Final Project Proposal: Hand-On Application

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Hand-On Application
An app helps to do your chores and errands

Project topic:

A web/mobile application for requesting and completing errands and small tasks.

Needs analysis:

This project aims to solve the need for a convenient and efficient way with a reasonable price for people to request and complete errands and small tasks in a timely manner. There are similar products and competition, but this app aims to stand out by offering a user-friendly interface and a focus on building a sense of community through ratings and reviews of helpers. This app is necessary for busy individuals or those without the time or ability to complete certain tasks in a quick response, as well as for individuals looking to make some extra money by using their skills and talents to help others.

Stakeholders:

- Sponsor: The sponsor of this project could be an individual or a company interested in investing in the development of the app.
- Client: The client for this project would be the users of the app as requestors who are requesting and completing errands and small tasks, and the users of the app as helpers who are providing the service to complete the tasks.
- Development team: The development team (I) would be responsible for creating and maintaining the app.
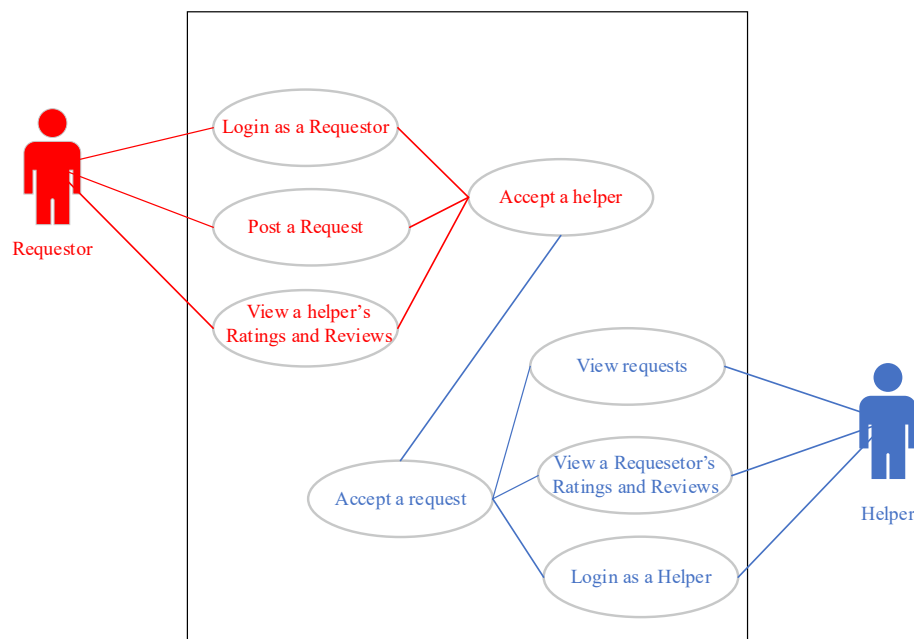
User Types:

Figure 1 use case diagram for the Requestor and Helper

- Requestors: Users who post requests for errands or small tasks to be completed, and accept the Helper based on Helper's ratings and reviews.
- Helpers: Users who browse and accept requests to complete errands or small tasks, and accept the Requestor based on Requestor's ratings and reviews.

User Stories

1. As a requestor, I want to be able to create an account and log in to the app so that I can use the app to request errands and small tasks to be completed.

   Acceptance Criteria

   Scenario 1: Requestor creates an account and logs in to the app
   Given the requestor is on the account creation page for a requestor
   When the requestor enters their email, password, and other required information and clicks the "Create Account" button
   Then the requestor's account is created, and they are logged in to the app
   And the requestor is redirected to the main page of the app

   Scenario 2: Requestor is redirected to the main page after logging in
   Given the requestor enters the correct email and password to the app
   When the requestor clicks the "Login" button
   Then the requestor is redirected to the main page of the app

2. As a requestor, I want to be able to post requests for errands or small tasks, including all relevant details and instructions, so that helpers can understand exactly what needs to be done and how to do it.

   Acceptance Criteria

   Scenario 1: Requestor posts a request for an errand or small task

   Given the requestor is logged in to the app
   When the requestor clicks the "Post a Request" button
   And enters a title and description for their request
   And includes any relevant instructions or details for their request
   And clicks the "Submit" button
   Then the request is successfully posted and displayed in the list of available requests

   Scenario 2: Requestor accesses request posting page
   Given the requestor is logged in to the app
   When the requestor clicks the "Post a Request" button
   Then the requestor is redirected to the request posting page

   Scenario 3: Requestor enters request details and instructions

Given the requestor is on the request posting page
When the requestor enters the details and instructions of the request
Then the entered details and instructions are saved in the form

Scenario 4: Requestor submits a request
Given the requestor has entered the details and instructions of the request
When the requestor clicks the "Submit" button
Then the request is successfully posted in the app

3. As a helper, I want to be able to browse available requests and select one to accept so that I can offer my services to help others.

