**FSD TEST**

**Assignment Title: Development of a Guess-a-Word Web Application Game**

Assignment Description:

Objective:
The objective of this assignment is to develop a Guess-a-Word game web application using the MERN (MongoDB, Express.js, React.js, Node.js) stack along with SQL for database management. The game will involve users guessing words based on hints or descriptions provided, with a scoring system and user leaderboard functionality.

Requirements:

Technology Stack: Utilize the MERN stack (MongoDB, Express.js, React.js, Node.js) along with SQL for database management.

Dashboard Design: Create a visually appealing dashboard with a captivating background, featuring elements such as a start game button and a field for the user to enter their name and select the number of rounds (in multiples of 5).

Game Dashboard: Upon selecting the number of rounds and starting the game, users should be directed to the game dashboard. The dashboard should display input boxes for each word to be guessed, along with a description, hint, or riddle providing clues about the word. For example, if the word is "egg" and the user has to fill in 3 boxes, the hint could be "median between vegetarians and non-vegetarians."

Gameplay Mechanics: Users are given a limited number of trials (e.g., 3) to guess each word correctly. After attempting to guess a word, the next word in the sequence of 5 words for the round should appear. The game should keep track of the user's score out of 5 for each round.

Database Integration: Fetch round-based words and hints from the database using API calls. Utilize state management to ensure only a single API call per round, optimizing performance.

Scoring and Leaderboard: Save user scores in the database and display the best three scores on the start game page. Maintain a leaderboard to showcase top scorers.

Responsive Design: Ensure the application is responsive, providing an optimal viewing and gaming experience across various devices and screen sizes.

Deliverables:

Fully functional Guess-a-Word web application game meeting the specified requirements.
Source code hosted on a version control system like GitHub.
Documentation covering installation instructions, usage guidelines, and any additional notes deemed necessary.
Evaluation Criteria:

Adherence to requirements and functionality.
Code quality, including readability, modularity, and best practices.
User interface design and user experience.
Responsiveness across various devices.
Implementation of database integration and state management.
Accuracy and effectiveness of the game mechanics.