What would be the first step in implementing the following?

Do a wireframe and design of the following information:

Web/Mobile App Development

**Abstract**

This capstone project involves the development of a web/mobile application to connect individuals seeking assistance with those who are offering services. The services cover tasks such as relocating, cleaning, running errands, and addressing immediate needs. The motivation for this project stems from the pandemic-induced decline in services that were easily accessible. This project intends to recreate the ease of finding immediate assistance that was available before the pandemic. This application will make it easier to connect with others which will enable users to efficiently fulfill their urgent needs or seek immediate income. The ambition for this project is to bridge the gap created by the pandemic by providing a convenient online platform. With an emphasis on covering both frontend and backend development skills, the project aims to deliver a solution that addresses a vital post-pandemic need while providing valuable learning opportunities.

Project Overview and Project Objectives:

This capstone project endeavors to develop a web/mobile application designed to connect individuals in need of assistance with those willing to offer various services such as relocating, cleaning, running errands, and addressing immediate needs. The motivation behind the project is rooted in the observed decline in easily accessible services during the pandemic, prompting the need to recreate pre-pandemic ease in finding immediate assistance. The application aims to facilitate swift connections, enabling users to efficiently fulfill urgent needs or seek immediate income. The project serves to bridge the gap left by the pandemic, offering a convenient online platform for users.

Purpose:

The purpose of this project is to develop an application that can connect individuals seeking assistance with those offering services. This will cover a wide range of tasks. The application addresses the challenges created by the pandemic-induced decline in services that were easily accessible. This application will provide a platform for swift and efficient connections to meet urgent needs or seek immediate income.

Background:

The motivation for this project stems from the impact that the pandemic has had on services that were easily accessible and are now difficult to access. The ease of finding assistance for tasks such as moving or handy work has decreased since the pandemic. This resulted in the identification of the need to move such services online. This project creates an opportunity to develop an application that addresses these needs. The emphasis is on both addressing essential post-pandemic needs and improving my front-end and back-end development skills. I intend to use tools such as HTML, JavaScript, CSS, PHP, and MySQL to lower costs until transitioning to a serverless architecture.

Key Features:

The key features of the application will enable users to post job descriptions, specify job duration, set pay rates, exchange contact information, create user accounts, and log in. These features collectively contribute to the smooth functioning of the platform which will enable users to connect and fulfill their immediate needs or offer services efficiently.

Top of Form

**Christian Worldview**

My project fits into the Christian worldview perspective when it comes to aspects such as ethical, spiritual, legal, historical, and social considerations. Ethical Consideration: The application aims to fill a void created by the pandemic by addressing a vital need in society. The Christian worldview sheds light on significance of compassion, promoting community involvement, and helping people in time of need. Spiritual Consideration: The project is an epitome of the Christian value of loving your neighbors. This application offers a platform for individuals to help one another, which embodies the Christian principle of being selfless and serving people. Legal Consideration: This project aligns with ethical business practices and protection of user data which adheres to Christian values of honesty and integrity. The application further addresses historical and social considerations by taking the initiative to recreate the pre-pandemic ease of getting access to services. This will have a positive impact on the well-being of the community members. (Johnson & Smith, 2021). This project is using a Christian worldview approach by embodying principles of fairness, compassion, and understanding that the goal of the application is beyond profit making and primarily aims to assist those who are in need. The project stresses the significance of providing a platform to address practical needs and promote support and unity within the community. This application will uphold Christian values by reflecting ethical principles when it comes to decision-making and interactions with users (Branch, 2022). Top of Form

Johnson, B., & Smith, J. (2021, June). Towards ethical data-driven software: filling the gaps in ethics research & practice. In *2021 IEEE/ACM 2nd International Workshop on Ethics in Software Engineering Research and Practice (SEthics)* (pp. 18-25). IEEE. <https://ieeexplore.ieee.org/abstract/document/9474816>

Branch, J. A. (2022, January 27). Thinking ethically as a Christian. Lexham Press. <https://blog.lexhampress.com/2022/01/27/thinking-ethically-as-a-christian/>

**Project Objectives**

[List objectives that will be used to measure project success.]

[SMART](https://www.wrike.com/project-management-guide/faq/what-is-smart-in-project-management/) goal system. In this framework, SMART stands for Specific, Measurable, Achievable, Relevant, Time-bound.

Below is the list of objectives that will be used to measure the success of the project.

* Will develop a web/mobile application that can connect individuals seeking assistance with those offering services.
* The application will be user-friendly and easily accessible, enabling users to easily post job descriptions, specify job durations, set pay rates, and exchange contact information.
* The application will cover a wide range of tasks, including but not limited to relocating, cleaning, running errands, and addressing immediate needs.
* The project will help improve both my frontend and backend development skills.
* Will successfully use HTML, JavaScript, CSS, PHP, and MySQL to reduce costs during the development phase till it’s time to transition to a serverless architecture. This will help ensure that the project stays within budget constraints.

Upon transition to a serverless architecture, the following will be assessed and evaluated over time:

* The application will make it easier to find immediate assistance.
* The project will provide a solution that addresses an important post-pandemic need.
* The application will make it easier for users to connect with one another, enabling them to fulfill urgent needs or seek immediate income efficiently.

**How to write SMART project management objectives (hint:** I found this on the internet**)**

SMART objectives are goals outlined using the [SMART](https://www.wrike.com/project-management-guide/faq/what-is-smart-in-project-management/" \t "_blank) goal system. In this framework, SMART stands for Specific, Measurable, Achievable, Relevant, Time-bound. When writing out your project objectives, make sure to tie them into the bigger picture of your project and your business as a whole.

