

IS-F341 Software Engineering (II - 2019-20)

T15 & Travellite

<https://tranquil-oasis-05127.herokuapp.com/>



Final Report

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Student ID	Name	Role (PO+DEV/SM+DEV/DEV)
2017A7PS0108H	Dhruv Gupta	DEV
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2017A7PS0083H	Saarthak Jain	DEV

Section 1 – Project Overview

BITS Pilani Hyderabad Campus is situated on the outskirts of the city and travelling alone especially to the airport costs you a fortune! Travelling on bus with luggage is tiresome and inconvenient. It is therefore desired to find some people travelling to the same destination around the same time so that you could share a cab and hence save money. However finding the right people willing to share a cab with you is quite time consuming and requires a lot of coordination.

Travel@BPHC : a Facebook group is used for finding people to share a cab where people share their travelling details through a post expecting others to notice and reply. But these Facebook posts are bound to be mixed with other unimportant feed stuff, which often results in the person missing relevant posts regarding their journey. Also, most comments end up as spam in the comments section.

Enter Travellite !

We aim at building a website where people can post their travelling details and others can search applying appropriate filters. Users can create a new post. Other people can view this post and can choose which group to join as per their convenience. The post owner will be notified of joining requests from other members and can accept any one of his/her choice. Users can leave the group in case of schedule change and join another group without worrying about the hassle involved in informing the other members of this change. At the end of each ride the application will display the cab fare and the respective dues. Users can also view their previous rides and transaction history. This reduces the effort involved in finding the right cab sharing group and also removes the element of spam which is involved in the current situation.

Section 2 – To-be Work System Snapshot

Customers		Product/Services	
<ul style="list-style-type: none">• Students• Faculty• BITS Administration		<ul style="list-style-type: none">• Cab Group Search• Cab Fare Split	
Major Activities and Processes			
<ul style="list-style-type: none">• Faculty members register by entering their email id along with other necessary details.• Student registers on the website by entering his details.• Admin authorizes registered official accounts.• User(faculty or student) searches for posts based on his/her preferred date,time and location.• User can join existing groups to the same location based on the search results obtained.• User can also add a new post with his travel details,thus becoming a post owner.• Post owner (user who created the post) is notified when a new member requests to join a group.• Postowner can accept/reject a user's request to join.• Each user in a group is reminded about the journey and contact details via email prior to the journey.• Post Owner enters the fare on the website once the journey is completed.• Each user is notified about their respective dues after the ride.• User can view his previous transactions and rides in his profile page.• User can report the post owner or another user to the admin,after the journey.• Admin can add/delete new location and time slots based on user demands and statistics.• Admin can block a user based on multiple reporting incidents.• Admin can view statistics/usage of the website through his/her dashboard.			
Participants		Information	Technologies
<ul style="list-style-type: none">• Student• Faculty members• Staff members• Administration• Office members		<ul style="list-style-type: none">• User details• Location description• Time of Visit• Cab Fare	<ul style="list-style-type: none">• Database software• Email software• Client/Server model

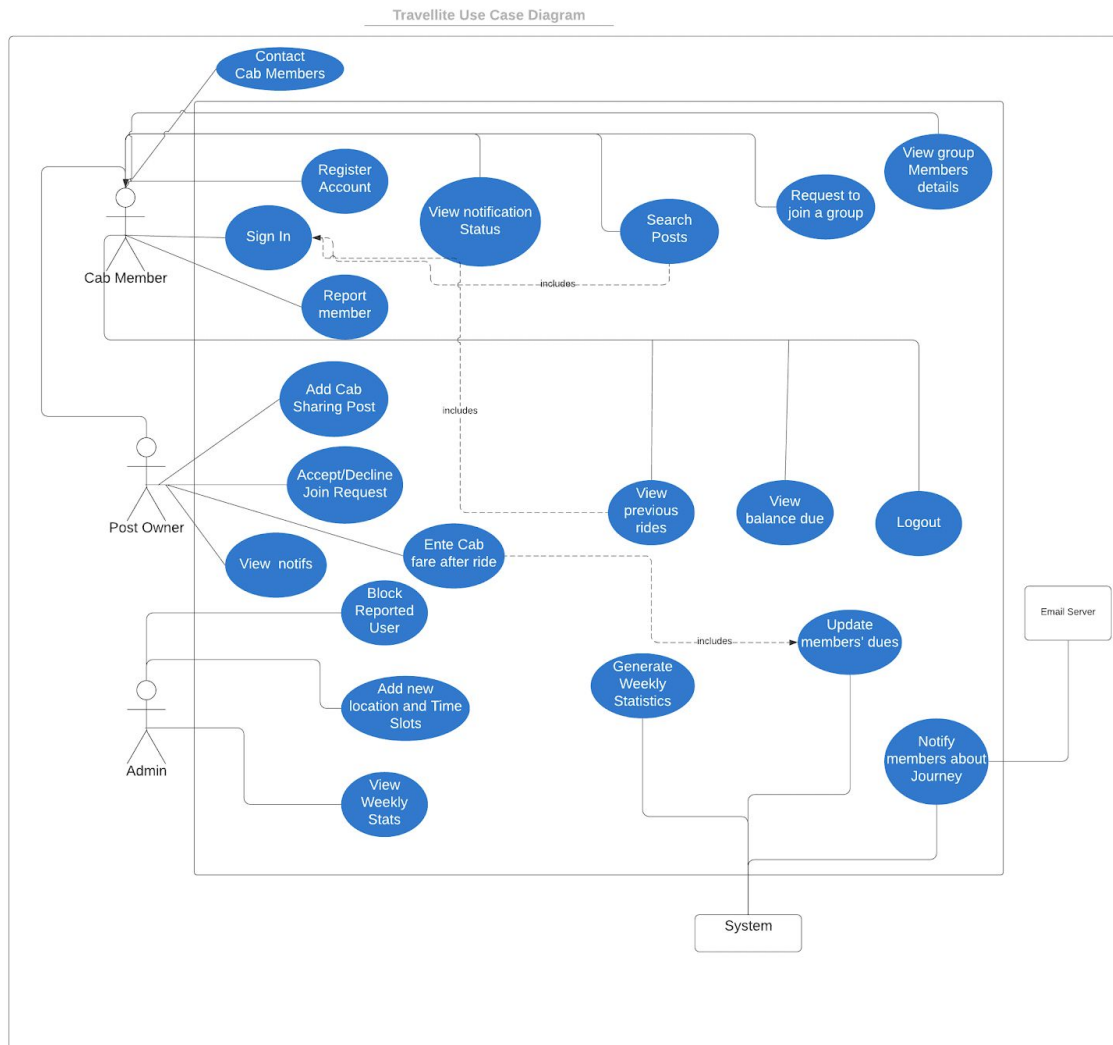
Section 3 – Product Backlog

ID	As a/an	I want to..	so that..	Type	Estimate
1	User	Login/Register to the website	I can access the portal	Feature	M
2	User	Search for posts	I can find companions going on the same day	Feature	M
3	User	Sort and filter posts	I can conveniently view posts according to the location I wish to travel.	Feature	L
4	User	Request to join a group	I can travel with members already travelling to the same place	Feature	M
5	User	Add a new post	I have an alternative for my convenience	Feature	H
6	User	View my previous rides	I can check my frequency of travelling	Feature	L
7	User	View amount due to others	I can pay and clear the amount	Feature	L
8	User	Be notified about my journey	All group members are notified and there is no delay	Feature	M
9	User	Report another group member	Malicious users can be blocked	Feature	L
10	PostOwner	Enter the cab fare on the portal	I can split the fare evenly	Feature	M
11	PostOwner	Maintain(update,delete) post details	Other users are well aware	Feature	M

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12	PostOwner	Send notifications to accepted members	The group is formed and there is no delay	Feature	M
13	PostOwner	Accept/Reject a join request	I can choose with whom I wish to travel	Feature	H
14	Admin	View usage statistics	I can analyse and get insights out of it	Feature	L
15	Admin	Block reported users	The portal remains free of spammers	Feature	M
16	Admin	Validate new users	I can restrict access to certain valid users	Feature	M
17	Admin	Add new locations and time slots	The portal can be utilised to the maximum	Feature	L

Section 4 - Use case diagram and descriptions



<use case 1>

Name	Join a Cab Group
Description	User wants to join a cab group suiting his/her journey needs.
Actors	Faculties and Students of BPHC
Trigger	User wants to share the cab so that it is economical to him
Preconditions	<ul style="list-style-type: none"> • User has already registered and is a valid user. • User has entered his/her journey details.
Postconditions	User has been successfully added to his desired cab group.
Main course	<ol style="list-style-type: none"> 1. User registers and logs in to the Travellite App.(see EX1) 2. User searches the post according to his source and destination details along with the date of travel.(see AC1,AC3) 3. User requests the post owner on finding an appropriate post(see EX2) 4. User send multiple such requests to different post owners. 5. One of the Post Owners accepts his/her request.(see AC2) 6. User is successfully added to a suitable group.
Alter nate courses	<p>AC1. User doesn't find any post matching his requirements</p> <ol style="list-style-type: none"> 1. User can add his own new post. 2. Redirect to new post page. <p>AC2. None of users' requests get accepted.</p> <ol style="list-style-type: none"> 1. The user can wait or add a new post of his own. <p>AC3. The user enters a past date/time.</p> <ol style="list-style-type: none"> 1. System prompts "Invalid date".
Exceptions	<p>EX1. User is not able to register</p> <ol style="list-style-type: none"> 1. User is not a valid BITS user . 2. System prompts ("Invalid user,access not allowed"). <p>EX2.Request sent by the user is not received by the post-owner</p> <ol style="list-style-type: none"> 1. The page becomes unresponsive and keeps loading. 2. User should resend the request after some time. 3. Alternatively,the user may wait for some time for the site to reload.

