



**BSc (Hons) in Information Technology Specializing in Software  
Engineering  
Year 2 - 2022**

**IT2010 – Mobile Application Development  
Group Project (Phase 02): Technical Report**

Group Name: SparkX

Group Member Details

Student ID number	Name	SLIIT Email
IT21025662	Kalupahana N.H	it21025662@my.sliit.lk
IT21029868	Hettiarachchi B.D.A.D	it21029868@my.sliit.lk
IT21023132	Peiris S.H	it21023132@my.sliit.lk
IT21017742	Rathnakumara M.D.B	it21017742@my.sliit.lk

Git Repository: <https://github.com/IT21029868/SparkX>

Social Media video:

<https://www.instagram.com/reel/CkSsq4nhuh1/?igshid=YmMyMTA2M2Y=>

Group Presentation Video: [Call with MAD-20221029\\_131645-Meeting Recording.mp4](#)

Project Start Date: 2022/09/15

Project End Date: 2022/10/28

**Project Declaration:**

I the undersigned solemnly declare that the project technical based on our group members own work carried out during the course of our study under the supervision of the lecturer.

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Group Leader:

## 1. Project Introduction



‘THAMBAPANNI’ is a mobile application that the developers started creating in thinking of supporting the tourism industry in Sri Lanka, and this application is only applicable inside the country. In the current economic crisis of Sri Lanka, one of the best income resources for our country is Tourism. But still, there are some areas that should be improved in the tourism industry in order to provide the best traveling experience inside Sri Lanka. After research, we have understood that there isn’t a proper mobile application for the tourism industry apart from a popular web application. Because of that, we have selected this topic for our mobile application development project. Through this application, we are trying to bring different facilities into one platform that tourists need when they travel inside Sri Lanka. The facilities meant here are ‘finding accommodations and tour guides, selecting best travel destinations and their must visit locations and save them in their travel cart option that we will be provided in this application and provide a option to track their travel expenses’. In this report, we will demonstrate only some of the facilities mentioned above. Since we are also still self-learning and try to develop some of the facilities in this app and we are hoping to implement them in the final project. This report shows the flow of events through which the activities in the application navigate throughout the application. This includes the CRUD operations and the calculations. This emphasizes the interfaces in the application with its performance and runtime implementations.