Your SMART objectives should be concise, realistic, and specific statements that tie into the overall goals of the project or business. They shouldn’t be long-winded, overarching, or unrealistic.

When writing your project objectives, you can look at what’s realistic based on what was accomplished in previous similar projects. Alternatively, you could check out which KPIs you used last time that you can use to measure results this time around.

**Project objectives examples**

**Example A:** The team will remain under a budget of $5,000 as they complete the marketing campaign set to launch on the 30th day of the month.

* **Specific:** Spend under $5,000 to complete the marketing project
* **Measurable:**Can be measured by tracking expenses on a shared document
* **Attainable**: Because this is a recurring project, we know that it usually costs $4899, so this is achievable
* **Relevant:**The marketing campaign supports larger company goals of brand visibility
* **Time-bound**: The project will begin on the first of the month and end on the 30th day of the same month

<https://www.wrike.com/project-management-guide/faq/what-are-project-objectives-in-project-management/>

**Challenges**

[List the known challenges that will be used to measure project success.]

Below is the list of potential challenges that will be used to measure the success of the project.

* Challenge: Making sure that both frontend and backend are reliable and functional.
  + Measurement of Success: The application should be free of bugs, smooth user experience, and regular testing of software.
* Challenge: Designing the system so that it can manage a growing number of users and job postings.
  + Measurement of success: The performance of the system stays stable with an increased number of users and postings.
* Challenge: Keeping costs as low as possible during the project.
  + Measurement of Success: Adhering to budget throughout the project.
* Challenge: Developing an intuitive and user-friendly interface for job posters and service providers.
  + Measurement of Success: Receiving positive feedback on the usability and design of the application.
* Challenge: Understanding local regulations and legal requirements concerning the project.
  + Measurement of Success: Legal or regulatory aspects are understood.
* Challenge: Successful transition from the current tools (HTML, JavaScript, CSS, PHP, MySQL) to serverless architecture.
  + Measurement of Success: Successful migration with improved performance.
* Challenge: Guaranteeing that user data is secure and private.
  + Measurement of success: Implementing strong security measures and having no security issues.

1. **Community Building:**
   * Challenge: Establishing and nurturing a community of users to encourage positive interactions and feedback.
   * Measure of Success: Growing a supportive user community, active participation in forums, and positive user reviews.
2. **User Adoption and Engagement:**
   * Challenge: Convincing users to adopt the new platform and ensuring active engagement.
   * Measure of Success: Tracking user registrations, job postings, and overall platform activity.
3. **Real-Time Communication:**
   * Challenge: Enabling efficient real-time communication between users seeking assistance and those offering services.
   * Measure of Success: Implementing a reliable and fast communication system, minimizing delays in job-related discussions.

It's important to regularly assess these challenges throughout the project and adapt strategies accordingly to ensure project success.

Top of Form

**Benefits and Opportunities**

[Describe the benefits or opportunities resulting from project implementation. Provide references as necessary.]

There are many benefits or opportunities that could result from the implementation of this project. The development of a web/mobile application that connects individuals who are seeking assistance with those who are providing services could present many benefits and opportunities. The application provides opportunities to resolve post-pandemic issues by offering a convenient online platform that makes it easier for users to connect. This application can help users fulfill urgent needs or seek immediate income without enduring long delays. This application provides a wide range of assistance to users such as relocating, cleaning, running errands, and addressing immediate needs. This application offers tremendous benefits. For example, it can help users save time and money in that it provides them with a fast and easy way to find assistance for their needs. It can also aid users in getting help for tasks that they may not be able to perform themselves, like relocating or cleaning. Furthermore, the application can assist users in finding immediate or urgent work opportunities during economic uncertainty. Additionally, the implementation of this project can provide great learning opportunities for developers. By improving both frontend and backend development skills, one can become more well-rounded in building complex web/mobile applications. The experience gained from this project can be utilized in building more sophisticated and user-friendly applications.

Project Scope

[Give a clear, concise statement that states the scope of the project. This should also include items that are to be in or out of scope.]

In Scope Features:

Out of Scope Features:

**Project Scope:**

The project scope consists of the development of a web/mobile application that enables users to connect and accomplish many tasks. The in-scope features involve users posting job descriptions, specifying job duration and pay rates, exchanging contact information, creating user accounts, and logging in. The out-of-scope aspects include real-time features, complex reporting, extensive data manipulation, non-screen-based features, and advanced security management in the initial phase of development. The project primarily involves a screen-based interface, obtaining information directly from users, storing data securely using MySQL, and executing basic security measures. HTML, JavaScript, CSS, PHP, and MySQL will be used during this project to lower costs and will transition to serverless architecture upon project completion.

In Scope Features:

* Post Job Description: Users can post descriptions of tasks or jobs they need assistance with.
* Job Duration: Users can specify the timeframe for completing the posted jobs.
* Pay Rate: Users can make known how much money they offer for the services they are seeking.
* Ability to Exchange Contact Information: Users can exchange contact information which allows for communication between those seeking assistance and those providing services.
* Create a User Account: Users can register and create personal accounts on the web/mobile application.
* Log In: Registered users can log into their accounts to access and utilize the features of the application.