<use case 2>

Name	Add a new post
Description	User wants to add a new post regarding his journey details.
Actors	Faculties and Students of BPHC
Trigger	User wants to find cab companions for his journey.
Preconditions	<ul style="list-style-type: none"> • User has already registered and is a valid user. • User wants to search for suitable cab groups but he doesn't find one.
Postconditions	User's post has been successfully added to the database and he is able to receive join requests from other members.
Main course	<ol style="list-style-type: none"> 1. User registers and logs in to the application.(see EX3) 2. Users searches post relevant to his travel details but is unable to find one.(see AC1) 3. User enters the appropriate location details,date and number of preferred members..(see EX1) 4. A new post entry is created on pressing the submit button.(see EX2) 5. User is redirected to new posts page.
Alternate courses	AC1 User is able to find a post matching his requirements <ol style="list-style-type: none"> 1. User requests the post owner to join the group. 2. The user can/cannot create a new post based on the acceptance of the request.
Exceptions	EX1. User enters a past date/time <ol style="list-style-type: none"> 1. System prompts to enter a valid date. EX2 System fails on saving new post <ol style="list-style-type: none"> 1. System notifies the user that an error has occurred. 2. Redirect to the new post page. EX3 User enters wrong credentials <ol style="list-style-type: none"> 1.System prompts "Incorrect credentials" 2.Redirect to Login Page

<use-case-3>

Name	Add new location and time slots
Description	User wants to view previous travel history
Actors	Admin
Trigger	User wants to keep a record of his previous travel history.
Preconditions	<ul style="list-style-type: none"> • Admin has logged in into his account. • Admin goes through the current app locations and time slots so that he makes appropriate changes to the app.
Postconditions	Admin successfully changes the app details.
Main course	<ol style="list-style-type: none"> 1. Admin logs in to his account. 2. Admin goes through the current locations and time slots. 3. Admin goes through the statistics provided by the app.(see AC2,EX1) 4. Admin analyzes the changes suggested by the app.(see AC1) 5. Admin adds the relevant locations and time slots to the app.(see EX2) 6. App is successfully modified with new information.
Alternate courses	<p>AC1.Admin dosen't go through the statistics provided by the app.</p> <ol style="list-style-type: none"> 1. Admin wants to add some very necessary information so he/she ignores the app suggestions.(goto step 5) <p>AC2.</p> <ol style="list-style-type: none"> 1.The suggestion provided by the app have very low confidence levels.(see AC1)
Exceptions	<p>EX1.Suggestions are not provided by the app</p> <ol style="list-style-type: none"> 1. App has very low data values to predict correctly any changes(see AC1) <p>EX2.System fails to modify the details suggested</p> <ol style="list-style-type: none"> 1. System prompts an error. 2. System prompts the admin to remodify the changes done.(goto step 5)

<use case 4>

Name	Receiving Notifications
Description	Users want to receive notifications about posts added and requests made for other posts
Actors	Faculties and Students of BPHC
Trigger	User wants to get notified about the status of his/her requests.
Preconditions	<ul style="list-style-type: none"> • User has logged in into his account. • User has posted a cab group request • User has requested some other post-owner for joining his/her group
Postconditions	User receives notifications about his posts and requests through the app.
Main course	<ol style="list-style-type: none"> 1. User logs in to his account. 2. User searches post relevant to his travel details.(see AC1) 3. User requests the post-owner on finding an appropriate post. 4. User successfully receives notification about all the requests made,or his upcoming journeys.(see EX1,EX2)
Alter nate courses	<p>AC1. User doesn't find any appropriate post relating to his/her travel details</p> <ol style="list-style-type: none"> 1. User may post a new cab group post.(see EX2) 2. User receives request notifications on his post from other app users who share the same journey details.(see EX1)
Exceptions	<p>EX1.Notifications are not received</p> <ol style="list-style-type: none"> 1. System prompts "Notifications not received,Refresh and try Again". <p>EX2 System does not display notifs</p> <ol style="list-style-type: none"> 1. System notifies the user that an error has occurred. 2. System prompts the user to retry after some time.

Section 5 – User Personas

Student 1

Vatsal Bindal



"I want less hassle in finding the right people for cab sharing."

Age: 22
Work: Student
Location: Hyderabad
Character: Intellectual

Studious

Hardworking

Economical

Careful

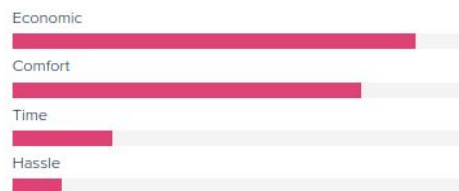
Bio

Vatsal is a final year student at BITS Pilani. Being highly interested in the field of research, he attends various conferences throughout the country. He travels at least 3 times a month and faces the problem of finding people who can share the travelling cost to the airport which is approximately Rs.2000 per trip. Although he has a pre-decided travel schedule, he finds it very difficult to form a group of cab sharing individuals. He wants a platform which allows him to post his travel details well in advance, so that he can connect with the right people to have an economical trip to the airport.

Personality



Motivation



Goals

- Have a cheaper journey to the airport
- Plan his airport trips well in advance
- Reduce the hassle of finding people up for sharing a cab

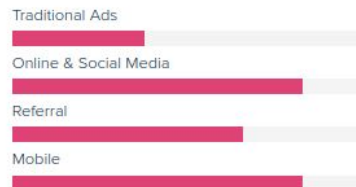
Frustrations

- Does not want to spend so much time making arrangements for cab sharing
- Travelling to the airport alone is very expensive
- Finding the right people and contacting them is a hassle

Brands & Influencers




Preferred Channels



Professor

Vaani Pathak



Bio

Vaani is an assistant professor at Department of Computer Science at BITS Pilani, Hyderabad Campus. She lives in campus but her family lives in the city. She visits her family every weekend. She does not prefer driving herself because of the long distance and hectic traffic. She therefore likes travelling by a cab. She thinks it would be great if she had some company while travelling. As she lacks an informal way of communication to ask students about their weekend plans and their willingness to share a cab, she expects an application to help her connect with them.


Goals

- To find students who can give her company.
- To share a cab on weekend to the city.


Frustrations

- Feels unsafe travelling alone.
- Unable to find travel companions.

Brands & Influencers




Preferred Channels



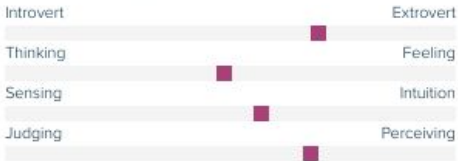
Channel	Preference Level (0-100)
Chrome	75
Social Media	40
Referral	65

Motivation



Motivation Factor	Level (0-100)
Visit Family	85
Fear	45
Comfort	70
Social	75

Personality



Personality Trait	Level (0-100)
Introvert	10
Extrovert	90
Thinking	40
Feeling	60
Sensing	20
Intuition	80
Judging	10
Perceiving	90

Profile Summary

"I want a safe and enjoyable journey."

Age: 45
 Work: Assistant Professor, CS
 Department:
 Family: Joint Family
 Location: Hyderabad, Telangana
 Character: Social

Cheerful Discipline
 Organized Creative

Student 2

Aditya Jain



"I am looking for a site that will easily find me people to share cab with."

Age: 18
Work: Student
Family : 2 parents
Location: Hyderabad, Telangana

Gamer

Anime

Home-sick

Lonely

Bio

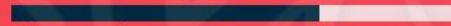
Aditya is a first-yearite and is living alone for the first time. He's a bit homesick and goes back home frequently. He has not made many friends and usually cannot find someone to share a cab. Eventually he travels to the airport alone. He is shocked and frustrated that the amount he spends on a cab from campus to airport and return, is similar to the one way flight ticket. He expects an application where he can easily share his travel details and contact desired people and save a handful of money.

Motivation

Incentive



Convenience



Willing to spend money



Time



Social



Personality

Introvert



Miser



Friendly



Shy



Goals

- To find people for cab sharing.
- Split the cab fare and save some money.

Frustrations

- Unable to find people to share cab at desired date and time.
- Lot of money spent on cab from campus to airport and vice versa.

Brands & Influencers

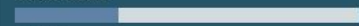


Preferred Channels

Chrome



Social Media




Mobile



Admin

Manoj Patnaik



Bio

Manoj Patnaik works at Student Welfare Department at BITS Pilani Hyderabad Campus. He wants to help students find people to share cab quickly. He wants to ensure there is no unnecessary spamming in the group. He ensures that anyone creating chaos in the group is banned from using the functionalities of the site.

Goals

- Students use the portal to find cab groups
- Reduce spamming

Frustrations

- People join and leave groups quite frequently
- People add multiple posts for the same journey.

"I want a safe and enjoyable journey."



