MERGETRIP

Sprint 1 Planning Document

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Sprint Overview

Overview:

In this sprint, members of the team will act on setting up our development environments, as well as configuring our frontend (ReactJS), backend (Flask in Python), and database (Firebase). Members assigned to work on backend development will set up the database and make sure that it is working and passing information to and from the backend. Members assigned to work on the frontend will be creating the basic views, models, and controllers that will be used throughout all sprints, not just the first one. Frontend development will also include the login and signup pages. We will connect them to the backend so that users will be able to create new accounts and subsequently login with them. We will also do setup for the Gmail API, which will be the main API used throughout the project. Moreover, we will implement the creating trips functionality using the user's gmail by filtering their emails for popular companies such as Airbnb, and then extracting the relevant information using regex.

Scrum Master:

Kunwar Sahni

Meeting Plan:

Tuesdays at 5:30 PM and Sundays at 2 PM

Risks and challenges:

- Getting access to gmail access tokens and passing them safely to the backend
- Filtering for confirmation emails
- Extracting relevant information from emails
- Authentication and authorization

1. As a user, I would like to be able to choose my username so that other users can find me

Task Description	Estimated workload	Assigned Member(s)
Create UI panel to select username	2 hr	Will Kao
List username requirements	1 hr	Will Kao
Read in user input and verify that it meets criteria and is not an existing username	1 hr	Will Kao
Testing	1 hr	Will Kao

    a. Acceptance Criteria
        i. Given that the criteria verification works correctly when the user inputs a valid username then the respective user object is updated/created
        ii. Given the username verification is implemented correctly when an existing username is entered then an error message should be displayed and the user should be asked to input another username
        iii. Given that the username verification works correctly, when the user inputs a valid username then a confirmation message should be displayed

2. As a user, I would like to set my password so that my account is protected

Task Description	Estimated workload	Assigned Member(s)
Create UI panel to set password	2 hr	Will Kao

List requirements for the password	1 hr	Will Kao
Read user input and verify that password meets criteria	1 hr	Will Kao
Testing	1 hr	Will Kao

      a. Acceptance Criteria
          i. Given the input verification works correctly when the user input does not meet the criteria then an error message will be displayed
          ii. Given the input verification works correctly when the user inputs a valid password then a confirmation message should be displayed
          iii. Given that the password verification is correctly implemented when the user inputs a valid password then the password should be parsed and sent to the Firebase database

3. As a user, I would like to create an account so that users can get the service provided by MergeTrip

Task Description	Estimated workload	Assigned Member(s)
Create/Initialize User object	3 hr	Grayson Harralson
Parse data to user object	1 hr	Grayson Harralson
Send User data to Firebase backend	2 hr	Grayson Harralson
Sends User to their page on successful account creation	1 hr	Grayson Harralson
Create/implement algorithm to see if there is already a user with the same name	4 hr	Grayson Harralson

Add error message if account creation fails	2 hr	Grayson Harralson

   a. Acceptance Criteria
      i. Given the account is made without any problems we are to store their data in our backend
      ii. Given the account is made without any problems we are direct the user to their home page
      iii. Given the account couldn't be made because of a same user name display an error message telling the user
      iv. Given the account couldn't be made for any other reason display an error message

4. As a user, I would like to input my basic required information so that MergeTrip can find my travel information

Task Description	Estimated workload	Assigned Member(s)
Create UI necessary to create a trip	2 hr	Kunwar Sahni
Create linkage between UI and backend to save starter trip data	2 hr	Kunwar Sahni

   a. Acceptance Criteria
      i. Given the UI is operation to generate a trip
      ii. Given the data is successfully saved into the database after being entered through the UI.

5. As a user, I would like to be able to login to my account so that I can see the service provided

Task Description	Estimated workload	Assigned Member(s)
Use algorithm from create account to search through users in the database	1 hr	Grayson Harralson
Check to see if password and username is a user	2 hr	Grayson Harralson
Route user to their home screen	1 hr	Grayson Harralson
Display error message if username or password is incorrect	2 hr	Grayson Harralson

    a. Acceptance Criteria
        i. Given an account is found without a problem direct the user to their home page
        ii. Given an account is not found display that the username or password is wrong

6. As developers, we would like to connect users' gmail using their login so that we can search for relevant emails

Task Description	Estimated workload	Assigned Member(s)
Obtain access token and allow user to accept permission requests in frontend	2 hr	Kunwar Sahni
Securely gaining access to the user's gmail account using the Gmail api in the backend	2 hr	Ibrahim Saeed
Filter confirmation emails in the entered date range for extraction based on popular	5 hr	Ibrahim Saeed

company emails and their subject lines		
Testing/evaluation of filtering performance	2 hr	Ibrahim Saeed
Correctly extract important travel data using Regex	3 hr	Yash Bansal
Regex Testing	2 hr	Yash Bansal

a. Acceptance Criteria
   i. Given the user chooses to connect their gmail when creating trips, the UI will promote them for their access permissions.
   ii. Given a user's email and access permissions we should be able to search through their emails.
   iii. Given a confirmation email from the widely used companies (AirBnb, American Airlines, etc...) when searching through emails then our extraction process should extract all the relevant information such as Confirmation number, date and location.
   iv. Given the user connects their email and enters a date range when creating a trip then a trip should be automatically populated with reservations from their confirmation emails.