Out of Scope Features:

* Real-Time System: Features like instant messaging or live updates, are out of scope for the initial development.
* Reports Production: Complex reporting functionalities are out of scope; the primary focus is on the core features for connecting users.
* Data Storage Manipulation: Extensive data manipulation is out of scope. The emphasis is on connecting users instead of sophisticated data manipulation.
* Non-Screen-Based Features: Non-screen-based features like integration with hardware devices are out of scope for this project.
* Advanced Security Management: This project involves security measures. However, advanced security management features like multi-factor authentication will be implemented in future phases but are currently out of scope.

**Additional Scope Details:**

* **Screen-Based Nature:**
  + The project is primarily screen-based, focusing on the development of a user-friendly web/mobile application interface.
* **Data Source:**
  + Information comes directly from users who create accounts and post job descriptions, specifying details such as job duration and pay rates.
* **Data Storage:**
  + The system will store user account information and job postings securely using MySQL.
* **Security Management:**
  + Basic security measures will be implemented, including secure user authentication and data encryption. Advanced security features may be considered in future phases.
* **Development Tools:**
  + The initial development will use HTML, JavaScript, CSS, PHP, and MySQL to lower costs until the transition to a serverless architecture.

This project scope outlines the key features that will be included in the web/mobile application, as well as those features that are not within the initial scope of development. It provides a clear boundary for the project's focus, ensuring a well-defined and achievable outcome.

Top of Form

The Project Scope section of the Capstone Project Proposal outlines the scope of the project, defining the initial features that will be in scope and also out of scope for the project. [It is a brief document that outlines what your capstone project is about, the steps you intend to follow while doing it, the resources you will need, and an outline of the project itself](https://www.helpforassessment.com/blog/capstone-project-proposal/)[1](https://www.helpforassessment.com/blog/capstone-project-proposal/)[2](https://writingmetier.com/article/capstone-project-proposal-what-it-is-and-how-to-write/)[3](https://capstonewriting.com/capstone-project-proposal/).

The project involves the development of a web/mobile application that connects individuals seeking assistance with those offering services, spanning tasks such as relocating, cleaning, running errands, and addressing immediate needs. The application facilitates swift connections, allowing users to efficiently fulfill urgent needs or seek immediate income. The project is driven by a desire to bridge the gap left by the pandemic, offering a convenient online platform. [With a focus on honing both frontend and backend development skills, the project aims to deliver a solution that addresses a crucial post-pandemic need while providing valuable learning opportunities](https://www.helpforassessment.com/blog/capstone-project-proposal/)[4](https://shared.ontariotechu.ca/shared/faculty/fbit/documents/capstone-and-internship/2021-capstone-project-proposal-form-1.pdf).

The app aims to bridge individuals seeking assistance with those eager to offer their services, covering a wide range of tasks, including but not limited to relocating, cleaning, running errands, and addressing immediate needs. In various situations, individuals find themselves in urgent need of assistance or in pursuit of immediate income. [With this application at their disposal, they can easily connect with others who can provide the necessary assistance](https://www.helpforassessment.com/blog/capstone-project-proposal/)[4](https://shared.ontariotechu.ca/shared/faculty/fbit/documents/capstone-and-internship/2021-capstone-project-proposal-form-1.pdf).

I hope this helps!

[List the work breakdown required to satisfy the project objectives. Identify teams and other resources that may be required to successfully complete the project.]

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Work Breakdown Structure | | | | | | | | | | |
| ID | Task | Dependencies | Status | Effort Hours | Cost | Start Date | Planned Completion | Estimate to Completion | Actual Completion | Resource |
| 1 | Research and select technologies (HTML, JavaScript, CSS, PHP, MySQL) | Project Initiation | In progress |  |  |  |  |  |  | Technology Research Team (Self) |
| 2 | Design user interface (UI) mockups | Technology Research and Selection | Not started |  |  |  |  |  |  | UI/UX Designers |
| 3 | Develop frontend using HTML, JavaScript, and CSS | Design Phase | Not started |  |  |  |  |  |  | Frontend Development Team (Self) |
| 4 | Set up the backend server using PHP, implement MySQL database | Technology Research and Selection, Frontend Development | Not started |  |  |  |  |  |  | Backend Development Team (Self) |
| 5 | Integrate frontend and backend components | Frontend Development, Backend Development | Not started |  |  |  |  |  |  | Integration Team (Self) |
| 6 | Conduct unit and integration testing, address bugs | Integration | Not started |  |  |  |  |  |  | Quality Assurance Team (Self/Others) |
| 7 | Develop user account creation and login functionality | Backend Development | Not started |  |  |  |  |  |  | Backend Development Team (Self) |
| 8 | Document codebase, and API documentation | Integration, Testing | Not started |  |  |  |  |  |  | Documentation Team (Self) |
| 9 | Review project progress, optimize for performance and cost | Testing, Documentation |  |  |  |  |  |  |  | Optimization Team (Self) |
| 10 | Conduct final project review, deploy the application | Project Review and Optimization |  |  |  |  |  |  |  | Deployment Team (Self/) |

Project Success Measures

[Describe what measures will be used to calculate project success. Use the template below to list the project completion criteria.]

|  |
| --- |
| Project Completion Criteria |
| 1. Developed within the time allocated. |
| 2. Meets the desired performance/technology level. |
| 3. Post Job Description: Users can post descriptions of tasks or jobs they need assistance with. |
| 4. Job Duration: Users can specify the timeframe for completing the posted jobs. |
| 5. Pay Rate: Users can make known how much money they offer for the services they are seeking. |
| 6. Ability to Exchange Contact Information: Users can exchange contact information, which allows for communication between those seeking assistance and those providing services. |
| 7. Create a User Account: Users can register and create personal accounts on the web/mobile application. |
| 8. Login: Registered users can log into their accounts to access and utilize the features of the application. |
| 9. Transition to serverless architecture |

[Use the table below to list the project assumptions and constraints, if applicable. An assumption is an educated guess that a likely condition or circumstance is presumed to be true. A constraint is a limiting condition or circumstance that defines the project boundaries. Assumptions allow the project to succeed. Constraints restrict or limit the project execution.]

