# **717821l106**

# **Mini Project: Simple JavaScript Quiz App Objective:**

**WEEK:1**

Create a web-based quiz application using HTML, CSS, and JavaScript.

Code:

**Index.html:**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>JavaScript Quiz </title>

    <link rel="stylesheet" href="style.css">

    <!-- FontAweome CDN Link for Icons-->

    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.3/css/all.min.css"/>

</head>

<body>

    <div class="start\_btn" > <button> start quiz</button></div>

    <!-- Info Box -->

    <div class="info\_box">

        <div class="info-title"><span>Some Rules of this Quiz</span></div>

        <div class="info-list">

            <div class="info">1. You will have only <span>15 seconds</span> per each question.</div>

            <div class="info">2. Once you select your answer, it can't be undone.</div>

            <div class="info">3. You can't select any option once time goes off.</div>

            <div class="info">4. You can't exit from the Quiz while you're playing.</div>

            <div class="info">5. You'll get points on the basis of your correct answers.</div>

        </div>

        <div class="buttons">

            <button class="quit">Exit Quiz</button>

            <button class="restart">Continue</button>

        </div>

    </div>

    <!-- Quiz Box -->

    <div class="quiz\_box">

        <header>

            <div class="title">Awesome Quiz Application</div>

            <div class="timer">

                <div class="time\_left\_txt">Time Left</div>

                <div class="timer\_sec">15</div>

            </div>

            <div class="time\_line"></div>

        </header>

        <section>

            <div class="que\_text">

                <!-- Here I've inserted question from JavaScript -->

            </div>

            <div class="option\_list">

                <!-- Here I've inserted options from JavaScript -->

            </div>

        </section>

        <!-- footer of Quiz Box -->

        <footer>

            <div class="total\_que">

                <!-- Here I've inserted Question Count Number from JavaScript -->

            </div>

            <button class="next\_btn">Next Que</button>

        </footer>

    </div>

    <!-- Result Box -->

    <div class="result\_box">

        <div class="icon">

            <i class="fas fa-crown"></i>

        </div>

        <div class="complete\_text">You've completed the Quiz!</div>

        <div class="score\_text">

            <!-- Here I've inserted Score Result from JavaScript -->

        </div>

        <div class="buttons">

            <button class="restart">Replay Quiz</button>

            <button class="quit">Quit Quiz</button>

        </div>

    </div>

    <!-- Inside this JavaScript file I've inserted Questions and Options only -->

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

    <!-- Inside this JavaScript file I've coded all Quiz Codes -->

    <script src="script.js"></script>

</body>

</html>

**quistions.js:**

// creating an array and passing the number, questions, options, and answers

let questions = [

    {

    numb: 1,

    question: "What does HTML stand for?",

    answer: "Hyper Text Markup Language",

    options: [

      "Hyper Text Preprocessor",

      "Hyper Text Markup Language",

      "Hyper Text Multiple Language",

      "Hyper Tool Multi Language"

    ]

  },

    {

    numb: 2,

    question: "What does CSS stand for?",

    answer: "Cascading Style Sheet",

    options: [

      "Common Style Sheet",

      "Colorful Style Sheet",

      "Computer Style Sheet",

      "Cascading Style Sheet"

    ]

  },

    {

    numb: 3,

    question: "What does PHP stand for?",

    answer: "Hypertext Preprocessor",

    options: [

      "Hypertext Preprocessor",

      "Hypertext Programming",

      "Hypertext Preprogramming",

      "Hometext Preprocessor"

    ]

  },

    {

    numb: 4,

    question: "What does SQL stand for?",

    answer: "Structured Query Language",

    options: [

      "Stylish Question Language",

      "Stylesheet Query Language",

      "Statement Question Language",

      "Structured Query Language"

    ]

  },

    {

    numb: 5,

    question: "What does XML stand for?",

    answer: "eXtensible Markup Language",

    options: [

      "eXtensible Markup Language",

      "eXecutable Multiple Language",

      "eXTra Multi-Program Language",

      "eXamine Multiple Language"

    ]

  },

  // you can uncomment the below codes and make duplicate as more as you want to add question

  // but remember you need to give the numb value serialize like 1,2,3,5,6,7,8,9.....

