



Module	Portfolio	Assessment Type
Collaborative Development (5CS024)	1	Individual Report

[E-challan System- Business Analyst]

Student Id : 2058934

Student Name : Aisha Ranjit

Section : L5CG7

Group : L5CG7 Group-2

Module Leader : Mr. Uday Kandel

Lecturer : Mr. Raj Shrestha

Acknowledgement

For preparing this report, I needed the help and guidance of valued persons. They deserve genuine appreciations. I also got an opportunity to learn new topic and experience the work of business analyst.

Special thanks to collaborative development tutors Mr. Biraj Dulal, Mr. Uday Kandel, Mr. Raj Shrestha & Mr. Anmol Adhikari for giving me an opportunity to complete the report for my academic purpose.

Table of Contents

Self-appraisal form	1
Personal objectives – performance measurement.....	1
Collaboration Document.....	2
Evidence of good collaboration	2
Good communication and file sharing.....	2
Issue tracking.....	2
Appendix A	3
Functional Requirement and Design.....	3
Product Backlog (User Stories) and Sprint Backlog	3
Design (UML and Wireframes).....	7
Scoping	10
Appendix B	12
Evidence of Good communication and file sharing.....	12
Evidence of Continuing Personal Development (CPD)	14
Evidence of Issue tracking	16
References	18
Figure 1 Activity diagram for admin.....	7
Figure 2 Use case diagram	7
Figure 3 Entity Relation Diagram (ERD)	8
Figure 4 Wireframe for login.....	9
Figure 5 Wireframe for adding traffic officers	9
Figure 6 Conversation/ Discussion on Campfire	12
Figure 7 Screenshot of shared documents and files.....	13
Figure 8 the issue for CSS not rendering in login and traffic registration page.	16
Figure 9 not rendered CSS in login and registration of traffic officer page as shown in the screenshots above.....	16
Figure 10 issue for the colour not matching in the navigation bar of admin dashboard	17
Figure 11 colour not matching in navigation bar solved for admin dashboard.....	17

Self-appraisal form

Student number	2058934	Name	Aaisha Ranjit
Project	E-challan System	Date	
Role	Business Analyst	Team	L5CG7 (Group-2)
Sprint (1 or 2)	1		

Personal objectives – performance measurement

These should be copied from your role description.

Objectives	Evidence provided	Evaluation <i>Student / tutor</i>	
Functional requirement and design	<p>I developed the wireframe for this system, sprint to satisfy the requirement and the product. I have also created a list of user stories.</p> <p>Since the developer team were unable to create the database in this sprint, although I have included the Entity Relation Diagram (ERD). Also, the image of all the designs, including UMLs (Use Case and Activity Diagram) and wireframes, are used as evidence. Screenshots of the product backlog and sprint backlog are also included.</p> <p>Functional Requirement and Design</p>	7	
<i>Tutor feedback:</i>			
Scoping	<p>We gathered the requirement for the system at the beginning and split the scope to be developed in the system into 2 sprints, based on client needs for this sprint. The e-challan system's potential upgrades are also discussed in it.</p> <p>Scoping</p>	8	
<i>Tutor feedback:</i>			

		15/20	/20

Collaboration Document

Evidence of good collaboration

Good communication and file sharing

We mostly communicated through messenger since it was easy and reliable, though we were supposed to use basecamp as it is completely new for all of us and some of the team members were facing difficulty using it. But we shared the useful resources (link) and documents, assigned to-do's task for each member, and created meeting schedule via Basecamp. We had all of our meetings in college premises and occasionally online using Google Meet in exam week.

Evidence of Good communication and file sharing

Continuing Personal Development (CPD)

I utilized a variety of resources to deal with uncertainties that occurred during this sprint, I focused on listening to the developer as our two-developer left the group, which had created us a huge problem. Also, the task we separated for the sprint 1 couldn't be achieved due to a smaller number of developers.

Evidence of Continuing Personal Development (CPD)

Issue tracking

All of the errors I discovered when reviewing the code were documented on GitHub, and I assigned developers to work on them as required.

Evidence of Issue tracking

Appendix A

Functional Requirement and Design

Product Backlog (User Stories) and Sprint Backlog

Product Backlog of whole system

Requirement No.	Epics	Priority	User Stories	Acceptance Criteria	Points/Time estimate	Status
A1	Admin	High	As an admin I want to login to the page so that I can add, delete and update traffic officers, offices & challan rates.	login page: username, password. button: login By clicking login, it directs to admin dashboard where admin can view the maximum numbers of challan filed based on location, vehicle type, violations, and the traffic officer	1 day	completed
A2		High	As an admin I want to add traffic officers so that they can file challan to the violators.	add Traffic officers: opens form which includes officer_id, full name, address, phone number, citizenship number& post. button: add traffic officer By clicking add traffic officer, it directs to the form of adding traffic officers which includes officer_id, full name, address, phone number, citizenship number& post.	3 days	completed
A3		High	As an admin I want to add challan rates so that I can add the rates for challan according to the violations.	add challan rates: category of violations and rates. button: add challan rates By clicking add challan rates, it directs to the form of adding challan rates based on violations.	3 days	completed