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Assumptions and Constraints | | | | | |
| ID | Description | Comments | Type | Status | Date Entered |
| 1 | Users will readily adopt the new web/mobile application. | The assumption is based on the perceived need for the service and the convenience offered by the application. | External | Accepted |  |
| 2 | The chosen technologies (HTML, JavaScript, CSS, PHP, MySQL) are suitable for project requirements. | The assumption is made based on the cost-effectiveness and skill development goals. | Internal | Accepted |  |
| 3 | Users will have consistent and reliable internet connectivity. | The success of the application depends on users being able to connect seamlessly. | External | Accepted |  |
| 4 | Individuals offering services will be motivated to use the platform. | The assumption is crucial for the availability of service providers on the platform. | External | Accepted |  |
| 5 | The application will effectively address urgent needs. | Swift fulfillment of immediate requirements is a key success factor. | Internal | Accepted |  |
| 6 | The project will serve as a valuable learning opportunity for skill enhancement. | Personal skill development is an additional motivator for the project. | Internal | Accepted |  |
| 7 | Limited time available for project completion due to academic deadlines. | The project must adhere to strict timelines to meet academic requirements. | External | Acknowledged |  |
| 8 | Limited budget for the project, especially during the initial phases. | Decisions related to tools and resources should consider budget constraints. | External | Acknowledged |  |
| 9 | Limited availability of human resources, including project team members. | Resource optimization and workload management are critical. | External | Acknowledged |  |
| 10 | Unforeseen challenges and obstacles during project development. | A contingency plan is necessary to address unexpected issues. | External | Acknowledged |  |
| 11 | The project plans to transition to a serverless architecture at a later stage. | Initial development should consider future serverless requirements. | Internal | Acknowledged |  |
| 12 | Limited control over user acceptance and adoption rates. | Success relies on external factors such as user preferences and market dynamics. | External | Acknowledged |  |
|  |  |  |  |  |  |
| 13 | Ongoing uncertainties related to the pandemic may impact user behavior. | Adaptability to changing circumstances is crucial. | External | Acknowledged |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Project High-Level Solution

**Introduction**

[Describe in detail the nature of the topic or challenge addressed. Adjust the title of this section accordingly. Be very clear when you describe what is given/known, what the objective is, and what the characteristics of the solution/answer sought are. Include diagrams and illustrations to clarify your narrative. Include a detailed description and examples of the data/input to this project. State any assumptions you made and explain why.]

**Solution**

[Describe in detail the nature of your solution, both in theoretical terms (principles, concepts) and technical terms (UML, flowcharts, pseudocode, code snippets). If the project is entirely theoretical/mathematical, prove every point you make and anchor in external references. If the solution is code or another type of software, provide an architecture of the solution (diagram), clearly labeling and explaining the function and operation of each component. Detail the type of input, output, and the nature of data/information processing. Provide screenshots of correct execution of your code. Include key code snippets and comment on their role and approach to implementation. Detail and reference any external resources used. Summarize this section with a reminder of how your answer/approach/solution addresses the objectives.]

**Project High-Level Solution Introduction**

This capstone project responds to the post-pandemic challenges by developing a comprehensive web/mobile application. Its purpose is to seamlessly connect individuals seeking assistance with those offering services, covering tasks like relocating, cleaning, running errands, and addressing immediate needs. The project addresses the decline in accessible services caused by the pandemic, aiming to recreate pre-pandemic ease in finding immediate assistance.

**Objective and Characteristics:** The primary goal is to bridge the gap left by the pandemic, providing a convenient online platform for swift connections. Users can efficiently fulfill urgent needs or seek immediate income. The application's dual focus on frontend and backend development aims to deliver a holistic solution, offering valuable learning opportunities.

Solution

In response to the identified need for a web/mobile application connecting individuals seeking assistance with service providers, the proposed solution aims to deliver a user-friendly, efficient platform. The solution aligns with frontend and backend development, utilizing HTML, JavaScript, CSS, PHP, and MySQL, with future plans for serverless architecture.