Age: 35
Family: Married
Location: Hyderabad, Telangana

Lazy Discipline
Stubborn

Motivation

Incentive
Fear
Power
Social

Brands & Influencers

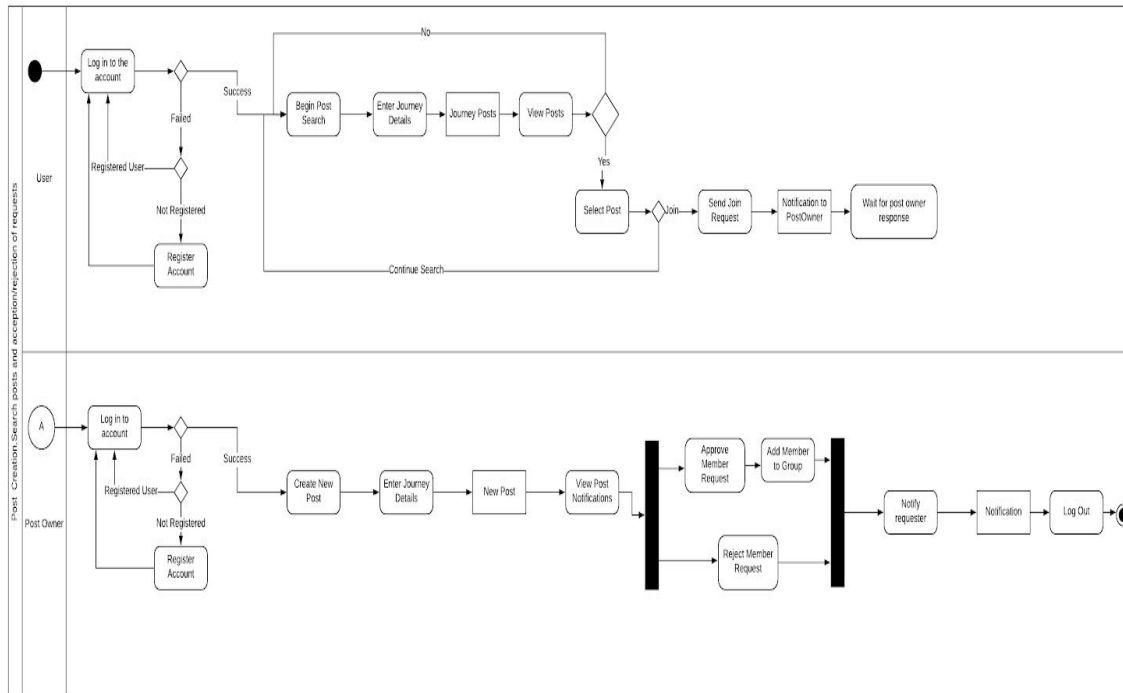
Personality

Introvert Extrovert
Thinking Feeling
Sensing Intuition
Judging Perceiving

Preferred Channels

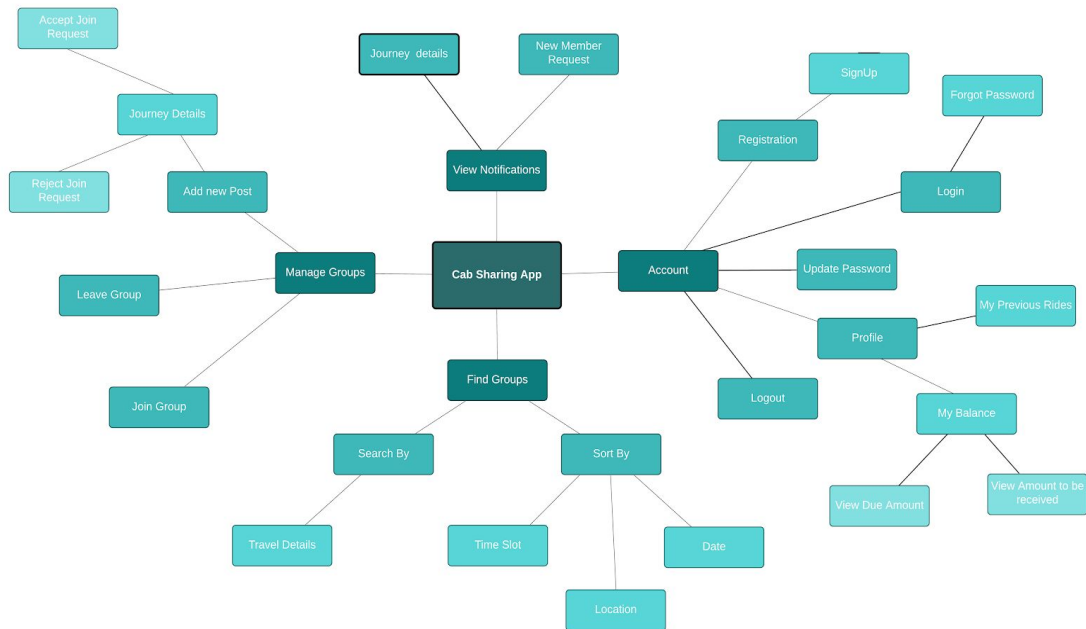
Chrome
Social Media
Emails/Notifications