  //   {

  //   numb: 6,

  //   question: "Your Question is Here",

  //   answer: "Correct answer of the question is here",

  //   options: [

  //     "Option 1",

  //     "option 2",

  //     "option 3",

  //     "option 4"

  //   ]

  // },

  ];

**Script.js:**

//selecting all required elements

const start\_btn = document.querySelector(".start\_btn button");

const info\_box = document.querySelector(".info\_box");

const exit\_btn = info\_box.querySelector(".buttons .quit");

const continue\_btn = info\_box.querySelector(".buttons .restart");

const quiz\_box = document.querySelector(".quiz\_box");

const result\_box = document.querySelector(".result\_box");

const option\_list = document.querySelector(".option\_list");

const time\_line = document.querySelector("header .time\_line");

const timeText = document.querySelector(".timer .time\_left\_txt");

const timeCount = document.querySelector(".timer .timer\_sec");

// if startQuiz button clicked

start\_btn.onclick = ()=>{

    info\_box.classList.add("activeInfo"); //show info box

}

// if exitQuiz button clicked

exit\_btn.onclick = ()=>{

    info\_box.classList.remove("activeInfo"); //hide info box

}

// if continueQuiz button clicked

continue\_btn.onclick = ()=>{

    info\_box.classList.remove("activeInfo"); //hide info box

    quiz\_box.classList.add("activeQuiz"); //show quiz box

    showQuetions(0); //calling showQestions function

    queCounter(1); //passing 1 parameter to queCounter

    startTimer(15); //calling startTimer function

    startTimerLine(0); //calling startTimerLine function

}

let timeValue =  15;

let que\_count = 0;

let que\_numb = 1;

let userScore = 0;

let counter;

let counterLine;

let widthValue = 0;

const restart\_quiz = result\_box.querySelector(".buttons .restart");

const quit\_quiz = result\_box.querySelector(".buttons .quit");

// if restartQuiz button clicked

restart\_quiz.onclick = ()=>{

    quiz\_box.classList.add("activeQuiz"); //show quiz box

    result\_box.classList.remove("activeResult"); //hide result box

    timeValue = 15;

    que\_count = 0;

    que\_numb = 1;

    userScore = 0;

    widthValue = 0;

    showQuetions(que\_count); //calling showQestions function

    queCounter(que\_numb); //passing que\_numb value to queCounter

    clearInterval(counter); //clear counter

    clearInterval(counterLine); //clear counterLine

    startTimer(timeValue); //calling startTimer function

    startTimerLine(widthValue); //calling startTimerLine function

    timeText.textContent = "Time Left"; //change the text of timeText to Time Left

    next\_btn.classList.remove("show"); //hide the next button

}

// if quitQuiz button clicked

quit\_quiz.onclick = ()=>{

    window.location.reload(); //reload the current window

}

const next\_btn = document.querySelector("footer .next\_btn");

const bottom\_ques\_counter = document.querySelector("footer .total\_que");

// if Next Que button clicked

next\_btn.onclick = ()=>{

    if(que\_count < questions.length - 1){ //if question count is less than total question length

        que\_count++; //increment the que\_count value

        que\_numb++; //increment the que\_numb value

        showQuetions(que\_count); //calling showQestions function

        queCounter(que\_numb); //passing que\_numb value to queCounter

        clearInterval(counter); //clear counter

        clearInterval(counterLine); //clear counterLine

        startTimer(timeValue); //calling startTimer function

        startTimerLine(widthValue); //calling startTimerLine function

        timeText.textContent = "Time Left"; //change the timeText to Time Left

        next\_btn.classList.remove("show"); //hide the next button

    }else{

        clearInterval(counter); //clear counter

        clearInterval(counterLine); //clear counterLine

        showResult(); //calling showResult function

    }

}

// getting questions and options from array

function showQuetions(index){

    const que\_text = document.querySelector(".que\_text");

    //creating a new span and div tag for question and option and passing the value using array index

    let que\_tag = '<span>'+ questions[index].numb + ". " + questions[index].question +'</span>';

    let option\_tag = '<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>';

    que\_text.innerHTML = que\_tag; //adding new span tag inside que\_tag

    option\_list.innerHTML = option\_tag; //adding new div tag inside option\_tag

    const option = option\_list.querySelectorAll(".option");