Architecture: The solution follows a client-server architecture, where the client is the user interface, and the server handles data processing and storage. Below is a simplified diagram of the system:

A diagram of a computer

Description automatically generated

Components:

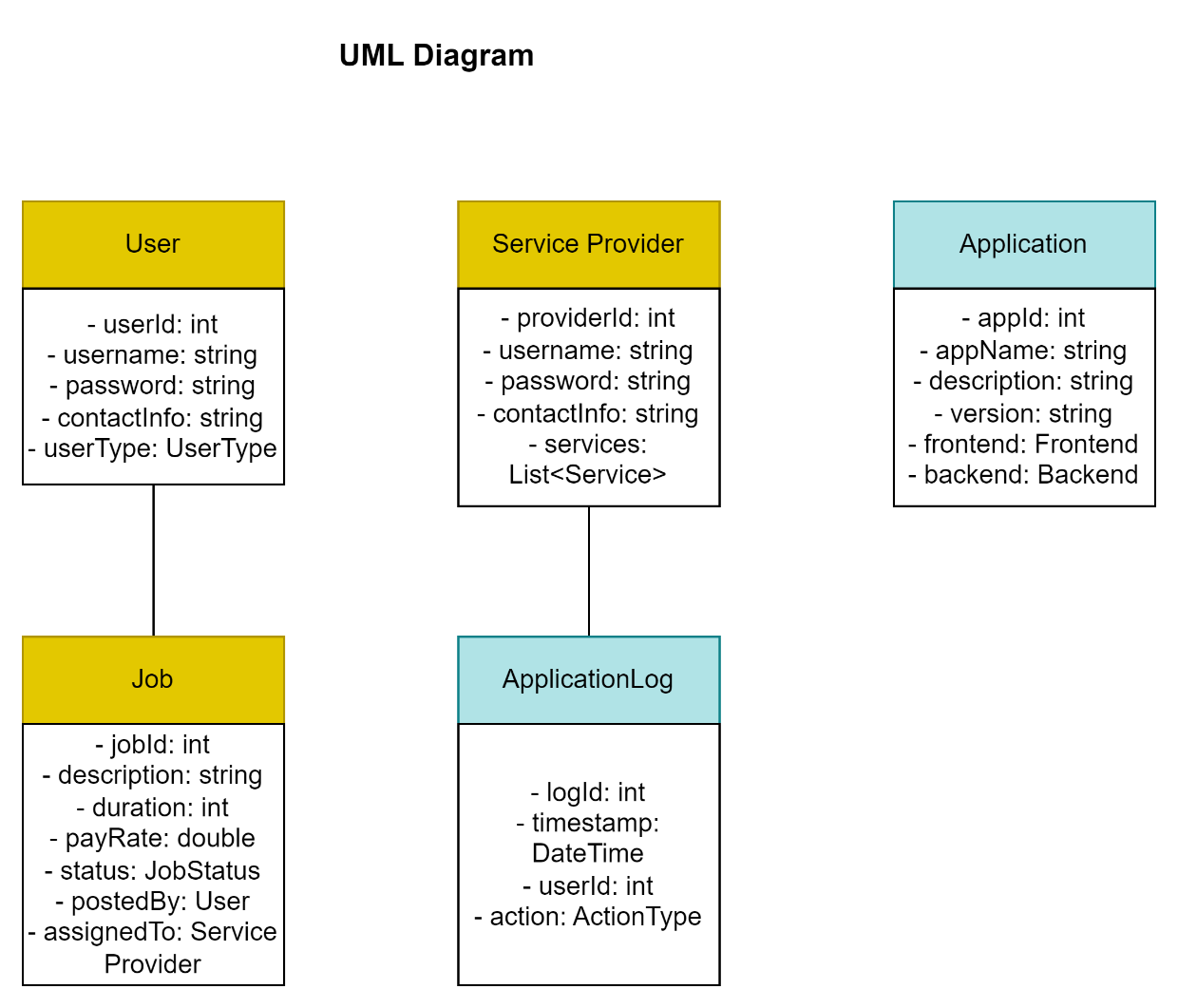
1. Frontend (HTML, JavaScript, CSS):
   * The user interacts with a responsive and intuitive interface designed using HTML, enhanced with dynamic behavior through JavaScript and styled with CSS.
2. Backend (PHP):
   * PHP scripts handle server-side logic, including user authentication, job posting, and data retrieval.
   * The server communicates with the MySQL database for data storage and retrieval.
3. Database (MySQL):
   * Stores user account information, job details, and other relevant data.
   * Ensures data integrity and allows efficient retrieval.

Functionality:

1. User Registration/Login:
   * Users can create accounts, providing necessary information.
   * Login functionality secures user access.
2. Job Posting:
   * Users can post job descriptions, including details such as job duration, pay rate, and contact information.
   * Data is securely stored in the MySQL database.
3. Job Search:
   * A search functionality enables users to find relevant jobs based on criteria.
   * Results are displayed in a user-friendly manner.
4. Communication:
   * Users can exchange contact information securely through the application.
   * Ensures direct and efficient communication between parties.

A computer screen shot of a code

Description automatically generated



Assumptions and Challenges: Assuming a basic understanding of PHP, MySQL, HTML, JavaScript, and CSS, the solution anticipates challenges in ensuring data security, seamless communication, and an intuitive user experience. Regular testing and updates will be crucial.

Conclusion: This solution addresses the post-pandemic need by providing an accessible online platform for connecting individuals in need with service providers. With a robust architecture, user-friendly interface, and key features, the application aims to bridge the gap left by the pandemic, offering a valuable solution and a platform for skill development in mobile application development.