Section 6 - Activity diagram



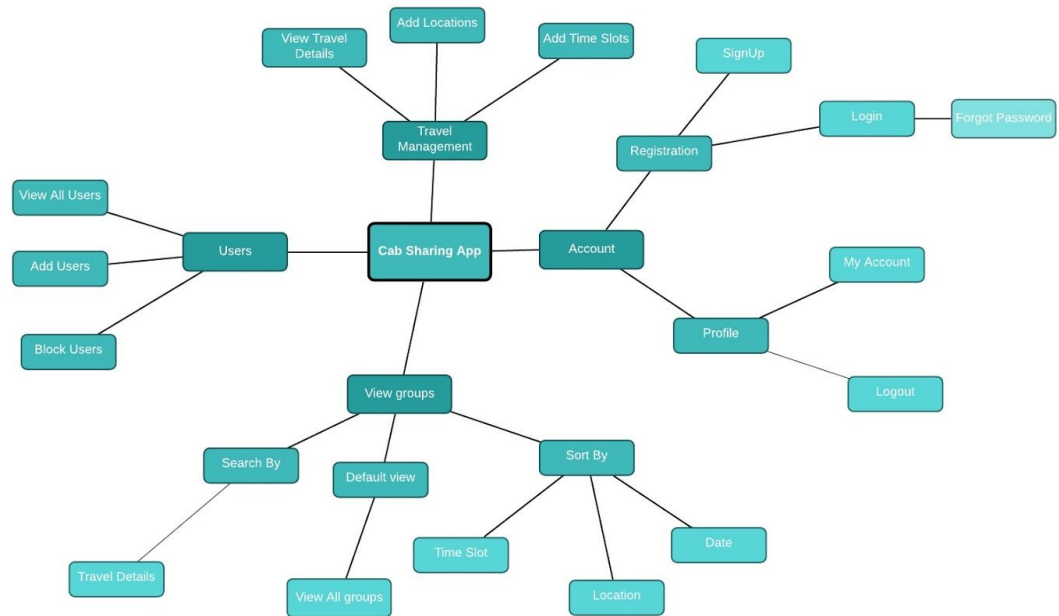
Section 7 – Mind maps for Personas

Faculty Mind Map

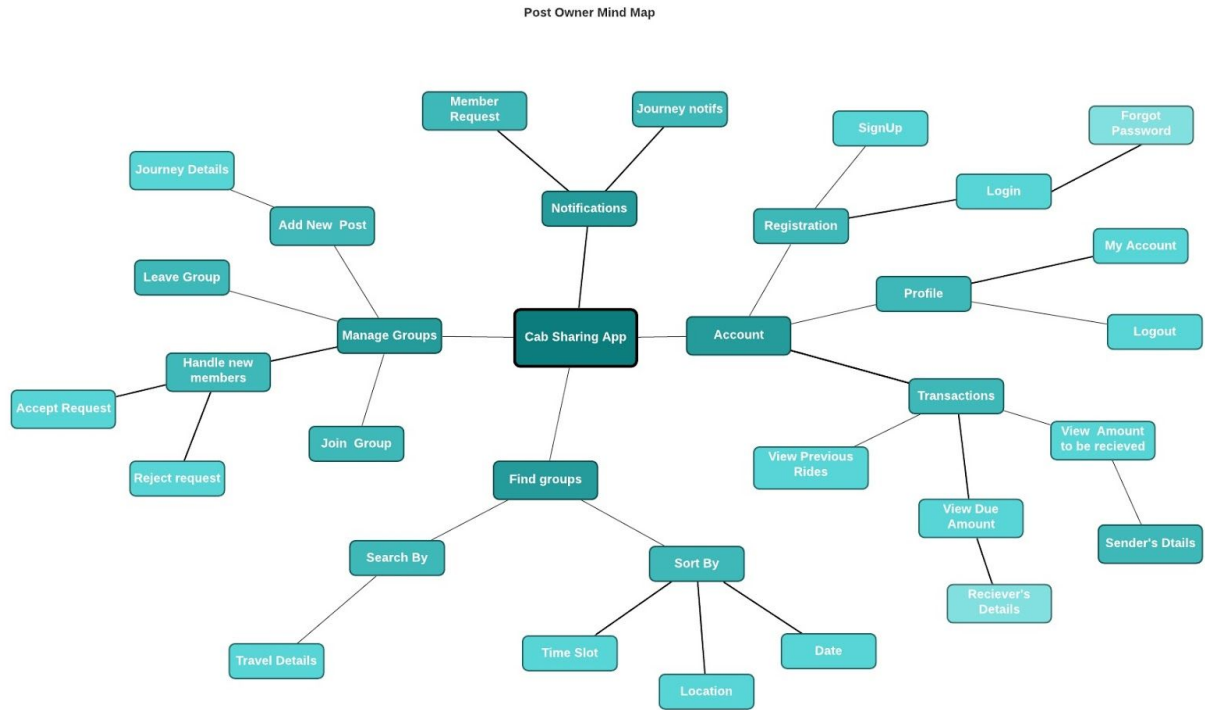


Admin Mind Map

Admin Mind Map



PostOwner (Can be a Student or Faculty) Mind Map

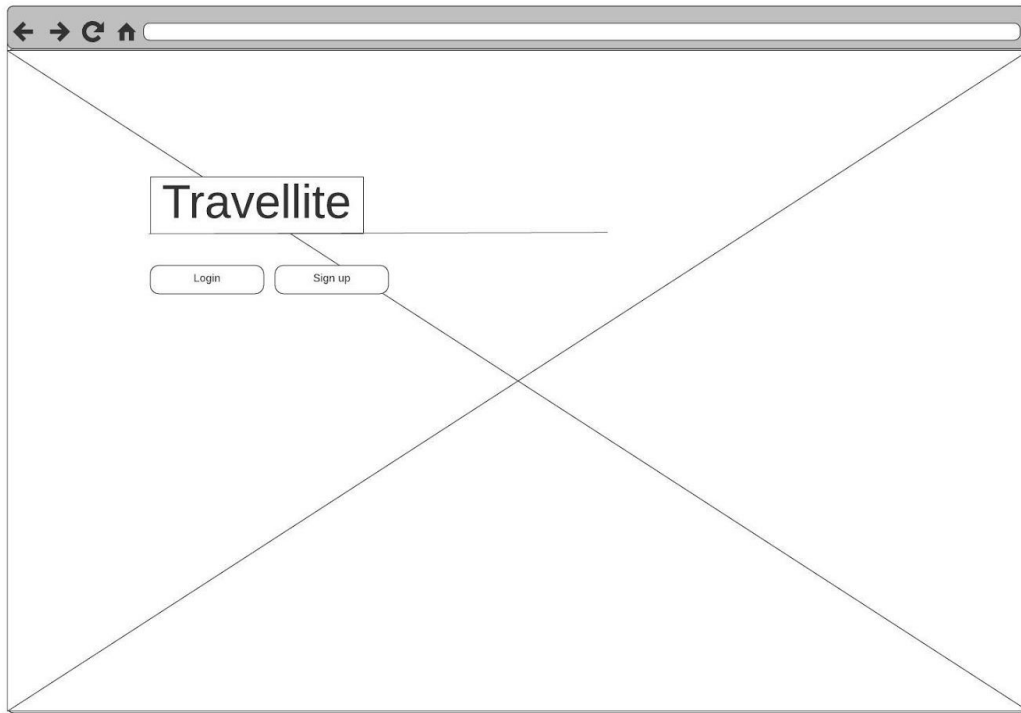


Section 8

Home Page

Home Page Basic Wireframe

SHIKHAR SANJAY DHAWALE . | April 7, 2020



Login page

Login Page Basic Wireframe

SHIKHAR SANJAY DHAWALE : | April 7, 2020



The wireframe illustrates a login page for 'Travellite'. It features a browser window with a header containing a logo placeholder and the brand name. The main content area is centered with a login form that includes input fields for username and password, a login button, and a link for new users. The footer contains a navigation menu with links to 'About Us', 'Terms Of service', 'License', and 'Contact Us!'.

← → ↻ ⬆

Logo Travellite

Enter Username

Enter Password

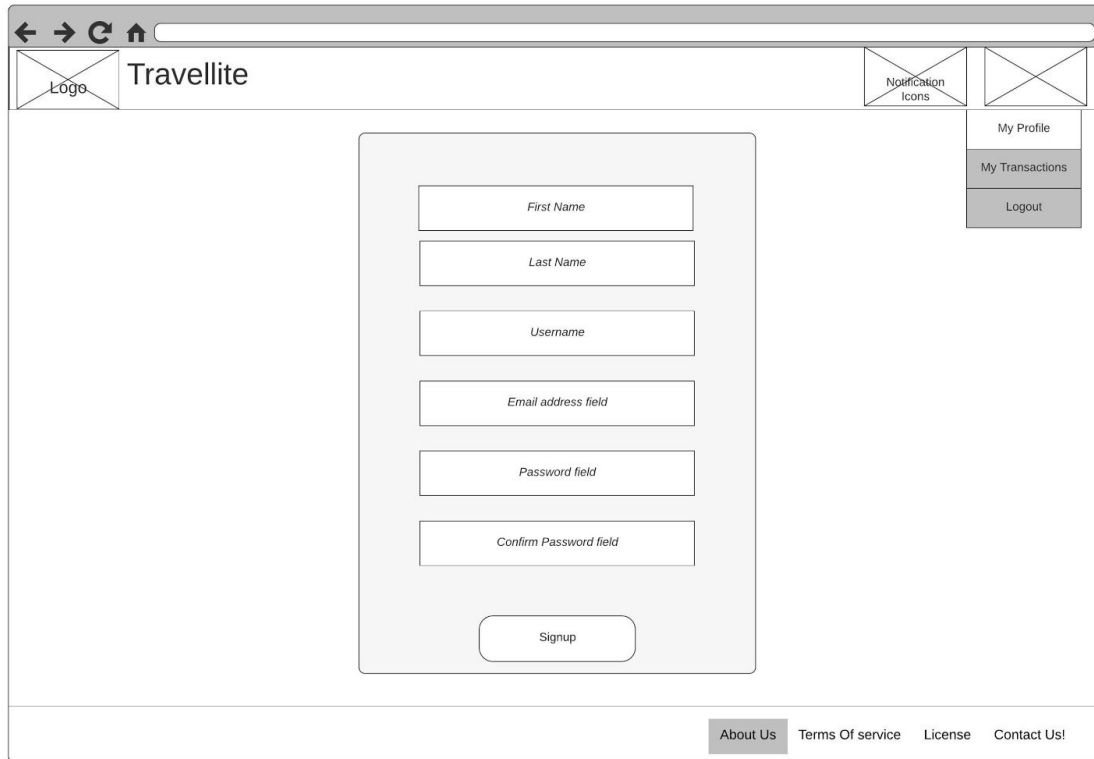
Login

Not registered?
Signup here

About Us Terms Of service License Contact Us!

SignupPage

Signup Page



← → ↻ ⬆

Logo Travellite Notification icons

My Profile
My Transactions
Logout

First Name

Last Name

Username

Email address field

Password field

Confirm Password field

Signup

About Us Terms Of service License Contact Us!

Search Page

Search Posts Page Wireframe

Travellite

←→↻🏠

X

Logo

X

Notification icon

My Profile

My Transactions

Logout

Source ▼

Destination ▼

March 2010 ▶

Search

Source

Destination

Date

1. Member1 name

2. Member2 name

3. Member3 name

Join Group

1. Member1 name

2. Member2 name

3. Member3 name

Join Group

1. Member1 name

2. Member2 name

3. Member3 name

Join Group

New Post Button

About Us

Terms Of service

License

Contact Us!

Add Post

Add Post

SHIKHAR SANJAY DHAWALE . | April 7, 2020

← → ↺ ⬆

Logo Travellite Notification Icons

My Profile
My Transactions
Logout

Add new Post

Source ▼

Destination ▼

March 2020

Time Slot

Submit

T

About Us Terms Of service License Contact Us!

My Profile Page

My Profile

SHIKHAR SANJAY DHAWALE · | April 7, 2020

Travellite

Notifications

▼

Profile

Account

Logout

About Us

Full Name

Email

Mobile Number

Username

Password

Edit Info

My Account

My Account

SHIKHAR SANJAY DHAWALE - | April 7, 2020

Travellite

Notifications

▼

Profile

Account

Logout

About Us

Upcoming Rides

Previous Rides

My Posts

Upcoming Rides

Source

Destination

Date

1. Member1 name

2. Member2 name

3. Member3 name

Leave

Source

Destination

Date

1. Member1 name

2. Member2 name

3. Member3 name

Leave

Source

Destination

Date

1. Member1 name

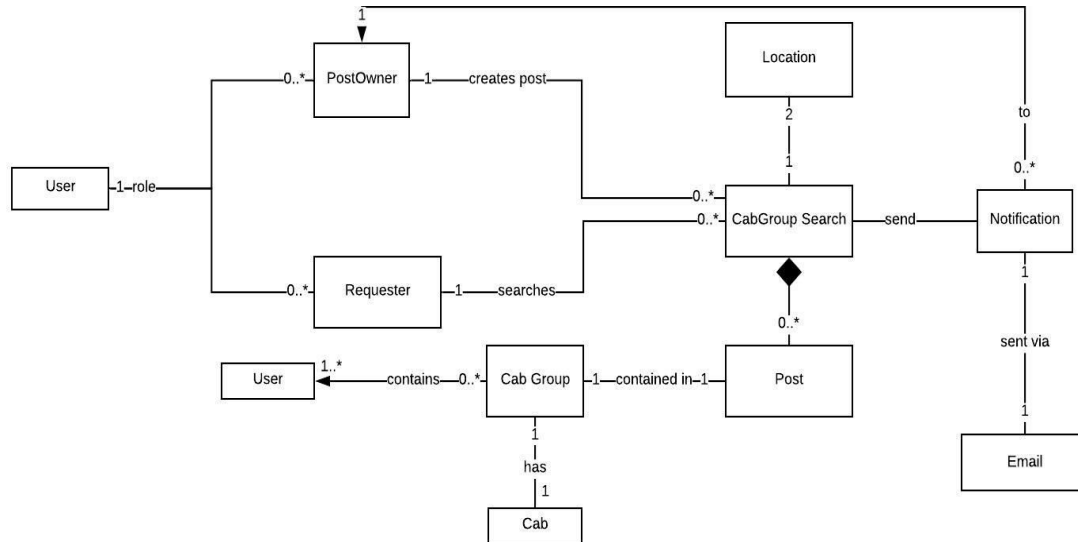
2. Member2 name

3. Member3 name

Leave

Section 9 – Class diagram

<attributes and operations should be listed on the following pages as a table; about 8 to 10 classes are expected with relationships>



Attributes and operations

Class name	Attributes	Operations
User	<ul style="list-style-type: none"> • Id • Name • email • Mobile • Username • Password • requests:[] • confirmed : [] 	addUser(Name,email,Moblie,Username,P assword) getUserDetails(Username) authenticateUser(Username>Password) updateUserDetails(Username,Name , email, Mobile, Password)
CabGroup	<ul style="list-style-type: none"> • GroupId • Post Owner • CabType • Members : [] 	addMemberToGroup(GroupId,UserName)
Post	<ul style="list-style-type: none"> • PostId • OriginalPoster • SourceLocation • DestinationLocation 	addPost(OriginalPoster, SourceLocation, DestinationLocation, Date, Time, CabType),

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	<ul style="list-style-type: none"> • Date • Time • CabType 	searchPosts(SourceLocation, DestinationLocation, Date, Time), deletePost(PostId)
Location	<ul style="list-style-type: none"> • Name • Address • ZipCode 	addLocation(Name, Address, ZipCode) deleteLocation(Name)
Cab	<ul style="list-style-type: none"> • Name • Seat Capacity • Cab Type 	getType() , getIDNumber() , hasCarrier()
Email	<ul style="list-style-type: none"> • To • From • Subject • Body 	sendEmail(To, From, Subject, Body)
Notification	<ul style="list-style-type: none"> • PostId • NotificationType(Request/Leave) • status • PostOwner • Requester 	rejectRequest(PostId,Requester,postOwner) acceptRequest(PostId,Requester,postOwner) getNotifications(PostOwner,NotificationType)

NoSQL documents

Collection name	Document Structure (field names)
User	User { name, email, mobileNumber, username, password, [requests], [confirmed] }
Post	Post { postOwner, [members], sourceLocation, destinationLocation, date, timeSlot, people, isFilled, }
Notification	Notification{ postOwner, postId, typeofNotif, requester }

References vs Embedding

User is referenced through userName inside Post document because size of information present in one User document is large. As the number of users increase in a particular Post document, it's space taken in memory increases. Moreover, Users and Posts follow a many-to-many relationship. Therefore it is preferable to use referencing rather than embedding.

