



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

[E-challan System – Business Analyst]

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Section : L5CG7

Group : L5CG7- Group 2

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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.

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Self-appraisal form

Student number	2058934	Name	Aaisha Ranjit
Project	E-challan System	Date	16 May, 2022
Role	Business Analyst	Team	L5CG7 (group 2)
Sprint (1 or 2)	2		

Personal objectives – performance measurement

These should be copied from your role description.

Objectives	Evidence provided	Evaluation <i>Student / tutor</i>	
Functional requirement and design	I have created new wireframe of this system for this sprint to satisfy the requirement of the product. I have also created user stories. All the images of designs, including UMLs (i.e., Use Case Diagram and Activity Diagram) and wireframes, are used as evidence. Product backlog and sprint 2 backlog are also attached here.	8	
<i>Tutor feedback:</i>			
Functional Testing	I believe I completed the testing part of this system satisfactorily. I have tested all of the functionalities to ensure that they worked as they were designed. I also tested its accessibility to make sure it was accessible. The evidence is a written document that describes the product's whole functionality.	8	
<i>Tutor feedback:</i>			
		16/20	/20

Collaboration Document

Evidence of good collaboration

Good communication and file sharing

We mostly communicated via messenger since it was easy and reliable. But we used Basecamp to share the useful resources and documents, assigned to-do's task to each member, and created meeting schedule through it. We had all of our meetings in college premises and occasionally online using Google Meet.

Continuing Personal Development (CPD)

I utilized a variety of new resources to deal with uncertainties that occurred during sprint, I mostly focused on listening to the developer and made sure they understood the requirement properly. Also, the task we had separated for the sprint 1 couldn't be achieved due to which we had lots of tasks to complete and features to be implemented in this sprint. Also, we had to deliver the product in time.

Issue tracking

All of the errors I encountered when reviewing the code were documented on GitHub and also assigned the developers to fix them as required and also look after their work and provide timely feedbacks when required.

Appendix A

1. Functional Requirement and Design

1.1 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 a admin I want to login to the page so that I can add, delete and update traffic officers & 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	2 days	completed
A2		High	As a 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, fullname, address, contactnumber, 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, fullname, address, contactnumber, citizenship number& post.	3 days	completed
A3		High	As a admin, I want to edit the traffic officers details so that I can update	edit Traffic officer:opens form where only post, contact number, address can be edited	5 days	completed

		details of officers accordingly.	button: edit By clicking edit, admin will be able to edit details accordingly.		
A4	High	As a admin, I want to delete the traffic officer details, to avoid double data of same officer.	delete: deletes the selected data button: delete By clicking delete, admin will be able to delete the double/unwanted data of same officer.	3 days	completed
A5	High	As a 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
A6	Medium	As a admin, I want to edit challan rates, so that I can update challan rates accordingly.	edit challan rates: opens form, where both violation and rates can be edited. button: edit By clicking edit challan rates, admin will be able to edit the challan rates.	3 days	completed
A7	Medium	As a admin, I want to delete challan rates, if	delete challan rates: deletes the selected challan rate	2 days	completed

			rules are not in use.	button: delete By clicking delete, admin will be able to delete the challan rates of rules that are not in use.		
A8		Medium	As a 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.	2 days	completed
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.	3 days	completed
T2		High	As a traffic officer I want to create challan so that the violators can pay the challan.	create challan: opens form which include: 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.	5 days	completed

T3	High	As a traffic officer, I want to edit the created challan so that I can update the challan.	edit challan: opens form where date and checked by cannot be changed. button: edit By clicking edit, traffic officers will be able to edit created challan.	5 days	completed
T4	High	As a traffic officer, I want to delete the created challan, to avoid mistake made while creating the challan.	delete: deletes the selected data button: delete By clicking delete, traffic officers will be able to delete the mistakenly created challan.	3 days	completed
T5	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 By clicking view challan rates, it shows the challan rates according to the violations.	3 days	completed
T6	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.	2 days	completed

Sprint 2 Backlog

Requirement No.	Epics	Priority	User Stories	Acceptance Criteria	Points/Time estimate	Status
A1	Admin	High	As a admin, I want to edit the traffic officers details so that I can update details of officers accordingly.	edit Traffic officer: opens form where only post, contact number, address can be edited button: edit By clicking edit, admin will be able to edit details accordingly.	5 days	completed
A2		High	As a admin, I want to delete the traffic officer details, to avoid double data of same officer.	delete: deletes the selected data button: delete By clicking delete, admin will be able to delete the double/unwanted data of same officer.	3 days	completed
A3		High	As a 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 a admin, I want to edit challan rates, so	edit challan rates: opens form, where both violation and rates can be edited.	3 days	completed

			that I can update challan rates accordingly.	button: edit By clicking edit challan rates, admin will be able to edit the challan rates.		
A5		Medium	As a admin, I want to delete challan rates, if rules are not in use.	delete challan rates: deletes the selected challan rate button: delete By clicking delete, admin will be able to delete the challan rates of rules that are not in use.	2 days	completed
A6		Medium	As a 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.	2 days	completed
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.	3 days	completed
T2		High	As a traffic officer I want to create challan so that the violators can pay the challan.	create challan: opens form which include: date, name, license number, vehicle number, vehicle type, violation, challan rates and checked by.	5 days	completed

			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.		
T3	High	As a traffic officer, I want to edit the created challan so that I can update the challan.	edit challan: opens form where date and checked by cannot be changed. button: edit By clicking edit, traffic officers will be able to edit created challan.	5 days	completed
T4	High	As a traffic officer, I want to delete the created challan, to avoid mistake made while creating the challan.	delete: deletes the selected data button: delete By clicking delete, traffic officers will be able to delete the mistakenly created challan.	3 days	completed
T5	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 By clicking view challan rates, it shows the challan rates according to the violations.	3 days	completed

T6	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.	2 days	completed
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1.2 Design (UML and Wireframes)

