CIA-3 PROJECT

Subject:

Web Technology

DCS 302-4

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1. INTRODUCTION

1.1 Project Overview

The Interview Question Bank is a web-based platform designed to help job seekers prepare for interviews by providing a categorized collection of interview questions based on job roles and difficulty levels. Users can filter questions, bookmark (star) important ones, and revisit them later. the platform will include mock aptitude tests for practice and interview questions generated using AI for dynamic content updates.The platform will be developed using Django (backend), MySQL (database), and HTML, CSS, JavaScript (frontend).

1.2 Objectives

- Provide a comprehensive interview question repository.

- Allow users to filter questions by job role and difficulty level.

- Enable users to star/bookmark questions for later review.

- Integrate mock aptitude questions for practice.

- Ensure an interactive and user-friendly experience with a clean UI/UX design.

- Deploy the project online for easy access and usability.

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2. PLANNING

2.1 Project Scope Definition

1. **Website Type:**
   A Django-based Interview Question Bank that allows users to browse, filter, save and generate interview questions dynamically.

2. **Target Audience:**
   - Job seekers preparing for interviews.
   - Recruiters or HR professionals looking for interview questions.
   - Students and professionals who want to practice coding or technical questions.

3. **Number of Web Pages:** 9 Pages

   - **Home Page** – Introduction and navigation.
   - **Sign Up Page** – New user registration.
   - **Login Page** – User authentication.
   - **Dashboard Page** – Main user interface with options.
   - **Select Job Role Page** – Users choose their job role.
   - **Select Difficulty Level Page** – Users select question difficulty.
   - **Question Bank Page** – Displays categorized interview questions.
   - **Saved Questions Page** – Stores bookmarked questions for easy access.
   - **Mock Test Page** – Provides aptitude tests for users.

2.2 Task Breakdown

1. **Frontend Development:** HTML, CSS, JavaScript, Django Templates.

2. **Backend Development:** Django framework, API development.

3. **Database Design:** MySQL for storing users, questions, and mock tests.

4. **UI/UX Design:** Professional, responsive, and user-friendly interface.

5. **AI Integration:** AI-generated dynamic interview questions.

6. **Testing & Debugging:** Unit testing, UI testing, and performance optimization.

7. **Deployment & Maintenance:** Hosting, security, and updates.

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3. BUILDING

3.1 Branding and Layout

1. **Website Name: "**QBankPro"
   The name QBankPro stands for "Question Bank Professional," highlighting its role as a comprehensive, AI-enhanced repository of interview and aptitude questions.

2. **Tagline:** "QBankPro – Your Gateway to Interview Success!"

3. **Color Palette:**

Professional,dark mode & tech-inspired (blue,green,purple,teal and its shades).

4. **Sitemap Structure:**

   - Home Page → Login/Sign Up Page → Dashboard (Mock Test, Question Bank, Saved Questions)
   - If Question Bank is selected → Job Role Selection → Difficulty Level Selection → Questions Displayed.

3.2 Content Development

1. **Interview Question Categories:** Aptitude, technical, behavioral, and situational.

2. **Mock Aptitude Test:** mock tests with scoring

3. **Additional Pages:** Saved questions, testimonials, FAQs, privacy policy, and terms of use.

4. **Stock Images & Graphics:** Tech-themed visuals & infographics.

5. **Content Repository:** A well-structured database in MySQL for efficient storage.

3.3 Design and Development

1. **Web Page Design:** Structured layouts for all pages based on content and user needs.

2. **UI Elements:** Buttons, forms, navigation menus, and interactive components.

3. **Frontend Implementation:** HTML, CSS, JavaScript, and Django Template Language.

4. **Feature Development:** AI-based question generation, mock test system, and bookmarking functionality.

5. **Sitemap Organization:** Logical structuring of all web pages as specified

6. **Review and Refinement:** Continuous iteration based on feedback and testing.

4. FINALIZATION

4.1 Initial Testing

    1. Checking if the website matches current web standards.

    2. Making sure if the functionality is working as expected.

    3. Fixing issues that arise during testing.

    4. Improving the website loading speed.

4.2 Optimization

    1. Cross-browser compatibility.

    2. Minify CSS and JavaScript.

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5. PROJECT SCHEDULE

Task	Status
Set up Django project & MySQL database	Done
Backend development (Models, Views, APIs)	In Progress
Frontend development (HTML, CSS, JS)	In Progress
AI-based question generation integration	In Progress
Mock Aptitude Test system development	Pending
Testing & Debugging	Pending
Deployment & Documentation	Pending

Project Goals: Create an AI-powered platform for interview preparation.

Deadline: March 10th, 2025