Project Controls

[Use the tables below to define the risks, then list the steps to prevent the risks from occurring or the steps to minimize the chances of it happening. The contingency plan describes alternative solutions to reduce the impact of the risk. An example of a contingency plan is to provide the customer a temporary web server if there are delays in delivery/completion. If the risk has already happened, then provide an entry in the issue log.]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RISK MANAGEMENT | | | | |
| **Event Risk** | **Risk Probability**  **(high, medium, low)** | **Risk Impact** | **Risk Mitigation** | **Contingency Plan** |
| What is the risk? | What is the probability? | What is the impact if the risk occurs? | What can be done to minimize the risk? | What can be done to minimize the impact of the risk? |
| Technical challenges in web/mobile application development, leading to delays in the development process. | Medium | The impact will be high. | Conduct thorough research and planning before starting the development. Break down the project into smaller tasks and milestones. Regularly update skills and knowledge related to web/mobile application development. | Collaborate with experienced developers or seek assistance from online communities. |
| Delays in project timeline due to unforeseen challenges. | Medium | The impact will be medium. | Develop a detailed project plan with realistic timelines. Regularly monitor progress and identify potential challenges early. Have contingency plans for critical path items. | Allocate additional resources to critical tasks if delays occur. |
| Inadequate user adoption or interest. | Medium | The impact will be medium. | Conduct market research to understand the target audience. Implement user feedback loops during development. Develop a marketing and outreach strategy to generate interest in the application. | If user adoption is lower than expected, analyze feedback and make necessary adjustments to improve the application's appeal. Consider additional marketing efforts or partnerships to boost adoption. |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ISSUES LOG | | | | | | | | |
| **ID** | **Description** | **Project Impact** | **Action Plan/Resolution** | **Owner** | **Importance** | **Date Entered** | **Date to Review** | **Date Resolved** |
| 1 | What is the issue? | How will this impact scope, schedule, and cost? | How do you intend to deal with this issue? | Who manages this issue? |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |

[All projects have either anticipated and planned or unexpected changes. Describe any issues in management or change management due to the anticipated and planned or unexpected changes. Use the template below to list anticipated and planned or unexpected changes.]

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CHANGE CONTROL LOG | | | | | | | | | |
| **ID** | **Change Description** | **Priority** | **Originator** | **Date Entered** | **Date Assigned** | **Evaluator** | **Status** | **Date of Decision** | **Included in Rev. #** |
| 1 | Expansion of features to enhance user engagement. | Medium | Self |  |  | Self |  |  | 1 |
| 2 | Modification of the user interface to address early feedback. | High | Self |  |  | Self |  |  | 1 |
| 3 | Inclusion of additional security measures to safeguard user data. | High | Self |  |  | Self |  |  | 1 |
| 4 | Integration of a new payment gateway for improved transaction processing. | High | Self |  |  | Self |  |  | 1 |
|  | Delay in project timeline due to unforeseen technical challenges. | High | Self |  |  | Self |  |  | 1 |
| 5 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**Project Cost and Schedule**

[Create a spreadsheet of costs related to the scope of the project, with all necessary materials and elements required to accomplish it effectively, and the allocated resources. **Note:** If the project being designed will not require any cost calculations, please state that here. Then, create a project schedule/timeline with dates for completion of key components of the project after all project tasks have been defined and prioritized. Finally, set a programming schedule by implementing work breakdown and task time estimates.]

This project will not require any cost calculations because I plan on using free open-source languages/resources. Below is an estimate of the project schedule/timeline for my capstone project.

**Project Schedule/Timeline:**

1. **Project Planning and Research (Week 1-3): (02/07 – 02/28)**
   * Define project scope and objectives.
   * Research similar applications.
   * Identify potential challenges and risks.
2. **Requirement Gathering and Documentation (Week 4-7): (02/29 – 03/13)**
   * Detail project requirements.
   * Define key features and functionalities.
   * Create user stories.
3. **Design Phase (Week 8-11): (03/14 – 04/04)**
   * Create wireframes and mockups.
   * Design user interface.
   * Finalize database schema.
4. **Frontend Development (Week 12-16): (04/05 – 05/03)**
   * Set up HTML, CSS, and JavaScript environment.
   * Develop user registration and login functionality.
   * Implement post job description feature.
5. **Backend Development (Week 17-21): (05/04 – 05/29)**
   * Set up server environment (using PHP)
   * Implement database functionalities (MySQL)
   * Develop job duration and pay rate features.
6. **Integration and Testing (Week 22-25): (05/30 – 06/20)**
   * Integrate frontend and backend.
   * Conduct unit testing.
   * Identify and fix bugs.
7. **User Account Management (Week 26-29): (06/21 – 07/12)**
   * Enhance user registration and login.
   * Implement user account features.
   * Allow users to exchange contact information.
8. **Finalize Features and User Interface (Week 30-33): (07/13 – 07/31)**
   * Refine UI/UX based on feedback.
   * Ensure all key features are working seamlessly.
9. **Testing and Quality Assurance (Week 34-37): (08/01 – 08/22)**
   * Conduct thorough testing.
   * Address any remaining issues or bugs.
   * Optimize performance.
10. **Documentation and Training Materials (Week 38-39): (08/23 – 08/29)**
    * Document the project.
    * Prepare user guides.
    * Create training materials.
11. **Deployment (Week 40-41): (08/29 – 09/04)**
    * Prepare for deployment.
    * Deploy the application to a testing environment.
    * Ensure server and hosting configurations are optimized.
12. **User Acceptance Testing (Week 42-43): (09/05 – 09/11)**
    * Gather feedback from users.
    * Make any final adjustments based on feedback.
13. **Launch (Week 44): (09/12 – 09/18)**
    * Deploy the application to the production environment.
    * Announce the launch to users.
14. **Post-Launch Monitoring and Support (Week 45-49): (09/19 – 10/16)**
    * Monitor application performance.
    * Provide support for any issues.
    * Plan for future updates and improvements.