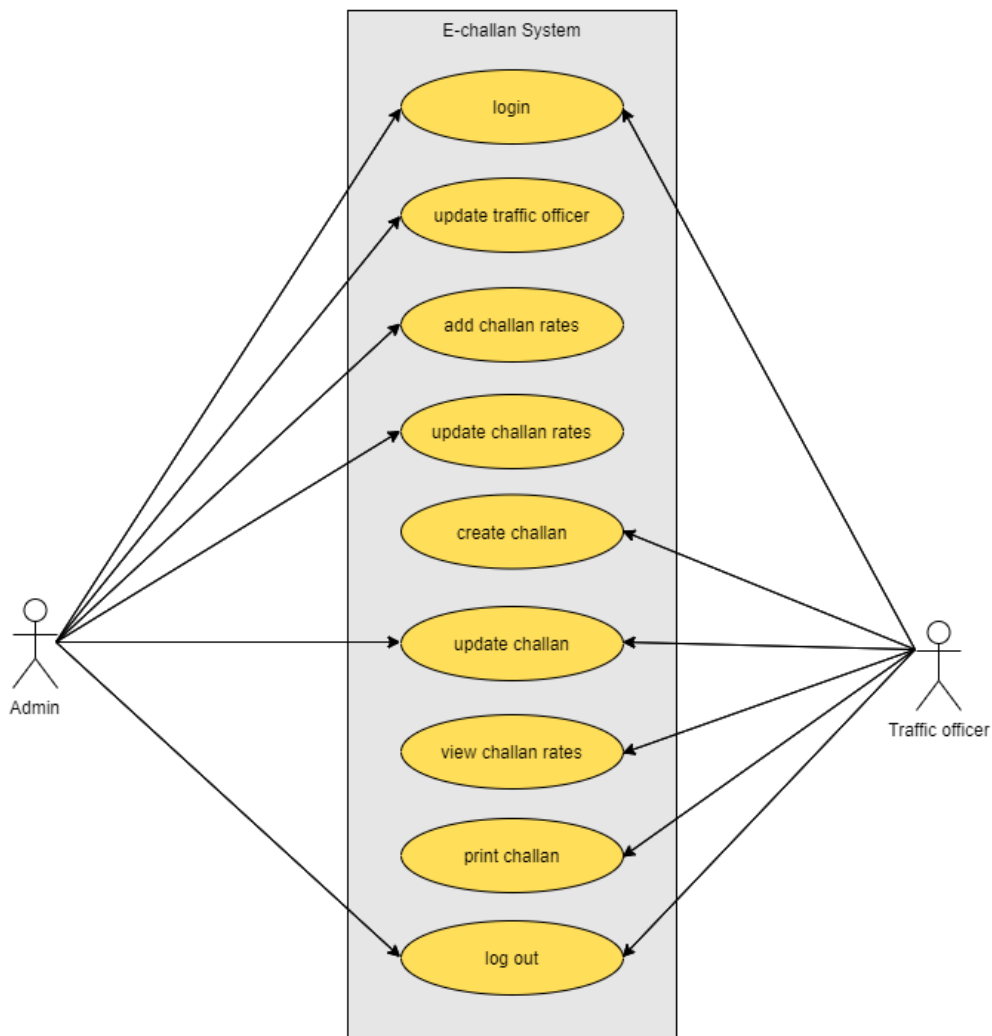


Figure 1 Use Case for E-challan System

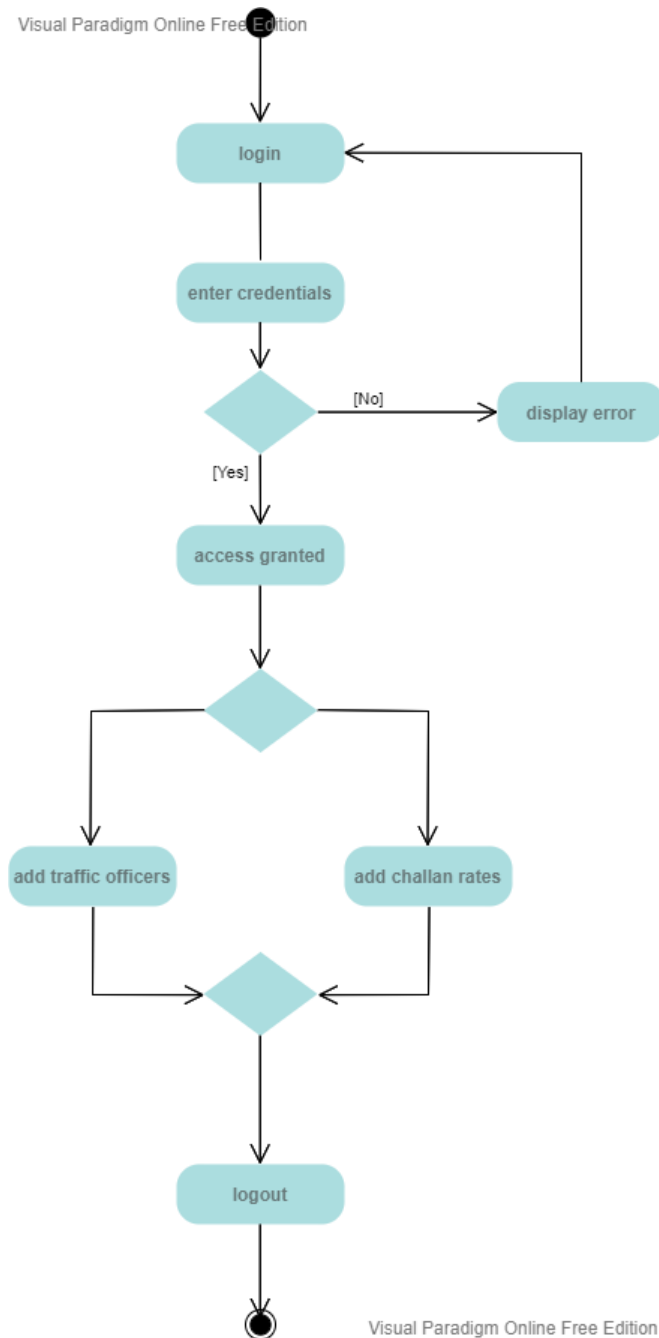


Figure 2 Activity diagram for admin

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

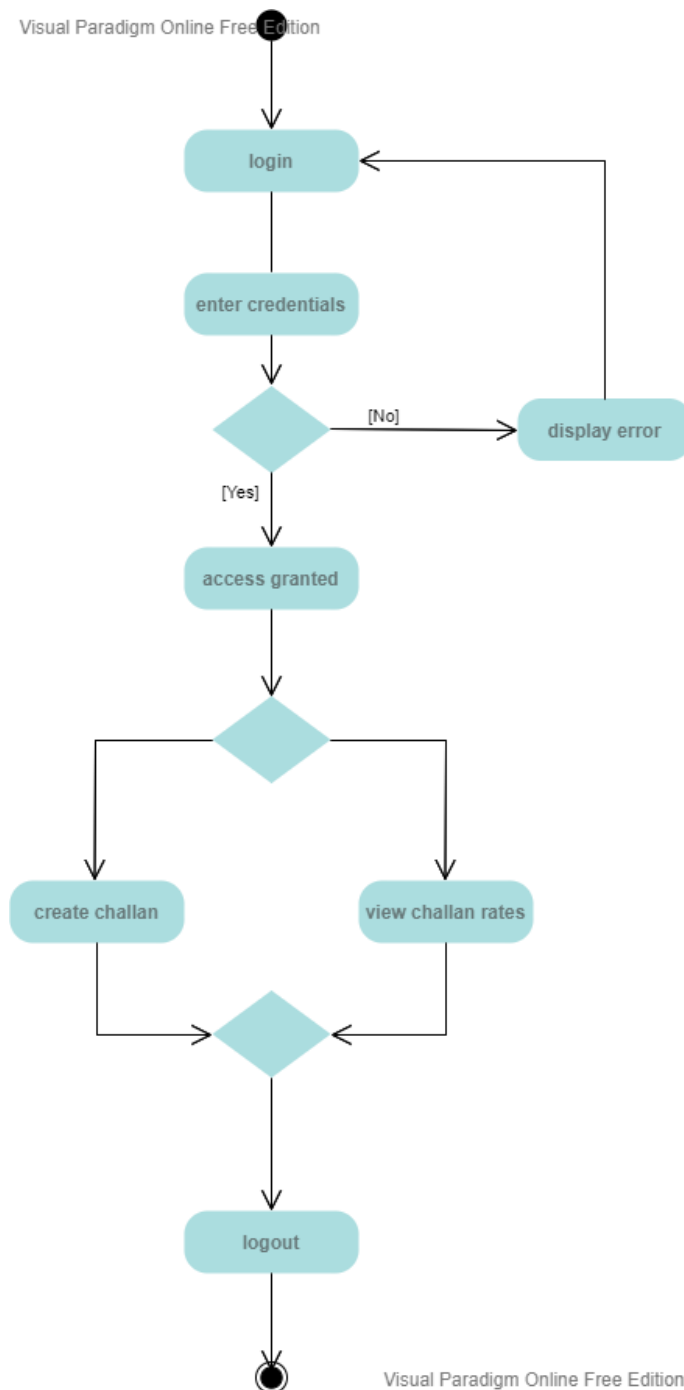


Figure 3 Activity diagram for traffic officer

This is the activity diagram of traffic officer. Here, we can see that login process is same as admin. If the entered credentials are correct, they are granted access to perform their task i.e., creating the challan and view the challan rates. The traffic officers can file challan to the violators accordingly. After the task is done, traffic officer can logout from the system. If the entered credentials are incorrect, it displays the error message and again directs the traffic officer to the login page unless they enter correct credentials.

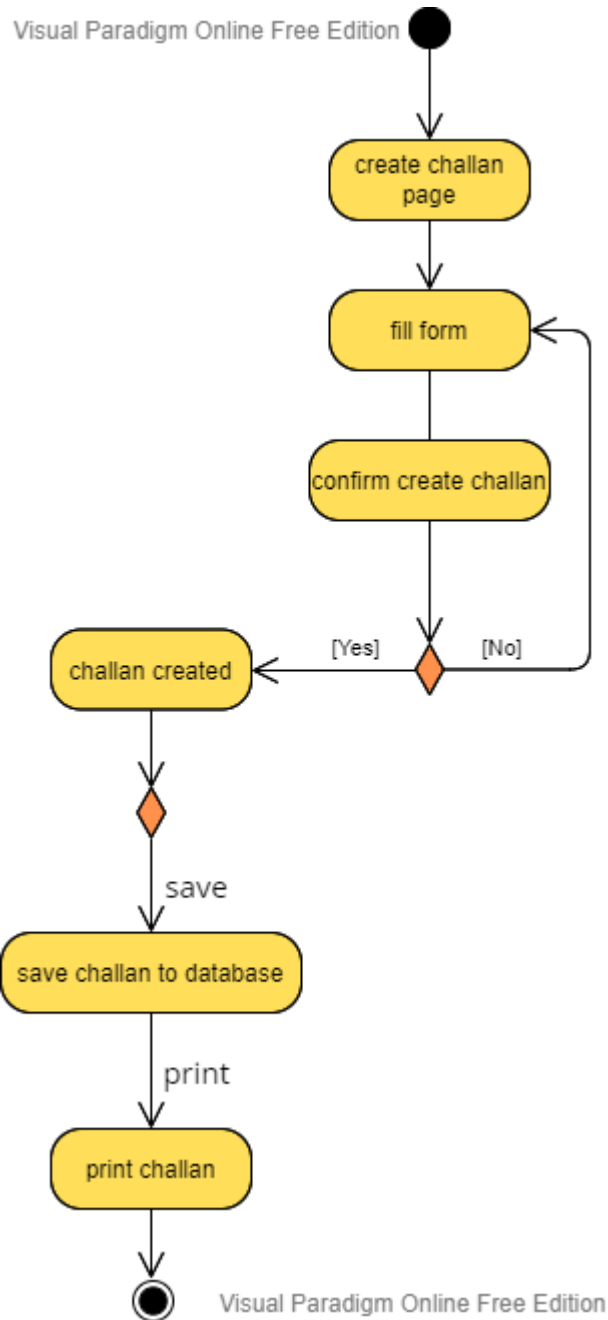


Figure 4 Activity diagram for challan creation

This is the activity diagram of challan creation. Here, we can see that traffic officers had to fill up the form to file the challan. After the creation of challan traffic officers saves the challan in the system's database. Then the saved challan is printed and handed to the violators.

