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Roll Number: 45		Lab Assignment Number: 2
Title of Lab Assignment: Project Proposal and Requirement Gathering.		
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Practical No. 2

Aim: Project proposal and requirement gathering.

Description:

A comprehensive software program called the Cricket Scoring System was created to completely transform the way cricket matches are scored at different levels. The technology guarantees accurate recording of ball-by-ball information, including runs, extras, wickets, and player statistics, with an intuitive interface and real-time updates. With its comprehensive statistical analysis features, it offers insights into individual and team performance. Scorers, umpires, and administrators may all access the platform thanks to its secure multi-level access and device flexibility.

Constructed with a strong technological foundation, the system aims to optimize the scoring procedure, minimize mistakes, and provide cricket fans with a more effective and captivating experience.

Project Proposal:

The goal of this project is to design a cricket scoring system that is easy to use and effective for keeping score of cricket matches at different levels. The system will have a real-time scoring interface capturing precise ball-by-ball information, coupled with extensive statistical analysis tools for player and team performance evaluation.

The project also highlights how crucial a responsive design is to ensure cross-platform compatibility and accessibility for administrators, umpires, and scorers. The Cricket Scoring System intends to improve the precision, speed, and overall experience of cricket match scoring, contributing to the modernization of the sport. It has a defined development timeframe, a strong technological stack, and a budgetary allotment.

Types of users:

1. Developers
2. Project Managers
3. Users

Objectives:

1. To reduce multiple manual calculations during the match such as net run rate, batsman's analysis, bowler's analysis.
2. To provide a ball-by-ball update of the match.
3. To provide a detailed scorecard.
4. Develop a user-friendly interface for scoring cricket matches.
5. Implement real-time scoring updates accessible to players, officials, and spectators.

Tools:

1. **Software:** Visual Studio Code, PHP, MySQL.
2. **Web Browser:** Chrome, Brave, Firefox.

Feasibility Study:

1. **Technical Feasibility:** Two popular and well-established web development technologies are PHP and MySQL. Their compatibility guarantees the project's technical viability, and a sizable development community offers resources and assistance. These technologies make it easy to integrate responsive design and real-time changes, and they also make hosting on conventional web servers or cloud platforms simple.
2. **Economic Feasibility:** The project's economic viability is reinforced by the utilization of open-source technologies (PHP, MySQL), which lowers license expenses. The development, hosting, and testing cost estimates taken together are affordable. It is anticipated that the advantages—such as enhanced scoring effectiveness and a better user experience—will exceed the expenses, making the project financially feasible.
3. **Legal Feasibility:** In order to ensure clear terms of service and agreements, the Cricket Scoring System project must comply with data protection and intellectual property legislation. It should be compliant with jurisdictional consequences and accessibility norms, necessitating strong contractual agreements and legal landscape knowledge. It is advised to consult legal advice.

4. **Operational Feasibility:** Because PHP and MySQL are extensively used and have a big user base, operational feasibility is high. Operational requirements are met via the creation of a user-friendly interface, multi-level access controls, and device interoperability. Developers' experience with MySQL and PHP guarantees that scorers, umpires, and administrators will find it easy to use and maintain.

Project Requirements:

1. **Software Requirements:**

- System O.S: Window or Linux (Debian or Arch).
- Front-end: HTML, JS, CSS.
- Back-end: PHP.
- Database: MySQL.

2. **Hardware Requirements:**

- Processor: Intel Core 3.0 2.3 GHz or more.
- RAM: 4GB or more.
- Monitor: 17 CRT or LCD, Plasma, etc.
- Hard-Disk: 256 or more (SSD preferable)
- Keyboard: Normal or multimedia.
- Mouse: Compatible

3. **Performance Requirements:**

The proposed Cricket Scoring System will have following performance requirements:

- Responsiveness: The user interface should be highly responsive, allowing scorers and administrators to input data quickly, and users to access information seamlessly across different devices, including smartphones, tablets, and desktops.
- Scalability: The system should be capable of handling a scalable user base, accommodating varying levels of match complexity and user load, ranging from local tournaments to international events.
- Reliability: The system should be reliable and available during matches, minimizing downtime and ensuring consistent performance to avoid disruptions to the scoring process.

- **Availability:** The system should be available 24/7, with minimal downtime for maintenance for updates. Any planned maintenance should be communicated to users in advance.

4. **Safety Requirements:**

The proposed Cricket Scoring System will have following safety requirements:

- **User Safety:** The system should prioritize the safety of users by providing accurate and up-to-date information about the score.
- **Data Safety:** The system should ensure that user data is stored and processed securely, with appropriate measures in place to protect against data breaches, theft, or loss. This includes implementing user authentication, encryption of sensitive data and regular backups of data to prevent loss in case of a system failure.
- **Compliance:** The system should comply with all relevant safety regulations, such as those related to user privacy and data protection. This includes ensuring that user data is collected, stored and processed in accordance with relevant laws and regulations.
- **User education:** The system should provide users with relevant safety information and guidelines to ensure that they are aware of potential issues and best practices while scoring.

5. **Security Requirements:**

The proposed Cricket Scoring System will have following security requirements:

- **User Authentication:** Implement secure user authentication mechanisms, including strong password policies and optional multi-factor authentication, to ensure that only authorized individuals can access the system.
- **Access Control:** Enforce role-based access controls to limit system access based on user roles (scorer, user), preventing unauthorized users from gaining inappropriate access to sensitive information.
- **Encryption:** Utilize encryption protocols (such as SSL/TLS) to secure data transmission between users and the system, protecting against eavesdropping and unauthorized interception of sensitive information.

- Security Monitoring: The system should have security monitoring in place to detect and respond to any security threats and anomalies. This includes logging and monitoring all user activity.

Conclusion: Project requirements and requirement gathering for “Cricket Scoring System” is done successfully.