**Quiz App Project File**

**Project Overview**

**Purpose**

The purpose of this project is to create a mobile quiz application that allows users to participate in quizzes on various topics. The app aims to provide an engaging and educational experience to users while testing their knowledge in a fun and interactive manner.

**Features**

**Core Features**

1. No ads to view the answer.
2. DSA theory and coding problems
3. View the answer on the spot and the scorecard at the end.
4. Try again after understanding the mistakes made.
5. Time taken to solve the question.

**Technology Stack**

* Frontend: [HTML, CSS & JAVASCRIPT]

**Design**

* UI/UX Design: [Pre-downloaded background]

**Development Plan**

1. **Frontend Development**

* **HTML –** Used to provide Structure.
* **CSS –** Used to provide Style and Design website.
* **JAVASCRIPT –** Used for user interaction and functioning of the website & maintaining Questions Database.

1. **Testing and Quality Assurance**
   * Conduct thorough testing, including unit testing, integration testing, and user acceptance testing.
2. **Deployment**
   * Deploy the website {GITHUB}

**Testing Plan**

1. **Unit Testing**
   * Test individual components and functions for correctness.
2. **Integration Testing**
   * Ensure different parts of the application work together seamlessly.
3. **User Acceptance Testing**
   * Involve users to test the website for usability, functionality, and performance.

**CODE:**

**HTML**

<!DOCTYPE *html*>

<html *lang*="en">

  <head>

    <meta *charset*="UTF-8" />

    <meta *http-equiv*="X-UA-Compatible" *content*="IE=edge" />

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0" />

    <title>Quiz App</title>

    <link *rel*="styleSheet" *href*="style.css" />

  </head>

  <body>

    <main *class*="main">

      <header *class*="header">

        <a *href*="#" *class*="logo">Quiz.</a>

        <nav *class*="navbar">

          <a *href*="#" *class*="active">Home</a>

          <a *href*="#">About</a>

          <a *href*="#">Service</a>

          <a *href*="#">Contact</a>

        </nav>

      </header>

      <div *class*="container">

        <section *class*="quiz-section">

          <div *class*="quiz-box">

            <h1>DSA Quiz</h1>

            <div *class*="quiz-header">

              <span>Quiz Website</span>

              <span *class*="header-score">Score: 0 / 5</span>

            </div>

            <h2 *class*="question-text">How many bytes does an int store:</h2>

            <div *class*="option-list">

            </div>

            <div *class*="quiz-footer">

              <span *class*="question-total">1 of 5 Questions</span>

              <button *class*="next-btn">Next</button>

            </div>

          </div>

          <div *class*="result-box">

            <h2>Quiz Result</h2>

            <div *class*="percentage-container">

              <div *class*="circular-progress">

                <span *class*="progress-value">0%</span>

              </div>

              <span *class*="score-text">Your Score 0 out of 5</span>

            </div>

            <div *class*="buttons">

              <button *class*="tryAgain-btn">Try Again</button>

              <button *class*="goHome-btn">Go To Home</button>

            </div>

          </div>

        </section>

        <section *class*="home">

          <div *class*="home-content">

            <h1>Quiz Website</h1>

            <p>

             The Website will help you to polish your DSA theory part and with

             MCQs you can test yourself

            </p>

            <button *class*="start-btn">Start Quiz</button>

          </div>

        </section>

      </div>

    </main>

    <div *class*="popup-info">

      <h2>Quiz Guide</h2>

      <span *class*="info">1. Do not Refresh</span>

      <br />

      <span *class*="info">2. Note Your Score or take a snapshort</span>

      <span *class*="info">3. Don't switch between chrome tabs</span>

      <div *class*="btn-group">

        <button *class*="info-btn exit-btn">Exit Quiz</button>

        <a *href*="#" *class*="info-btn continue-btn">Continue</a>

      </div>

    </div>

    <script *src*="questions.js"></script>

    <script *src*="Scrpit.js"></script>

  </body>

</html>

**CSS:**

*@import* url('https://fonts.googleapis.com/css2?family=Poppins:wght@300;400;500;600;700;800;900&display=swap');