    // set onclick attribute to all available options

    for(i=0; i < option.length; i++){

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

    }

}

// creating the new div tags which for icons

let tickIconTag = '<div class="icon tick"><i class="fas fa-check"></i></div>';

let crossIconTag = '<div class="icon cross"><i class="fas fa-times"></i></div>';

//if user clicked on option

function optionSelected(answer){

    clearInterval(counter); //clear counter

    clearInterval(counterLine); //clear counterLine

    let userAns = answer.textContent; //getting user selected option

    let correcAns = questions[que\_count].answer; //getting correct answer from array

    const allOptions = option\_list.children.length; //getting all option items

    if(userAns == correcAns){ //if user selected option is equal to array's correct answer

        userScore += 1; //upgrading score value with 1

        answer.classList.add("correct"); //adding green color to correct selected option

        answer.insertAdjacentHTML("beforeend", tickIconTag); //adding tick icon to correct selected option

        console.log("Correct Answer");

        console.log("Your correct answers = " + userScore);

    }else{

        answer.classList.add("incorrect"); //adding red color to correct selected option

        answer.insertAdjacentHTML("beforeend", crossIconTag); //adding cross icon to correct selected option

        console.log("Wrong Answer");

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

            if(option\_list.children[i].textContent == correcAns){ //if there is an option which is matched to an array answer

                option\_list.children[i].setAttribute("class", "option correct"); //adding green color to matched option

                option\_list.children[i].insertAdjacentHTML("beforeend", tickIconTag); //adding tick icon to matched option

                console.log("Auto selected correct answer.");

            }

        }

    }

    for(i=0; i < allOptions; i++){

        option\_list.children[i].classList.add("disabled"); //once user select an option then disabled all options

    }

    next\_btn.classList.add("show"); //show the next button if user selected any option

}

function showResult(){

    info\_box.classList.remove("activeInfo"); //hide info box

    quiz\_box.classList.remove("activeQuiz"); //hide quiz box

    result\_box.classList.add("activeResult"); //show result box

    const scoreText = result\_box.querySelector(".score\_text");

    if (userScore > 3){ // if user scored more than 3

        //creating a new span tag and passing the user score number and total question number

        let scoreTag = '<span>and congrats! , You got <p>'+ userScore +'</p> out of <p>'+ questions.length +'</p></span>';

        scoreText.innerHTML = scoreTag;  //adding new span tag inside score\_Text

    }

    else if(userScore > 1){ // if user scored more than 1

        let scoreTag = '<span>and nice , You got <p>'+ userScore +'</p> out of <p>'+ questions.length +'</p></span>';

        scoreText.innerHTML = scoreTag;

    }

    else{ // if user scored less than 1

        let scoreTag = '<span>and sorry , You got only <p>'+ userScore +'</p> out of <p>'+ questions.length +'</p></span>';

        scoreText.innerHTML = scoreTag;

    }

}

function startTimer(time){

    counter = setInterval(timer, 1000);

    function timer(){

        timeCount.textContent = time; //changing the value of timeCount with time value

        time--; //decrement the time value

        if(time < 9){ //if timer is less than 9

            let addZero = timeCount.textContent;

            timeCount.textContent = "0" + addZero; //add a 0 before time value

        }

        if(time < 0){ //if timer is less than 0

            clearInterval(counter); //clear counter

            timeText.textContent = "Time Off"; //change the time text to time off

            const allOptions = option\_list.children.length; //getting all option items

            let correcAns = questions[que\_count].answer; //getting correct answer from array

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

                if(option\_list.children[i].textContent == correcAns){ //if there is an option which is matched to an array answer

                    option\_list.children[i].setAttribute("class", "option correct"); //adding green color to matched option

                    option\_list.children[i].insertAdjacentHTML("beforeend", tickIconTag); //adding tick icon to matched option

                    console.log("Time Off: Auto selected correct answer.");

                }

            }

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

                option\_list.children[i].classList.add("disabled"); //once user select an option then disabled all options

