# 5 Functional Requirements

 Player/TO **Registration and Authentication** – The system must allow users to create an account, log in, and manage their profile with a unique username. Tournament organizers must have additional privileges for creating and managing tournaments.

 TO **Tournament Creation and Management** – Organizers must be able to create tournaments, set rules (single/double elimination, match formats), set start times, and manage participants.

 Player **Participation and Matchmaking** – Players must be able to register for tournaments, view their bracket, and see their upcoming matches.

 Player/TO **Reporting and Verification** – Players must be able to report match results, while organizers should have the ability to verify or override reported scores if necessary.

 T/O **Bracket Generation and Progression** – The system should automatically generate brackets based on the chosen format and update them as matches are completed.

# 5 Nonfunctional Requirements

 Scalability – The system should be able to handle multiple tournaments with numerous participants simultaneously without performance issues.

 Security – User data (including login credentials) must be securely stored and protected against unauthorized access.

 Usability – The interface should be user-friendly and intuitive, allowing both players and organizers to navigate easily.

 Performance – The website should have fast response times, ensuring minimal delays in loading tournament data and updating brackets.

 Reliability – The system must be stable, preventing crashes or data loss, ensuring that tournament progress is always recorded accurately.