Codes:

script.jss

```javascript
// Quiz Data with 15 questions for each category
const quizData = {
    general: [
        { question: "What is the capital of France?", options: ["Paris", "London", "Berlin", "Madrid"], correct: 0 },
        { question: "Which is the smallest country in the world?", options: ["Vatican City", "Monaco", "Nauru", "Malta"], correct: 0 },
        { question: "Who wrote 'Romeo and Juliet'?", options: ["William Shakespeare", "Charles Dickens", "Mark Twain", "Jane Austen"], correct: 0 },
        { question: "What is the largest ocean on Earth?", options: ["Pacific Ocean", "Atlantic Ocean", "Indian Ocean", "Arctic Ocean"], correct: 0 },
        { question: "Which element has the chemical symbol 'Au'?", options: ["Gold", "Silver", "Iron", "Lead"], correct: 0 },
        { question: "What is the currency of Japan?", options: ["Yen", "Won", "Dollar", "Euro"], correct: 0 },
        { question: "Which planet is known as the Red Planet?", options: ["Mars", "Venus", "Jupiter", "Saturn"], correct: 0 },
        { question: "What is the hardest natural substance on Earth?", options: ["Diamond", "Gold", "Iron", "Platinum"], correct: 0 },
        { question: "What is the main ingredient in guacamole?", options: ["Avocado", "Tomato", "Pepper", "Onion"], correct: 0 },
        { question: "Which gas do plants primarily use for photosynthesis?", options: ["Carbon Dioxide", "Oxygen", "Nitrogen", "Hydrogen"], correct: 0 },
        { question: "Which animal is known as the 'King of the Jungle'?", options: ["Lion", "Tiger", "Elephant", "Leopard"], correct: 0 },
        { question: "What is the capital of Japan?", options: ["Tokyo", "Kyoto", "Osaka", "Nagoya"], correct: 0 },
        { question: "Who was the first president of the United States?", options: ["George Washington", "John Adams", "Thomas Jefferson", "Abraham Lincoln"], correct: 0 },
        { question: "What is the fastest land animal?", options: ["Cheetah", "Lion", "Tiger", "Horse"], correct: 0 },
        { question: "In which year did the Titanic sink?", options: ["1912", "1905", "1920", "1915"], correct: 0 }
    ],
    science: [
        { question: "What is the chemical symbol for water?", options: ["H2O", "O2", "CO2", "H2"], correct: 0 },
        { question: "What planet is known as the Red Planet?", options: ["Mars", "Venus", "Jupiter", "Saturn"], correct: 0 },
        { question: "What is the speed of light?", options: ["299,792,458 m/s", "150,000,000 m/s", "300,000,000 m/s", "3,000,000 m/s"], correct: 0 },
        { question: "What is the chemical symbol for gold?", options: ["Au", "Ag", "Pb", "Fe"], correct: 0 },
        { question: "What organ is vital for pumping blood throughout the body?", options: ["Heart", "Liver", "Kidney", "Lung"], correct: 0 },
        { question: "What is the process by which plants make their food?", options: ["Photosynthesis", "Respiration", "Digestion", "Transpiration"], correct: 0 },
```

```
    { question: "What force keeps us grounded on Earth?", options: ["Gravity", "Magnetism",
"Friction", "Inertia"], correct: 0 },
    { question: "What is the most abundant gas in Earth's atmosphere?", options: ["Nitrogen",
"Oxygen", "Argon", "Carbon Dioxide"], correct: 0 },
    { question: "What is the basic unit of life?", options: ["Cell", "Atom", "Molecule", "Organ"],
correct: 0 },
    { question: "Which planet is known as the 'Giant Red Spot'?", options: ["Jupiter", "Saturn",
"Uranus", "Neptune"], correct: 0 },
    { question: "What is the boiling point of water?", options: ["100°C", "90°C", "110°C",
"80°C"], correct: 0 },
    { question: "What type of energy does the sun provide?", options: ["Solar", "Thermal",
"Nuclear", "Electrical"], correct: 0 },
    { question: "Which gas do humans breathe out?", options: ["Carbon Dioxide", "Oxygen",
"Nitrogen", "Hydrogen"], correct: 0 },
    { question: "How many bones are in the human body?", options: ["206", "205", "210", "201"],
correct: 0 },
    { question: "What is the primary gas responsible for climate change?", options: ["Carbon
Dioxide", "Oxygen", "Nitrogen", "Methane"], correct: 0 }
  ],
  history: [
    { question: "Who was the first President of the United States?", options: ["George
Washington", "Abraham Lincoln", "Thomas Jefferson", "John Adams"], correct: 0 },
    { question: "What year did World War II end?", options: ["1945", "1939", "1918", "1965"],
correct: 0 },
    { question: "Who was the first man to walk on the moon?", options: ["Neil Armstrong", "Buzz
Aldrin", "Yuri Gagarin", "Michael Collins"], correct: 0 },
    { question: "Who was the famous queen of ancient Egypt?", options: ["Cleopatra", "Nefertiti",
"Hatshepsut", "Tutankhamun"], correct: 0 },
    { question: "In which year was the Declaration of Independence signed?", options: ["1776",
"1783", "1801", "1820"], correct: 0 },
    { question: "What ancient civilization built the pyramids of Giza?", options: ["Egyptian",
"Mayan", "Aztec", "Roman"], correct: 0 },
    { question: "Who was the leader of the Soviet Union during World War II?", options: ["Joseph
Stalin", "Vladimir Lenin", "Nikita Khrushchev", "Leon Trotsky"], correct: 0 },
    { question: "Which empire was known for its extensive road network and engineering feats?",
options: ["Roman Empire", "Ottoman Empire", "Mongol Empire", "British Empire"], correct: 0 },
    { question: "What was the main cause of the American Civil War?", options: ["Slavery",
"Taxes", "Territorial Expansion", "Trade Disputes"], correct: 0 },
    { question: "Who was the first emperor of China?", options: ["Qin Shi Huang", "Han Wudi",
"Kublai Khan", "Li Shimin"], correct: 0 },
    { question: "In what year did the Berlin Wall fall?", options: ["1989", "1991", "1980", "1985"],