            }

            next\_btn.classList.add("show"); //show the next button if user selected any option

        }

    }

}

function startTimerLine(time){

    counterLine = setInterval(timer, 29);

    function timer(){

        time += 1; //upgrading time value with 1

        time\_line.style.width = time + "px"; //increasing width of time\_line with px by time value

        if(time > 549){ //if time value is greater than 549

            clearInterval(counterLine); //clear counterLine

        }

    }

}

function queCounter(index){

    //creating a new span tag and passing the question number and total question

    let totalQueCounTag = '<span><p>'+ index +'</p> of <p>'+ questions.length +'</p> Questions</span>';

    bottom\_ques\_counter.innerHTML = totalQueCounTag;  //adding new span tag inside bottom\_ques\_counter

}

**Style.css:**

\*{

    margin: 0;

    padding: 0;

    box-sizing: border-box;

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

}

body{

    background: #007bff;

}

::selection{

    color: #fff;

    background: #007bff;

}

.start\_btn,

.info\_box,

.quiz\_box,

.result\_box{

    position: absolute;

    top: 50%;

    left: 50%;

    transform: translate(-50%, -50%);

    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2),

                0 6px 20px 0 rgba(0, 0, 0, 0.19);

}

.info\_box.activeInfo,

.quiz\_box.activeQuiz,

.result\_box.activeResult{

    opacity: 1;

    z-index: 5;

    pointer-events: auto;

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

}

.start\_btn button{

    font-size: 25px;

    font-weight: 500;

    color: #007bff;

    padding: 15px 30px;

    outline: none;

    border: none;

    border-radius: 5px;

    background: #fff;

    cursor: pointer;

}

.info\_box{

    width: 540px;

    background: #fff;

    border-radius: 5px;

    transform: translate(-50%, -50%) scale(0.9);

    opacity: 0;

    pointer-events: none;

    transition: all 0.3s ease;

}

.info\_box .info-title{

    height: 60px;

    width: 100%;

    border-bottom: 1px solid lightgrey;

    display: flex;

    align-items: center;

    padding: 0 30px;

    border-radius: 5px 5px 0 0;

    font-size: 20px;

    font-weight: 600;

}

.info\_box .info-list{

    padding: 15px 30px;

}

.info\_box .info-list .info{

    margin: 5px 0;

    font-size: 17px;

}

.info\_box .info-list .info span{

    font-weight: 600;

    color: #007bff;

}

.info\_box .buttons{

    height: 60px;

    display: flex;

    align-items: center;

    justify-content: flex-end;

    padding: 0 30px;

    border-top: 1px solid lightgrey;

}

.info\_box .buttons button{

    margin: 0 5px;

    height: 40px;

    width: 100px;

    font-size: 16px;

    font-weight: 500;

    cursor: pointer;

    border: none;

    outline: none;

    border-radius: 5px;

    border: 1px solid #007bff;

    transition: all 0.3s ease;

}

.quiz\_box{

    width: 550px;

    background: #fff;

    border-radius: 5px;

    transform: translate(-50%, -50%) scale(0.9);

    opacity: 0;

    pointer-events: none;

    transition: all 0.3s ease;

}

.quiz\_box header{

    position: relative;

    z-index: 2;

    height: 70px;

    padding: 0 30px;

    background: #fff;

    border-radius: 5px 5px 0 0;

    display: flex;

    align-items: center;

    justify-content: space-between;

    box-shadow: 0px 3px 5px 1px rgba(0,0,0,0.1);

}

.quiz\_box header .title{

    font-size: 20px;

    font-weight: 600;

}

.quiz\_box header .timer{

    color: #004085;

    background: #cce5ff;

    border: 1px solid #b8daff;

    height: 45px;

    padding: 0 8px;

    border-radius: 5px;

    display: flex;

    align-items: center;

    justify-content: space-between;

    width: 145px;

}

.quiz\_box header .timer .time\_left\_txt{

    font-weight: 400;

    font-size: 17px;

    user-select: none;

}

.quiz\_box header .timer .timer\_sec{

    font-size: 18px;

    font-weight: 500;

    height: 30px;

    width: 45px;

    color: #fff;

    border-radius: 5px;

    line-height: 30px;

    text-align: center;

    background: #343a40;

    border: 1px solid #343a40;

    user-select: none;