Post is referenced through postId inside Notification document because Post and Notification has a one to many relationship. Each post can have many requests and a notification is created for each request. So if we embed post document inside notification then we will be storing a lot of redundant information. Similarly we are also referencing userId of both the requester and the PostOwner(username) because the user document contains various fields which are irrelevant with respect to the Notification.

We could have created a new document for members of every post. But since the child component members are always required while viewing the post, we chose to embed it inside post itself. Also, members is a small list of at max people and hence creating a new document separately for that is not required.

We tried to avoid denormalization because earlier we thought of giving the user the functionality to be able to update post details. And so storing location and time details inside notification which is duplicacy and in other words denormalization would have been very costly, as regular updates would mean that we had to update these values from both Post as well as Notification. However as time progressed and the world was hit by corona, we too were hit with a setback and had to drop the idea of allowing updates to the post by the user.

Section 10 – Acceptance Criteria and Unit/UI Test Scripts

<acceptance criteria in GWT format for TWO important activities related to transactions;
 representative unit test scripts for TWO methods related to the above activities;
 representative UI test scripts related to the above transactions>

GWT CRITERIA:

Scenario	Given	When	Then
User wants to register a new Account	User is a valid BITS user	1.All entered details are valid	1.System prompts the message "User Added to the Database"
		2.Some of Details entered are invalid	2.System prompts the message"Enter Valid Details"
	User is not a valid BITS user.	1.All entered details are valid	1.System prompts "User is invalid"
		2.Some of Details entered are invalid	2.System prompts "User is invalid"

Scenario	Given	When	Then
User wants to join a cab group	User searches for posts on the website.	1.Date entered is a past date	1.System prompts "date is invalid" and asks to re enter details
		2.User types a location which is not present in the list.	1.System prompts "Location is not currently added.We will add it soon!"

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User wishes to view his account details	User visits his profile page and searches for his previous rides	The user is using the app for the first time and hence his list of rides are empty.	1.The system informs the user that there are no previous rides or to report the admin if there seems to be another issue.
User wishes to travel to a location on a particular date	User creates a new post	1.The user has used the website multiple times. 2.User enters invalid locations/date. 3.User does not add any members travelling with him.	1.The system displays the list of rides along with the location,date and fare . 2.System prompts “enter valid details” 3.System prompts for confirmation about the number of members.

Home Page Tests

```
describe('The Home Page', function () {
  beforeEach(function(){
    cy.server()
    cy.route({
      method: 'GET',
      url: 'https://cloud.mongodb.com/v2/5e32fd95c56c98eb42132aed#metrics/replicaSet/5e457c',
      response: 'fixtures:post_list.json'
    })
    //console.log(cy.route.response)
  })
  it('successfully loads', function() {
    cy.server() // enable response stubbing
    cy.route({
      method: 'GET', // Route all GET requests
      url: 'https://cloud.mongodb.com/v2/5e32fd95c56c98eb42132aed#metrics/replicaSet/5e457d0d9',
      response: 'fixtures:post_list.json' // and force the response to be: []
    })
    cy.visit('/login')
  })
  it('Home page login link',function(){
    //cy.contains('Log in')
    cy.contains('Register')
      .invoke('attr','href')
      .then(href => {
        expect(href).to.equal('/register')
      })
  })
})
})
```

Output

▼ The Home Page

✓ successfully loads

▼ ROUTES (2)

Method	Url	Stubbed	Alias	#
GET	https://cloud.mongodb.com/v2/5e32fd95c56c98eb42132aed#metrics/replicaSet/5e457d0d9ccf649963ec65ac/explorer/Travellite/users/find	Yes		-
GET	https://cloud.mongodb.com/v2/5e32fd95c56c98eb42132aed#metrics/replicaSet/5e457d0d9ccf649963ec65ac/explorer/Travellite/posts/find	Yes		-

▼ TEST

1 **VISIT** /login

✓ Home page login link

▶ ROUTES (1) ***

▼ TEST

```
1 CONTAINS Register
2 - INVOKE .attr(href)
3 - ASSERT expected /register to equal /register
```


REGISTER PAGE TESTS

```

describe('The Register Page',function(){
  beforeEach(function(){
    cy.server()
    cy.route({
      method:'POST',
      url:'https:cloud.mongodb.com/v2/5e32fd95c56c98eb42132aed#metrics/replicaSet/5e457c
      response:'fixtures:post_list.json'
    })
    //console.log(cy.route.response)
  })
  it('successfully loads', function() {
    cy.visit('/register')
    //cy.get('h1').should('contain', 'asd.asd')
  })
  it('displays system message for invalid email',function(){
    cy.get('input').eq(0).type('dhruv123')
    cy.get('input').eq(1).type('gupta.com')
    cy.get('input').eq(2).type('9340194537')
    cy.get('input').eq(3).type('dhruv123')
    cy.get('input').eq(4).type('dhruv123')
    cy.get('button').click()
    cy.log('User entered an invalid email')
    cy.get('input').clear()
    cy.on('alert', (str) => {
      expect(str).to.equal('enter valid email')
    })
  })
})

```

```

  it('displays system message for invalid mobile',function(){
    cy.get('input').eq(0).type('dhruv123')
    cy.get('input').eq(1).type('gupta@gmail.com')
    cy.get('input').eq(2).type('934019453')
    cy.get('input').eq(3).type('dhruv123')
    cy.get('input').eq(4).type('dhruv123')
    cy.get('button').click()
    cy.log('User entered an invalid mobile')
    cy.get('input').clear()
    cy.on('alert', (str) => {
      expect(str).to.equal('enter valid mobile number')
    })
  })
  it('successfully takes input and registers an user',function(){
    cy.get('input').eq(0).type('dhruv123')
    cy.get('input').eq(1).type('gupta@gmail.com')
    cy.get('input').eq(2).type('9340194537')
    cy.get('input').eq(3).type('dhruv123')
    cy.get('input').eq(4).type('dhruv123')
    cy.get('button').click()
    cy.log('User successfully entered into the database')
    cy.on('alert', (str) => {
      expect(str).to.equal('Welcome to Travellite')
    })
  })
})

```

Final Report

REGISTER PAGE OUTPUT

▼ The Register Page

- ✓ successfully loads
- ✓ displays system message for invalid email
- ✓ displays system message for invalid mobile
- ✓ successfully takes input and registers an user

▶ ROUTES (1) ...

▼ TEST

1	GET	input	5
2	- EQ	0	
3	- TYPE	dhruv123	
4	GET	input	5
5	- EQ	1	
6	- TYPE	gupta@gmail.com	
7	GET	input	5
8	- EQ	2	
9	- TYPE	9340194537	
10	GET	input	5
11	- EQ	3	
12	- TYPE	dhruv123	
13	GET	input	5
14	- EQ	4	
15	- TYPE	dhruv123	
16	GET	button	
17	- CLICK		
	(XHR)	POST --- /user/add	
18	LOG	User successfully entered into the database	

Search Page Tests

```
describe('The Search Page',function(){
  beforeEach(function(){
    cy.server()
    cy.route({
      method:'GET',
      url:'https:cloud.mongodb.com/v2/5e32fd95c56c98eb42132aed#metrics/replicaSet/5e457d00',
      response:'fixtures:post_list.json'
    })
  })

  it('successfully loads', function() {
    cy.visit('/login')
    cy.get('input').eq(0).type('dhruv123')
    cy.get('input').eq(1).type('dhruv123')
    cy.get('button').click()
    cy.url().should('include', '/search')
  })

  it('Dropdown Visible',function(){
    cy.contains('Source')
    cy.contains('Destination')
  })

  it('About Us Component visible',function(){
    cy.contains('About Us')
  })
})
```

```
    it('Giving Input',function(){
      cy.get('input').eq(0).focus().type('BPHC')
      cy.get('input').eq(1).focus().type('Airport')
      cy.get('input').eq(2).focus().type('2020-04-07',{force:true})
      cy.get('.btn-primary').click()
    })
```

Output:

▼ The Search Page

✓ successfully loads

▶ ROUTES (1) ...

▼ TEST

1	VISIT	/login	
2	GET	input	2
3	- EQ	0	
4	- TYPE	dhruv123	
5	GET	input	2
6	- EQ	1	
7	- TYPE	dhruv123	
8	GET	button	
9	- CLICK		
	(XHR)	● POST 200 /user/authentication	
10	URL		
11	- ASSERT	expected http://localhost:3000/search to include /search	
	(NEW URL)	http://localhost:3000/search	

✓ Dropdown Visible

▶ ROUTES (1) ...