## 2. IT21025662 – Kalupahana N.H

### Create account and Manage users

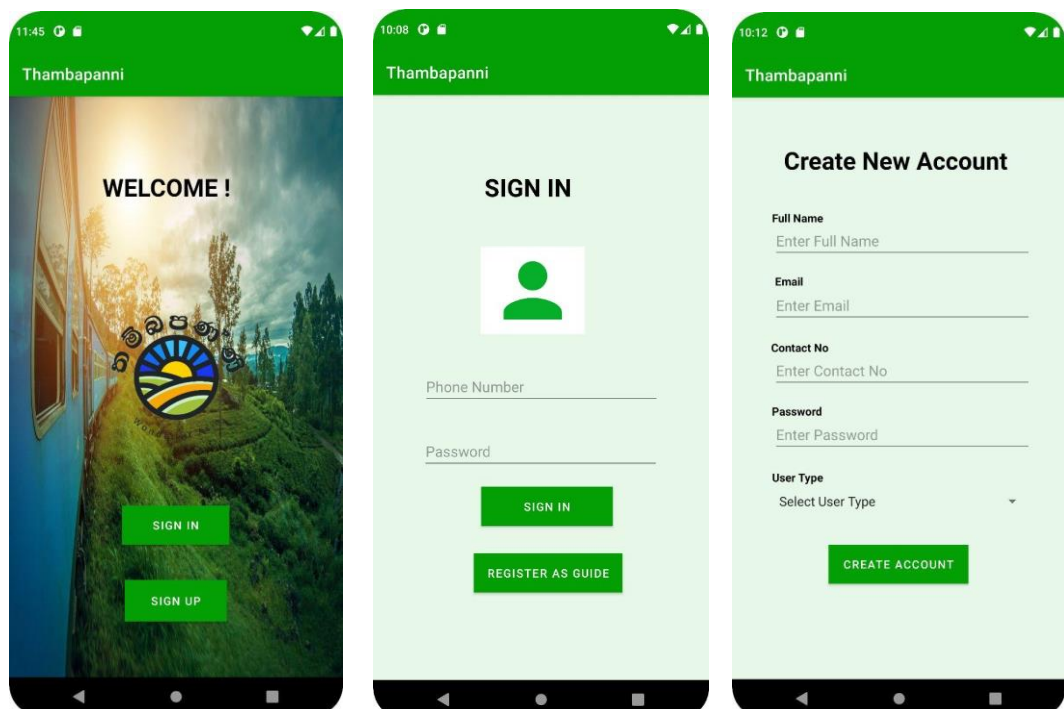
- **Component Description –**

When an account page is created two buttons are available known as Customer and Guide. Anyone can log into the Create Account of Customer page by clicking on Customer button. An account for our customers can be created by adding their curriculum vitae. A Submit button is available under the details. First Last Names, Email and Password are mainly considered with regard to this. When the Guide button clicked on, the same procedure takes place as above. The Guide Account has to submit more information such as age price and language than that of Customer account.

After clicking sign in the customer and the guide can sign in when the correct phone number and password are given. When wrong information is given, sign in is not allowed and a message is displayed that the information is incorrect. At the time of admin sign in, it is set to auto identify and go to the admin page. When the user and guide click on sign up, they go to the create account page, when they can select their user type and create an account by clicking on the dropdown using the required information. A message will be displayed that the account will be successfully. Only one account can be created with one phone number. If the same phone number is used twice, a message will be displayed not allowing to create the account. All that information is saved in the database.

It is set to be able to **view, delete and update customer information** when the admin signs in and clicks manage user.

- **Screenshots of the Mobile Application**





10:12 Thambapanni

## Create New Account

**Full Name**  
Enter Full Name

**Email**  
Enter Email

**Contact No**  
Enter Contact No

**Password**  
Enter Password

**User Type**  
Select User Type

- Customer
- Guide

10:13 Thambapanni

## ADMIN DASHBOARD

MANAGE CUSTOMER

MANAGE ROOMS

MANAGE TOURIST-GUIDE

CALCULATE TOTAL INCOME

MANAGE GUIDE BOOK

MANAGE USERS

10:15 Thambapanni

## Manage Users

**Admin User**  
admin@gmail.com  
Admin  
Admin

**Kavi**  
k@gmail.com  
0776281076  
Guide

**minoli kalupahana**  
minoli@gmail.com  
071735678  
Customer

DELETE

EDIT

DELETE

EDIT

10:16 Thambapanni

## Update Account Details

**Full Name**  
minoli kalupahana

**Email**  
minoli@gmail.com

**Contact No**  
071735678

**Password**  
Enter Password

**User Type**  
Select User Type

UPDATE USER



- **Test Cases**

Test Case ID	Test Case Description	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
001	Verify user can successfully sign in to the thambapanni app.	Open thambapanni app in your mobile.  Enter valid phone number in the text field.  Enter valid password in the password text field.  Click on sign in button.	Phone number-0774709095  Password-12345678	User successfully navigate to thambapanni app.	User successfully navigate to thambapanni home page.	Pass
002	Verify thambapanni mobile application display error message when user enter wrong information.	Open thambapanni app in your mobile.  Enter invalid phone number in the text field.  Enter invalid password in the password text field.  Click on sign in button.	Phone number-07747090956 Password-12345678	Display error message.	Display error message.	Pass
003	Verify admin user navigate to admin dashboard when sign in	Open thambapanni app in your mobile.	Phone number-Admin  Password-123	Admin successfully navigate to admin dashboard.	Admin successfully navigate to admin dashboard.	pass

	using to admin correct crudentials.	<p>Enter “Admin” in the phone number text field.</p> <p>Enter valid password in the password text field.</p> <p>Click on sign in button.</p>				
004	Verify customer can successfully create account.	<p>Open thambapanni app and click on sign up button.</p> <p>Enter full name.</p> <p>Enter valid email.</p> <p>Enter valid contact number.</p> <p>Enter valid password.</p> <p>Select user type as customer or guide from user type dropdown.</p>	<p>Full name- Nevindya Kalupahana</p> <p><a href="mailto:nevi@gmail.com">Email- nevi@gmail.com</a></p> <p>Contact number- 0774709095</p> <p>Password- 12345678</p> <p>User type- Customer</p>	The system will be displayed “successfully Registered.”	The system will be displayed “successfully Registered.”	Pass