A4		Medium	As an admin, I want to add office so that they can view if the filed challan have been paid.	add offices: office id, address, contact number and email button: add offices By clicking add offices, it directs to the ask to confirm the add challan rates according to violation.	3 days	to-do
A5		Medium	As an admin I can logout from my own login page.	logout: logout from system. button: logout By clicking logout, the user will be offline from the system and directs to login page.	1 day	to-do
T1	Traffic Officers	High	As a traffic officer I want to login to system so that I can file challan & view rates.	login page: username, password & login button. button: login By clicking login, it directs to traffic officer dashboard where the traffic officers will be able to view challan history filed by themselves.	1 day	to-do
T2		High	As a traffic officer I want to create challan so that the violators can pay the challan.	create challan opens form which includes date, name, license number, vehicle number, vehicle type, violation, challan rates and checked by. button: create challan By clicking create challan, it directs to the form of creating challan which includes date, name, license number, vehicle number, contact, vehicle type, violation, challan rates and checked by.	3 days	to-do
T3		High	As a traffic officer I want to view challan rates so that I can file challan rates according to it.	view challan rates: violation category and rates. button: view challan rates	2 days	to-do

				By clicking view challan rates, it shows the challan rates according to the violations.		
T4		Medium	As a traffic officer I can logout from my own login page.	logout: logout from system. button: logout By clicking logout, the user will be offline from the system and directs to login page.	1 day	to-do
O1	Office	High	As an office I want to login to the page so that I can check challan details & challan status.	login: username, password & login button. button: login By clicking login, it directs to offices dashboard where the challan details & status can be viewed.	1 day	to-do
O2		Medium	As an office I can view the rates of filed challan so that the violators can pay according to violations and rates mentioned in it.	view rates: violation category & rates. button: view rates By clicking view rates, it directs to the details of challan rates according to violations.	3 days	to-do
O3		Medium	As an office I can logout from my own login page.	logout: logout from the system. button: logout By clicking logout, the user will be offline from the system and directs to login page.	1 day	to-do

Sprint 1 Backlog

Requirement No.	Epics	Priority	User Stories	Acceptance Criteria	Points/Time estimate	Status
A1	Admin	High	As an admin I want to login to the page so that I can add, delete, and update traffic officers, offices & challan rates.	login page: username, password. button: login By clicking login, it directs to admin dashboard where admin can view the maximum numbers of challan filed based on location, vehicle type, violations, and the traffic officer	1 day	completed
A2		High	As an admin I want to add traffic officers so that they can file challan to the violators.	add Traffic officers: opens form which includes officer_id, full name, address, phone number, citizenship number& post. button: add traffic officer By clicking add traffic officer, it directs to the form of adding traffic officers which includes officer_id, full name, address, phone number, citizenship number& post.	3 days	completed

Design (UML and Wireframes)

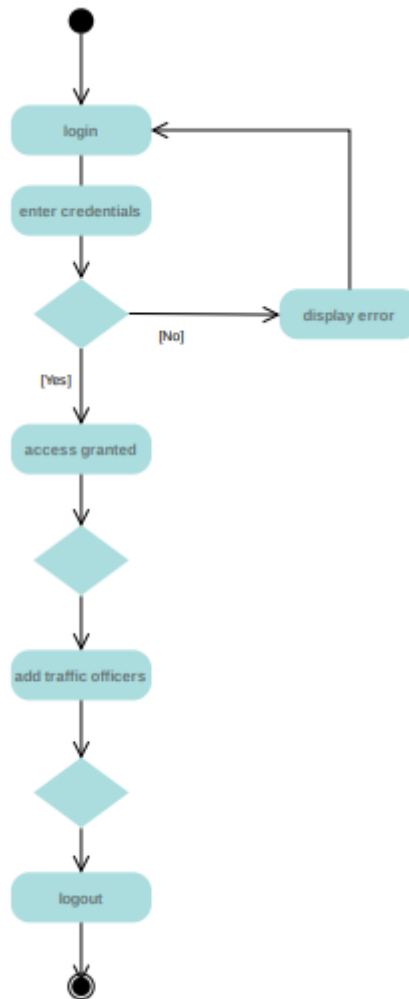


Figure 1 Activity diagram for admin

This is the activity diagram of admin. Here, we can see that the admin tries to login to the system if the entered credentials are correct, they are granted access to perform their work i.e., adding the traffic officers so that the officers can file challan to violators. If the entered credentials are incorrect, it displays the error and again directs the admin to the login page unless the entered credentials are correct.