Wireframes

Admin

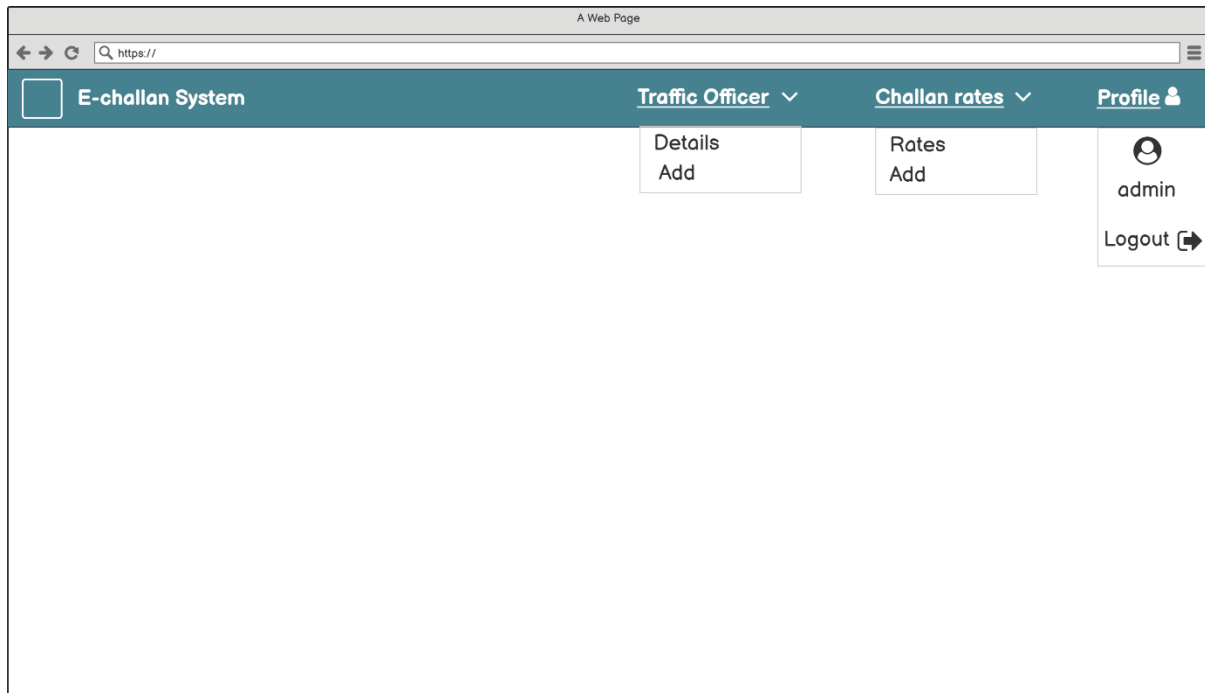


Figure 5 Admin menu bar

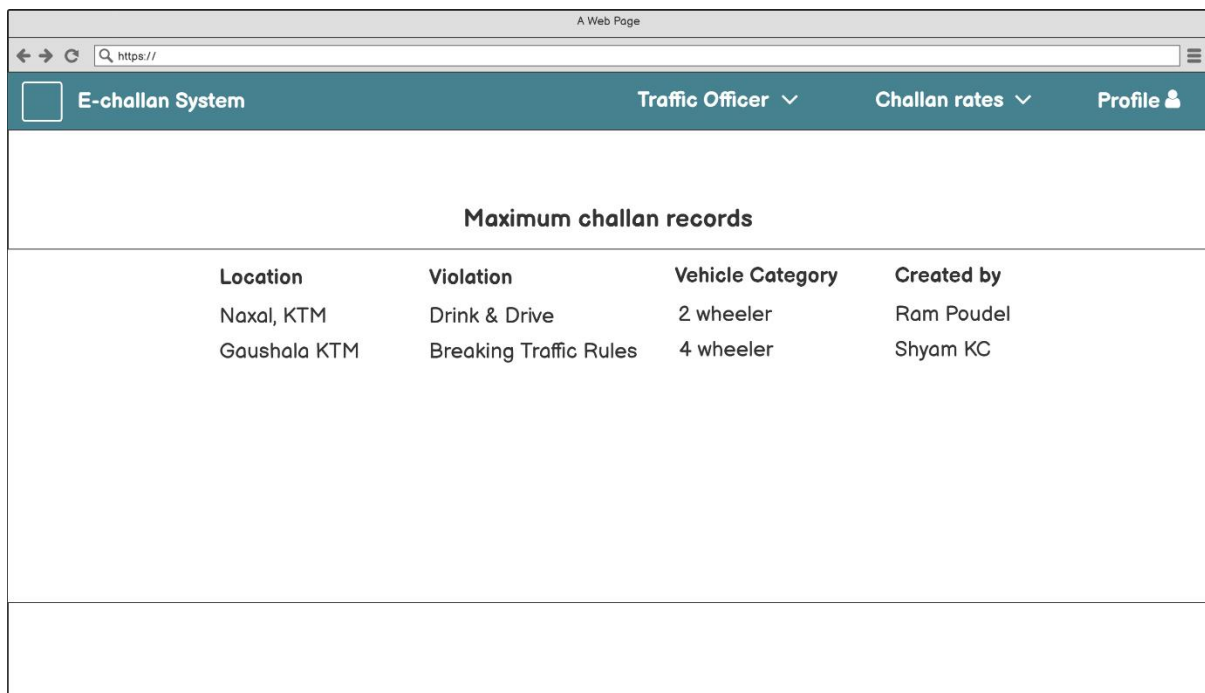


Figure 6 Admin Dashboard

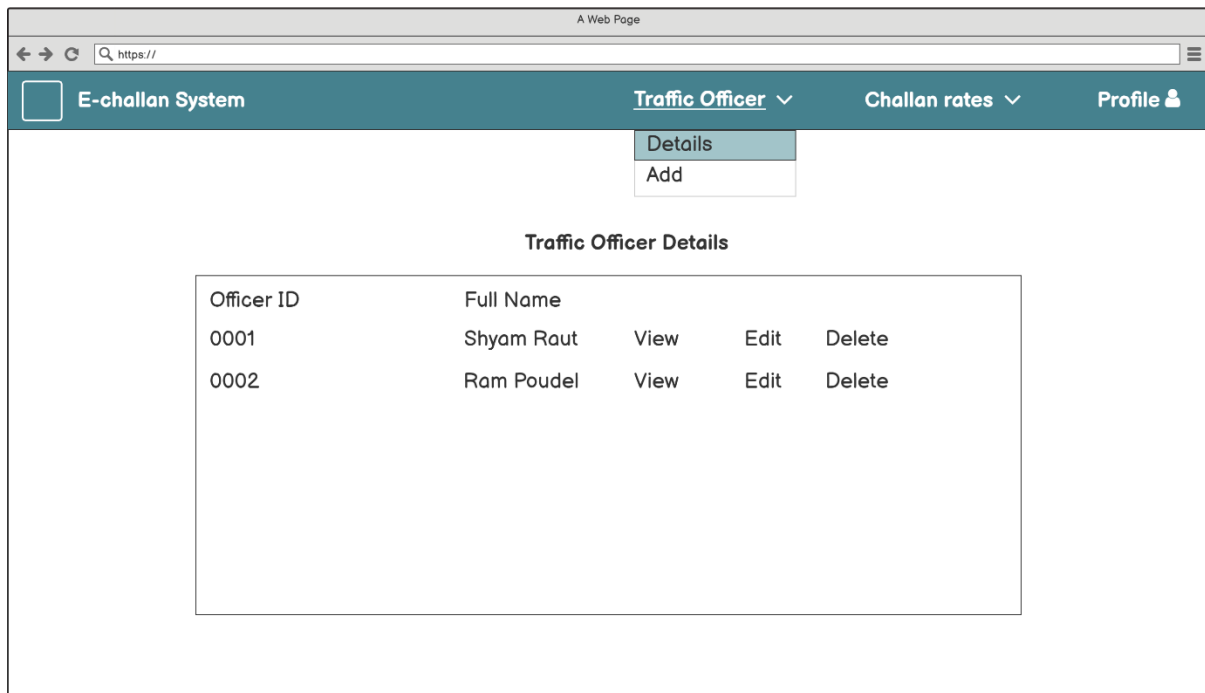


Figure 7 Traffic officer partial details

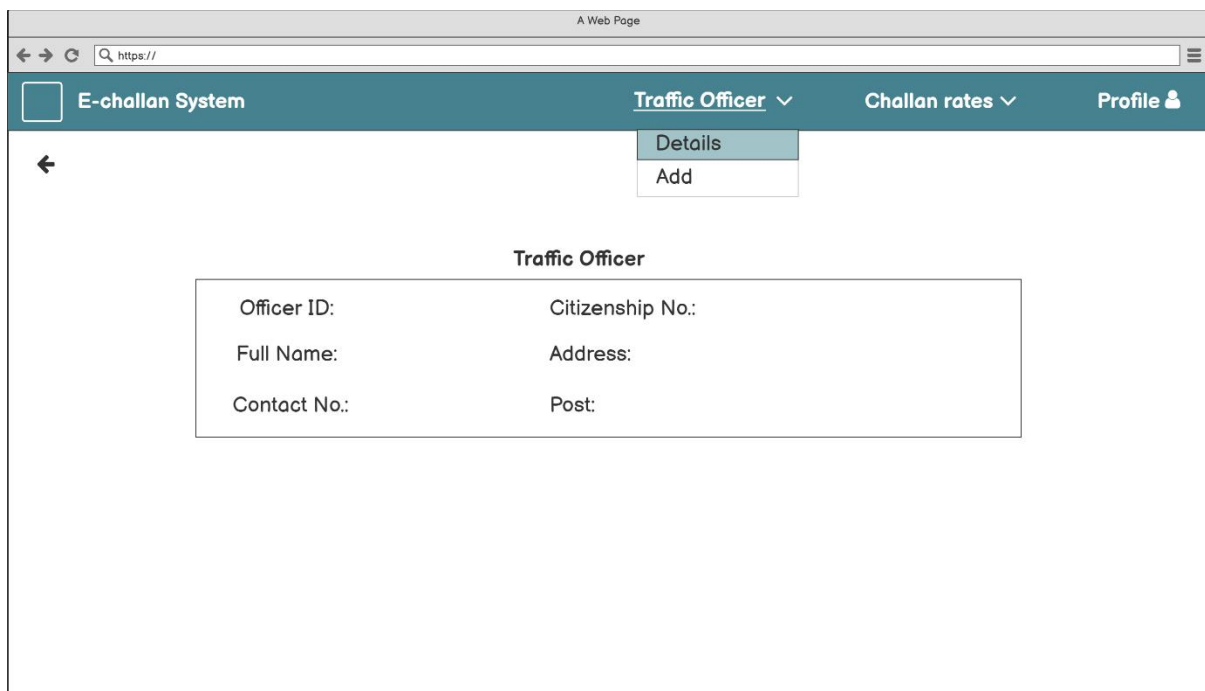


Figure 8 Traffic officer full detail view

A Web Page

← → ↻ https://

E-challan System **Traffic Officer** ▾ **Challan rates** ▾ **Profile** 👤

← **Details** Add

Traffic Officer Details

Officer ID: unchanged	Citizenship No.: unchanged
Full Name: unchanged	Address: changeable
Contact No.: changeable	Post: changeable

Save **Cancel**

Figure 9 Traffic officers detail editing

A Web Page

← → ↻ https://echallansystem/about

E-challan System **Traffic Officer** ▾ **Challan rates** ▾ **Profile** 👤

Details Add

Are your sure, you want to delete?