### 3. IT21029868 – Hettiarachchi B.D.A.D

#### **Find A Stay**

- **Component Description –**

After successfully log in to the application, it displays the home page where the user can see the options that the application has. In that menu options, user can find the ‘Find A Stay’ option. If they need to find and book an accommodation, this option provides that facility. Once the user clicks on the ‘Find A Stay’ option they will redirect to the ‘Your Destination’ page. To find an accommodation, they must select their destination from the provided destination options. When the user selects their destination, they will redirect to the ‘Find a Stay’ page where they can select the accommodation type. Once the select the type, they will redirect to a page where all the hotels/Villas/Bungalows that have registered under the app. From that list, user can select a hotel check its room availability. If the needed number of rooms are available, they can add it to the travel cart by clicking the button “Add To Travel Cart”. Before that they have to fill all the necessary details. After that they can go to the Travel Cart and check their selected options in the relevant sub cart “View Stays”. If they have another accommodation option, they can delete the current one, or they want to edit details they can edit them by clicking the editing option which comes in the pop-up window after pressing little bit longer on the booking details. If all the details are correct, they can make the reservation by click on the “Make the reservation button”. It will direct the user to payment page.

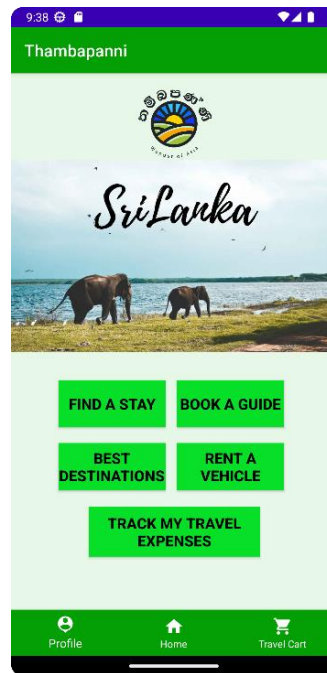
#### **Book A Guide**

- **Component Description –**

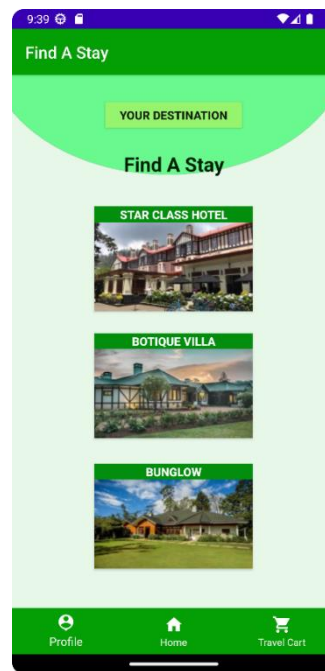
After successfully log in to the application, it displays the home page where the user can see the options that the application has. In that menu options, user can find the ‘Book A Guide’ option. If they need to find a tour guide to their journey, this option provides that facility. Once the user clicks on the ‘Book A Guide’ option they will redirect to the ‘Book A Guide’ page. To find a guide, first they must select their preferred language from the provided language options. When the user selects their preferred language, they will redirect to the relevant language guides page where they can select a guide. Once they select the guide, they will redirect to a page where the user has to enter some necessary details then they can add that guide to the travel cart by clicking the button “Add To Travel Cart”. After that they can go to the Travel Cart and check their selected options in the relevant sub cart “View Guides”. If they have another tour guide option, they can delete the current one, or they want to edit details they can edit them by clicking the editing option which comes in the pop-up window after pressing little bit longer on the booking details. If all the details are correct, they can make the reservation by click on the “Make the reservation button”. It will direct the user to payment page.

