Hotel Automation System

SOFTWARE ENGINEERING (IT314)

Group: 54

Reporting TA: Mahir (202011002)

Assigned by: Prof. JayPrakash Lalchandani

Project Management Document

Version: 3

GROUP MEMBERS

NAME	STUDENT ID
Shreyas Sakariya	201901075
Ankit Rathod	201901108
Kishan Gajnotar	201901116
Hiten Padaliya	201901401
Deep Tank	201901410
Jenish Rathod (Team Leader)	201901435

1. Activity list (Estimate time for each activity. Mention probable dates.)

a. Formulation of the Problem (11 days)
- ➢ In an abstract manner, we look around many aspects of what are the major characteristics of a hotel automation system, possible causes - effects, parameters and how it interacts with users. We also read some of the published good articles which aim at what is supposed to be there in a Hotel automation system.
- ➢ The home page should be such that it attracts more users to visit our software. So, we decided to have a genre-based algorithm that shows a deluxe room at the top;
- ➢ There are many users of the website. A separate account for all the users is needed which is end-to-end encrypted. So, first of all, we need to design the authentication page.

    i)Reading relevant background information (6 days)
- ➢ For developing the front-end part of the authentication page, we need to learn ReactJS. And for the backend part, we need to learn and know the functioning of firebase authentication
- ➢ For developing the front-end part of the home page, we first reviewed some of the popular hotel websites.

    Understanding and documenting the requirements (2 days)
- ➢ Valid Email: The email entered by the user must be a valid email ID.
- ➢ Valid Password: The password should match the requirements set by the website.
- ➢ Hotel content boxes: The suitable size for hotel room images in the genre-based carousel.

    Discussions (3 days)
- ➢ We discussed how we can manage several users to authenticate simultaneously without a system crash.

➢ We discussed the criteria to be set up for creating a password such that the password created by the user cannot be hacked easily.

b. Designing a solution, documentation (7 days)
➢ Keeping our requirements in mind, we decided that for the front-end part we used ReactJS(the authentication web page) and used firebase authentication API in the backend. And we develop the initial design of the home page of the website

c. Relevant learning (5 days)
➢ By examining other repositories on GitHub, we see how other people have implemented features like the authentication process.
➢ By reviewing the Firebase Authentication documentation and React JS documentation, we learned which functions need to be called to complete the authentication process.

d. Coding and unit testing (8 days)
➢ Languages Used: HTML, javascript
➢ Frameworks Used: CSS, React JS
➢ Technologies used: google OAuth 2.0
➢ Database: My SQL

e. Testing (1 day)
➢ We checked if the email validation functionality was working by testing some valid/invalid email IDs.

f. Reviews (2 days)
➢ In response to feedback from batchmates, we improved the overall design and some parts of the authentication page.
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2. Project Plan: For each activity, your estimated start date, end date, and responsible person(s).

Activity	Start Date	End Date	Responsible Person
a) Formulation of the problem	20/03/22	31/03/22	
i. Reading relevant background information	20/03/22	26/03/22	All Members
ii. Understanding and documenting the requirements	26/03/22	28/03/22	All Members
iii. Discussions	28/03/22	31/03/22	Jenish, Shreyas
(b) Designing a solution, documentation	31/04/22	7/04/22	Jenish, Hiten, Shreyas
(c) Relevant learning	7/04/22	12/04/22	Ankit, Deep, Kishan, Jenish
(d) Coding and unit testing	12/04/22	20/04/22	All Members
(e) Documentation	21/04/22	22/04/22	Jenish, Hiten, Shreyas
(f) Testing	20/04/22	27/04/22	Ankit, Deep, Kishan
(g) Reviews	26/04/22	28/04/22	All Members
(h) Re-work and debugging	28/04/22	1/05/22	Ankit, Deep, Jenish

❖ **Home Page**
➢ Estimate Start Date: 4th April 2022
➢ Estimate End Date: 9th April 2022
➢ Team Members: Jenish, Deep, Ankit, Hiten

