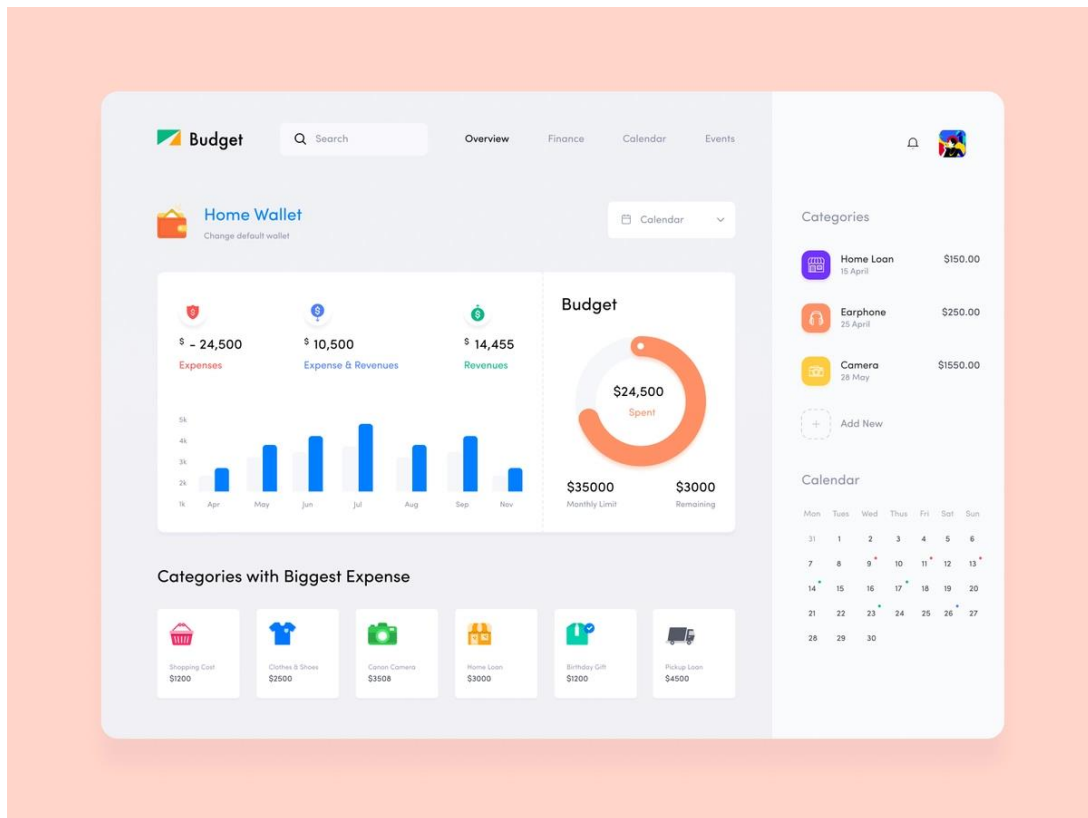
- User can store their income and expenses in a very simple way
- They can manage their income and expenses with just one click
- They can see any expense report anytime they want to see
- User can access their data anytime from anywhere
- Users can modify their entered data

Challenges:

The main challenge for this website is user interaction. Because users have to update their income and expenses data on a daily basis, which can be a hassle for users. So, we need to make this website as user-friendly as we can. So that users can use it easily without facing any complexity. Also managing a huge amount of data will be a big challenge for us to maintain this website.

Example of Various Income and Expense Manager:





Front End Plan:

There are some templates in the plan

- Login Page
- Registration Page
- Main Dashboard
- Add Income Page
- Add Expense Page
- Add Budget Page
- Calendar, Graph
- Tracker Page
- Manage Expense Page

Backend Plan:

- Account Creating, Password Recover:
 - a. Sign up form
 - b. Login

c. Forgot Password

- Adding Income and Expenses
 - a. Add Income
 - b. Add Expenses
 - c. Select Category
- Track Expenses
 - a. Track expenses by date
 - b. Track expenses by month
- Add Budget
- Calendar
- Graph

Tools and Technologies:

- HTML, CSS, Js, PHP
- Database: MySQL
- Protocol: Http
- PHP Mailer API:
<https://github.com/PHPMailer/PHPMailer?fbclid=IwAR1SutOZWl3Eg2GT9j6jHs5Uzs2Ou6qIrT6xAlu6MBskWzvxBsVI4wPgrP4>
- Graph API: <https://www.fusioncharts.com/?fbclid=IwAR0zUISQv-yBI09vzfxbxiMykhHi3dCVLxUOe-GVrlxhBMJspscpQufiB8QA>
- Cloud Provider: AWS

Collaboration Plan:

Tasks	Schedule	YOURCOMPANYATOZ	XYZ
Host dev-site and develop	Ongoing basis	Y	
Build and release	Every Sunday	Y	
Run Build Verification Test (BVT)	Every Sunday night	Y	
Functional Testing and Reporting	Every Sunday night	Y	Y
Full testing for QA check	Every Sunday night	Y	Y
Summary and Discussion	Every Sunday night	Y	Y
Provide feedback on UI and functionality	as per need	Y	Y
Use Case Testing	as per need	Y	Y
User data population (User)	As per need		y

Project Schedule:

Phase 1 will take a total of 6 weeks from the day of start. Calculated Man-month = $8.5/4 = 2.123$.

Excluding front end development it will become

SL	Deliverable	Week 1	Week 2	Week 3	Week 4	Week 5	Man-week
1	Front end development	-	-	-			2.5
2	Manage Income and Expenses	-	-				1.5
3	Manage budget and Calendar		-	-			1.5
4	Manage Tracking and Graph			-	-		2.0
5	Development and Final release			-	-	-	1.0
	Total duration	1.5	2.5	2.5	1.5	0.5	8.5

Budget Price:

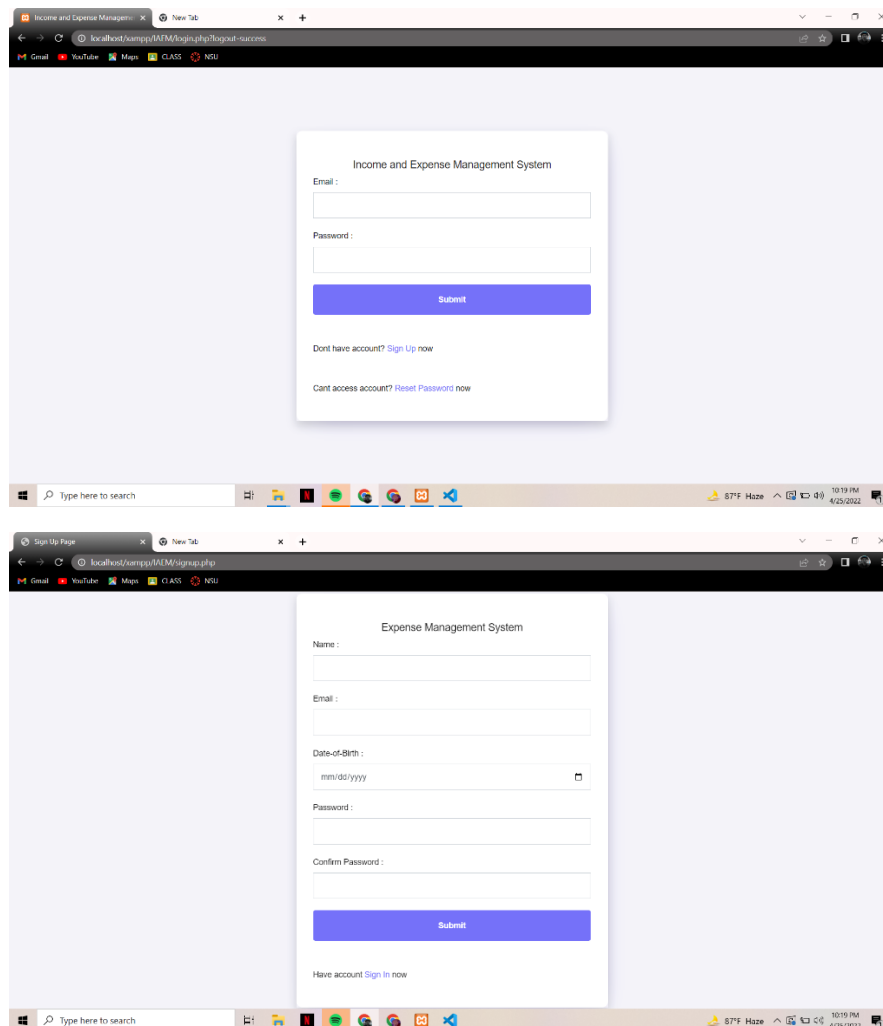
Excluding front-end development (2.5 man-week) total time plan is 6 weeks. The following table shows expenses. In addition, based on requirements as it reveals during the project, it will help one choose the appropriate cloud hosting. That expense is not included here.