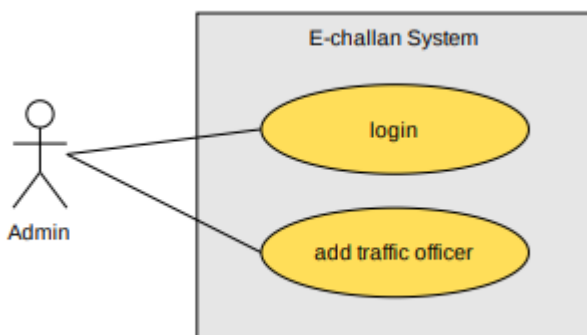


Figure 2 Use case diagram

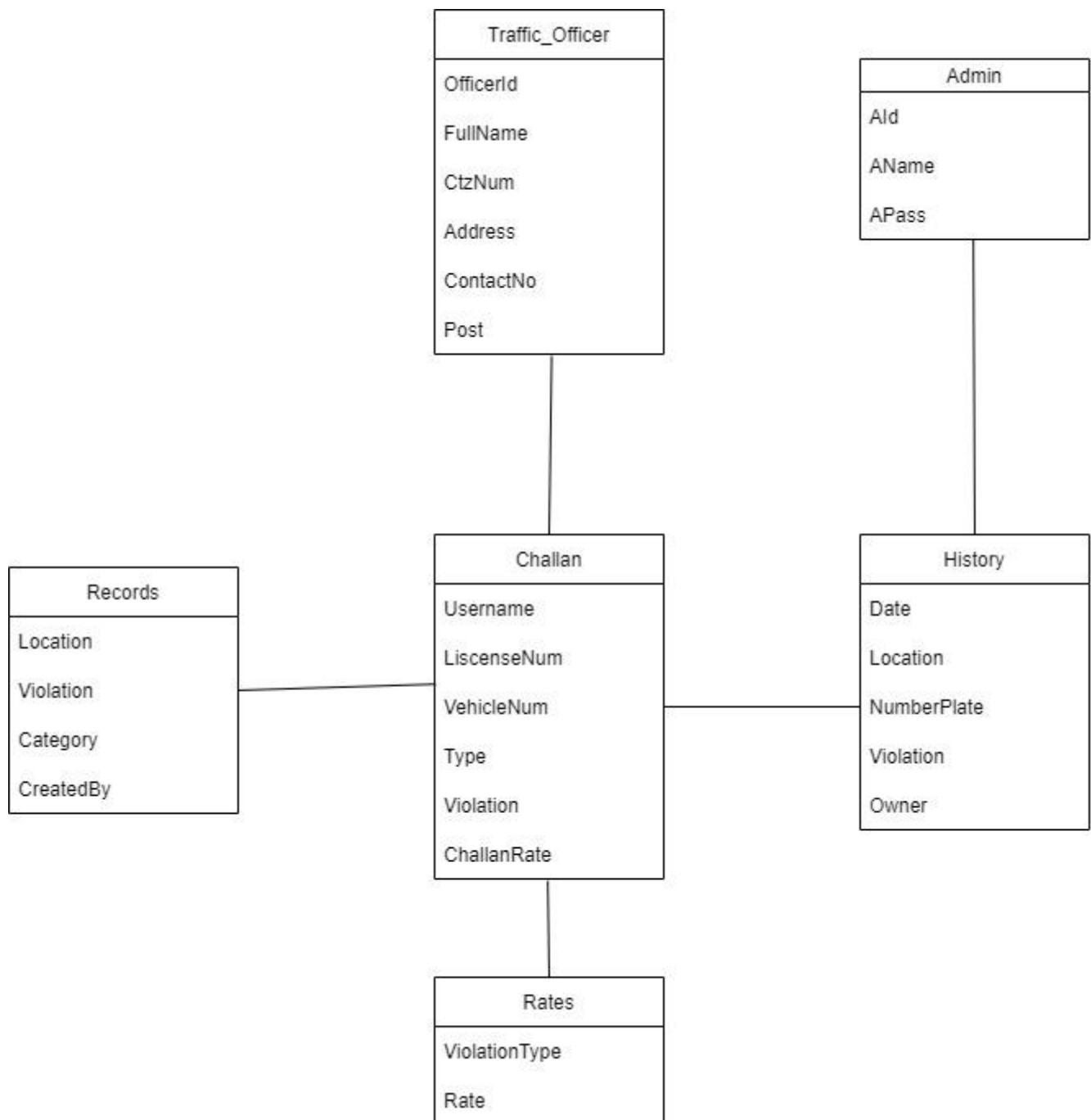


Figure 3 Entity Relation Diagram (ERD)

A Web Page

← → ↻ 🔍 https://echallansystem

E-challan System

☐

Username

Password

Login


Figure 4 Wireframe for login

A Web Page

← → ↻ 🔍 https://

☐ E-challan System

Traffic Officer

Profile 

Add Traffic Officer

Officer ID:

Citizenship Number:

Full Name:

Address:

Contact No.:

Post:

Add **Cancel**

Figure 5 Wireframe for adding traffic officers

Scoping

Introduction

The scoping is the first stage of the project development process. The scope can relate to the scope of a product or a project. The functions and characteristics that define a product is referred as product scope. The work that is required to deliver a product in accordance with the product's scope is referred as project scope. The features mentioned in a project's requirements comprise its scope. (wrike, n.d.)