**Programming Schedule with Work Breakdown and Task Time Estimates:**

Below is an estimate of the programming schedule with the implementation of the work breakdown and task time estimates.

* HTML, CSS, and JavaScript Setup: 2 weeks
* Frontend Development: 7 weeks
* PHP and MySQL Setup: 3 weeks
* Backend Development: 9 weeks
* Integration and Testing: 4 weeks
* User Account Management: 3 weeks
* Finalize Features and UI: 3 weeks.
* Testing and QA: 3 weeks
* Documentation and Training Materials: 2 weeks
* Deployment: 2 weeks
* User Acceptance Testing: 2 weeks
* Launch: 1 week
* Post-Launch Monitoring and Support: 4 weeks

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project Schedule/Timeline** | | | **Week** | **Start Date** | **End Date** |
| **Project Planning and Research** |  |  | (1-3) | **2/7/2024** | **2/28/2024** |
| Define project scope and objectives. |  |  |  |  |  |
| Research similar applications. |  |  |  |  |  |
| Identify potential challenges and risks. |  |  |  |  |  |
| **Requirement Gathering and Documentation** |  |  | (4-7) | 2/29/2024 | 3/13/2024 |
| Detail project requirements. |  |  |  |  |  |
| Define key features and functionalities. |  |  |  |  |  |
| Create user stories. | | |  |  |  |
| **Design Phase** | | | (8-11) | 3/14/2024 | 4/4/2024 |
| Create wireframes and mockups. |  |  |  |  |  |
| Design user interface. |  |  |  |  |  |
| Finalize database schema. |  |  |  |  |  |
| **Frontend Development** |  |  | (12-16) | 4/5/2024 | 5/3/2024 |
| Set up HTML, CSS, and JavaScript environment. |  |  |  |  |  |
| Develop user registration and login functionality. |  |  |  |  |  |
| Implement post job description feature. |  |  |  |  |  |
| **Backend Development** |  |  | (17-21) | 5/4/2024 | 5/29/2024 |
| Set up server environment (using PHP) |  |  |  |  |  |
| Implement database functionalities (MySQL) |  |  |  |  |  |
| Develop job duration and pay rate features. |  |  |  |  |  |
| **Integration and Testing** |  |  | (22-25) | 5/30/2024 | 6/20/2024 |
| Integrate frontend and backend. |  |  |  |  |  |
| Conduct unit testing. |  |  |  |  |  |
| Identify and fix bugs. |  |  |  |  |  |
| **User Account Management** |  |  | (26-29) | 6/21/2024 | 7/12/2024 |
| Enhance user registration and login. |  |  |  |  |  |
| Implement user account features. |  |  |  |  |  |
| Allow users to exchange contact information. |  |  |  |  |  |
| **Finalize Features and User Interface** |  |  | (30-33) | 7/13/2024 | 7/31/2024 |
| Refine UI/UX based on feedback. |  |  |  |  |  |
| Ensure all key features are working seamlessly. |  |  |  |  |  |
| **Testing and Quality Assurance** |  |  | (34-37) | 8/1/2024 | 8/22/2024 |
| Conduct thorough testing. |  |  |  |  |  |
| Address any remaining issues or bugs. |  |  |  |  |  |
| Optimize performance. |  |  |  |  |  |
| **Documentation and Training Materials** |  |  | (38-39) | 8/23/2024 | 8/29/2024 |
| Document the project. |  |  |  |  |  |
| Prepare user guides. |  |  |  |  |  |
| Create training materials. |  |  |  |  |  |
| **Deployment** | | | (40-41) | 8/30/2024 | 9/4/2024 |
| Prepare for deployment. |  |  |  |  |  |
| Deploy the application to a testing environment. |  |  |  |  |  |
| Ensure server and hosting configurations are optimized. |  |  |  |  |  |
| **User Acceptance Testing** |  |  | (42-43) | 9/5/2024 | 9/11/2024 |
| Gather feedback from users. |  |  |  |  |  |
| Make any final adjustments based on feedback. |  |  |  |  |  |
| **Launch** | | | Week 44 | 9/12/2024 | 9/18/2024 |
| Deploy the application to the production environment. |  |  |  |  |  |
| Announce the launch to users. |  |  |  |  |  |
| **Post-Launch Monitoring and Support** |  |  | (45-49) | 9/19/2024 | 10/16/2024 |
| Monitor application performance. |  |  |  |  |  |
| Provide support for any issues. |  |  |  |  |  |
| Plan for future updates and improvements. |  |  |  |  |  |

**Initial Documentation of Project that I started:**

This capstone project involves the development of a web/mobile application with the purpose of connecting individuals seeking assistance with those offering services, spanning tasks such as relocating, cleaning, running errands, and addressing immediate needs. Motivated by the pandemic-induced decline in easily accessible services, the project aims to recreate the pre-pandemic ease of finding immediate assistance. The application facilitates swift connections, allowing users to efficiently fulfill urgent needs or seek immediate income. The project is driven by a desire to bridge the gap left by the pandemic, offering a convenient online platform. With a focus on honing both frontend and backend development skills, the project aims to deliver a solution that addresses a crucial post-pandemic need while providing valuable learning opportunities.

Purpose: The aim of the app is to bridge individuals seeking assistance with those eager to offer their services, covering a wide range of tasks, including but not limited to relocating, cleaning, running errands, and addressing immediate needs. In various situations, individuals find themselves in urgent need of assistance or in pursuit of immediate income. With this application at their disposal, they can swiftly and efficiently meet these objectives without enduring long delays.