▼ TEST

1	CONTAINS	Source
2	CONTAINS	Destination

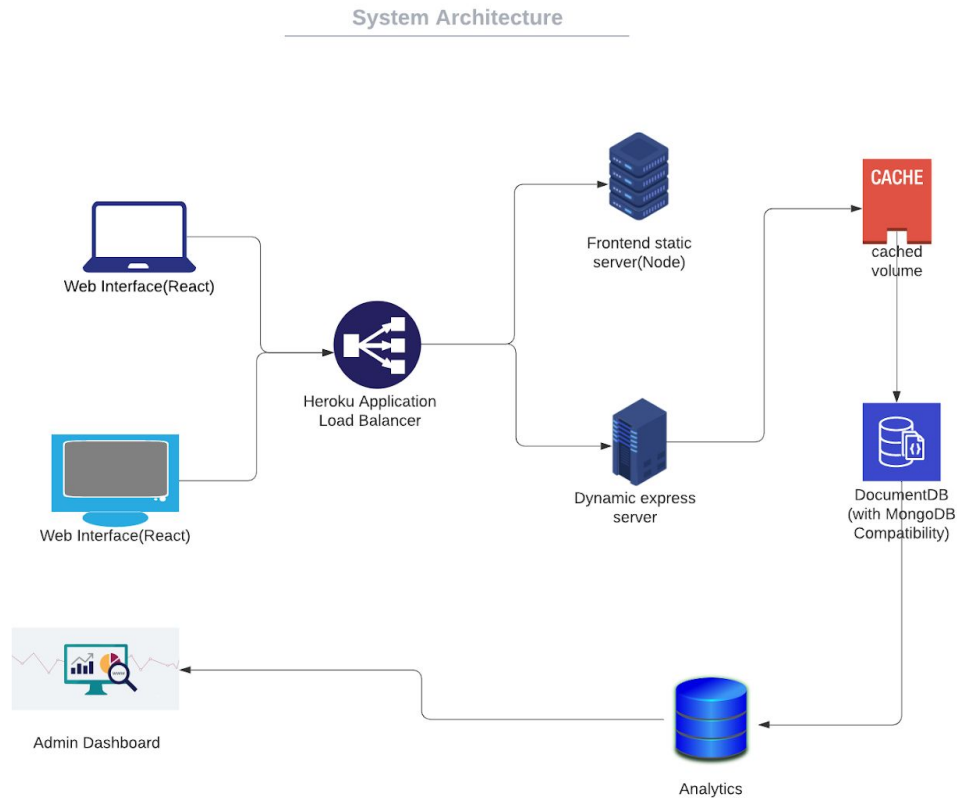
✓ About Us Component visible

▶ ROUTES (1) ...

▼ TEST

1	CONTAINS	About Us
---	----------	----------

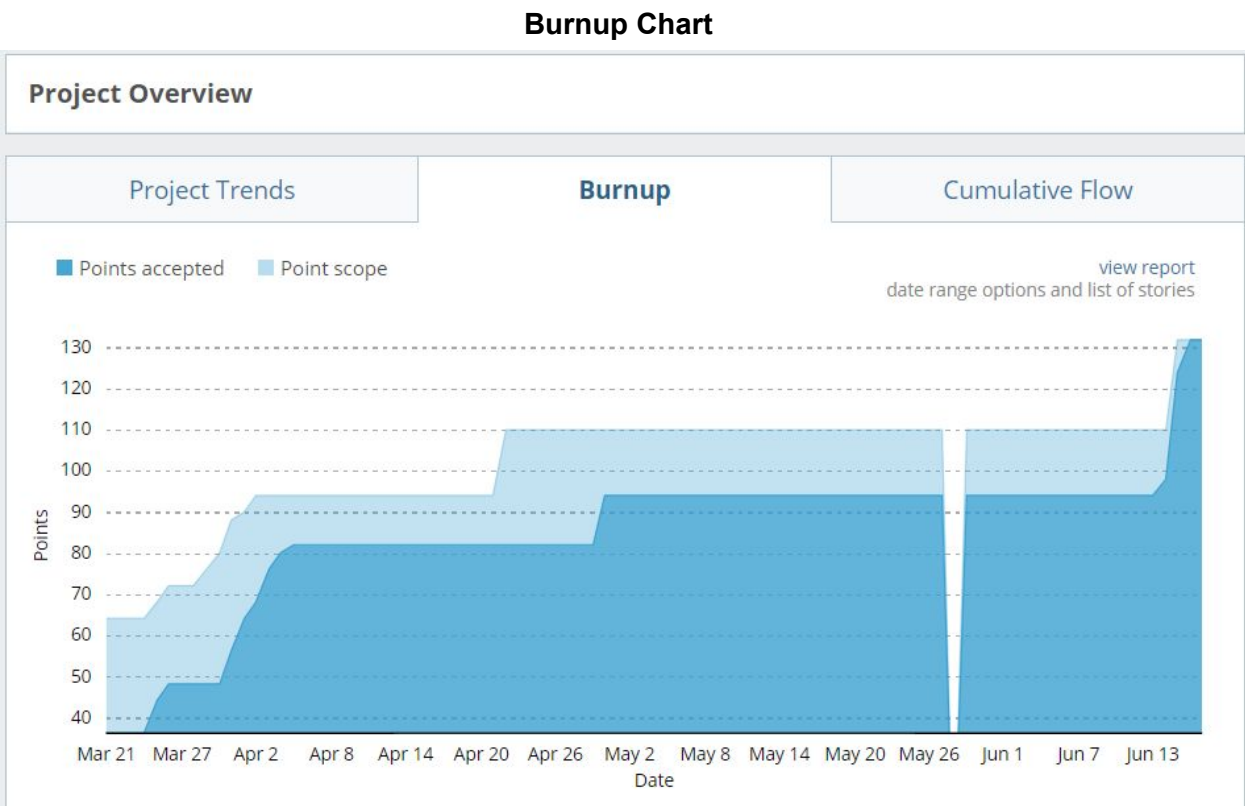
Section 12 – System Architecture



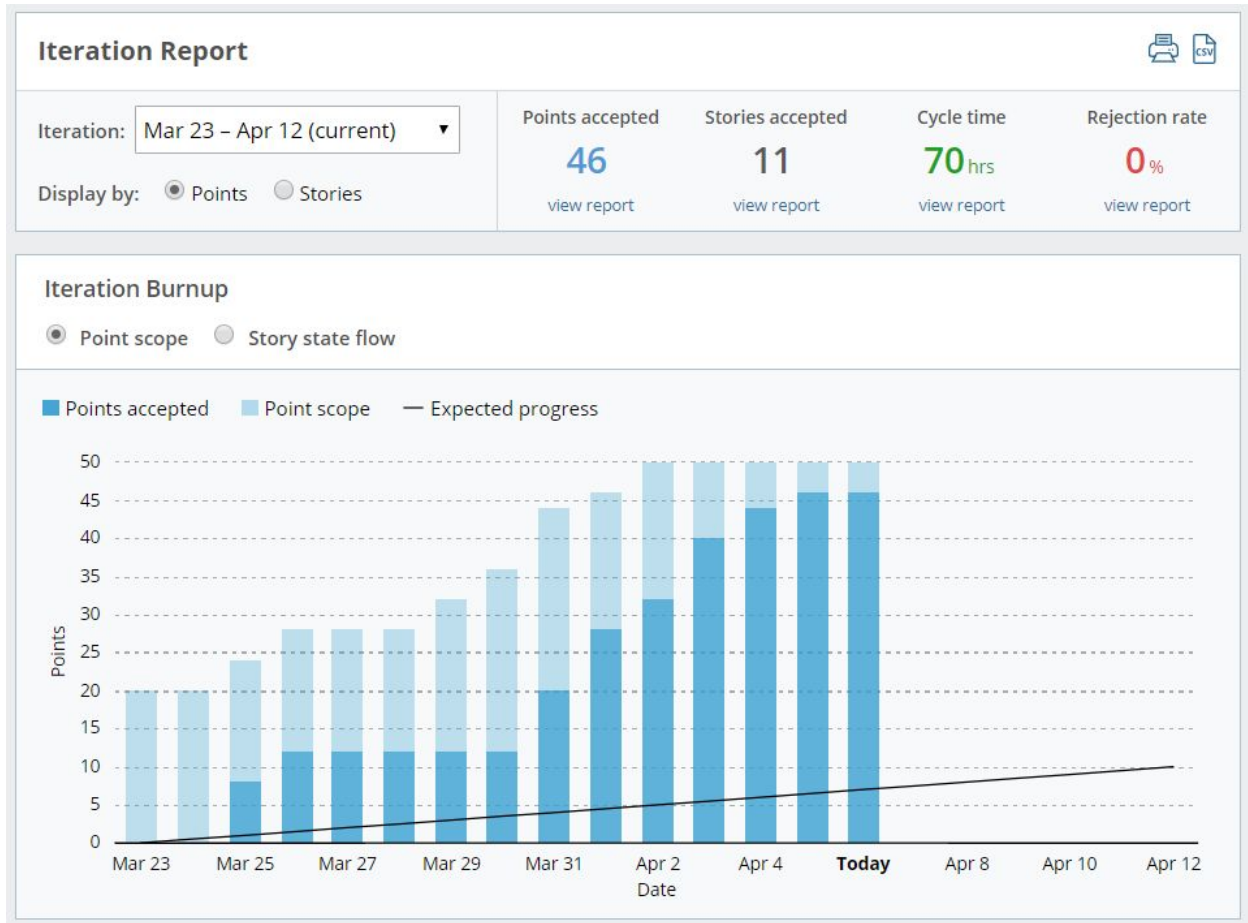
JUSTIFICATION

- Load Balancer has been used between the client and the server to equally distribute the requests coming from the client on the different available servers. This prevents overloading of requests on a particular server and thus maximizes the system performance.
- Cache has been used to avoid the redundant calls to the database if there are frequent calls to a particular action and hence it can be stored in the cache for fast retrieval.
- Static file is uploaded to a server, it does not change until you replace it with another file. In the meantime, users who return to the website will see exactly the same content which helps in maintaining their state without call to database.
- These components help in increasing stability and robustness of the application