E-challan system

E-challan system is the challan management web application which helps traffic officers to file challan. This system enables admin to add traffic officers, challan rates and office. While traffic officers can file challan and view challan rates. Lastly, the office can view the challan status i.e., if it's paid or not and the challan rates according to the violations.

Project Scope

The work for this system is divided into two sprints i.e., Sprint 1 and Sprint 2 which is mentioned below.

Sprint 1

In sprint 1 the login for admin only is developed as we have less members of developer in the team. The admin can add traffic officers. Admin can fill up the form to add traffic officers. These entered data will be stored in the database which will be done in sprint 2.

Sprint 2

In sprint 2, we will be developing the login for the traffic officers and office. In traffic officer's dashboard the history of challan records created by them will be shown which varies from every traffic officers. The traffic officers can create and update the challan as well as view the rates according to violations.

In the admin dashboard, the maximum challan records based on location, vehicle type, violation, and the creator of the challan will be displayed. This will be done by fetching the data (challan records) stored in databases. The add office in admin will also be covered in this sprint.

The office is only given access to view the challan status (i.e., paid, or unpaid) and rates, which will be fetched from the database.

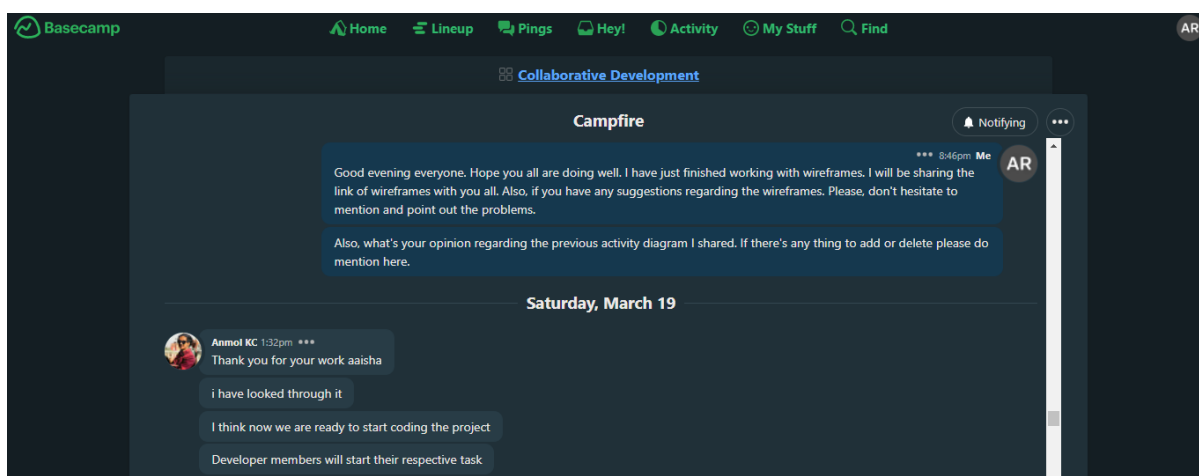
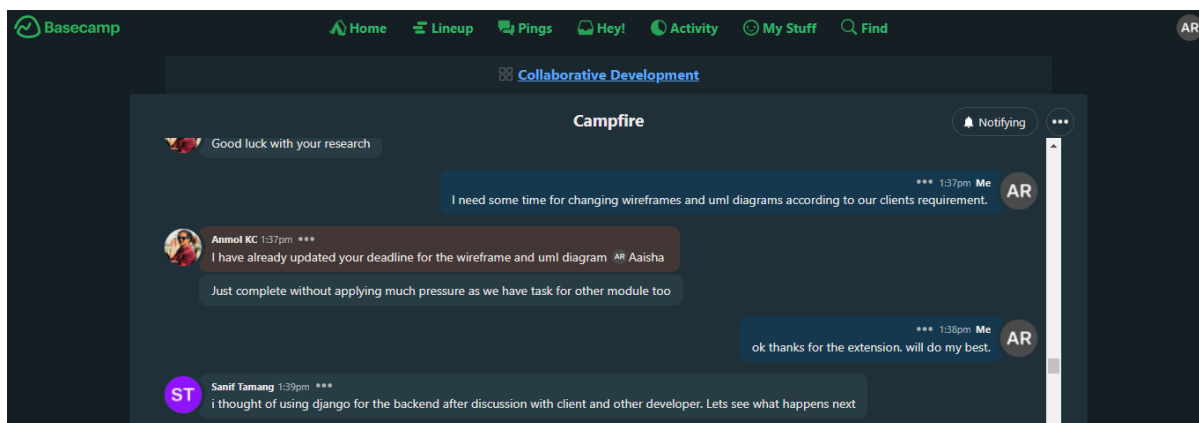
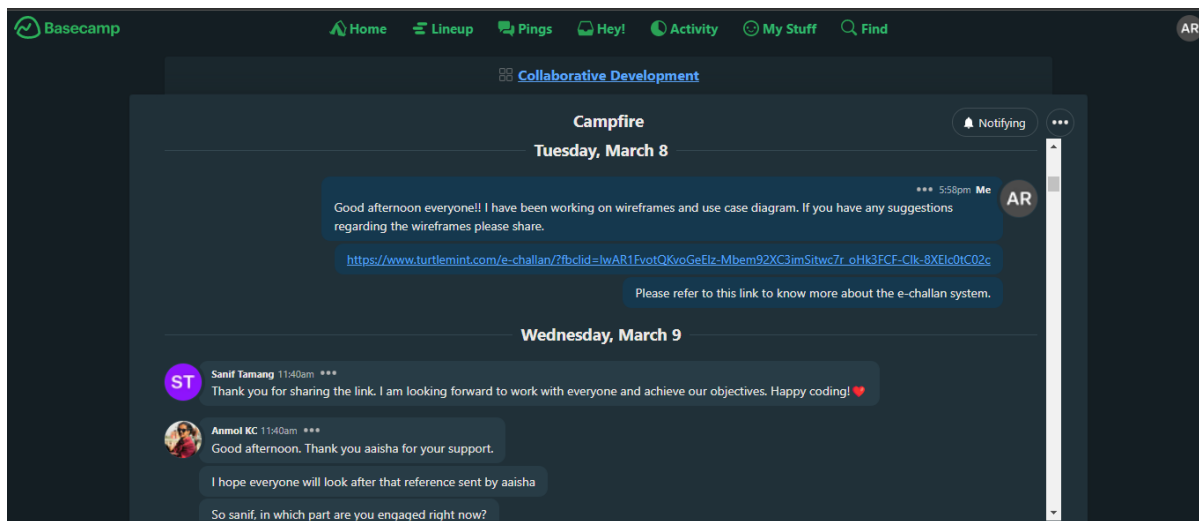
Future Improvements