7. As developers, we would to integrate our backend with a remote server and connect it to our frontend and database

Task Description	Estimated workload	Assigned Member(s)
Create Flask project	2 hr	Yash Bansal
Connect frontend and server to the backend	1 hr	Yash Bansal
Run Flask Project on AWS	2 hr	Yash Bansal

Server		
Testing	2 hr	Yash Bansal

      a. Acceptance Criteria
          i. Given the backend communicates with the ReactJS frontend and the Firebase database correctly
          ii. Given the Flask project independently runs locally before hosting on an AWS Server
          iii. Given the Flask backend is correctly integrated with the AWS Server for remote hosting

8. As a user, I would like to manually input all of my travel events so that I can still get the services provided if I don't connect my gmail

Task Description	Estimated workload	Assigned Member(s)
UI for manually entering reservations for trips	1 hr	Kunwar Sahni
Inputting the manually created reservations into the Firebase database	1.5 hr	Ibrahim Saeed
testing	1 hr	Ibrahim Saeed

      a. Acceptance Criteria
          i. Given the user wants to add a reservation when creating a trip then the UI should intuitively allow them to input the name, type of trip, date, location, confirmation number and any other information and then add the reservation to the trip.
          ii. Given the user requested to added an event or reservation to a trip then the database and UI should reflect the change

      iii.   Given a bad request (user tries to add a reservation to a non-existent trip or to another user's trip) when creating a reservation then the request should be rejected

9. As a user, I would like to be able to manually delete travel events so that events I don't plan on attending are not on my itinerary

Task Description	Estimated workload	Assigned Member(s)
UI for manually deleting reservations for trips	1 hr	Kunwar Sahni
Deleting reservations/events in a trip from Firebase database	1 hr	Ibrahim Saeed
Deleting trips	1 hr	Ibrahim Saeed
Testing	1 hr	Ibrahim Saeed

    a. Acceptance Criteria
      i.   Given the user wants to delete when creating a trip then the UI should intuitively allow them to delete a reservation or event from their trips.
      ii.   Given the user requested to delete the trip or a reservation within a trip then the database and UI should reflect the change
      iii.   Given a bad request (user tries to delete a reservation in a non-existent trip or in a another user's trip) when creating a reservation then the request should be rejected

10. As a user, I would like to be able to edit my travel details so that I can correct any mistakes/make changes to my travel plans

Task Description	Estimated workload	Assigned Member(s)

Create UI for editing travel details	2 hr	Yash Bansal
Change travel data in the database	1 hr	Yash Bansal
Testing	1hr	Yash Bansal

    a. Acceptance Criteria
        i. Given the user data displayed on the front end changes to the most relevant data
        ii. Given the backend stores the most up to date travel data

11. As developers, we would like a user friendly home screen so that users can easily access what they want

Task Description	Estimated workload	Assigned Member(s)
Create home screen UI	2 hr	Will Kao
Connect home screen to other pages of web app	1 hr	Will Kao
Testing	1 hr	Will Kao

    a. Acceptance Criteria
        i. Given the home screen is functional when the user clicks a button then they should be redirected to the corresponding page
        ii. Given the home screen is functional when the user visits the page then the logo and relevant buttons will be displayed
        iii. Given the home screen is functional when the user scrolls down on the page then the page will scroll accordingly

Backlog

1. As a developer, we would like to be able to encrypt and decrypt user information
2. As a user, I would like to be able to change my username
3. As a user, I would like to be able to reset my password so that I can still access my information if I forget my password
4. As a user, I would like to connect my gmail to the application so that I don't have to manually input all of my travel information
5. As a user, I would like to option to not connect my gmail to the application
6. As a user, I would like the option to disconnect my gmail from the application so that I can manually create my itinerary on future trips
7. As a user, I would like to be able to manually update my travel events so that the events added by MergeTrip are more accurate
8. As a user, I would like to have a user friendly UI so that I can easily find what I am looking for
9. As a user, I would like to be able to see all of my trip details on a timeline/calendar so that I get the service provided
10. As a user, I would like to search for other users
11. As a user, I would like to create a group so that I can plan travel itineraries with people I am traveling with
12. As a group creator, I would like to invite other users to my group
13. As a user, I would like to accept an invitation to a group from a different user
14. As a group member, I would like to be able to invite other users to the group
15. As a user, I would like to be able to leave a group
16. As a user, I would like to be able to switch from one group to another
17. As a user, I would like to be able to view the itinerary of another member in my group
18. As a group creator, I would like to be able to remove members of my group
19. As a group member, I would like to invite other members of the group to an event
20. As a group member, I would like to accept event invitations from other members of my group

21. As a developer, we would like to store user roles within their groups in our database

22. As a group member, I would like to view multiple group members' itineraries at once so that I can easily see when multiple people are busy/not busy

23. As a developer, we would like to dissolve a group once there are no users in it

24. As a developer, we would like to be able to give the user a high quality printable version of the calendar so the user can print out their itinerary

25. As a developer, we would like to be able to read user emails and deter   mine if they are travel based

26. As a developer, we would like to be able to parse appropriate emails into our backend data

27. As a developer, we would like our AI to read travel details from the users' travel emails so that the users' travel details are obtained automatically.

28. As a developer, we would like to have our AI parse understand when there are travel updates to existing plans rather than new plans

29. As a developer, we would like to construct an accurate itinerary from the information parsed by the AI

30. As a user, I would like to be able to log out

31. As a user, I would like to be able to delete my account

32. As a user, I would like to have a profile image so my group can recognize me

33. As a user, I need to be able to download my itineraries to view offline

44) As a user, I need to be able to access the app when offline

45) As a user, I want to be able to pin the app to my home screen

46) (if time allows) As a user, I want to be able to export the events into my Google Calendar as reminders

47) (if time allows) As a user, I want to see a visual representation of different locations in my trip (Hotels, Airports, pickup locations) to make it easy to understand where to go.