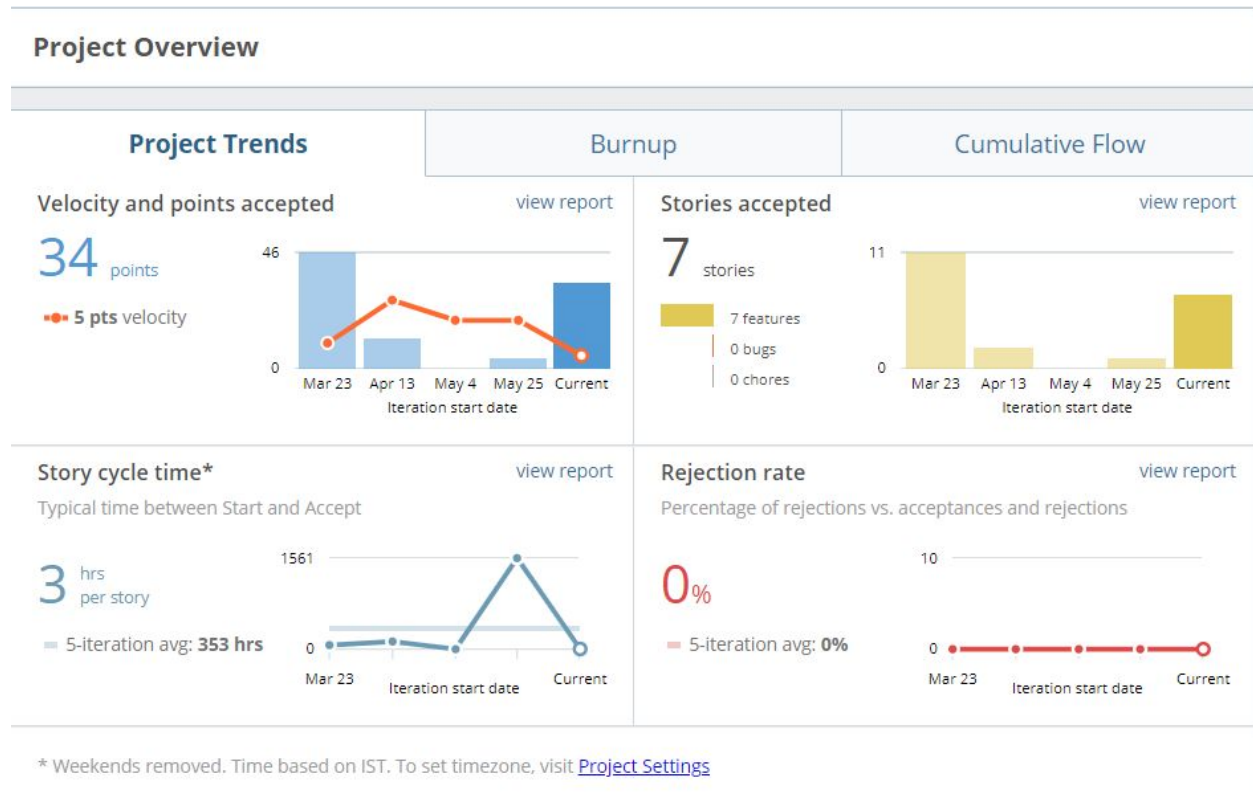
Section 13 – Project management



Iteration Report



Final Report



Section 14 – Conclusion

Problem Statement

Travel@BPHC : a Facebook group is used for finding people to share a cab where people share their travelling details through a post expecting others to notice and reply. But these Facebook posts are bound to be mixed with other unimportant feed stuff, which often results in the person missing relevant posts regarding their journey. Also, most comments end up as spam in the comments section.

Work Done

We created a website where people can post their travelling details and others can search applying appropriate filters. Users can create a new post. Other people can view this post and can choose which group to join as per their convenience. The post owner will be notified of joining requests from other members and can accept any one of his/her choice. Users can also view their previous rides. This reduces the effort involved in finding the right cab sharing group and also removes the element of spam which is involved in the current situation.

Learnings/Project Management

The project presented the team members an excellent opportunity to learn how a website is built from scratch. We got the opportunity to learn new technologies and learn how real world applications work. Scrum development practices were followed during the development.

Due to the Corona outbreak there were definitely impediments and the process slowed down but the team gave its best. The process wasn't smooth, and working remotely was difficult, however each of them were solved by the team after thorough discussion with product owner and scrum master. The deadline was preponed and hence the UI part was not fully completed. We even had to drop a couple of functionalities. But, given the time and the correct environment (like the one at college) would have helped to build a better product.

Limitations and Improvements

If each team member focussed on only one aspect : either the frontend or backend would have really boosted up the speed and efficiency. Each team member tried to develop one whole component, along with its backend and hence too much time was spent in learning and integrating. A possible solution would be to form two subteams, one dealing with frontend and the other with backend. This would have segregated the work and increased productivity.

Appendix A - Code Quality Reports

About This Project

No tags ▾

S 2.4k
Lines of Code

JavaScript 2.3k
CSS 83
HTML 20

Project Activity



June 16, 2020

not provided

Quality Gate: **Green** (was Red)

June 16, 2020

Quality Gate: **Red** (was Green)

June 15, 2020

Project Analyzed

[Show More](#)

Quality Gate

(Default) [Sonar way](#)

Quality Profiles

(CSS) [Sonar way](#)

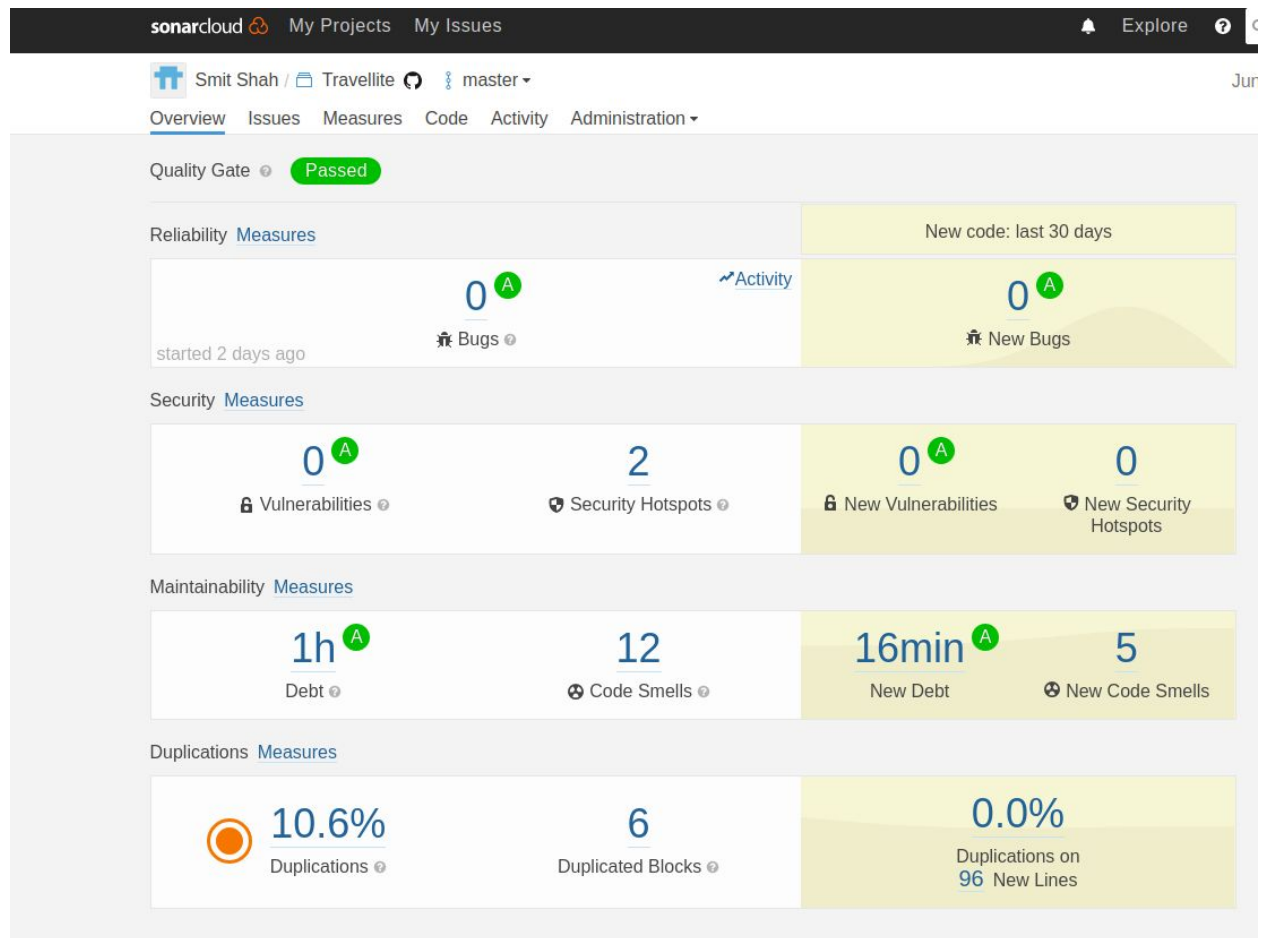
(JavaScript) [Sonar way](#)

(HTML) [Sonar way](#)