SL	Deliverable	Expense	Comment
1	UI Design	xxxx	
2	Front-end development (HTML, CSS)	xxxxxx	
3	Back-end Development	xxxx	
4	Database Design (MySQL)	xxxx	
5	Setting up middleware	xxxx	
6	UI Integration	xxxx	
7	API Integration	xxxxxx	
	Total	xxxxxxx	

Hardware and Hosting Plan:

Cloud Provider	DC location	Latency (ms)	Starter description	Starter price (USD)	Mobile app ext. (with Redis)	Mobile app ext. price (USD)	Total expense (USD/mo)
AWS (Amazon Inc.)	Singapore	83	EC2- small, EBS, Transfer 20TB, 0.12\$/GB	\$16.84	0.022/hr for a cache.t2.micro, goes lower (\$0.009/hr) with 3 year term	\$15.84	\$32.68
Godaddy (Godaddy Inc.)	Singapore	80	1 GB memory, 1 core, 30GB SSD, 2TB Transfer	\$14.99	512 MB memory 1 CPU 20GB SSD 1TB transfer	\$5.00	\$19.99
Azure (Microsoft)	Chennai	110	1 core, 20 GB Disk, \$0.018/hr, 0.75GB memory	\$13.39	250MB, \$0.022/hr	\$16.37	\$29.76
Azure (Microsoft)	Singapore	88	1 core, 20 GB Disk, \$0.018/hr, 0.75GB memory	\$13.39	250MB, \$0.022/hr	\$16.37	\$29.76
GCP (Google Inc.)	Singapore	??	1 shared vCPU .6 GB memory 10 GB disk	\$4.28	0.6 GB memory, 10 GB disk	\$4.28	\$8.56

Some Screenshots of the Project:



Send Reset Password Link with E

localhost/xampp/IAEM/reset_password.php

Send Reset Password Link

Email address

We'll never share your email with anyone else.

Submit

Income and Expense Manager

localhost/xampp/IAEM/add-expense.php

IA.E.M

- Dashboard
- Incomes
- Expenses
- Profile
- Budgets
- Trackers
- Calander
- Graphs
- Manage expense
- Log out

Add Expenses

Date : mm/dd/yyyy

Item :

Price :

Add

Income and Expense Manager

localhost/xampp/IAEM/add-income.php

IA.E.M

- Dashboard
- Incomes
- Expenses
- Profile
- Budgets
- Trackers
- Calander
- Graphs
- Manage expense
- Log out

Add Income

Date : mm/dd/yyyy

Catagory :

Price :

Add

Income and Expense Management - x

localhost/xampp/IAEM/add_budget.php

IA.E.M

- Dashboard
- Incomes
- Expenses
- Profile
- Budgets
- Trackers
- Calendar
- Graphs
- Manage expense
- Log out

Add Budget

Date :

Item :

Price :

Add

Type here to search


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Income and Expense Management - x

localhost/xampp/IAEM/profile.php

IA.E.M

- Dashboard
- Incomes
- Expenses
- Profile
- Budgets
- Trackers
- Calendar
- Graphs
- Manage expense
- Log out



Dip Biswas

Full Name : Dip Biswas
Email: dipb8738@gmail.com
Date of Birth : 13th January, 2004

Update Profile Change Password

Type here to search

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History x New Tab x localhost / 127.0.0.1 x localhost / 127.0.0.1 x Income and Exp... x PDF x Final Code Base x

localhost/xampp/IAEM/index.php

IA.E.M

- Dashboard
- Incomes
- Expenses
- Profile
- Budgets
- Trackers
- Calendar
- Graphs
- Manage expense
- Log out