- Screenshots of the Mobile Application

Menu options in the app



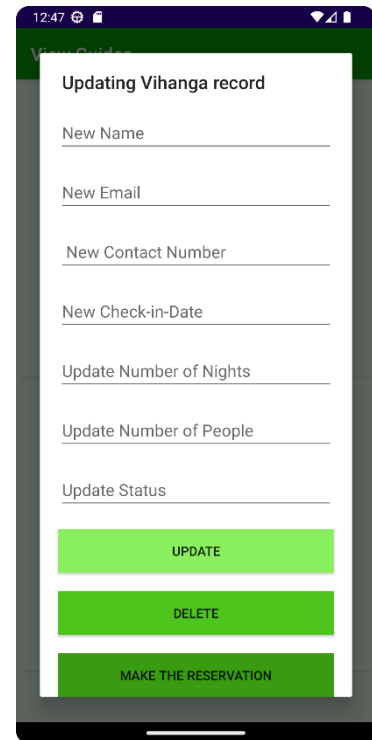
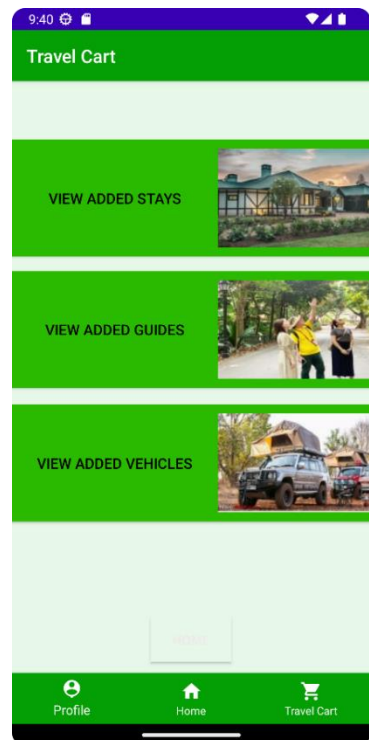
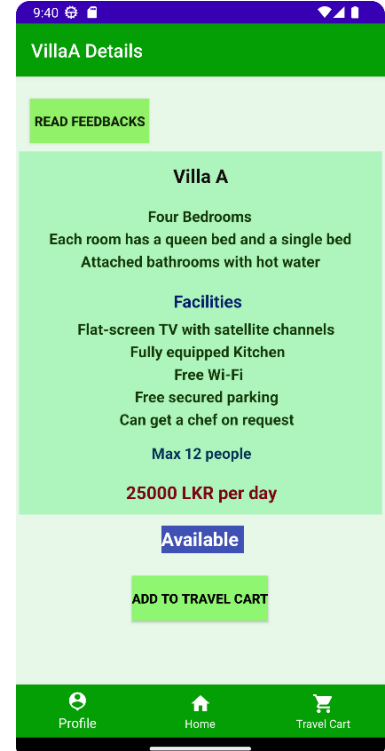
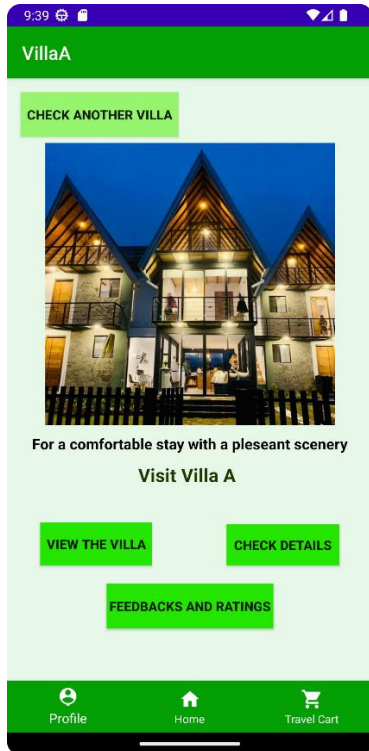
When the guest  
Clicks on the  
“Find A Stay”  
Option, they will  
Direct to this  
“Select Your  
Destination” page.



User select “NuwaraEliya” as their destination and selects on the botique villa option in the given accomodatio type, they select a villa from the given options.