}

.quiz\_box header .time\_line{

    position: absolute;

    bottom: 0px;

    left: 0px;

    height: 3px;

    background: #007bff;

}

section{

    padding: 25px 30px 20px 30px;

    background: #fff;

}

section .que\_text{

    font-size: 25px;

    font-weight: 600;

}

section .option\_list{

    padding: 20px 0px;

    display: block;

}

section .option\_list .option{

    background: aliceblue;

    border: 1px solid #84c5fe;

    border-radius: 5px;

    padding: 8px 15px;

    font-size: 17px;

    margin-bottom: 15px;

    cursor: pointer;

    transition: all 0.3s ease;

    display: flex;

    align-items: center;

    justify-content: space-between;

}

section .option\_list .option:last-child{

    margin-bottom: 0px;

}

section .option\_list .option:hover{

    color: #004085;

    background: #cce5ff;

    border: 1px solid #b8daff;

}

section .option\_list .option.correct{

    color: #155724;

    background: #d4edda;

    border: 1px solid #c3e6cb;

}

section .option\_list .option.incorrect{

    color: #721c24;

    background: #f8d7da;

    border: 1px solid #f5c6cb;

}

section .option\_list .option.disabled{

    pointer-events: none;

}

section .option\_list .option .icon{

    height: 26px;

    width: 26px;

    border: 2px solid transparent;

    border-radius: 50%;

    text-align: center;

    font-size: 13px;

    pointer-events: none;

    transition: all 0.3s ease;

    line-height: 24px;

}

.option\_list .option .icon.tick{

    color: #23903c;

    border-color: #23903c;

    background: #d4edda;

}

.option\_list .option .icon.cross{

    color: #a42834;

    background: #f8d7da;

    border-color: #a42834;

}

footer{

    height: 60px;

    padding: 0 30px;

    display: flex;

    align-items: center;

    justify-content: space-between;

    border-top: 1px solid lightgrey;

}

footer .total\_que span{

    display: flex;

    user-select: none;

}

footer .total\_que span p{

    font-weight: 500;

    padding: 0 5px;

}

footer .total\_que span p:first-child{

    padding-left: 0px;

}

footer button{

    height: 40px;

    padding: 0 13px;

    font-size: 18px;

    font-weight: 400;

    cursor: pointer;

    border: none;

    outline: none;

    color: #fff;

    border-radius: 5px;

    background: #007bff;

    border: 1px solid #007bff;

    line-height: 10px;

    opacity: 0;

    pointer-events: none;

    transform: scale(0.95);

    transition: all 0.3s ease;

}

footer button:hover{

    background: #0263ca;

}

footer button.show{

    opacity: 1;

    pointer-events: auto;

    transform: scale(1);

}

.result\_box{

    background: #fff;

    border-radius: 5px;

    display: flex;

    padding: 25px 30px;

    width: 450px;

    align-items: center;

    flex-direction: column;

    justify-content: center;

    transform: translate(-50%, -50%) scale(0.9);

    opacity: 0;

    pointer-events: none;

    transition: all 0.3s ease;

}

.result\_box .icon{

    font-size: 100px;

    color: #007bff;

    margin-bottom: 10px;

}

.result\_box .complete\_text{

    font-size: 20px;

    font-weight: 500;

}

.result\_box .score\_text span{

    display: flex;

    margin: 10px 0;

    font-size: 18px;

    font-weight: 500;

}

.result\_box .score\_text span p{

    padding: 0 4px;

    font-weight: 600;

}

.result\_box .buttons{

    display: flex;

    margin: 20px 0;

}

.result\_box .buttons button{

    margin: 0 10px;

    height: 45px;

    padding: 0 20px;

    font-size: 18px;

    font-weight: 500;

    cursor: pointer;

    border: none;

    outline: none;

    border-radius: 5px;

    border: 1px solid #007bff;

    transition: all 0.3s ease;

}

.buttons button.restart{

    color: #fff;

    background: #007bff;

}

.buttons button.restart:hover{

    background: #0263ca;