In the future, the public login would also be added where they will be able to view their challan history, pending payments and can directly pay through QRcode without having to stay in line. The features like language selections (Nepali & English) would also be added. Also, the traffic officers can view the violators previous records while creating challan. The development of mobile application will also be done for this system which will help the users to track their records through their phone without having to logging into the system through desktop and laptops. The alert messages of filed challan with payable amounts to the violators phone would also be added. The payment through any bank and online wallet applications like Esewa, Khalti, IMEpay etc. will also be added.

Appendix B

Evidence of Good communication and file sharing

Figure 6 Conversation/ Discussion on Campfire



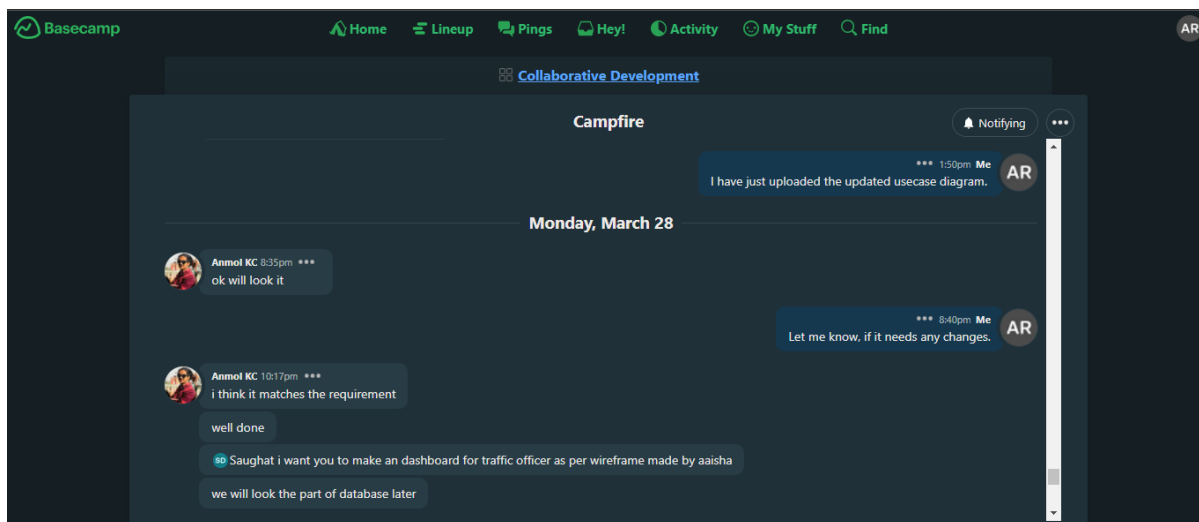
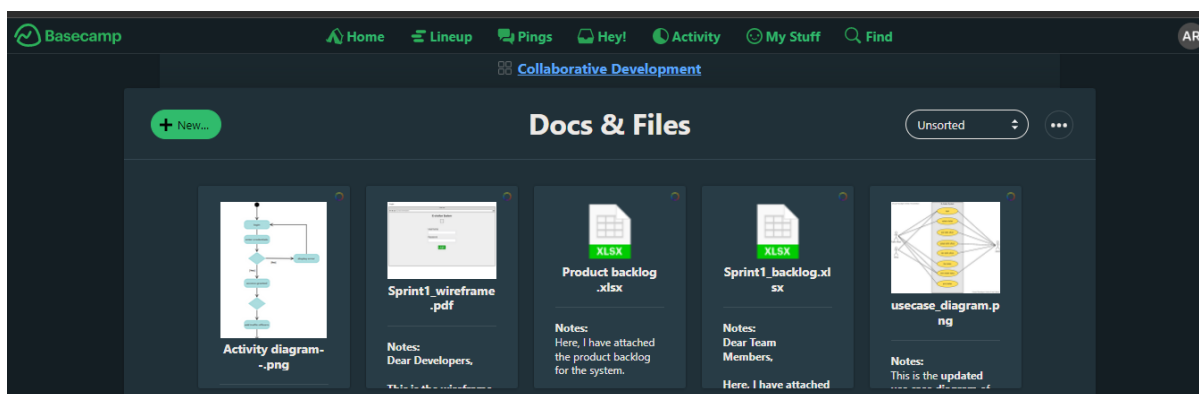


Figure 7 Screenshot of shared documents and files



Evidence of Continuing Personal Development (CPD)

In this sprint, I have tried to do my best. The objectives for the sprint were to increase team understanding and ensure that the developers' aims, and the client's vision aligned where they should.

Communication is not an option for a good business analyst, but it is a need. Any business analyst who is unable to communicate effectively will be distrusted by both the client and the working team. The business Analyst will speak with managers and employees to ensure that the task is proceeding successfully. As a result, my group chose to focus on this the most and schedule more meetings, ensuring that the team received adequate feedback and felt confident in their work. The team's productivity increased because of having a clear picture of what needed to be done. (indeed, n.d.) (Martin, 2022)

Wireframes are diagrams that help the development team visualize the product and understand how the software or website they're working on is configured. They are created before the developers begin implementing and the designers begin designing, and they do not need to be colourful for the attention to shift to the structure of the system design rather than aesthetics. I created the wireframes that followed this guideline, and because wireframes are extremely structure-oriented, it helped to eliminate the client's misconception that the website had code hidden behind the diagram.

I used the Visual Paradigm, a free and simple-to-use web tools to create UML diagrams of the system which also features a set of Scrum and Agile tools for the project management. (Visual Paradigm, n.d.)

I have used Balsamiq to create the wireframe of the system as I am familiar to it also it's easier to use. I've created issues on GitHub, where I've identified the problem and have assigned them to the developer to fix them.

During this sprint, I received additional information and experience, which has helped me improve my abilities as a Business Analyst. I also learned to tackle the problem

created while working in a team. Due to the developers leaving the team in between the submission of sprint 1, we faced many problems, and we couldn't deliver a product as we planned. I believe we will be able to create a good system at the end of sprint 2. I also learned to use the basecamp and GitHub through this project. In the next sprint, the information I obtained will be useful to achieve my goal.