Total Income
23752
This month

Today's Expenses
0
All now

Total Expenses'
90523
All now

Remaining Budgets
0
Total Budget : 20000

1 - Food - 2000\$

2 - Transportation - 900\$

3 - Gifts - 5000\$

4 - Phone Bills - 3000\$

Search monthly expenses

Last day Expenses

Salary - 1000\$

Tuition - 10000\$

Tuition - 10000\$

Lost - 500\$

Tuition - 500\$

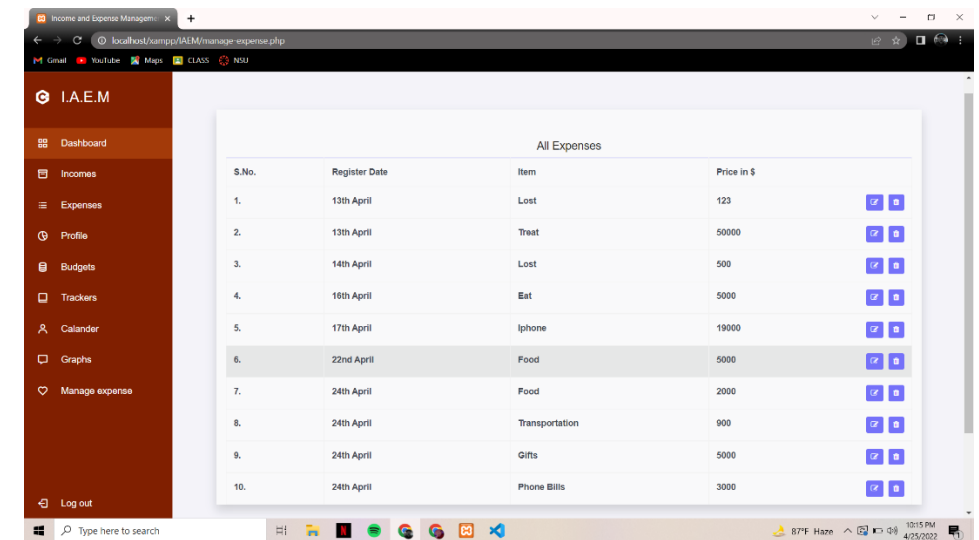
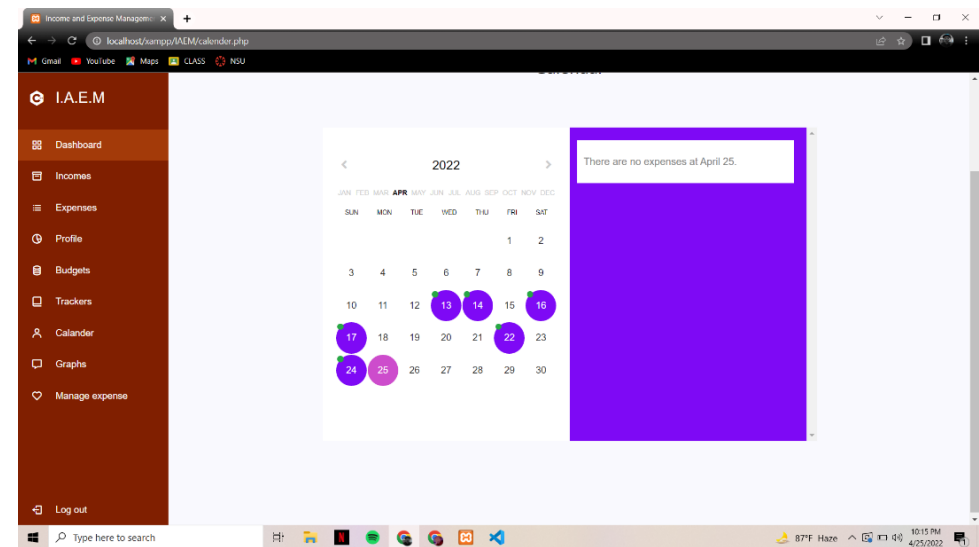
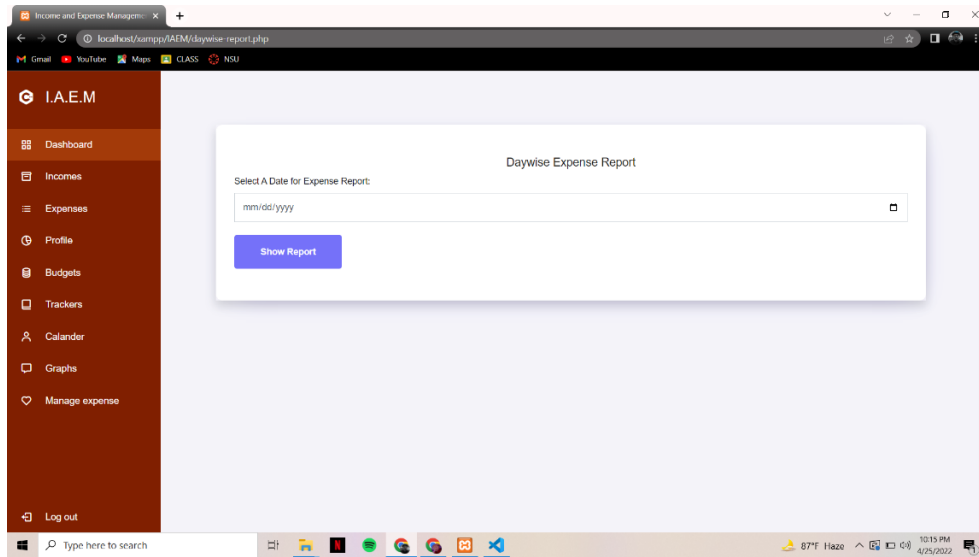
Office Salary - 1000\$