}

.buttons button.quit{

    color: #007bff;

    background: #fff;

}

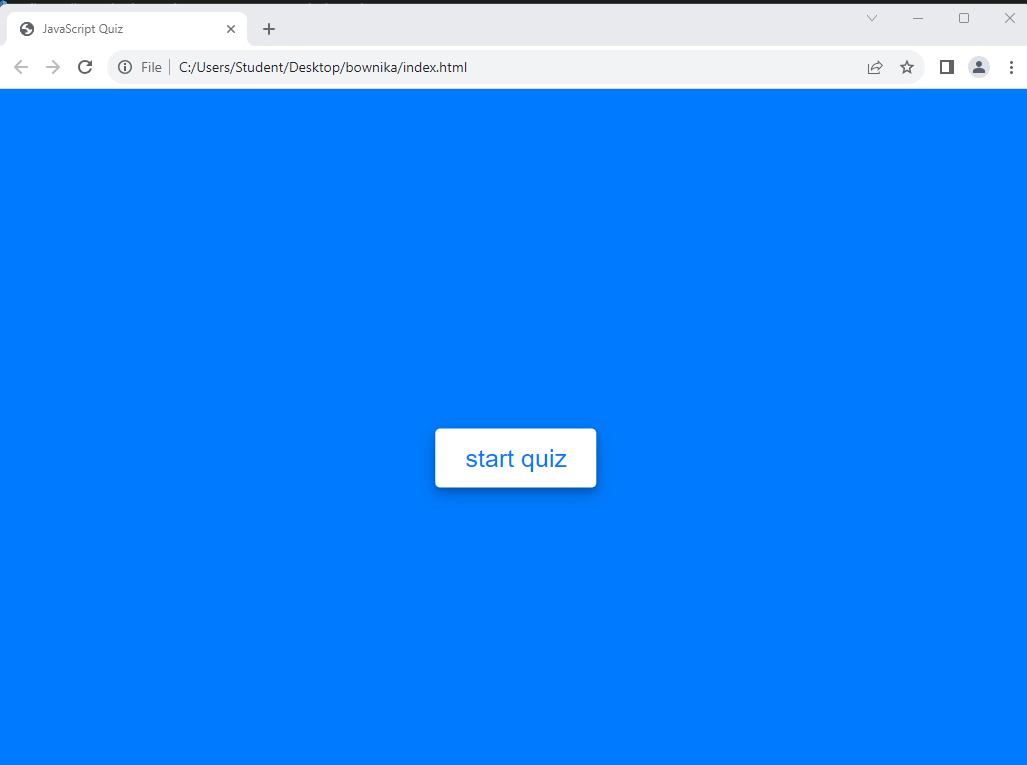
.buttons button.quit:hover{

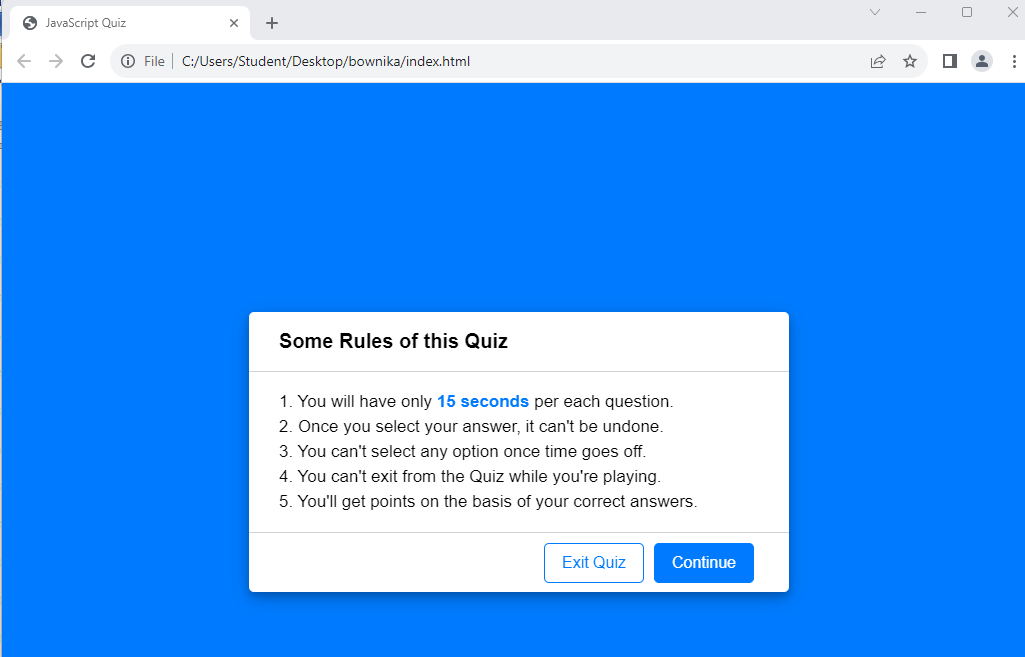
    color: #fff;