Yes **No**

Figure 10 Deleting traffic officer details from the system

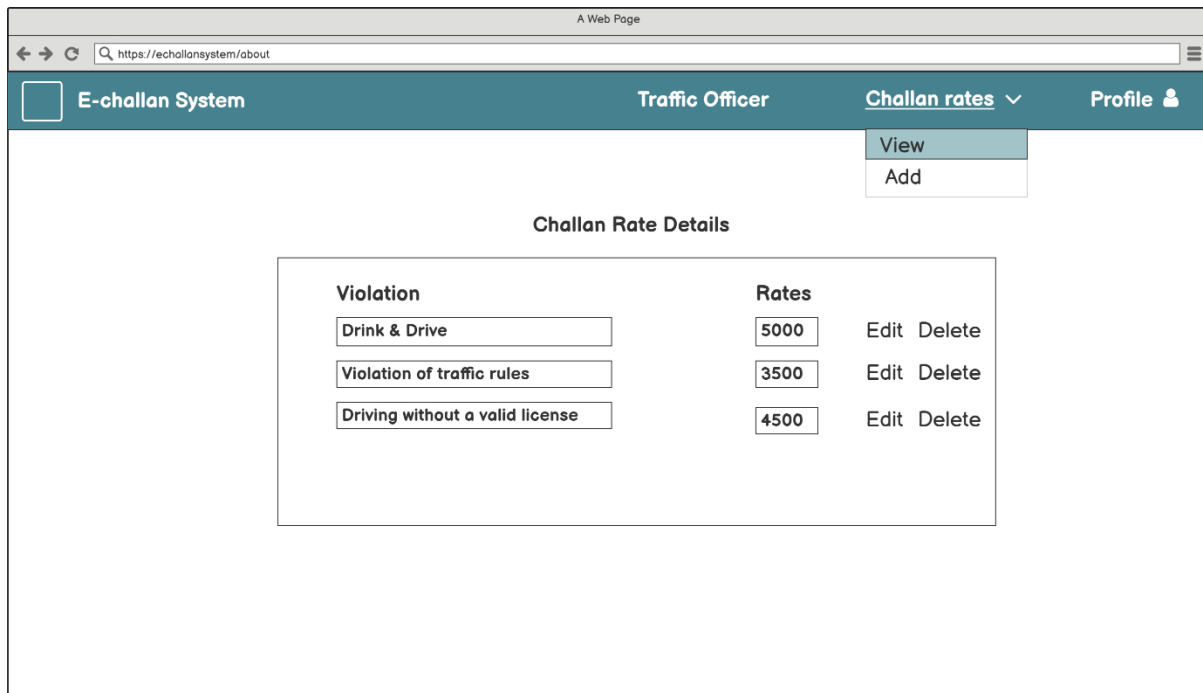


Figure 11 View challan rates

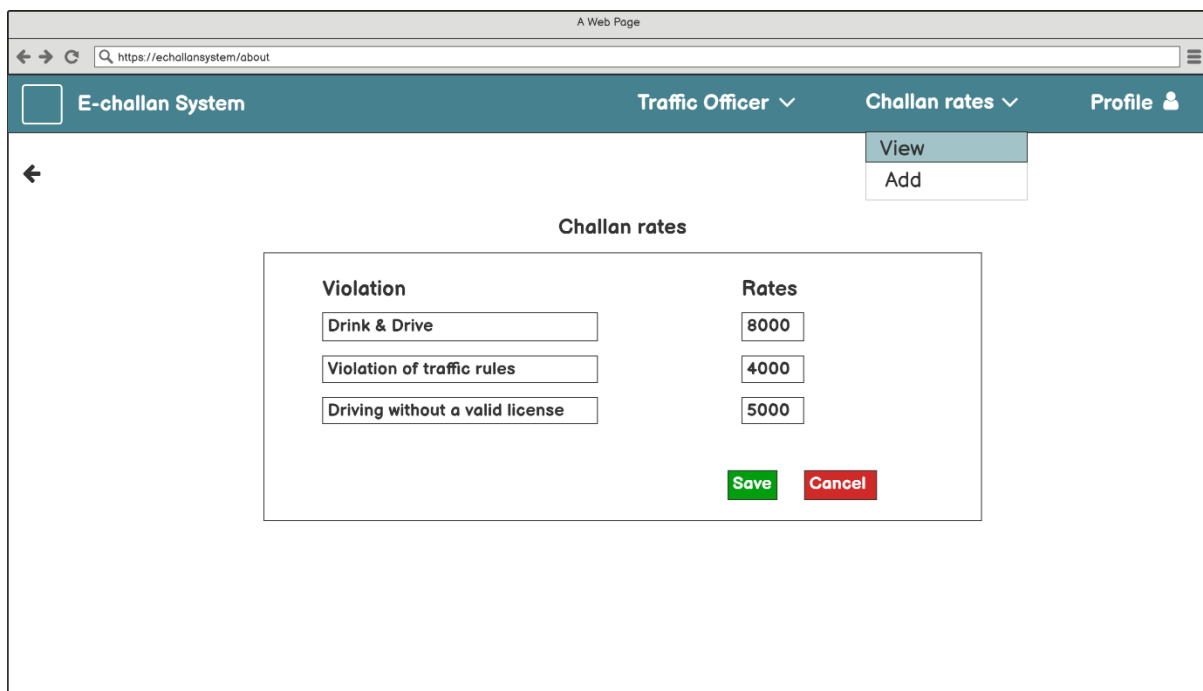


