Quiz/Survey Application

# Step 1: Define the Problem and Goal

1. Identify the Problem
   1. What is the purpose of the Quiz/Survey Application? Educate
2. Define the Goal
   1. What do we want to achieve with the application?
      1. Create a fun quizzing process
      2. Gamify
      3. Spaced Repetition
   2. Create your own Quiz/Survey/Flashcards

(Start with only a Quiz with Grading of quiz)

I made two videos on the Requirements gathering and depending on the company you could spend many more videos showing their process. I have had technical writers in some of those meetings who wrote down the purpose and the details. I want to move on to making the application since this is a project for learning to code more than learning how to plan for a project. Someone mentioned to me so I wanted to make this to make it helpful to you and let me know this process exists.

# Step 2: Identify the Target Audience

1. Target Audience:
   1. Who is the target audience? (me, students, professionals)
2. Understand Their Needs:
   1. What are their needs, preferences, and pain points?
   2. What are their technical skills and familiarity with online applications?

New application so nothing to compare too.

# Step 3: Determine the Features and Functionality

1. Brainstorm Features:
   1. Quiz/Survey Creation and Management
   2. User Authentication and Authorization
   3. Various question types (multiple-choice, true/false, open-ending)
   4. Scoring and feedback mechanisms
   5. User profiles and progress tracking and gamification
2. Prioritize Features:
   1. Based on importance and feasibility.

Going to start and only build the Quiz portion.

# Step 4: Define the Technical Requirements

1. Front-end: HTML, CSS, JavaScript, HTMX
2. Backend: PHP

HTML, CSS, JavaScript, HTMX, PHP, Bootstrap 5

# Step 5: Create a Wireframe and User Flow

1. Wireframe:
   1. Drawing an example
   2. Identifying the elements, buttons, forms, menus, …
2. User Flow Diagram:
   1. Show the sequence of steps for a user to complete a quiz or survey
   2. What any pain points or areas of improvement

Build some User Flows and then Draw a simple diagram.

# Step 6: Plan the Data Model and Storage

1. Define the Data Model
   1. Identify the entities (Users, Quizzes, Question, Answers, etc)
   2. Define the Relationships between the entities
2. Determine Storage Requirements
   1. Choose a database scheme and data storage (mySql)
   2. Consider data security and backup strategies

Define the Data Model start with a simple list of tables then work on the plan then build a ERD. Using MySql. Decide how long the client wants to keep the quiz history? 1 month, 1 year, etc.

# Step 7: Estimate the Resources and Timeline

1. Estimate Resources:
   1. Personnel: Developers, designers, and project managers
   2. Time: Development, Testing, and Deployment
   3. Budget: Hardware, software, and infrastructure costs.
2. Create a Timeline:
   1. Break down the project into smaller tasks and milestones.
   2. Identify critical dependencies and potential roadblocks

This project is for our learning the process and building the project. You need to come up with a any details at work.

# Step 8: Plan the Testing and Quality Assurance

1. Testing Strategies:
   1. Unit testing, integration testing, and user acceptance testing
   2. Automated testing and manual testing
2. Quality Assurance Process:
   1. Identify the quality metrics and standards
   2. Establish a testing schedule and timeline

For localhost development I may not do any Testing other then me clicking through it.

# Step 9: Plan the Deployment and Maintenance

1. Deployment Strategy:
   1. Cloud hosting, Virtual private server, or dedicated server?
   2. Load balancing and scalability considerations
2. Maintenance and Updates:
   1. Regular backups and data recovery
   2. Bug fixes and feature updates
   3. Monitoring and analytics for performance and user behavior.

To deploy the application you need some sort of version control. You can do a pull of the application on production. If your company has a process you want to follow their process.