Evidence of Issue tracking

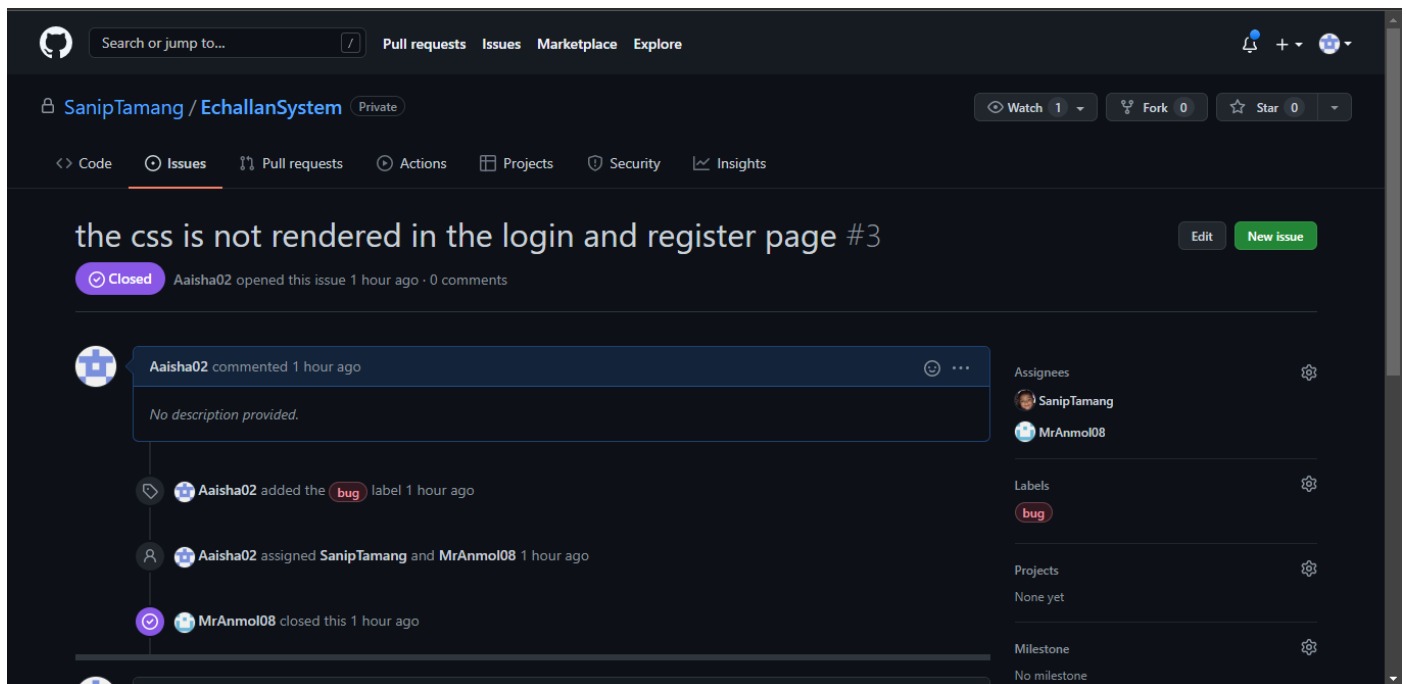


Figure 8 the issue for CSS not rendering in login and traffic registration page.

Add Traffic Officer

127.0.0.1:5501/eChallanSys/templates/AddTraffic.html

{% csrf_token %}

Officer ID :

Full name:

Username:

Password:

Contact No:

Citizenship No:

Address:

Post: Junior Officer

[Cancel](#)

Figure 9 not rendered CSS in login and registration of traffic officer page as shown in the screenshots above