My motivation for this project stems from the pandemic when I noticed that there was a need for a simple service that was always available before the pandemic, and this service was no longer easily accessible due to the pandemic. For example, if you needed help moving out of your house, you could go to Home Depot and easily find people up front who were willing to help you move. If you needed help with handy work, you could easily find people to offer that service. Unfortunately, after the pandemic, things were not the same. Therefore, I identified the need to move this service online. However, I have never had the time to work on it. As a result, I decided to make this my capstone project by developing an application that can address this need. I know that there will be some unforeseen challenges, but I’m resolute to get it done. This will also be an opportunity for me to work on my mobile application development skills since this involves both frontend and backend development.

To lower costs, I plan to use the following tools for my project till it’s time to go serverless: HTML, JavaScript, CSS, PHP, and MySQL

**Key Features:**

Post Job Description

Job Duration

Pay Rate

Ability to Exchange Contact Information

Create user account

Log in

<https://balsamiq.com/learn/articles/mobile-app-wireframing-guide/>

<https://balsamiq.com/learn/articles/mobile-app-wireframing-guide/>

The first step in implementing the mobile app for connecting individuals seeking assistance with those offering services is to define the project scope and requirements. This involves creating a detailed document that outlines the features, functionalities, and specifications of the app. Here are the steps to get started:

1. **Requirement Gathering:**
   * Identify and list down all the features you mentioned (Post Job Description, Job Duration, Pay Rate, Ability to Exchange Contact Information, Create user account, Log in).
   * Interview potential users or stakeholders to understand their needs and expectations.
   * Define the scope of the app by specifying what functionalities are essential and what can be considered as additional features.
2. **Wireframing and Design:**
   * Create wireframes or rough sketches of the app's user interface. This helps visualize the layout and flow of the application.
   * Design the app's user interface, keeping in mind user experience and usability.
3. **Technical Feasibility:**
   * Evaluate the technical feasibility of the project. Consider the platforms (iOS, Android) you want to target.
   * Choose the appropriate technology stack and development tools.
4. **Database Design:**
   * Design the database structure to store user accounts, job descriptions, durations, pay rates, and other relevant information.
   * Define relationships between different data entities.
5. **Backend Development:**
   * Set up the backend of the application, including server-side logic, database integration, and APIs.
   * Implement user authentication and authorization.
6. **Frontend Development:**
   * Develop the frontend of the application based on the wireframes and design.
   * Implement features such as posting job descriptions, setting job duration, specifying pay rates, and exchanging contact information.
7. **User Account Management:**
   * Implement user registration and login functionalities.
   * Ensure account security and manage user profiles.
8. **Testing:**
   * Conduct thorough testing to identify and fix bugs or issues.
   * Perform usability testing to ensure a smooth user experience.
9. **Deployment:**
   * Deploy the application to app stores (Google Play Store, Apple App Store).
   * Ensure compliance with app store guidelines.
10. **Monitoring and Maintenance:**
    * Implement analytics to monitor app usage.
    * Provide ongoing maintenance and updates based on user feedback and changing requirements.

Remember that this is a high-level overview, and each step may involve further sub-steps and considerations. It's crucial to involve key stakeholders throughout the process and iterate on the design and development based on feedback.

Top of Form

**Wireframe Information:**

As a text-based AI model, I can't create visual wireframes or designs directly. However, I can provide you with a textual representation of what the wireframes might look like. You can use this description to guide a designer or use it as a reference when creating the visual design. Below is a simplified textual representation of the wireframes for the key features you mentioned:

**Wireframes:**

1**. Login Screen/Home Screen:**

* Display app logo and a brief tagline (SwiftConnections: Bridging Needs, Building Opportunities)
* Buttons for "Log In" and "Create Account."

2. **Registration Screen:**

* Fields for entering user details (name, email, password).
* "Create Account" button.

3. **Login Screen:**

* Fields for entering login credentials (email, password).
* "Log In" button.
* Link to password recovery.

4. **Home Screen/Dashboard:**

* Quick overview of posted jobs.
* Buttons to post a new job or view posted jobs.

5. **Post Job Screen:**

* Form to enter job details:
  + Job Description (textarea).
  + Job Duration (dropdown or input field).
  + Pay Rate (input field).
  + Checkbox for "Allow Contact Information Exchange."

6. **Job Details Screen:**

* Display detailed information about a posted job.
* Option to apply for the job.
* Contact button if contact exchange is allowed.

7. **User Profile:**

* Display user details.
* List of posted jobs and their status.
* Edit Profile button.

8. **Settings:**

* Options to customize app settings (notifications, privacy).
* Logout button.

9. **Notification Center:**

* List of notifications for job applications, updates, etc.

**Design Considerations:**

* Use a clean and intuitive color scheme.
* Clearly distinguish between different sections with appropriate headers and visual elements.
* Prioritize user-friendly navigation to ensure a seamless experience.
* Use easily readable fonts and appropriate font sizes.
* Consider incorporating icons for better visual communication.
* Implement a responsive design for various device sizes.

Remember, these wireframes are a starting point, and you can refine them based on your specific design preferences and user feedback. If possible, consult with a professional designer to create visual designs that align with your app's branding and user experience goals.

<https://www.lucidchart.com/blog/uml-diagram-templates>

<https://www.pst.ifi.lmu.de/~kochn/uml-book.pdf>