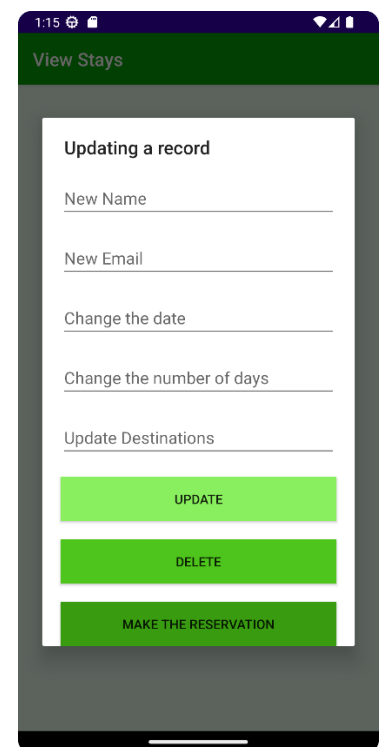
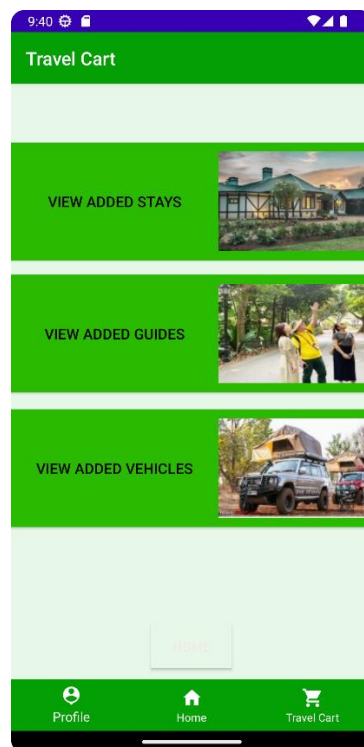
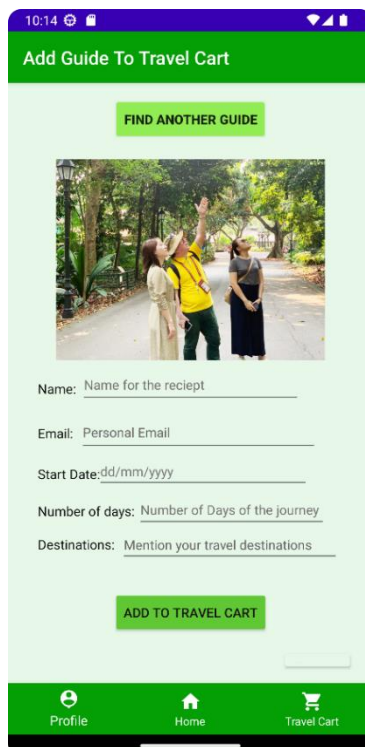
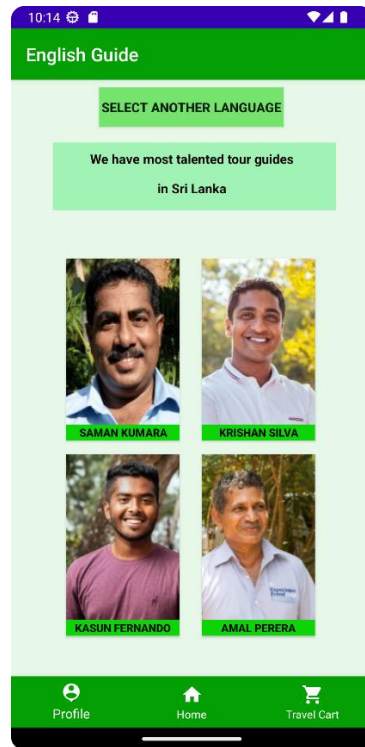
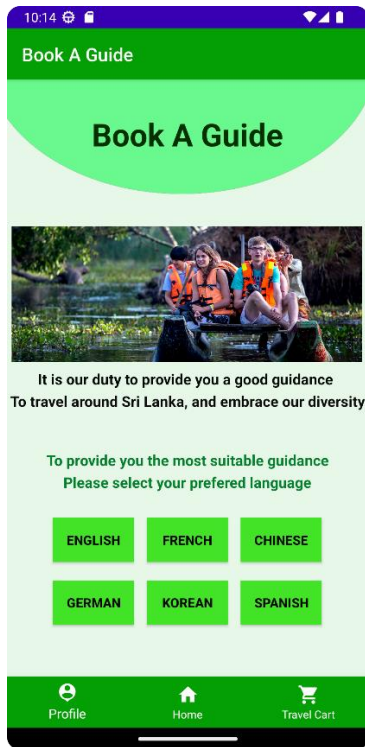
Then check the details of the selected villa, enter the details and add it to the travel cart.