Figure 12 Editing challan rates

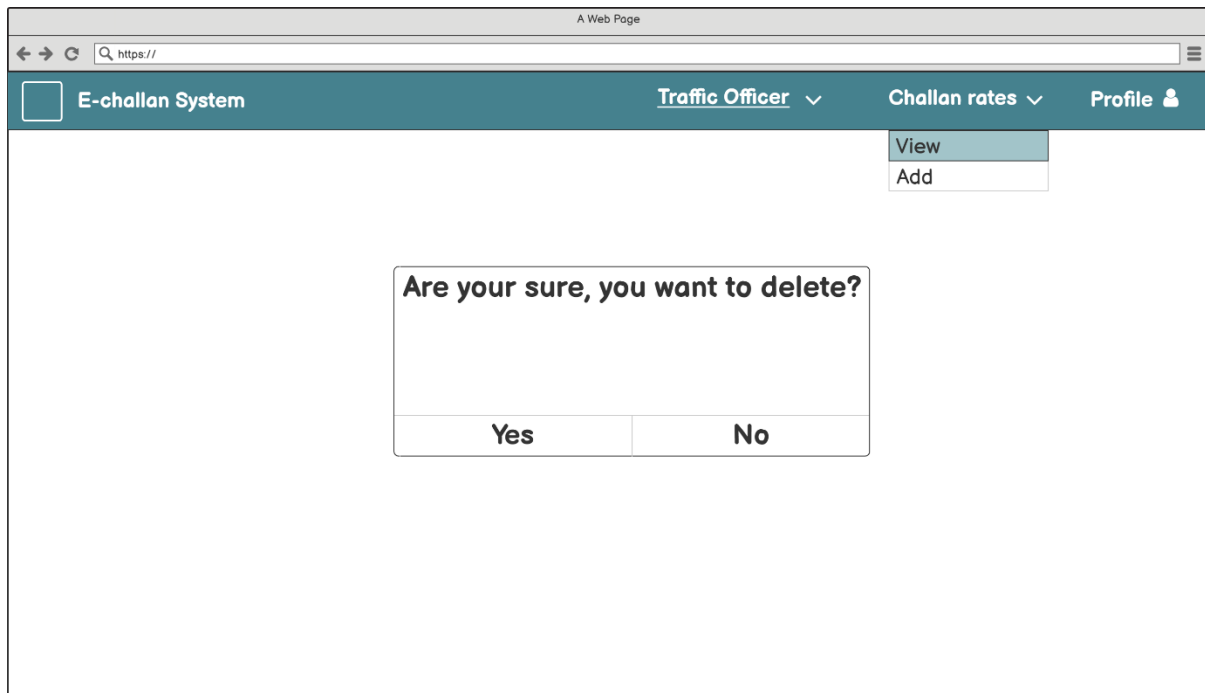


Figure 13 Deleting challan rates from the system

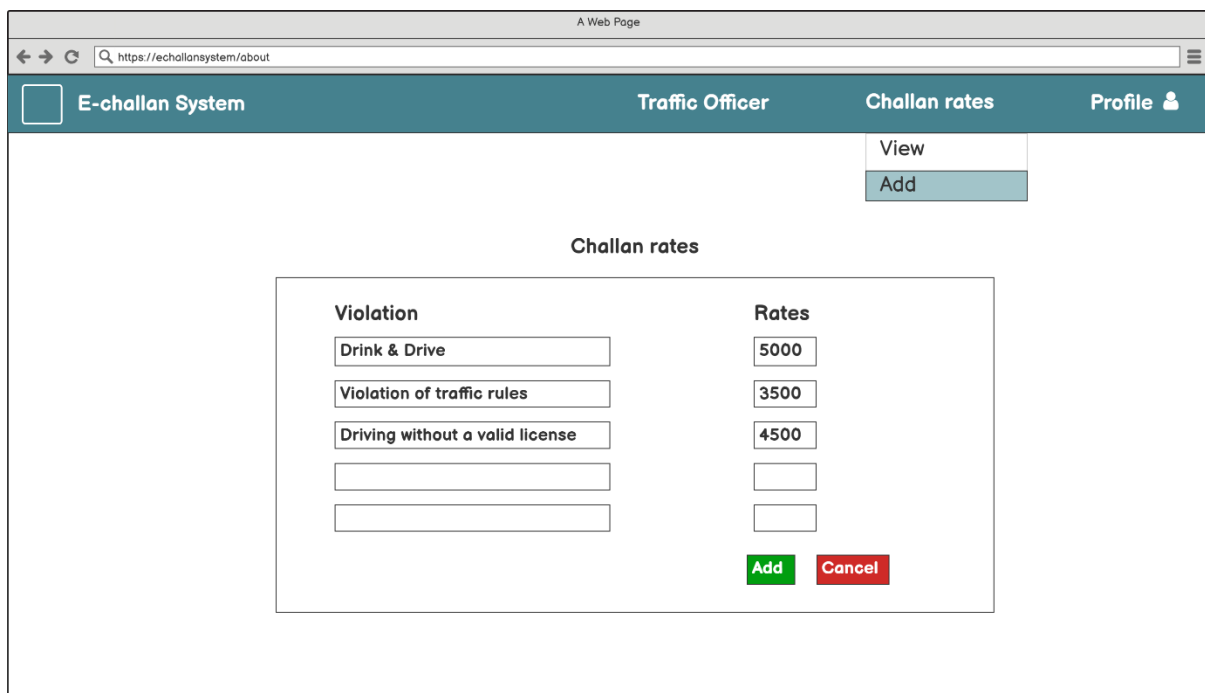
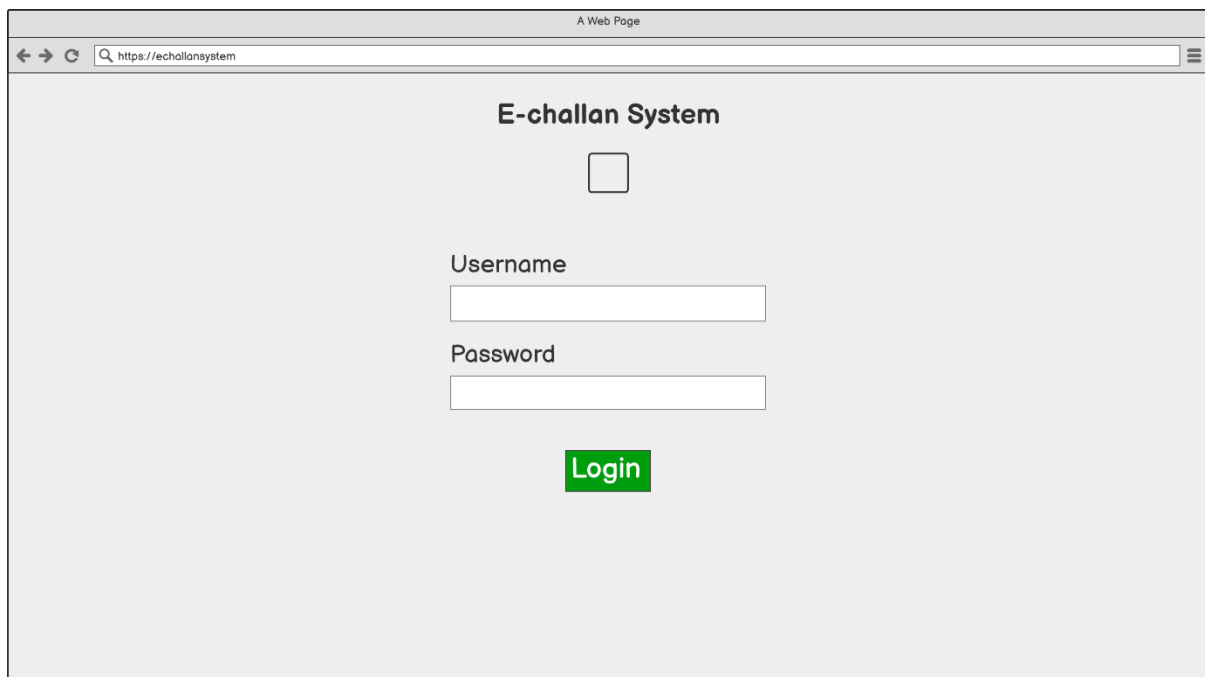