\*{

    margin: 0;

    padding: 0 ;

    box-sizing: border-box;

    font-family: 'Poppins',sans-serif;

}

body{

    color: #fff;

    background: #09001d;

    overflow: hidden;

}

*.header*{

    position: relative;

    top: 0;

    left: 0;

    width: 100%;

    padding: 20px 10%;

    background-color: transparent;

    display: flex;

    justify-content: space-between;

    align-items: center;

    z-index: 100;

}

*.logo*{

    font-size: 32px;

    color: #fff;

    text-decoration: none;

    font-weight: 700;

    filter: drop-shadow(0 0 5px #09001d);

}

*.navbar* a{

    font-size: 18px;

    color: #fff;

    text-decoration: none;

    font-weight: 500;

    margin-left: 35px;

    transition: .3s;

}

*.navbar* a*:hover*,

*.navbar* a*.active* {

    color:#c40094;

}

*.main*{

    min-height: 100vh;

    background: url('background.jpg') no-repeat;

    background-size: cover;

    background-position: center;

    pointer-events: auto;

    transition: .3s ease;

}

*.main.active*

{

    filter: blur(15px);

    pointer-events: none;

}

*.container*

{

    display: flex;

    height: 100vh;

    width: 200%;

}

*.home*

{

    position: relative;

    left: -50%;

    width: 100%;

    display: flex;

    justify-content: center;

    align-items: center;

}

*.home-content* {

    max-width: 600px;

    display: flex;

    align-items: center;

    flex-direction: column;

}

*.home-content* h1 {

    font-size: 78px;

    font-weight: 700;

    text-shadow: 0 0 10px rgba(0, 0, 0, .3);

}

*.home-content* p {

    font-size: 16px;

    text-align: center;

    text-shadow: 0 0 10px rgba(0, 0, 0, .3);

    margin-bottom: 30px;

}

*.home-content* *.start-btn*

{

     width: 190px;

     height: 55px;

     background: #c40094;

     border: 2px solid #fff;

     outline: none;

     border-radius: 6px;

     box-shadow: 0 0 10px #c40094;

     font-size: 18px;

     color:#fff;

     letter-spacing: 1px;

     font-weight: 600;

     cursor: pointer;

     transition: .5s;

}

*.home-content* *.start-btn:hover*{

     background: #09001d;

     box-shadow: none;

}

*.popup-info*{

    position: absolute;

    top: 50%;

    left: 50%;

    transform: translate(-50%,-50%) scale(.9);

    width: 500px;

    background-color: #fff;

    border-radius: 6px;

    padding: 10px 25px;

    opacity: 0;

    pointer-events: none;

    transition: .3s ease;

}

*.popup-info.active*{

    opacity: 1;

    pointer-events: auto;

    transform: translate(-50%,-50%) scale(1);

}

*.popup-info* h2 {

    font-size: 50px;

    color: #c40094;

}

*.popup-info* *.info*{

     display: inline-block;

     font-size: 16px;

     color: #333;

     font-weight: 500;

     margin: 4px 0;

}

*.popup-info* *.btn-group*{

    display: flex;

    justify-content: space-between;

    align-items: center;

    border-top: 1px solid #999;

    margin-top: 10px;

    padding: 15px 0 7px ;

}

*.popup-info* *.btn-group* *.info-btn* {

    display: inline-flex;

    justify-content: center;

    align-items: center;

    width: 130px;

    height: 45px;

    background-color: #c40094;

    border: 2px solid #c40094;

    outline: none;

    border-radius: 6px;

    text-decoration: none;

    font-size: 16px;

    color: #fff;

    font-weight: 600;

    box-shadow: 0 0 10px rgba(0, 0, 0, .1);

    cursor: pointer;

    transition: .5s;

}

*.popup-info* *.btn-group* *.info-btn:nth-child*(1){

    background: transparent;

    color:#c40094;

}

*.popup-info* *.btn-group* *.info-btn:nth-child*(1)*:hover* {

    background: #c40094;

    color: #fff;

}

*.popup-info* *.btn-group* *.info-btn:nth-child*(2)*:hover* {

    background: #950170;

    border-color: #950170;

}

*.quiz-section*{

    position: relative;

    left:-50%;