Then if the user wants to pick a guide, then go through the “Book A Guide” option in the main menu and it will direct to the language selection, then it will shows all the relevant language guides.

After filling necessary details, they can add that guide to the travel cart.





- Test Cases

Test Case ID	Test Case Description	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
Test_01	Adding a new hotel to travel cart	Select Find A Stay option from menu, Select Travel Destination, Select Accommodation Type, Select Accommodation, Check Details and Fill the necessary Details, Add the “Add to Travel Cart” button	Name : Anuththara Email : <a href="mailto:anuththara325@gmail.com">anuththara325@gmail.com</a> Contact Number: +94778619292 Check in Date: 12/12/2022/ Number of nights: 4 Number of People: 10 Need a Chef: Yes	As Expected	“Added To Travel Cart “ Message display	Pass
Test_02	Adding a new hotel to travel cart	Select Find A Stay option from menu, Select Travel Destination, Select Accommodation Type, Select Accommodation, Check Details and Fill the necessary Details, Add the “Add to Travel Cart” button	Name : Email : <a href="mailto:anuththara325@gmail.com">anuththara325@gmail.com</a> Contact Number: +94778619292 Check in Date: 12/12/2022/ Number of nights: 4 Number of People: 10 Need a Chef: Yes	As Expected	“Please check the data again “ Message display	Pass
Test_03	Adding a new hotel to travel cart	Select Find A Stay option from menu, Select Travel Destination, Select Accommodation Type, Select Accommodation, Check Details and Fill the necessary Details, Add the “Add to Travel Cart” button	Name : Anuththara Email : <a href="mailto:anuththara325@gmail.com">anuththara325@gmail.com</a> Contact Number: abcdef Check in Date: 12/12/2022/ Number of nights: 4 Number of People: 10 Need a Chef: Yes	As Expected	App doesn’t allow user to type alphabetical characters on the “Contact Number “ field	Pass
Test_04	Adding a new guide to travel cart	Select Book A Guide option from the menu, Select the preferred language, Select the guide, Enter Necessary details, Click “Add to Travel Cart” button	Name: Vihanga Methdunu Email: <a href="mailto:v315@gmail.com">v315@gmail.com</a> Start Date: 12/12/2022 Number of Days: 2 Destinations: Ella, Nuwaraeliya	As expected	“Added To Travel Cart” message displays	pass



Test_05	Adding a new guide to travel cart	Select Book A Guide option from the menu, Select the preferred language, Select the guide, Enter Necessary details, Click “Add to Travel Cart” button	Name: Email: <a href="mailto:v315@gmail.com">v315@gmail.com</a> Start Date: 12/12/2022 Number of Days: 2 Destinations: Ella, Nuwaraeliya	As expected	“Please check the details again” message displays	pass
Test_06	Adding a new guide to travel cart	Select Book A Guide option from the menu, Select the preferred language, Select the guide, Enter Necessary details, Click “Add to Travel Cart” button	Name: Vihanga Methdunu Email: <a href="mailto:v315@gmail.com">v315@gmail.com</a> Start Date: 12/12/2022 Number of Days: ABCD Destinations: Ella, Nuwaraeliya	As expected	App doesn’t allow user to type alphabetical characters on the “Number of Days “ field	pass