correct: 0 },
    { question: "Who discovered America?", options: ["Christopher Columbus", "Leif Erikson",
"James Cook", "Ferdinand Magellan"], correct: 0 },
    { question: "What was the name of the ship that brought the Pilgrims to America?", options:
["Mayflower", "Santa Maria", "Pinta", "Nina"], correct: 0 },
    { question: "What event started World War I?", options: ["Assassination of Archduke
Ferdinand", "Sinking of the Lusitania", "Invasion of Poland", "Treaty of Versailles"], correct: 0 },
    { question: "Who led the civil rights movement in the USA during the 1960s?", options:
["Martin Luther King Jr.", "Malcolm X", "Jesse Jackson", "Thurgood Marshall"], correct: 0 }
  ]
};
```

```javascript
let selectedCategory;
let questions;
let currentQuestionIndex = 0;
let score = 0;
let timeLeft = 30;
let timer;
let currentUser;
let leaderboard = JSON.parse(localStorage.getItem('leaderboard')) || [];

// DOM Elements
const questionElement = document.getElementById("question");
const optionButtons = document.getElementsByClassName("option-btn");
const scoreElement = document.getElementById("score");
const progressBar = document.getElementById("progress-bar");
const timeElement = document.getElementById("time");
const nextButton = document.getElementById("next-btn");
const leaderboardElement = document.getElementById("leaderboard");

// Login Functionality
function login() {
    const usernameInput = document.getElementById("username").value;
    if (usernameInput.trim()) {
        currentUser = usernameInput;
        document.getElementById("login-area").classList.add("hidden");
        document.getElementById("quiz-intro").classList.remove("hidden");
    } else {
        alert("Please enter a valid username!");
    }
}

// Start Quiz Functionality
function startQuiz(category) {
    selectedCategory = category;
    const allQuestions = [...quizData[category]];  // Get all 15 questions
    shuffleArray(allQuestions);  // Shuffle them
    questions = allQuestions.slice(0, 10);  // Select the first 10 questions
    document.getElementById("quiz-intro").classList.add("hidden");
    document.getElementById("quiz-area").classList.remove("hidden");
    loadQuestion();
}

// Load Question Functionality
function loadQuestion() {
    resetTimer();
    const currentQuestion = questions[currentQuestionIndex];
    questionElement.innerText = currentQuestion.question;
    for (let i = 0; i < optionButtons.length; i++) {
        optionButtons[i].innerText = currentQuestion.options[i];
        optionButtons[i].style.backgroundColor = "#007bff";
        optionButtons[i].disabled = false;
    }
```

```javascript
      progressBar.style.width = `${((currentQuestionIndex + 1) / questions.length) * 100}%`;
      nextButton.disabled = true;
}

// Select Option
function selectOption(selectedIndex) {
      const correctIndex = questions[currentQuestionIndex].correct;
      if (selectedIndex === correctIndex) {
         score++;
      }
      for (let i = 0; i < optionButtons.length; i++) {
         optionButtons[i].disabled = true;
         if (i === correctIndex) {
            optionButtons[i].style.backgroundColor = "#28a745"; // Green for correct
         } else {
            optionButtons[i].style.backgroundColor = "#dc3545"; // Red for incorrect
         }
      }
      nextButton.disabled = false;
      scoreElement.innerText = `Score: ${score}`;
      clearInterval(timer);
}

// Move to Next Question
function nextQuestion() {
      currentQuestionIndex++;
      if (currentQuestionIndex < questions.length) {
         loadQuestion();
      } else {
         endQuiz();
      }
}

// End Quiz
function endQuiz() {
      document.getElementById("quiz-area").classList.add("hidden");
      document.getElementById("quiz-end").classList.remove("hidden");
      document.getElementById("final-score").innerText = `Your final score is: ${score}`;

      // Add to Leaderboard
      leaderboard.push({ user: currentUser, score });
      localStorage.setItem('leaderboard', JSON.stringify(leaderboard));
}

// Show Leaderboard
function showLeaderboard() {
      document.getElementById("quiz-end").classList.add("hidden");
      document.getElementById("leaderboard-area").classList.remove("hidden");

      leaderboardElement.innerHTML = '';
      leaderboard.sort((a, b) => b.score - a.score); // Sort by highest score
      leaderboard.forEach(entry => {
```

```javascript
      const listItem = document.createElement('li');
      listItem.innerText = `${entry.user}: ${entry.score}`;
      leaderboardElement.appendChild(listItem);
   });
}

// Restart Quiz
function restartQuiz() {
   currentQuestionIndex = 0;
   score = 0;
   scoreElement.innerText = `Score: ${score}`;
   progressBar.style.width = "0%";
   document.getElementById("quiz-end").classList.add("hidden");
   document.getElementById("quiz-intro").classList.remove("hidden");
}

// Return to Category Selection
function returnToCategories() {
   document.getElementById("leaderboard-area").classList.add("hidden");
   document.getElementById("quiz-intro").classList.remove("hidden");
}

// Timer Functionality
function resetTimer() {
   clearInterval(timer);
   timeLeft = 30;
   timeElement.innerText = timeLeft;
   timer = setInterval(() => {
      timeLeft--;
      timeElement.innerText = timeLeft;
      if (timeLeft <= 0) {
         clearInterval(timer);
         nextQuestion();
      }
   }, 1000);
}

// Night Mode Toggle
function toggleNightMode() {
   document.body.classList.toggle("night-mode");
}

// Shuffle Array Function
function shuffleArray(array) {
   for (let i = array.length - 1; i > 0; i--) {
      const j = Math.floor(Math.random() * (i + 1));
      [array[i], array[j]] = [array[j], array[i]];
   }
}
```