*/\* left: 0; \*/*

    width: 100%;

    background: #09001d;

    display: flex;

    justify-content: center;

    align-items: center;

    z-index: 100;

    transition: .8s ease-in-out;

    transition-delay: .25s;

}

*.quiz-section.active*{

    left: 0;

}

*.quiz-section* *.quiz-box* {

    position: relative;

    width: 500px;

    background: transparent;

    border: 2px solid #c40094;

    border-radius: 6px;

    display: flex;

    flex-direction: column;

    padding: 20px 30px;

    opacity: 0;

    pointer-events: none;

    transform: scale(.9);

    transition: .3s ease;

    transition-delay: 0s;

}

*.quiz-section* *.quiz-box.active*{

    opacity: 1;

    pointer-events: auto;

    transform: scale(1);

    transition: 1s ease;

    transition-delay: 1s;

}

*.quiz-box* h1 {

    font-size: 32px;

    text-align: center;

    background: linear-gradient(45deg,transparent,#c40094,transparent) ;

    border-radius: 6px;

}

*.quiz-box* *.quiz-header* {

    display: flex;

    justify-content: space-between;

    align-items: center;

    padding: 20px 0;

    border-bottom: 2px solid #c40094;

    margin-bottom: 30px;

}

*.quiz-header* span {

    font-size: 18px;

    font-weight: 500;

}

*.quiz-header* *.header-score* {

    background-color: #c40094;

    border-radius: 3px;

    padding: 7px;

}

*.quiz-box* *.question-text* {

    font-size: 24px;

    font-weight: 600;

}

*.option-list* *.option* {

    width: 100%;

    padding: 12px;

    background: transparent;

    border: 2px solid rgba(255, 255, 255, .2);

    border-radius: 4px;

    font-size: 17px;

    margin: 15px 0;

    cursor: pointer;

    transition: .3s;

}

*.option-list* *.option:hover*{

    background: rgba(255, 255, 255, .1);

    border-color: rgba(255, 255, 255, .1);

}

*.option-list* *.option.correct*{

    background: #09001d;

    color: #00a63d;

    border-color:#00a63d;

}

*.option-list* *.option.incorrect*{

    background: #09001d;

    color: #a60045;

    border-color:#a60045;

}

*.option-list* *.option.disable*{

    pointer-events: none;

}

*.quiz-box* *.quiz-footer*{

    display: flex;

    justify-content: space-between;

    align-items: center;

    border-top: 2px solid #c40094;

    padding-top: 20px;

    margin-top: 25px;

}

*.quiz-footer* *.question-total*{

    font-size: 16px;

    font-weight: 600;

}

*.quiz-footer* *.next-btn*{

    width: 100px;

    height: 45px;

    background: rgba(255, 255, 255, .1);

    border: 2px solid rgba(255, 255, 255, .1);

    outline: none;

    border-radius: 6px;

    font-size: 16px;

    color: rgba(255, 255, 255, .3);

    font-weight: 600;

    cursor: pointer;

    pointer-events: none;

    transition: .5s;

}

*.quiz-footer* *.next-btn.active* {

    pointer-events: auto;

    background: #c40094;

    border-color: #c40094;

    color: #fff;

}

*.quiz-footer* *.next-btn.active:hover* {

    background: #950170;

    border-color: #950170;

}

*.quiz-section* *.result-box*{

    position: absolute;

    top: 50%;

    left: 50%;

    transform: translate(-50%, -50%);

    width: 500px;

    background: transparent;

    border: 2px solid #c40094;

    border-radius: 6px;

    padding: 20px;

    display: flex;

    flex-direction: column;

    align-items: center;

    opacity: 0;

    pointer-events: none;

    transition: .3s ease;

}

*.quiz-section* *.result-box.active*{

    opacity: 1;

    pointer-events: auto;

    transform: translate(-50%, -50%) scale(1);

}

*.result-box* h2 {

    font-size: 52px;

}

*.result-box* *.percentage-container*{

    width: 300px;

*/\* background: seagreen; \*/*

    display: flex;

    flex-direction: column;

    align-items: center;

    margin: 20px 0 40px;