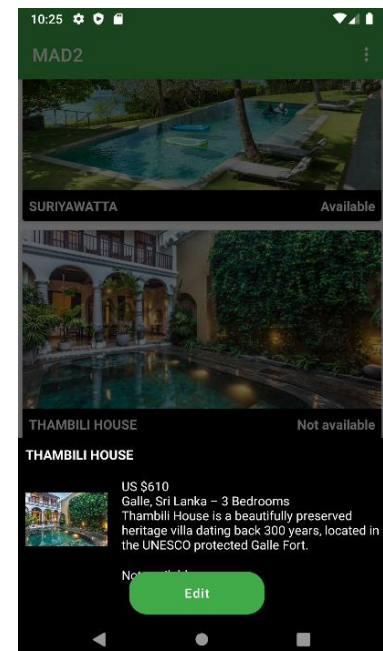
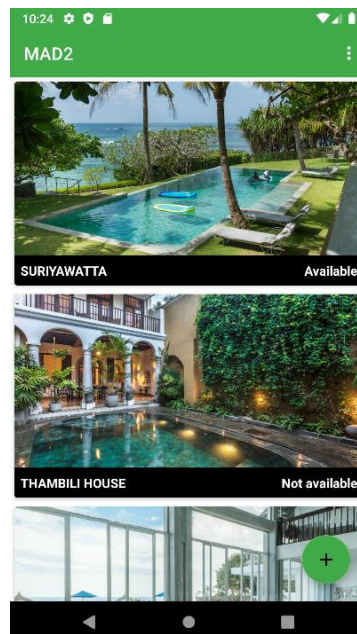
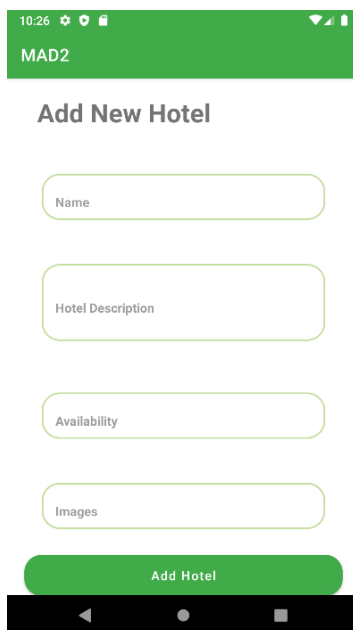
## 4. IT21023132 – Peiris S.H

### Admin

- **Component Description –**

After successfully login to the system by entering username and password, admin can view hotels, tour guides Admin can enter new hotels by clicking on “add new hotel” button and adding necessary details. All the hotels in the system are displayed in the hotel list and admin can either edit hotel details or delete by clicking on the respective button. Edited hotel details are saved to the system by clicking the “save changes” button. Admin can add tour guides to the system by clicking the “add new tour guide” button and filling details. And by clicking on the respective buttons, we can either delete or edit tour guides. And after editing the new information admin can save changes by clicking the “save changes button”.

- **Screenshots of the Mobile Application**





10:25

MAD2

### Edit Hotel

Hotel Name

SURIYAWATTA

Description

Weligama, Sri Lanka – 5 Bedrooms  
Suriyawatta is a hidden paradise in South Sri Lanka, a luxe modern-colonial villa with