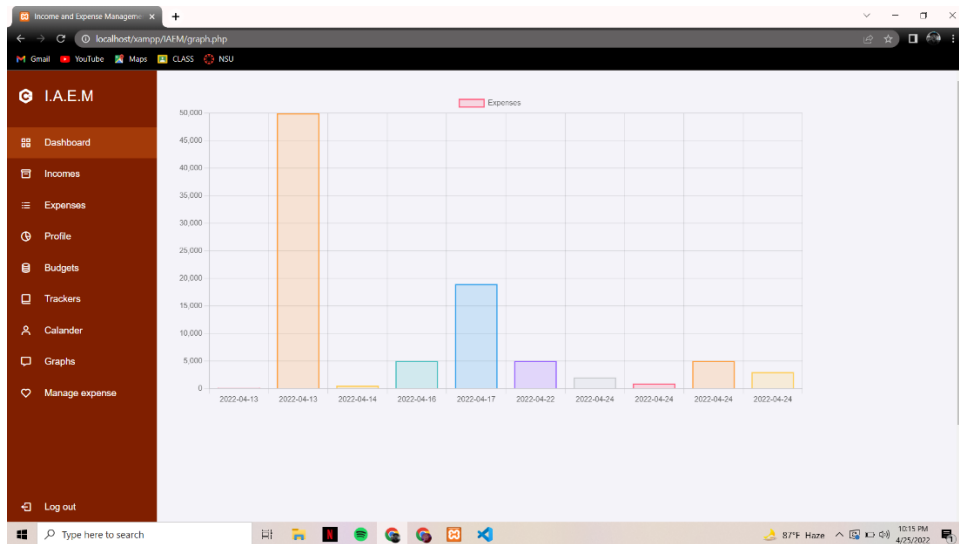
Eat - 500\$

Income Report

Type here to search

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Future Enhancement:

In the future, The Online Income and Expense Tracker application can be further enhanced to include the following features:

- The application can be extended to include scanning of barcodes on the price tag which decreases the effort of entering the data in the input fields.
- Apart from keeping a personal log, we are planning to extend this system to incorporate a shared expense group

Conclusion:

Managing Income and expenses daily can save your amount, but it can also help you set financial goals for the future. If you know exactly where your amount is going every month, you can easily see where some cutbacks and compromises can be made. The project that we have developed is works more efficient than the other income and expense trackers. The project successfully avoids the manual calculation for avoiding calculating the income and expenses per month. The modules are developed with efficiency and also in an attractive manner.