**NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI-620015**



**SOFTWARE REQUIREMENT SPECIFICATION**

**Project Title: RUBY CUP(CRICKET TOURNAMENT)**

**Department of Computer Applications**

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(3rd Semester)

**-Software requirements specification (SRS)-**

**RUBY CUP (CRICKET CUP)**

**SRS** a requirements specification for a software system is a complete description of the behavior of a system to be developed and may include a set of use case that describe interactions the users will have with the software. In addition it also contains Non functional requirements. Non-functional requirements impose constraints on the design or implementation (such as performance Engineering requirements, Quality standards, or design constraints) **.**

The software requirements specification document enlists all necessary requirements that are required for the project development.To derive the requirements we need to have clear and thorough understanding of the products to be developed. This is prepared after detailed communications with the project team and customer.

**Introduction: Ruby Cup** is a inter nitt cricket tournament that promotes by nitt students, with the complete backing of sports department. It just likes that as Indian premier league. Multiple teams from different departments are joining the tournament with the entry or registration process with entry fee, which is declared for every team by the organizing team. It is organizes every year during the winter session of India by the nit students. It is near 20-over gave for every team with tennis ball.

**Purpose:** As we know that cricket is much popular in our country and there is a chance to play all nitt boys together and show their talents and enjoy this cricket cup. The main purpose is that all guys come together and enjoy the game with interaction to each other to every department. It will be good for health with little exercise for those guys who are not taking exercise.

**Definitions: Ruby Cup** cricket tournament in NIT tricky inside campus for nit Tricky students only.

**System overview:** There is a committee for organizing the tournament they have the permission from sports department for organizing the Ruby Cup to every years. The committee will be different every year. From every department one team can play. No player can play with two teams.

1.>Prepare diagrams for the all possible project.

2.>Every team can register only 15 players at the time of registration.

3.>Team can not include any other player at the time of match.

4.>11 players can play with one team during the match.

5.>Every match contains 3 points. If a team won the match with a large different then it will get all 3 points otherwise it will get 2 points and

Second team will get zero.

6.>All team will be divided in different groups.

7.>Fist group match will be start then select one team from every group.

That team will play second round’s match.

The process will be continuing up to semifinal’s matches. In final there will be 2 teams. Winning team will receive the trophy.

8.>One player will choose for all over performance in the tournament.

9.>In every tournament there will be one player who will select for main of the match according to the performance.

**References: Reference** is a relation between objects in which one object designates, or acts as a means by which to connect to or link to, another object. The first object in this relation is said to ***refer to*** the second object. The second object – the one to which the first object refers – is called the **referent** of the first object.

**System Interfaces:** The system connected by various methods and process which are declared in cop. There are multiple classes and their objects. These all classes connected by the inheritance and pointer.

**User Interfaces:** Users are players and committee member who are declared by students. All teams contain player name and some optional player for some situation.

**Hardware interfaces:** All player and need ground for cricket tournament and those objects which are need during the matches as ball, bats etc. Sound speaker and wire for connection those objects.

**Software interfaces:** For connection of various classes and structures need inheritance and pointers etc...

**Communication Interfaces:** For communication there is a team of students which is going to organize the tournament.

**Memory Constraints:** Record for match history, point’s details, all teams’ information, team player names, team names, and the performance of all player details will be noted in documents.

**Operations:** Operations are the situation when 2 team are playing a match; there are needs to calculate the ball during the over. If 6 ball completed by a player in one over then over should be completed. Counting the runs adding runs in score for team and the player’s score.

**Constraints, assumptions and dependencies:** Each player dependent on team. If a player is playing who should be a student of nit trichy.

**Specific requirements:** Requirements of players and committee. Need to select of ground for tournament. Use Case Diagram for representation actor and their relations. Object models diagram for representation of attributes and their security.

**Functional requirements:** Function for reading the information of each player and their team. We need function for scoring, match playing, For over counting, ball counting in a over, deletion of details of loser team.

**Performance** requirements: Record for every player

**Design constraints: All** Diagrams and their connection.

**Players**

**Plays For**

**Teams**

**Participants**

DEPARTTEAM

**Game**

**Logical database requirement:** Logical connection of database classes, score and inheritance.

**Software System attributes:** Player details, product requirements, committee member details, score etc..

**Availability:** Every player should be the student of nit trichy campus from one of the department.

**Security:** Code is secure from data type. Team first need to register then can play in tournament. Every player registered with their name, department name, and year of education so no player can play with two teams.

**Maintainability:** After every match need to update the data for winning team and add points in main score.

Remove the details of loser team from the database.

**Portability:** Every team captains can check the details of their matches with the committee members.