Availability

Available

Link

<https://www.ministryofvillas.com/wp-content/t>

Update Delete

10:26

MAD2

Pasan

200123429339v

0775269315

nayana@gmail.com

Nayana

2001654321v

0778096655

Nayana@gmail.com

Supun Perera

20018976543

0775089977

supun@gmail.com

Nimal

23456780v

07765432

+

10:26

MAD2

Pasan

200123429339v

0775269315

nayana@gmail.com

Nayana

2001654321v

0778096655

Nayana@gmail.com

Supun Perera

20018976543

0775089977

Pasan

nayana@gmail.com

0775269315

Edit

10:27

MAD2

### Edit Guide

Name

Pasan

Identification Number

200123429339v

Phone Number

0775269315

Email

nayana@gmail.com

Update Delete





		guide. Fill all the details without phone number field				
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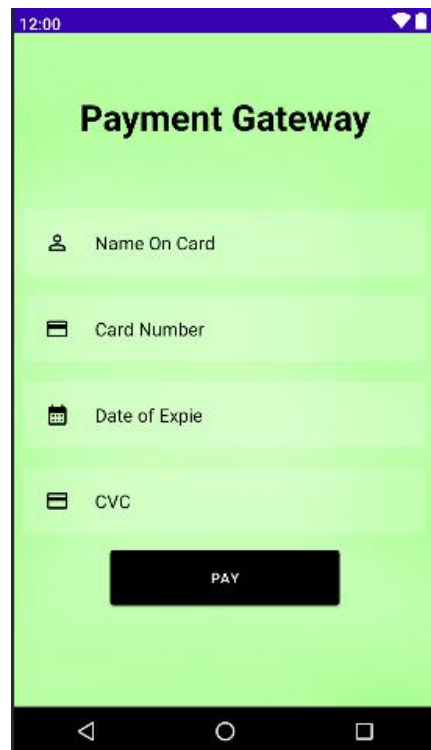
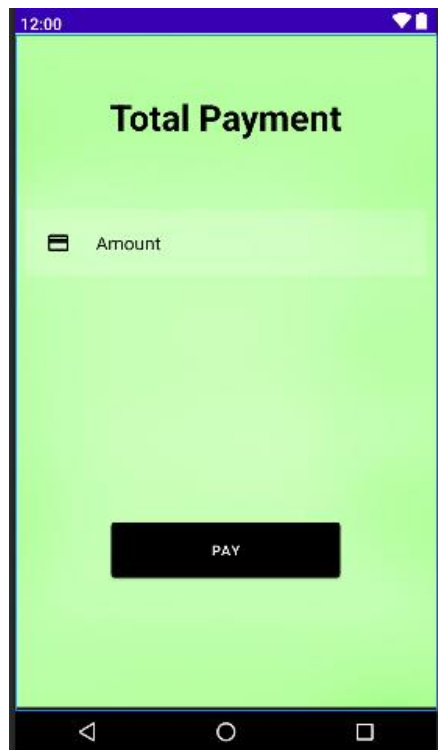
## 5. IT21017742 – Rathnakumara M.D.B

### Payment Gateway

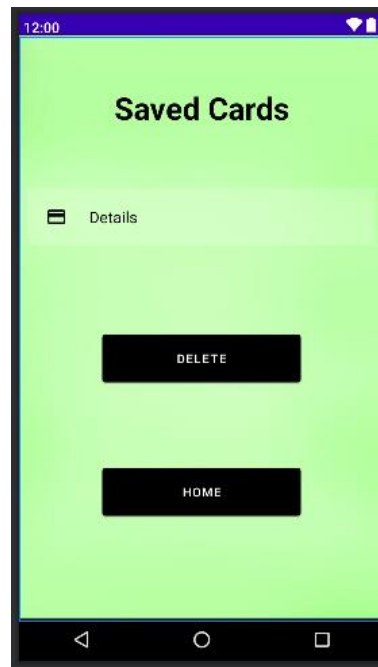
- Component Description –**

After booking the hotels, the user can enter to the payment gate way, First the user can see the total bill for the booking, the discount if there any, and the final bill, click on pay button, the user have to enter the name on card, card number, expire date and ccv number, then the user have to enter the personal details, then he can pay, or edit card details or delete the details by clicking respective buttons.

- Screenshots of the Mobile Application**







- **Test Cases**

Test Case ID	Test Case Description	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
TC_01	Adding a Card	Click on the pay button to get to payment gateway page and fill the details	Name On Card: M.D.Bhagya Card Number: 4242424242424242 Date Of Expire: 08/25 CVC: 123	Card Added to the system	Card Added to the system	Pass
TC_02	Adding a Card	Click on the pay button to get to payment gateway page and fill the details but fill the cvc in letters	Name On Card: M.P.B.Rathnakumara Card Number: 1212121212121212  Date Of Expire: 08/25  CVC: asd	Failed to add the card to the system	Failed to add the card to the system	Pass
TC_03	Delete the card Details	After Pay the bills the user can delete the card details	Name On Card: M.D.Bhagya Card Number: 4242424242424242 Date Of Expire: 08/25 CVC: 123	Delete the card	Delete the card	Pass



## Marking Rubric

Date		Student 1	Student 2	Student 3	Student 4
Student ID		IT21025662	IT21029868	IT21023132	IT21017742
Description	<b>Marks</b>				
Integrated system using a repository	<b>5</b>				
Marketing the app using a video clip published in a social media account (e.g.: LinkedIn)	<b>10</b>				
CRUD Function completeness	<b>25</b>				
Database connectivity	<b>5</b>				
Usability	<b>10</b>				
Good coding practice	<b>5</b>				
Out of box features	<b>10</b>				
Test cases	<b>10</b>				
Report	<b>20</b>				
Total	<b>100</b>				