}

*.percentage-container* *.circular-progress*{

    position: relative;

    width: 250px;

    height: 250px;

    background: conic-gradient(#c40094 3.6deg, rgba(255,255,255,.1) 0deg);

    border-radius: 50%;

    display: flex;

    justify-content: center;

    align-items: center;

}

*.percentage-container* *.circular-progress::before*{

    content: '';

    position: absolute;

    width: 210px;

    height: 210px;

    background: #09001d;

    border-radius: 50%;

}

*.circular-progress* *.progress-value*{

    position: relative;

    font-size: 45px;

    font-weight: 600;

}

*.percentage-container* *.score-text* {

    font-size: 26px;

    font-weight: 600;

    margin-top: 20px;

}

*.result-box* *.buttons*{

    display: flex;

}

*.buttons* button{

    width: 130px;

    height: 47px;

    background: #c40094;

    border: 2px solid #c40094;

    outline: none;

    border-radius: 6px;

    font-size: 16px;

    color: #fff;

    font-weight: 600;

    margin: 0 20px 20px;

    cursor: pointer;

    transition: .5s;

}

*.buttons* button*:nth-child*(1)*:hover*{

    background-color: #950170;

    background: #950170;

}

*.buttons* button*:nth-child*(2)

{

    background: transparent;

    color: #c40094;

}

*.buttons* button*:nth-child*(2)*:hover*

{

    background: transparent;

    color: #fff;

}

**JAVASCRIPT:**

User Interaction and Functioning of Website

const startBtn = document.querySelector('.start-btn');

const popupInfo = document.querySelector('.popup-info');

const exitBtn = document.querySelector('.exit-btn');

const main = document.querySelector('.main');

const continueBtn = document.querySelector('.continue-btn');

const quizSection = document.querySelector('.quiz-section');

const quizBox = document.querySelector('.quiz-box');

const resultBox = document.querySelector('.result-box');

const tryAgainBtn = document.querySelector('.tryAgain-btn');

const goHomeBtn = document.querySelector('.goHome-btn');

startBtn.onclick = () => {

    popupInfo.classList.add('active');

    main.classList.add('active');

}

exitBtn.onclick = () => {

    popupInfo.classList.remove('active');

    main .classList.remove('active');

}

continueBtn.onclick = () => {

    quizSection.classList.add('active');

    popupInfo.classList.remove('active');

    main .classList.remove('active');

    quizBox.classList.add('active');

    showQuestions(0);

    questionCounter(1);

    headerScore();

}

tryAgainBtn.onclick = () => {

    quizBox.classList.add('active');

    nextBtn.classList.remove('active');

    resultBox.classList.remove('active');

    questionCount = 0;

    questionNumb = 1;

    userScore = 0;

    showQuestions(questionCount);

    questionCounter(questionNumb);

    headerScore();

}

goHomeBtn.onclick = () => {

    quizSection.classList.remove('active');

    nextBtn.classList.remove('active');

    resultBox.classList.remove('active');

    questionCount = 0;

    questionNumb = 1;

    userScore = 0;

    showQuestions(questionCount);

    questionCounter(questionNumb);

}

let questionCount = 0;

let questionNumb = 1;

let userScore = 0;

const nextBtn = document.querySelector('.next-btn');

nextBtn.onclick = () => {

*if* (questionCount < questions.length - 1) {

        questionCount++;

        showQuestions(questionCount);

        questionNumb++;

        questionCounter(questionNumb);

        nextBtn.classList.remove('active');

    }

*// console.log(`${questionCount}`);*

*else* {

        console.log('Question Completed');

        showResultBox();

    }

}

const optionList = document.querySelector('.option-list');

function showQuestions(index) {

    const questionText = document.querySelector('.question-text');

    questionText.innerHTML = `${questions[index].numb}. ${questions[index].question}`;

    let optionTag = `<div class="option"><span>${questions[index].options[0]}</span></div>

       <div class="option"><span>${questions[index].options[1]}</span></div>

       <div class="option"><span>${questions[index].options[2]}</span></div>

       <div class="option"><span>${questions[index].options[3]}</span></div>`;

    optionList.innerHTML = optionTag;

    const option = document.querySelectorAll('.option');