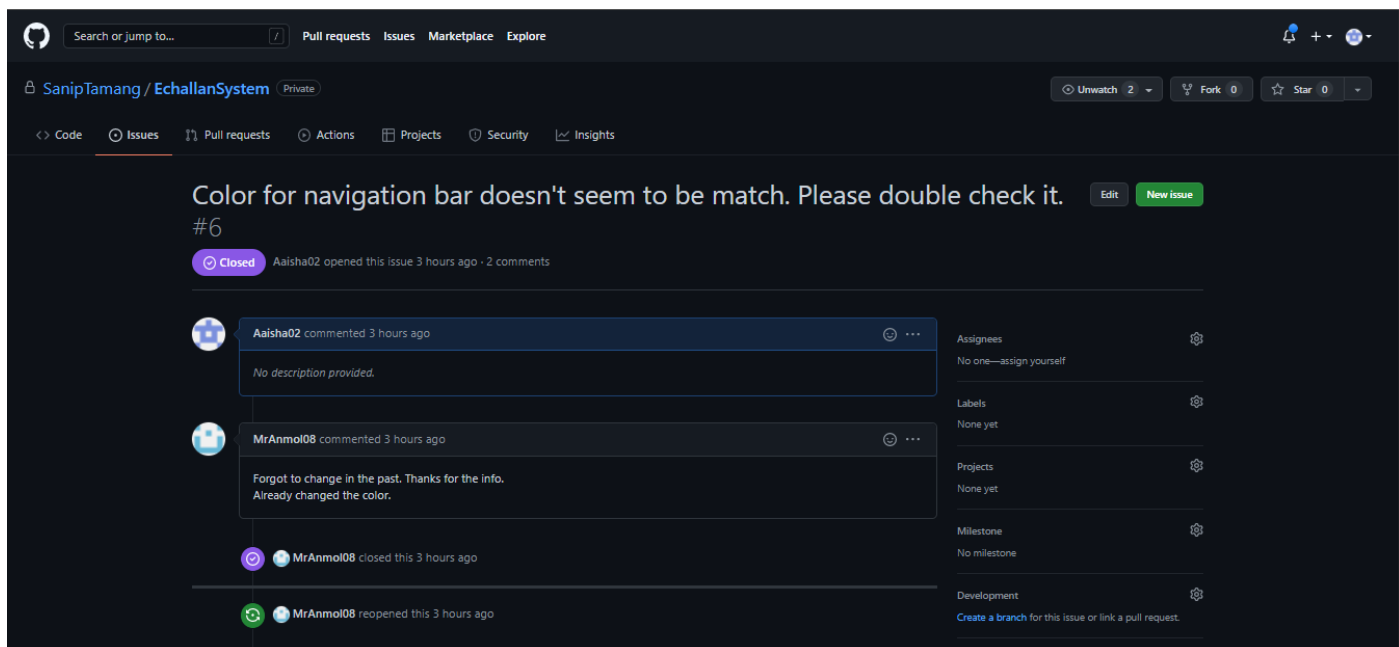


Figure 10 issue for the colour not matching in the navigation bar of admin dashboard

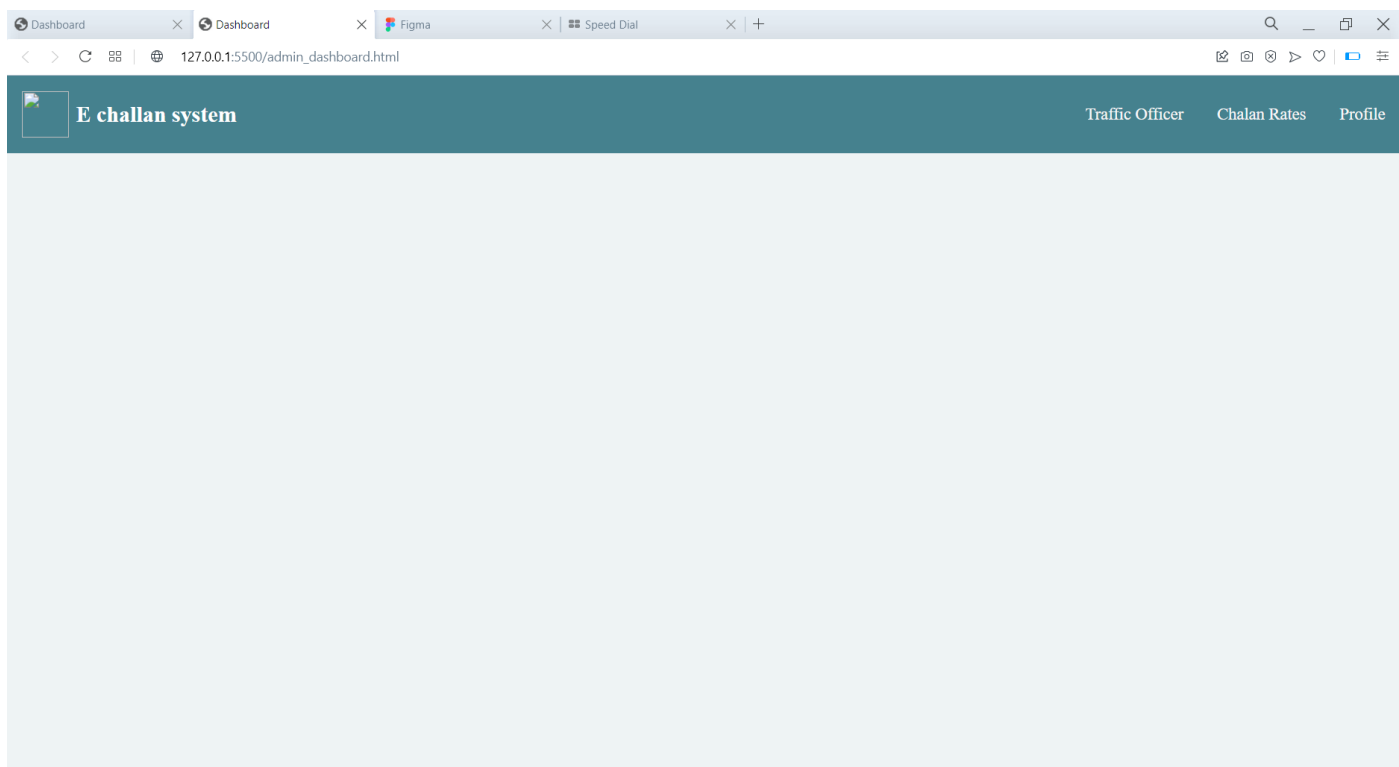


Figure 11 colour not matching in navigation bar solved for admin dashboard

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