- ❖ **Login Page**
  - ➢ Estimate Start Date: 26th March 2022
  - ➢ Estimate End Date: 3rd April 2022
  - ➢ Team Members: Shreyas, Ankit, Deep, Jenish

- ❖ **User Authentication**
  - ➢ Estimate Start Date: 26th March 2022
  - ➢ Estimate End Date: 3rd April 2022
  - ➢ Team Members: Kishan, Hiten, Ankit, Shreyas

- ❖ **Contact Us Page**
  - ➢ Estimate Start Date: 6th April 2022
  - ➢ Estimate End Date: 10th April 2022
  - ➢ Team Members: Jenish, Ankit, Hiten, Deep

- ❖ **About Us Page**
  - ➢ Estimate Start Date: 12th April 2022
  - ➢ Estimate End Date: 14th April 2022
  - ➢ Team Members: Shreyas, Ankit, Kishan

- ❖ **Responsive UI**
  - ➢ Estimate Start Date: 11th April 2022
  - ➢ Estimate End Date: 15th April 2022
  - ➢ Team Members: Kishan, Shreyas, Jenish

3. Testing Strategy:

Test Case ID	Test Case Objective	Test Data	Expected Result
T1	Test google OAuth, 2-step authentication	1. Valid Username, Aadhar Card, Mobile number, Password	System should redirect to the page where the user has to enter OTP

		2. Enter Valid OTP	System should redirect to the dashboard (Home Page)
		3. Invalid Details	System should ask the user to enter valid Details
T2	Passwords should satisfy all the password constraints before being accepted. Password and confirm password fields should have the exact same text.	1. The password of length less than 8 digits	1. Users should not be created. The error is that the password should satisfy all the constraints.
		2. Password with no numeric digits	2. Users should not be created. The error is that the password should satisfy all the constraints.
		3. Different values in the password and confirm password fields	3. Users should not be created. The error is that the passwords entered do not match
T3	Login using valid and invalid user credentials.	1. Try logging in using valid user credentials.	1. Users should be logged in and redirected to the home page.
		2. Try logging in be be using invalid user credentials.	2. Users should not be logged. An error should be displayed saying 'invalid username or password'.

T4	No two users should have the same username.	1. Enter user details such that the entered username has already been used.	1. Users should now be created. The error that the entered username has already been taken.
T5	A user should be able to upload a picture of their profile.	Try adding a profile picture via the edit profile page.	The picture should be added.
T6	Test if the user details entered are displayed correctly.	Valid user details and his/her profile picture.	The entered details should be displayed in the user profile section.
T7	User should be able to edit user details like DOB, address, name, Bio, Profile pic, etc. Users should not be able to edit user details like username or email.	Go to the edit profile page and try editing the fields.	The edit should be visible on the profile page if the details entered were valid. Otherwise, the user should receive an error that invalid details have been entered and no change should be made.
T8	Test user interface of the dashboard	Rendering UI functionalities	System should be able to render all the subsections of the front end as coded.
T9	Search Result	All hotel rooms and food detail should be available in the Hotel database	Show results of user's demand
T10	Report generation for manager	Accurate prediction of hotel booking	Software should generate the report

		Simplified report should be generated for booked data	which gives all relevant data to the hotel manager
T11	Online Payment	Use various platforms for transactions	Users should be able to pay bills using Razorpay, Eazypay, Paytm, Gpay , etc..

Testing Schedule

Test Case ID	Estimated time (in days)	Estimated Start date and End date	Person Responsible for testing
T1	1	20/4/22	Jenish, Shreyas
T2	2	21/4/22 - 22/4/22	Jenish, Deep
T3	2	22/4/22 - 23/4/22	Hiten, Shreyas
T4	1	23/4/22 - 24/4/22	Kishan, Ankit
T5	2	24/4/22 - 25/4/22	Jenish, Deep
T6	1	25/4/22	Ankit, Deep
T7	1	25/4/22	Hiten, Ankit
T8	1	26/4/22	Kishan, Shreyas
T9	2	26/4/22 - 27/4/22	Ankit, Kishan
T10	1	27/4/22	Jenish, Hiten
T11	1	27/4/22	Jenish, Deep, Shreyas