Figure 14 Adding challan rates

Traffic Officer



A Web Page

← → ↻ 🔍 https://echallansystem

E-challan System

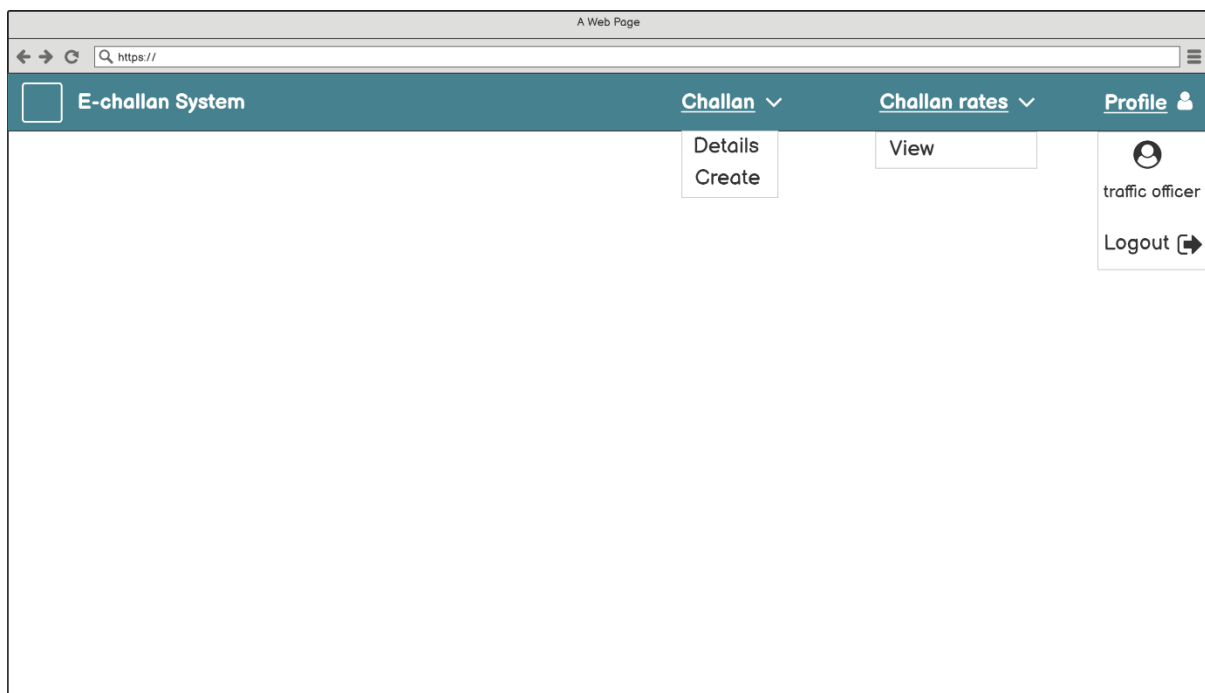
☐

Username

Password

Login

Figure 15 Wireframe for login



A Web Page

← → ↻ 🔍 https://

☐ E-challan System

Challan ▾
Details
Create

Challan rates ▾
View

Profile
traffic officer
Logout

Figure 16 Traffic officer menu bar

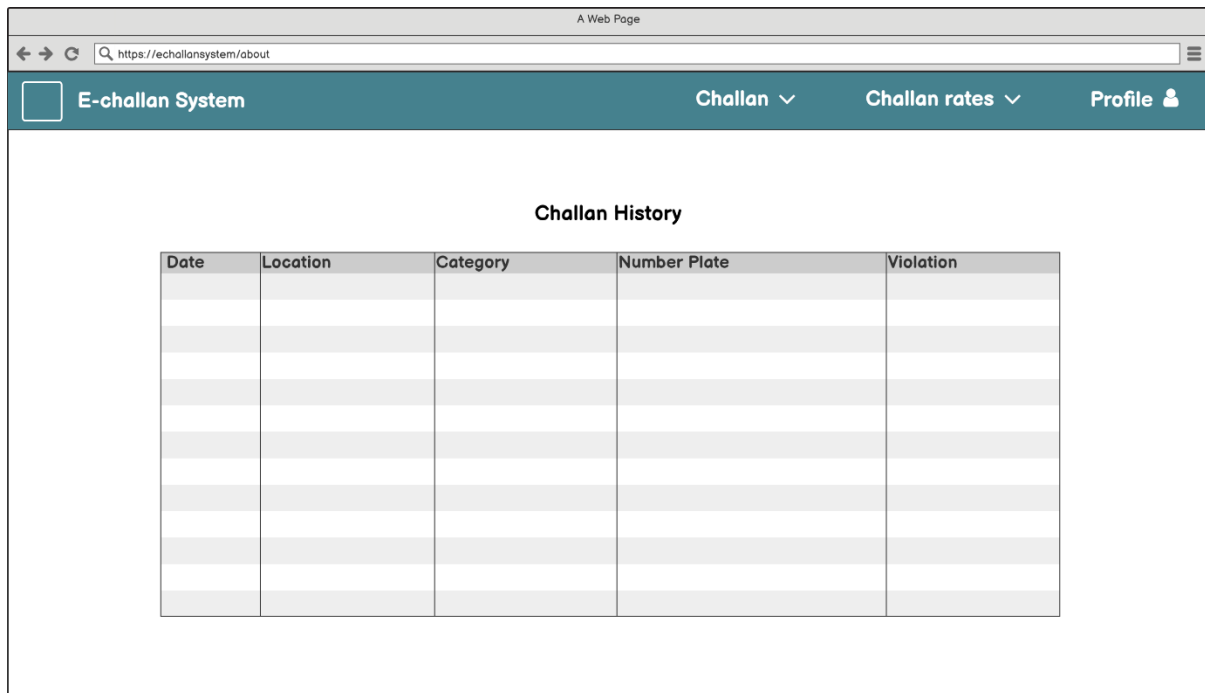


Figure 17 Traffic officer dashboard

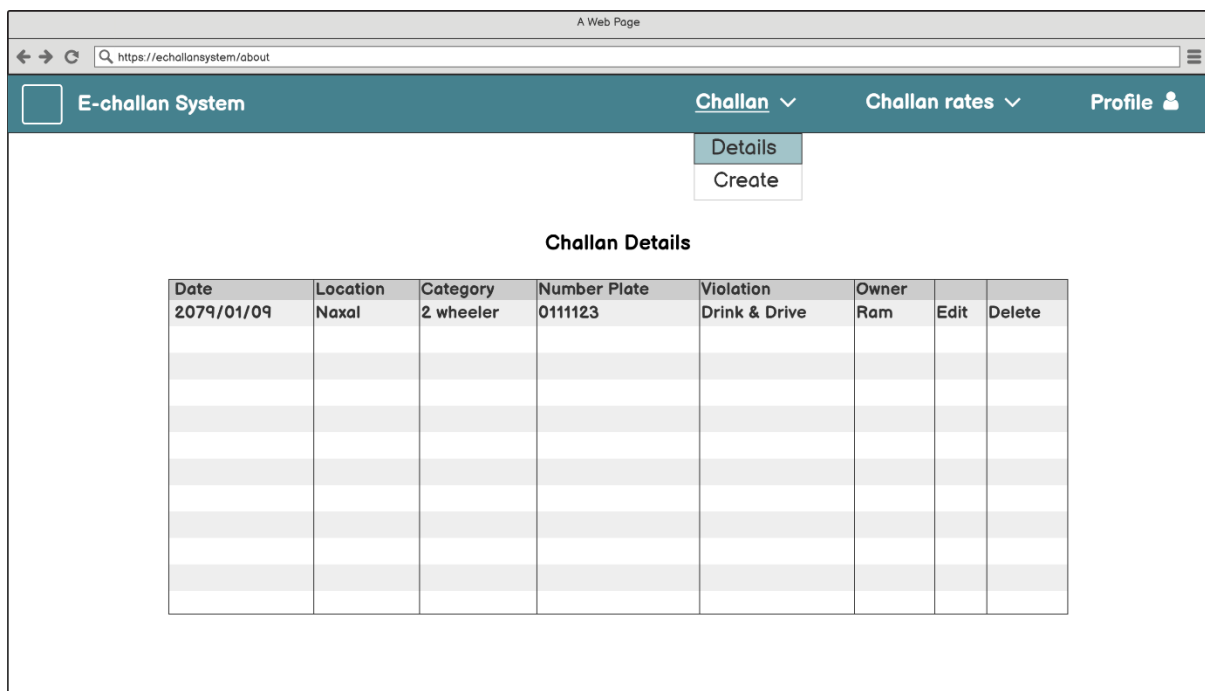


Figure 18 View challan details

The screenshot shows a web browser window with the URL `https://echallansystem/about`. The page has a dark teal header with the logo and name 'E-challan System', and navigation links for 'Challan', 'Challan rates', and 'Profile'. Below the header, there are two buttons: 'Details' (highlighted) and 'Create'. The main content area is titled 'Challan Details' and contains a form with the following fields:

- Date:** unchangeable
- Username:** changeable
- License Number:** changeable
- Vehicle Number:** changeable
- User Contact:** changeable
- Vehicle Type:** changeable
- Violation:** changeable
- Challan Rate:** changeable
- Paid:** ☐ Yes ☐ No
- Checked by:** unchangeable

At the bottom of the form is a green 'Update' button.

Figure 19 Editing challan details

The screenshot shows the same web browser window as Figure 19. The 'Details' button is still highlighted. In the center of the page, a confirmation dialog box is displayed with the text 'Are your sure, you want to delete?'. Below the text are two buttons: 'Yes' and 'No'.

Figure 20 Deleting created challan from the system

A Web Page

https://echallansystem/about

E-challan System

Challan ▾ Challan rates ▾ Profile

Details

Create

Date: _____

Username: License Number:

Vehicle Number: User Contact:

Vehicle Type: Violation:

Challan Rate:

Paid: ☐ Yes ☐ No

Checked by: _____

Save

Figure 21 Creating challan

A Web Page

https://echallansystem/about

E-challan System

Challan ▾ Challan rates ▾ Profile

Details

Create

Date: _____

Username: License Number:

Vehicle Number: User Contact:

Vehicle Type: Violation:

Challan Rate:

Paid: ☐ Yes ☐ No

Checked by: _____

Print

Figure 22 Print challan

A Web Page

← → ↻

https://echallansystem/about

⋮

E-challan System

Challan ▾

Challan rates ▾

Profile

View

Challan Rates

Violation	Rates
Drink and Drive	5000
Breaking Traffic Rules	3000
Driving without license	4500

Figure 23 Display challan rates

1.3 Functional Testing

TC#ID	Project/module	Req#ID	Scenario	Testcase Title	steps	Test Data	Expected Results	Actual result after execution	Status(pass/failed)	Comments(product owner), developer
TC#1		A1	Admin can login to the system	Check whether login is successful	1) Login	Username: admin, password: admin	view the dashboard of admin containing records of challan add traffic officers add challan rates	Not as expected	Failed	login is not working and joined.
TC#1.1					1) Repeat the same step from #TC1	Username: admin, password: admin123	login failed	Not as expected	Failed	
TC#1.2					1) Repeat the same steps from #TC1	Username: admin2000, password: admin123	login failed	Not as expected	Failed	
TC#2		A2	Admin can add the traffic officers	Check whether admin can add traffic officers	1) Click on Traffic officer 2) Click on add 3) Fill up the form by Officer ID,	Officer ID, Citizenship No., Full Name, Contact No., Address, Post	appears in traffic officers details	Not as expected	Failed	