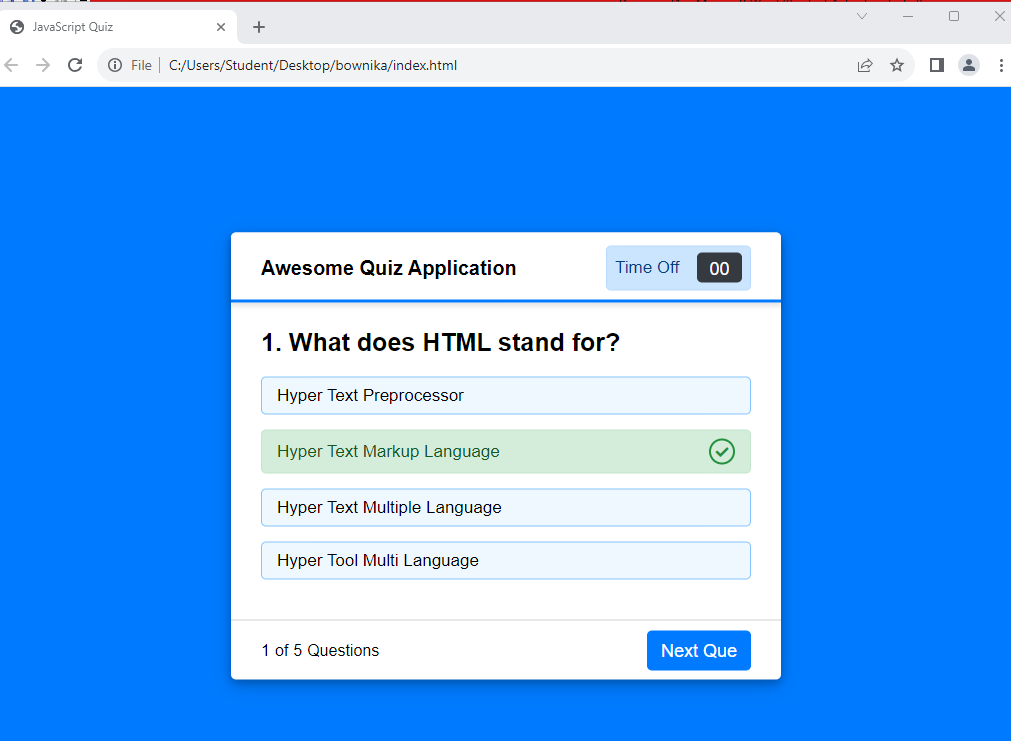
    background: #007bff;