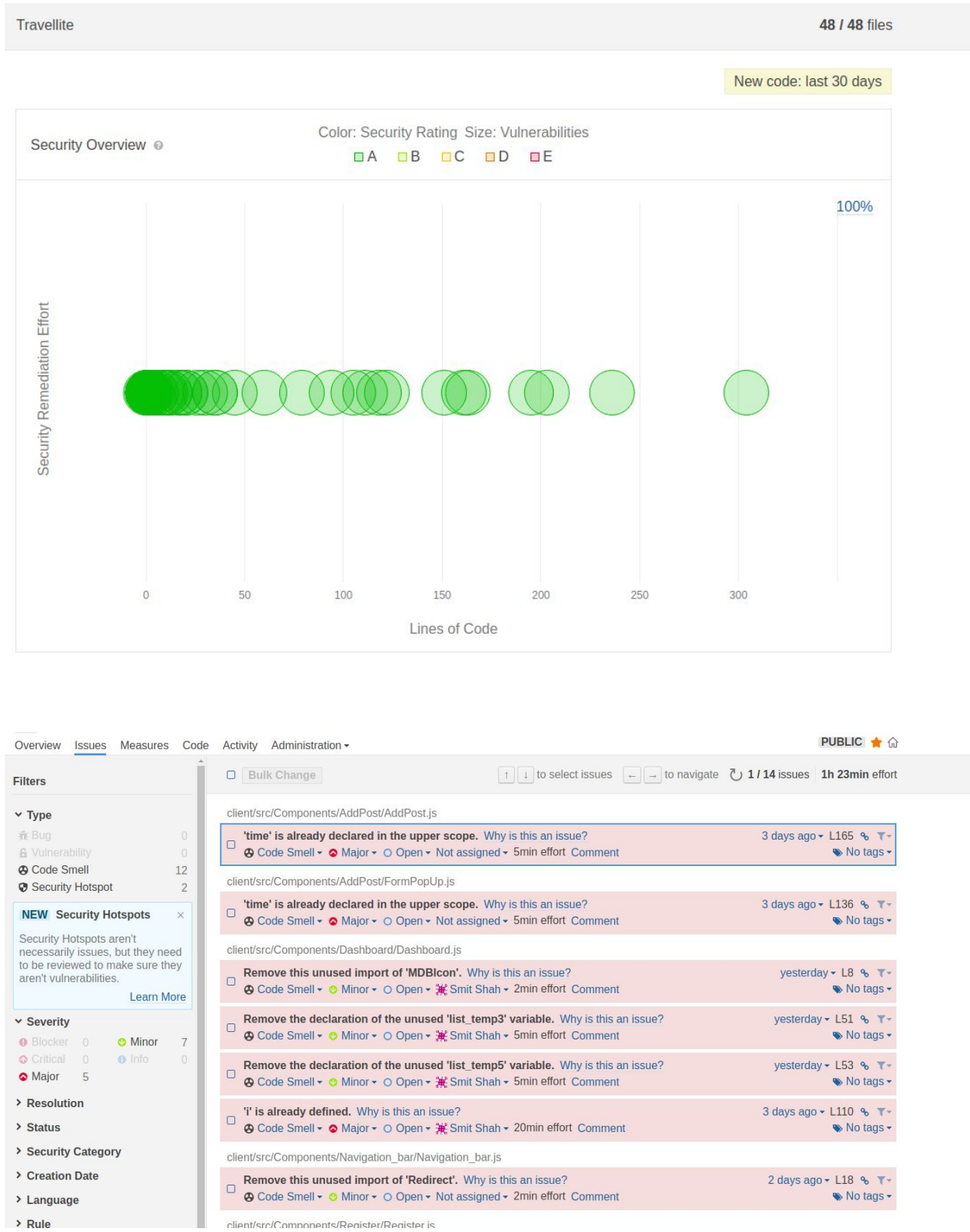
Analysis Method

Analyzed by SonarCloud 

Final Report



Final Report



Final Report

sonarcloud

My ProjectsMy Issues

Explore

Search for projects and file

Smit Shah / Travellite master

June 16, 2020, 8:56 PM Version not provided

PUBLIC

OverviewIssuesMeasuresCodeActivityAdministration

Search for files...

to select files to navigate

	Lines of Code	Bugs	Vulnerabilities	Code Smells	Security Hotspots	Coverage	Duplications
Travellite							
client	2,067	0	0	10	1	—	12.6%
config	5	0	0	0	0	—	0.0%
models	73	0	0	0	0	—	0.0%
routes	251	0	0	2	0	—	0.0%
server.js	35	0	0	0	1	—	0.0%

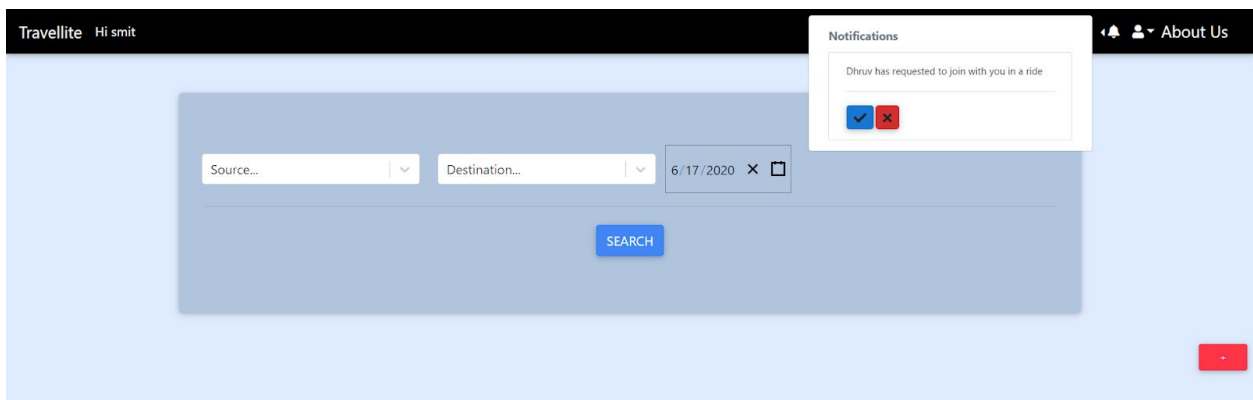
5 of 5 shown

Appendix B - Sample screenshots

Home Page



Notifications




About Us Page

Travellite
Hi smit
About Us


Our amazing Scrum team

Travellite


Team T15




Smit Shah
PRODUCT OWNER
smitshah1999@gmail.com



Shikhar Dhawale
SCRUM MASTER
shikhar.dhawale@gmail.com

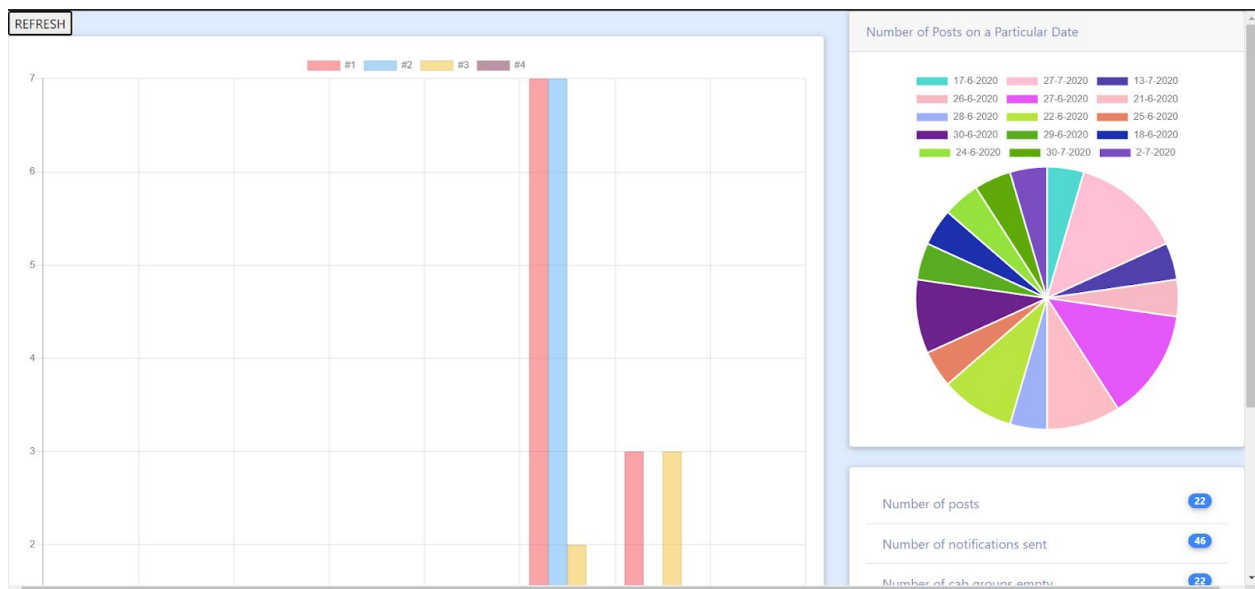


Sarathak Jain
DEVELOPER
saarthakjain001@gmail.com



Dhruv Gupta
DEVELOPER
dhrugup98@gmail.com



Dashboard



Final Report

Travellite

Hi Dhruv

  About Us

BPHC

Airport

27/7/2021 ×

SEARCH

Cab Leader : abc

Source : BPHC

Destination : Airport

Filled : false

Date : 27-7-2020

REQUEST

Cab Leader : noman55

Source : BPHC

Destination : Airport

Filled : false



Date : 27-7-2020


REQUEST

Search Page


Travellite

Hi Dhruv

  About Us




My Account Details



Username :Dhruv

Email Id :dhruvgup98@gmail.com

Mobile :9406772924

UPDATE 

My Profile

Final Report

Travellite

Hi Dhruv

About Us

My Posts

Source BPHC

Destination Airport

Date of Journey 24-6-2020

Source BPHC

Destination Secunderabad

Date of Journey 22-6-2020

Source BPHC

Destination Airport

Date of Journey 30-7-2020

Source BPHC

Destination Secunderabad

Date of Journey 27-6-2020

My Account