WEBD 5201 WEB DEVELOPMENT FRAMEWORKS
Assignment 3
2023

Assignment Question:

Requirement Analysis and Technology Selection for a Stock Trading Platform

Note: This assignment encourages critical thinking and creativity in designing a stock trading platform.

Assignment Overview:

Your task is to conduct a comprehensive requirement analysis for a stock trading platform that enables users to buy and sell stocks, manage their portfolios, access real-time market data, and execute trades. The research should define the essential features and functionalities of the platform, and you will also need to select appropriate technologies for its implementation.

Instructions:

1. **User Personas and Scenarios** (15 points): Create user personas representing typical users of the stock trading platform. Provide scenarios that describe their goals, challenges, and how they would interact with the platform.

2. **Functional Requirements** (20 points): Define the functional requirements of the platform, specifying what actions users can perform. Include features such as user registration, stock trading, portfolio management, market data retrieval, order execution, and account statements.

3. **Non-Functional Requirements** (15 points): List the non-functional requirements that pertain to the platform's performance, security, and usability. Include scalability, response time, data security, and user experience requirements.

4. **Data Requirements** (20 points): Describe the data needed to support the platform, including user profiles, stock listings, portfolios, trade history, and real-time market data. Specify the structure and relationships between data entities.

5. **Use Cases** (15 points): Create use cases to illustrate how users interact with the platform to achieve their goals. Use case diagrams or flowcharts may be used to visualize these interactions.

6. **Regulatory and Compliance Requirements** (20 points): Identify any legal or industry-specific regulations and compliance standards the platform must adhere to. Explain how the platform will ensure compliance with these requirements.

7. **Technology Selection** (15 points): Select appropriate platform implementation technologies. Consider choices for the frontend framework, backend programming languages, database management systems, and other relevant technologies. Justify your selections based on the requirements and constraints.

8. **Testing and Quality Assurance** (15 points): Formulate a testing strategy covering unit, integration, and acceptance testing. Highlight the importance of quality assurance and the tools that will be employed to ensure the platform's reliability.

9. **Conclusion** (10 points): Summarize the key findings of your requirement analysis and technology selection, emphasizing the significance of understanding user needs and regulatory constraints.

Assignment Scoring:

The total marks for this assignment will be converted into a 10-point scale based on your score 100.

Note to Students:

This assignment focuses on requirement analysis and technology selection for a stock trading platform. No "correct" answers exist, and each student's analysis and technology choices may vary. Supporting your analysis and technology selections with evidence and well-reasoned explanations is essential.

Plagiarism Disclaimer: Students are reminded that plagiarism violates academic integrity by using someone else's work or ideas without proper citation. If you use content or ideas from external sources, cite them appropriately.

Submission: Please submit your assignment in PDF format.

Due Date: October 25, 2023