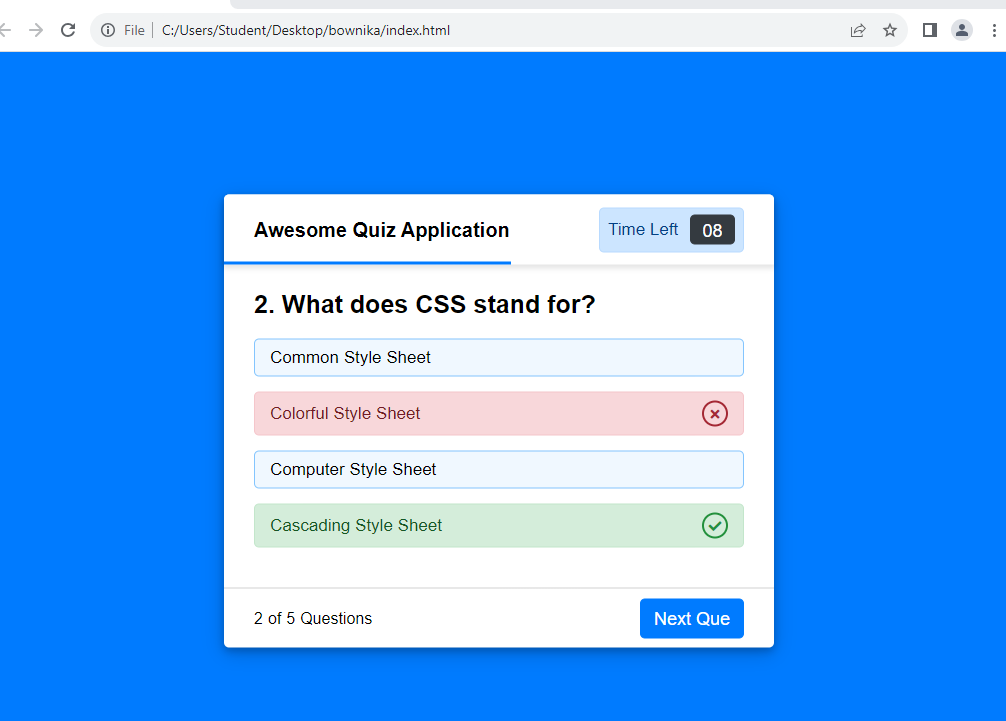
}

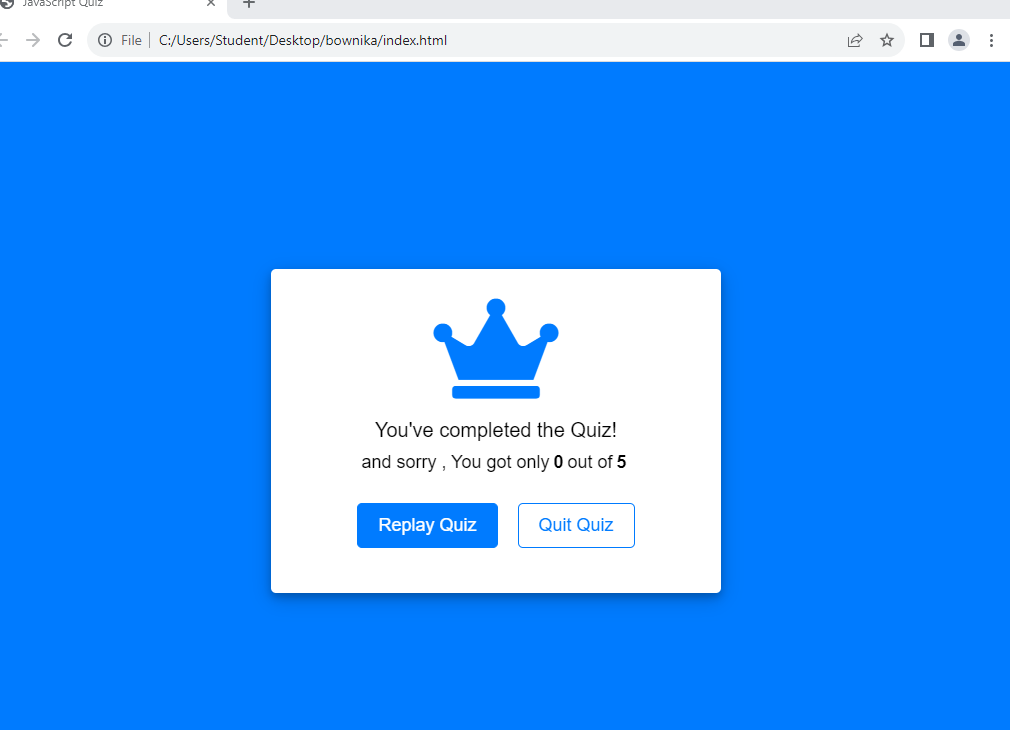
**Output:**

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