styles.css

```css
body {
    font-family: 'Roboto', sans-serif;
    background: #deeafc;
    color: #333;
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh; /* Full height of the viewport */
    margin: 0;
}

.hidden {
    display: none;
}

.container {
    text-align: center; /* Center the text within the container */
}

h2 {
    font-size: 2.5em; /* Larger heading */
    color: #333; /* White text for heading */
    margin-bottom: 20px;
}

.login-box {
    border: 2px solid rgba(255, 233, 236, 0.5); /* Light white border */
    padding: 30px; /* Space inside the box */
    border-radius: 15px; /* Rounded corners */
    background-color: rgba(255, 233, 236, 0.9); /* Semi-transparent white */
    box-shadow: 0 8px 20px rgba(0, 0, 0, 0.2); /* Shadow for depth */
    margin-top: 20px; /* Space above the box */
    transition: transform 0.3s; /* Animation on hover */
}

.login-box:hover {
    transform: scale(1.05); /* Slightly enlarge on hover */
}

input[type="text"] {
    padding: 15px; /* Padding inside the input */
    margin: 10px 0; /* Space around the input */
    border: none;
    border-radius: 5px; /* Rounded corners */
    width: 80%; /* Width of the input */
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1); /* Light shadow */
}

button {
    padding: 12px 24px; /* Increase button padding */
```

```css
    margin: 10px;
    border: none;
    border-radius: 5px;
    cursor: pointer;
    background-color: #ffe9ec; /* Background color set to #ffe9ec */
    color: #333; /* Text color */
    transition: background-color 0.3s, color 0.3s; /* Smooth transition for color change */
    font-size: 110%; /* Increase button font size */
    box-shadow: 0 4px 10px rgba(0, 0, 0, 0.2); /* Shadow for depth */
}

button:hover {
    background-color: #ffe9ec; /* Maintain the same background color on hover */
    color: #333; /* Maintain text color on hover */
}

.logo {
    width: 100px; /* Adjust size as needed */
    margin-bottom: 20px; /* Space below the logo */
}

#night-mode-toggle {
    position: fixed;
    top: 10px;
    right: 10px;
}

.night-mode {
    background-color: #333;
    color: #fff;
}

.night-mode .login-box {
    background-color: rgba(255, 255, 255, 0.1); /* Darker box in night mode */
    border: 2px solid rgba(255, 255, 255, 0.5); /* Maintain light border */
}

.night-mode h2 {
    color: #fff; /* White text for heading in night mode */
}
```