Acceptance Criteria

Scenario 1: Helper browses and accepts a request
Given the helper is logged in to the app
When the helper clicks the "View Requests" button
And views the details of available requests
And selects a request to accept
Then the helper's acceptance of the request is successfully recorded in the app

Scenario 2: Helper views details of a request
Given the helper is on the list of available requests
When the helper clicks on a request
Then the helper is able to view the details of the request, including the title, description, and instructions

4. As a requestor, I want to receive a notification when a request is completed and have the option to rate and review the helper so that I can provide feedback on the quality of the service I received.

Acceptance Criteria

Scenario 1: Requestor receives notification and rates and reviews helper

Given the requestor has a completed request
When the requestor receives a notification that the request is completed
And clicks on the notification to access the rating and review page
And enters a rating and review for the helper
And clicks the "Submit" button
Then the requestor's rating and review are successfully saved in the app

Scenario 2: Requestor receives the notification of a completed request

Given the requestor has a completed request

When the helper marks the request as completed
Then the requestor receives a notification that the request is completed

5. As a requestor or helper, I want to have the option to report any issues or concerns to the app's support team so that any problems can be addressed and resolved.

   Acceptance Criteria

   Scenario 1: Requestor or helper reports an issue
   Given the requestor or helper is logged in to the app
   When the requestor or helper clicks the "Report an Issue" button
   And enters a message describing their issue or concern
   And clicks the "Submit" button
   Then the report is successfully sent to the support team

   Scenario 2: Requestor or helper accesses report submission page
   Given the requestor or helper is logged in to the app
   When the requestor or helper clicks the "Report an Issue" button
   Then the requestor or helper is redirected to the report submission page

   Scenario 3: Requestor or helper enters issue or concern details
   Given the requestor or helper is on the report submission page
   When the requestor or helper enters the details of the issue or concern
   Then the entered details are saved in the form

   Scenario 4: Requestor or helper submits report
   Given the requestor or helper has entered the details of the issue or concern
   When the requestor or helper clicks the "Submit" button
   Then the report is successfully sent to the app's support team

6. As a helper, I want to be able to mark a request as completed in the app so that the requestor knows the task has been completed and they can rate and review my services

   Acceptance Criteria

   Scenario 1: Helper marks a request as completed
   Given the helper has accepted a request
   When the helper completes the task
   And the helper clicks the "Task Completed" button for the request
   Then the request is successfully marked as completed in the app

   Scenario 2: Helper accesses accepted request
   Given the helper is logged in to the app and has accepted a request
   When the helper clicks on the accepted request to view the details and instructions

Then the helper is able to view the details and instructions of the request

7. As a helper, I want to create an account and log in to the app so that I can use the app to find and accept requests to help others.

   Acceptance Criteria

   Scenario 1: Helper creates an account and logs in

   Given the helper is on the account creation page
   When the helper enters their personal and account information and clicks the "Create Account" button
   And logs in to the app using their new account
   Then the helper is successfully logged in to the app

   Scenario 2: Helper accesses account creation page
   Given the helper is on the app homepage
   When the helper clicks the "Sign Up" button
   Then the helper is redirected to the account creation page

   Scenario 3: Helper enters account creation information
   Given the helper is on the account creation page
   When the helper enters the required information to create an account
   Then the entered information is saved in the form

   Scenario 4: Helper logs in to the app
   Given the helper has created an account
   When the helper enters the login credentials and clicks the "Log In" button
   Then the helper is successfully logged in to the app

8. As a helper, I want to accept and complete a request so that I can help others and get paid for my services

   Acceptance Criteria

   Scenario: Helper accepts and completes a request
   Given the helper is logged in to the app
   When the helper browses available requests and selects one to accept
   And views the details and instructions of the accepted request
   And completes the task as described in the request
   And marks the request as completed in the app
   Then the request is successfully marked as completed in the app

Technology background and Resources available.

The app will be developed using React.js and Next.js (or React Native) for the front-end and back-end. A NoSQL MongoDB database will be used to store user and request information. The app will be developed as a Web Application (or Mobile Application using React Native if there is enough time and resources).

The development team will require access to the necessary software and tools for app development, such as VS code, git, GitHub and MongoDB. The web application can host on Vercel or AWS for frontend and MongoDB for the database.

Key Tasks

- Design and develop the user interface.
- Implement user authentication and request posting features.
- Implement features for helpers to browse and accept requests.
- Implement notification and rating/review system.
- Test and debug the app.

Milestone Tasks
- Design and implement the basic user interface (2 weeks)
- Implement user authentication and request posting features (3 weeks)
- Implement features for helpers to browse and accept requests (3 weeks)
- Implement notification and rating/review system (2 weeks)
- Test and debug the app (1 week)

Potential limitations and risks

- Limited development time may affect the scope and complexity of the app.
- There may be difficulties in ensuring the reliability and security of the app.
- Limited knowledge of React.js/Next.js (or React Native)

References and Resource links

Udemy React.js: https://www.udemy.com/course/react-the-complete-guide-incl-redux/
Udemy Next.js: https://www.udemy.com/course/nextjs-react-the-complete-guide/
Udemy React Native: https://www.udemy.com/course/react-native-the-practical-guide/
MangoDB: https://www.mongodb.com/
    MangoDB will be used to store user and request information