*for* (let i = 0; i < option.length; i++)

    {

        option[i].setAttribute('onclick', 'optionSelected(this)');

        }

}

function optionSelected(answer) {

    let userAnswer = answer.textContent;

    let correctAnswer = questions[questionCount].answer;

    let allOptions = optionList.children.length;

*// console.log(correctAnswer);*

*if* (userAnswer == correctAnswer) {

*// console.log('answer is correct');*

        answer.classList.add('correct');

        userScore += 1;

        console.log(userScore);

        headerScore();

    }

*else* {

        console.log('answer is wrong');

        answer.classList.add('incorrect');

*for* (let i = 0; i < allOptions; i++){

*if* (optionList.children[i].textContent == correctAnswer)

            {

                optionList.children[i].setAttribute('class', 'option correct');

                }

        }

    }

*for* (let i = 0; i < allOptions; i++)

    {

        optionList.children[i].classList.add('disabled');

    }

    nextBtn.classList.add('active');

}

function questionCounter(index) {

    const questionTotal = document.querySelector('.question-total');

    questionTotal.textContent = `${index} of ${questions.length} Questions`;

}

function headerScore()

{

    const headerScoreText = document.querySelector('.header-score');

    headerScoreText.innerHTML = `Score: ${userScore} / ${questions.length}`;

}

function showResultBox()

{

    quizBox.classList.remove('active');

    resultBox.classList.add('active');

    const scoreText = document.querySelector('.score-text');

    scoreText.innerHTML = `Your Score ${userScore} out of ${questions.length}`;

    const circularProgress = document.querySelector('.circular-progress');

    const progressValue = document.querySelector('.progress-value');

    let progressStartValue = 0;

    let progressEndValue = (userScore / questions.length)\*100;

    let speed = 20;

    let progress = setInterval(() => {

        progressStartValue++;

        console.log(progressStartValue);

        progressValue.innerHTML = `${progressStartValue}%`;

        circularProgress.style.background = `conic-gradient(#c40094 ${progressStartValue \* 3.6}deg, rgba(255,255,255,.1) 0deg)`;

*if* (progressStartValue == progressEndValue)

        {

            clearInterval(progress);

            }

    }, speed);

}

**JAVASCRIPT:**

Maintaining Questions Database:

let questions = [

    {

        numb: 1,

        question:"How many bytes does an int store:",

        answer: "C. 4 Bytes",

        options: [

            "A. 2 Bytes",

            "B. 8 Bytes",

            "C. 4 Bytes",

            "D. 1 Bytes"

        ]

},

    {

        numb: 2,

        question: "How is an array initialized in C language?",

        answer: "A. int a[3]={1,2,3};",

        options: [

            "A. int a[3]={1,2,3};",

            "B. int a ={1,2,3};",

            "C. int a[]=new int[3]",

            "D. int a(3)=[1,2,3];"

        ]

},

    {

        numb: 3,

        question: "Which of the following is not the type of queue?",

        answer: "B. Single-ended queue",

        options: [

            "A. Priority queue",

            "B. Single-ended queue",

            "C. Circular queue",

            "D. Ordinary queue"

        ]

},

    {

        numb: 4,

        question: "How are String represented in memory in c++",

        answer: "D. An array of characters.",

        options: [

            "A. The object of some class.",

            "B. Same as other primitive data types.",

            "C. LinkedList of characters.",

            "D. An array of characters.",

        ]

},

    {

        numb: 5,

        question: "Which of the following data structures finds its use in recursion?",

        answer: "C. Stack",

        options: [

            "A. Arrays",

            "B. LinkedList",

            "C. Stack",

            "D. Queues"

        ]

}

];

**Conclusion**

This project file serves as a comprehensive guide for the development of the quiz app. It outlines the purpose, features, technology stack, design, development plan, testing plan, timeline, budget, and risk mitigation strategies. Refer to this document throughout the project to ensure successful execution and delivery.

**Project Owner: SAGAR NAUTIYAL & ADARSH GOYAL**

**Project Start Date: 22 JULY 2023**

**Project End Date: 23 AUGUST 2023**