Index.html:

```html
<!DOCTYPE html>
<html lang="en">
<head>
<link href="https://fonts.googleapis.com/css2?family=Roboto:wght@300;500&display=swap"
rel="stylesheet">
```

```html
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Quiz Application</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <div class="container">
        <div id="login-area">
            <h1>Welcome to the Quiz</h1>
            <input type="text" id="username" placeholder="Enter your username">
            <button onclick="login()">Login</button>
        </div>

        <div id="quiz-intro" class="hidden">
            <h2>Select a Category</h2>
            <button onclick="startQuiz('general')">General Knowledge</button>
            <button onclick="startQuiz('science')">Science</button>
            <button onclick="startQuiz('history')">History</button>
        </div>

        <div id="quiz-area" class="hidden">
            <div id="question"></div>
            <div>
                <button class="option-btn" onclick="selectOption(0)"></button>
                <button class="option-btn" onclick="selectOption(1)"></button>
                <button class="option-btn" onclick="selectOption(2)"></button>
                <button class="option-btn" onclick="selectOption(3)"></button>
            </div>
            <div id="progress-bar" style="width: 0%;"></div>
            <div id="time">30</div>
            <button id="next-btn" onclick="nextQuestion()" disabled>Next</button>
            <div id="score">Score: 0</div>
        </div>

        <div id="quiz-end" class="hidden">
            <h2>Quiz Over!</h2>
            <div id="final-score"></div>
            <button onclick="showLeaderboard()">Show Leaderboard</button>
            <button onclick="restartQuiz()">Restart Quiz</button>
        </div>

        <div id="leaderboard-area" class="hidden">
            <h2>Leaderboard</h2>
            <ul id="leaderboard"></ul>
            <button onclick="returnToCategories()">Return to Categories</button>
        </div>

        <button id="night-mode-toggle" onclick="toggleNightMode()">Night Mode</button>
    </div>

    <script src="script.js"></script>
```
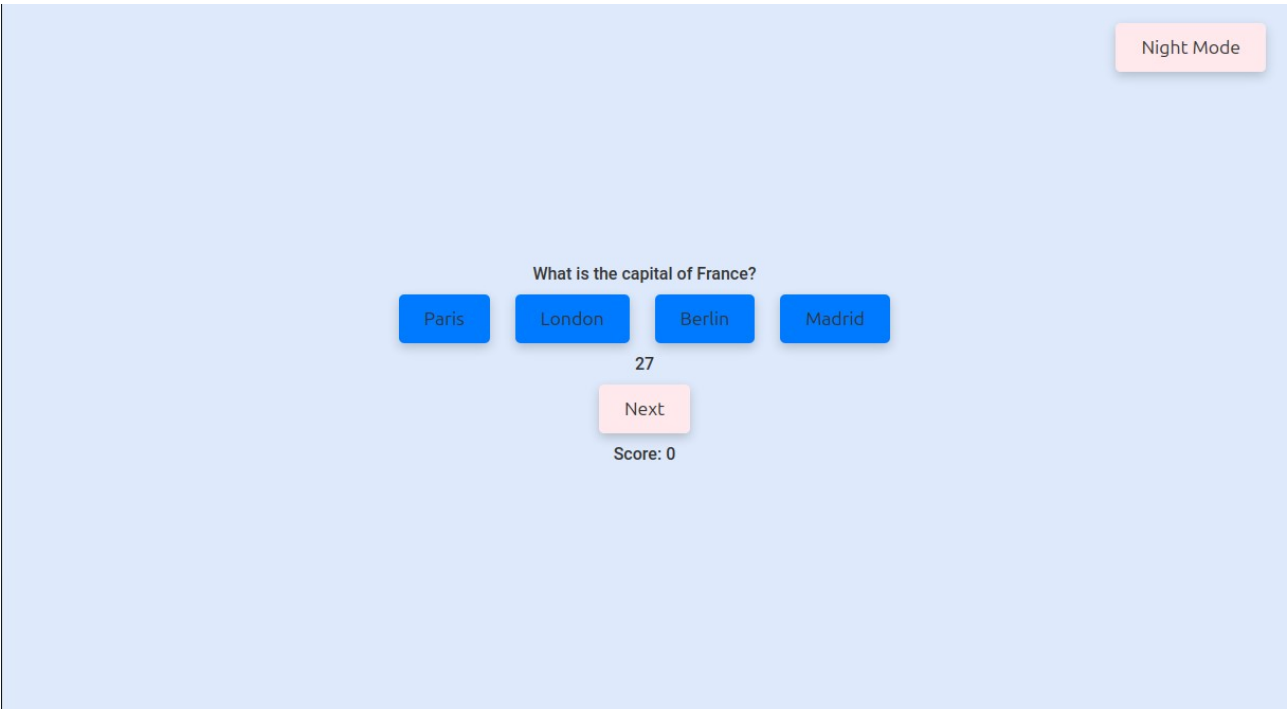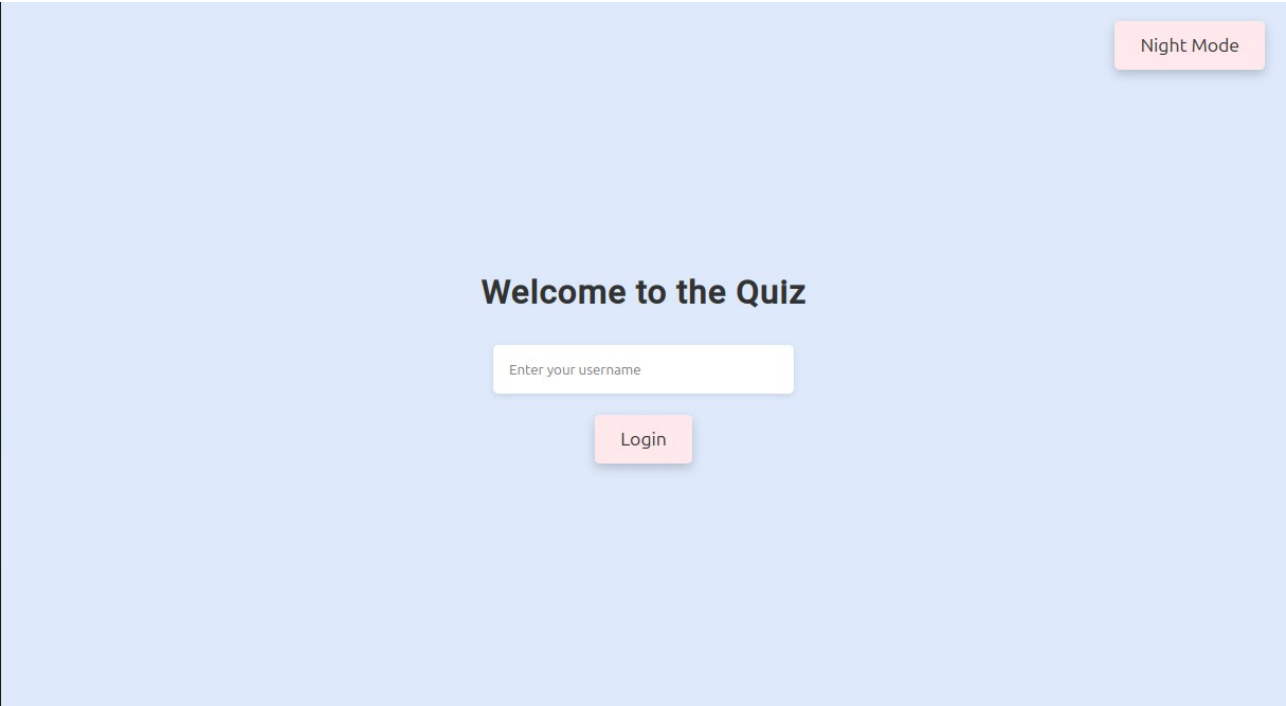
```
</body>
</html>
```

Leaderboard

- 123: 10
- 123: 10
- Asmi: 10
- Asmi: 10
- 145: 10
- AAA: 10
- asmi: 9
- asmi: 9
- Asmi: 9
- 123: 9

Return to Categories

Quiz Over!

Your final score is: 10

Show Leaderboard   Restart Quiz

Select a Category

General Knowledge   Science   History