				Citizenship no., Fullname, Contact no., Address and Post				
TC#3	A3	Admin can edit the traffic officers details	Check whether admin can edit traffic officers detail	4) Click on Add button 1) Click on Traffic officer 2) Click on details 3) Click on edit 4) Click on save button	Post, Address and Contact no. can only be edited	admin will be able to edit the details of traffic officers	Not as expected	Failed
#TC4	A4	Admin can delete the traffic officers details	Check whether admin can delete the details of traffic officer	1) Click on Traffic officer 2) Click on details 3) Click on delete 4) Choose between yes or no button	Delete (Yes/No)	Details of traffic officers will be deleted.	As expected	Passed
TC#5	A5	Admin can add the challan rates	Check whether adding rates is successful	1) Click on Challan rates	Violation and Rates	adding challan rates.	As expected	Passed

TC#6	A6	Admin can edit the challan rates	Check whether admin can edit traffic officers detail	1) Click on Challan rates 2) Click on view 3) Click on edit 4) Choose between save or cancel button	Edit (Save/Cancel)	admin will be able to edit challan rates.	Not as expected	Failed
TC#7	A7	Admin can delete the challan rates	Check whether admin can delete the challan rates	1) Click on Challan rates 2) Click on view 3) Click on delete 4) Choose between yes or no button	Delete (Yes/No)	challan rates will be deleted	As expected	Passed
TC#8	A8	Admin can logout from the system	Check whether admin can logout successfully	1) Click to Profile 2) Click to Logout	Logout	Logut from the system and directs to login page	As expected	Passed
TC#9	T1	Traffic officers can login to the system	Check whether login is successful	1) Login to	Username, password	View the dashboard of traffic officers containing the challan	Not as expected	Failed

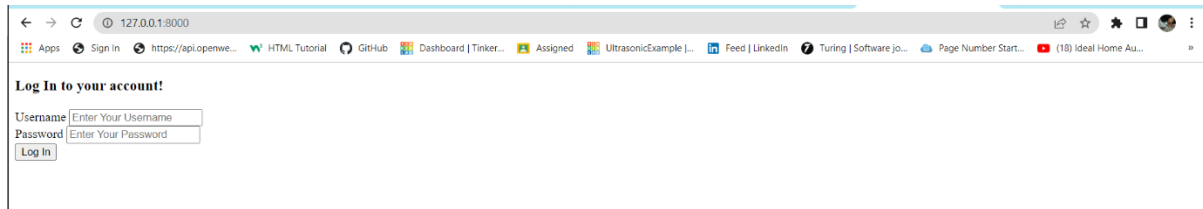
history								
Create								
Challan								
View								
Challan								
Rates								
TC#10	T2	Traffic officers can create challan	Check whether traffic officers can create challan	1) Click on Challan 2) Click on Create 3) Fill up the form by Date, Username, License No., Vehicle No., Contact, Vehicle Type, Violation, Challan Rate, Paid(yes/no), and Checked By 4) Click on Save	Date, Username, License No., Vehicle No., Contact No., Vehicle Type, Violation, Challan Rate, Paid(i.e. yes/no), and Checked By	appears in challan create	As expected	Passed
TC#11	T3	Traffic officers can edit the created challan	Check whether traffic officers can edit the created challan	1) Click on Challan 2) Click on details 3) Click on edit 4) Click update	Date and checked by cannot be edited.	Traffic officer will be able to edit the created challan.	Not as expected	Failed

TC#12	T4	Traffic officers can delete the created challan	Check whether traffic officers can delete the created challan	1) Click on Challan 2) Click on details 3) Click on delete 4) Choose between yes or no	Delete (Yes/No)	Traffic officer will be able to delete the created challan	As expected	Passed
TC#13	T5	Traffic officers can view the challan rates	Check whether traffic officers can view challan rates	1) Click on Challan Rates 2) Click on View	Rates according to violation	viewing challan rates according to violation	As expected	Passed
TC#14	T6	Traffic officers can logout from the system	Check whether traffic officers can logout from the system	1) Click to Profile 2) Click to Logout	Logout	logout from the system and directs to login page	As expected	Passed

Bug report

Title: Login page not working

Attachment:



Process Involved:

- 1) Redirect to login page of the system.
- 2) Check if login page is linked to the system.

Environment: Version 101.0.4951.54 (Official Build) (64-bit)

Title: Create challan not working

Process Involved:

- 1) Redirect traffic dashboard.
- 2) Navigate to challan and select create.
- 3) Check if creating challan is successful.

Environment: Version 101.0.4951.54 (Official Build) (64-bit)

Title: Editing the traffic details and challan rates not working

Process Involved:

- 1) Redirect to admin page.
- 2) Go to traffic officer and select details.
- 3) Navigate to challan rates and select view.
- 4) Select edit.
- 5) Check if editing the traffic officer details and challan rates is working.

Environment: Version 101.0.4951.54 (Official Build) (64-bit)

Title: Challan printing not working.

Process Involved:

- 1) Redirect traffic officer dashboard.
- 2) Find and navigate to challan and select create.
- 3) Check if printing the challan is working.

Environment: Version 101.0.4951.54 (Official Build) (64-bit)

Appendix B

1. Evidence of Good communication and file sharing

I have attached the evidence of good communication and file sharing below:



Figure 24 File sharing in Basecamp

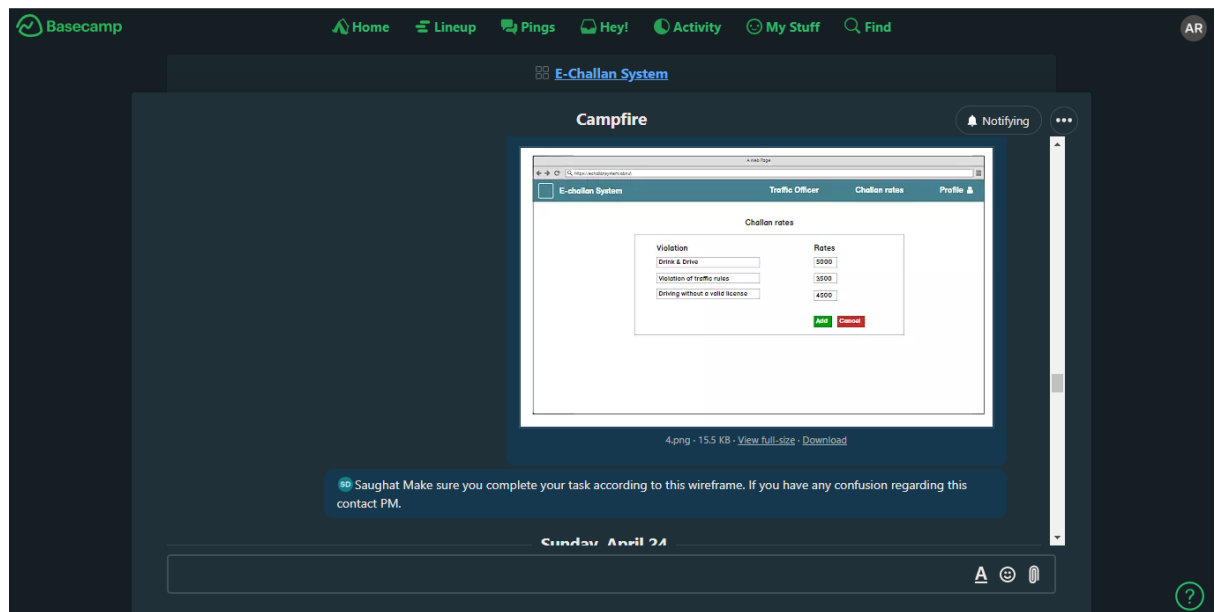


Figure 25 Sharing wireframe in Campfire

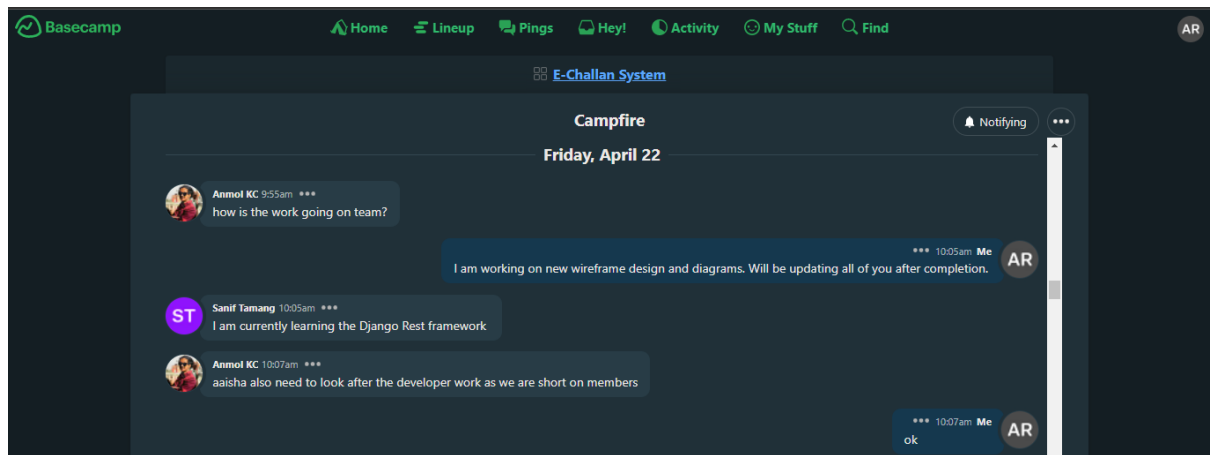


Figure 26 Communication with team through campfire 1

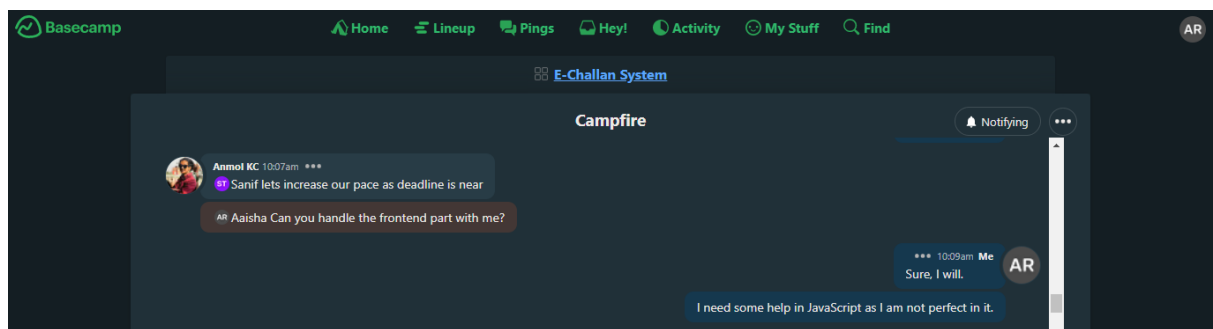


Figure 27 Communication with team through campfire 2

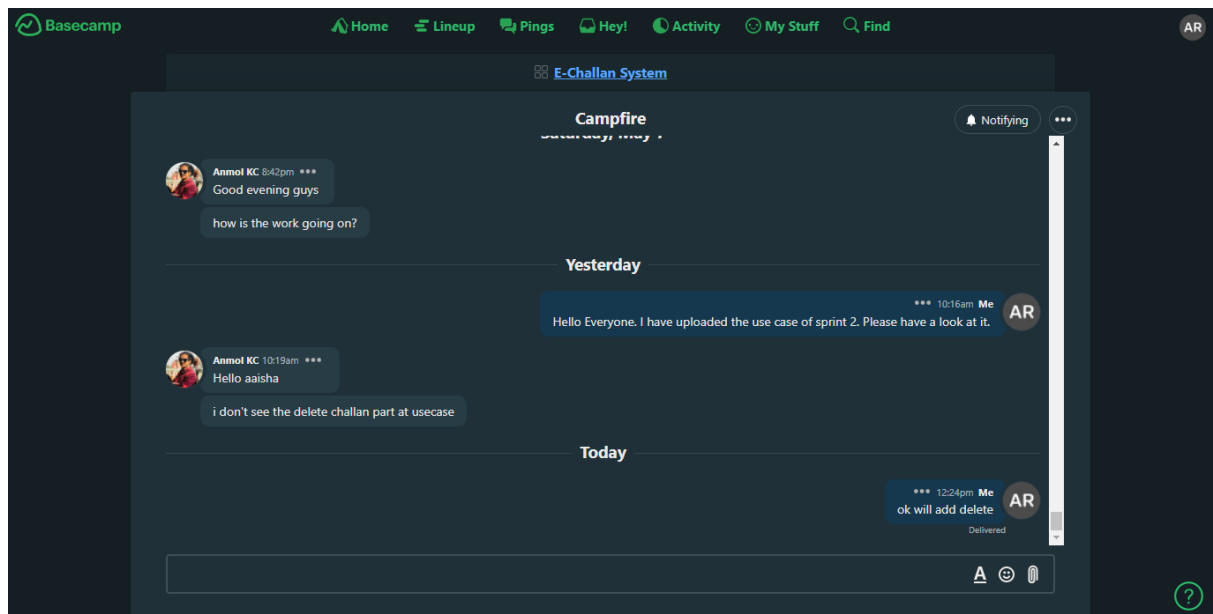


Figure 28 Communication with team through campfire 3

2. Evidence of Continuing Personal Development (CPD)

I tried my best in this sprint and tried not to make the same mistakes as in sprint 1. The sprint main objective was to ensure that the developers' goals and the client's vision aligned.

For this sprint too I have used Balsamiq to create the wireframes and Visual Paradigm, to create UML diagrams (Use case, Activity diagram and ER diagram) of the system.

(Visual Paradigms, n.d.)

As, we were unable to deliver a proper system in sprint 1, due to the developers leaving the team in between the sprint 1, we had faced many problems, and we couldn't deliver a product as planned. In sprint 2 we had lots of tasks to complete and features to implement. We were not able to work on extra user i.e., officer who checks the status of challan if its paid or not due to less time and a smaller number of developers in team. But we successfully worked on admin and traffic officers.

It was necessary to perform functional testing of the system before deploying the product. I have learned to test using numerous websites and tools such as Guru99, tutorialspoint, and others, and I have done my best for testing main functional part of the website. I immediately reported errors I encountered by creating issues on GitHub and assigned the development team to fix it.

In the second sprint, I have gained many additional information and new experience, which assisted me to improve my skill as a Business Analyst. In the future, the skills I obtained will be useful. And I also learned to tackle the problem created while working in a team.

3. Evidence of Issue tracking

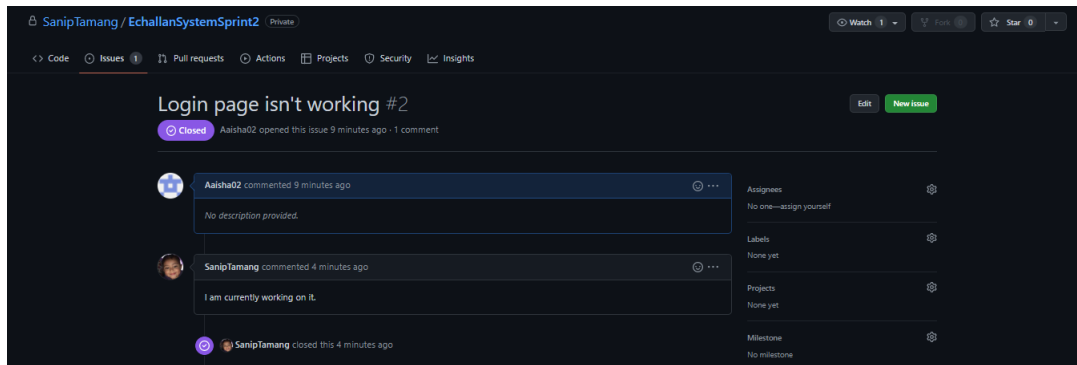


Figure 29 Issue for login page not working

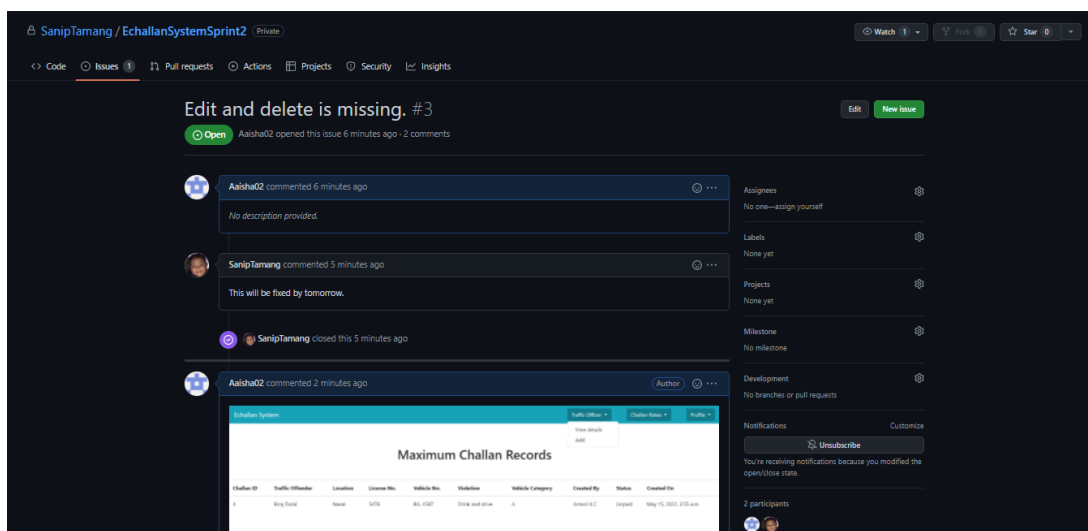


Figure 30 Issue for edit and delete missing

References

Martin, M., 2022. *Guru99*. [Online]

Available at: <https://www.guru99.com/introduction-business-analysis.html>

[Accessed 16 05 2022].

Visual Paradigm, n.d. *Visual Paradigm*. [Online]

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[Accessed 16 05 2022].