
CS346 - Software Engineering Lab

Software Requirements

Specification

for

Inter-IIT Tournament

Management System

Prepared by-

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1. Introduction

1.1 Purpose

The purpose of the document is to present a detailed description of the Inter-IIT Tournament Management System. It will explain the purpose and features of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli.

1.2 Document Conventions

- **Organizer** - The host of the tournament who is responsible for all the facilities which will be provided to the participants.
- **Team Manager** - For every participant of an institute they will be represented by one person known as team manager who will deal with the organizers on behalf of participants.
- **Participants** - The players who would be participating in different sports in the tournament.

1.3 Intended Audience

This document is intended to be used by the developers of the system who will implement and verify the correct functioning of the system.

1.4 Scope of the Project

This software system will be a Management System for the organizer, team managers and participants of the Inter-IIT Tournament. This system will be designed to efficiently organize, manage and to inform about different events that occur during the Inter-IIT Tournament by providing them tools to assist in automating the entire process such as room allocation to participants, scheduling event timings, responding to queries and many more, which would otherwise have to be performed manually. By efficiently organizing and managing, the system will save time and resources which will meet the needs of all while remaining easy to use and understand.

1.5 Overview of the Document

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the

informal requirements and is used to establish a context for the technical specifications in the next chapter.

2. Overall Description

2.1 System Environment

The Inter-IIT Tournament Management System has three types of users ,viz, Organizer, Team Manager and Participants. All the users will interact with the system with different available tools to each of them where they will perform their desired operation.

2.2 Functional Requirements

R1 Register

Description - Register institute in different events

R1.1 Register Institute

Input - Institute name

Output - InstituteID

R1.2 Register Team

Input - InstituteID, Sport name

Output - TeamID

R1.3 Register Participants

Input - TeamID, List of participants

Output - UserID for each participant

R2 Login

Description - Login user by checking their credentials

Input - UserID, Password

Output - Valid credentials or not

R3 Signup

Description - Register user for new account

Input - UserID, Password

Output - Success/Abort message

R4 Create Event

- Description** - Create an event
- Input** - Event details
- Output** - EventID, Success message

R5 Modify Event

- Description** - Modify the event details
- Input** - Event details
- Output** - Notification to participants

R6 View Leaderboard

R6.1 View Overall Leaderboard

- Description** - Display overall standings of all institutes
- Input** - InstituteIDs and scores
- Output** - Overall standings

R6.2 View Sport-wise Leaderboard

- Description** - Show standings of a particular sport
- Input** - Sport name
- Output** - Corresponding standings of that sport

R7 Update Leaderboard

- Description** - Update leaderboard

R7.1 Update Overall Leaderboard

- Input** - InstituteID, Increase in points
- Output** - Updated overall leaderboard

R7.2 Update Sport-wise Leaderboard

- Input** - InstituteID, Sport name, Points
- Output** - Updated sport-wise leaderboard

R8 View Event Schedule

- Description** - Shows event details
- Input** - EventID
- Output** - Schedule of event

R9 View Profile

R9.1 View Institute Profile

Description - Performance of institute in tournament

Input - InstituteID

Output - Performance details

R9.2 View team profile

Description - Performance of team in the tournament

Input - PlayerID

Output - Performance details

2.3 Non- functional requirements

Contextual Enquiry:

Passive: We managed to find a website from Inter IIT Sports meet 2009 and made the following observations.

Link to the portal: <http://www.iitk.ac.in/interiit09/>

Observations:

No facility to inform users about changes in the schedule

No facility for users to ask queries

No real time score update

No cumulative scoreboard for the whole tournament

Lack of reminder facility before matches

No facility for players to request sports equipment.

Past events are not removed from the schedule list

No dashboard for user profile

No feature to bookmark events

No facility to give directions to reach the event venue

No option for the user to choose which sport schedule he/she wants to see.

Active:

Plan

We created a list of queries for which we wanted to know the observations of the users regarding the Inter-IIT Sports tournament portal. Then we asked some of our friends who participated in the tournament to use the portal.

Initiate

We started our interaction by first introducing ourselves and what we wanted to get from them which was to get the perspective of students/users about the Inter-IIT tournament portal which they used.

Execute

During our interaction we observed certain difficulties faced by them while using the Inter-IIT tournament portal. Apart from that we had certain queries of our own for which we wanted them to share their thoughts on those queries. We noted down the observations during our interaction which we used later to analyze.

Close

After observing our user in an uninterrupted environment, we thanked them for co-operating with the process and sharing their issues regarding the portal.

Reflect

After analyzing all the observations we grouped them together and created an affinity diagram.

Following points were discussed:

1. There was no facility to notify users about the event time and venue.
2. There was no facility to inform users about any update regarding the event or change in schedule.
3. Leaderboard should be updated as soon as the event gets over.
4. Status of the complaint should be updated whether the complaint has been closed or looked after.
5. No facility to inform timings and venue details of recreational events (the events that are not part of Inter-IIT but for leisure of the students).

Observations

From the contextual enquiry we generated the following points and grouped them under labels.

Inefficiency -

- Delay in Leaderboard update - Leaderboard should be updated as soon as the event gets over.
- Delay in notification - Update regarding any event should be notified as soon as possible.
- Complaint status updation - Status of the complaint whether the complaint has been closed or looked after.

User Interaction -

- Create Personalized Schedule - User gets to choose which sports schedule he/she wants to view.
- Venue Navigation - Directions given to reach the event venue.
- Bookmark Events - Bookmark certain events so that any update regarding the event should be given priority.

Information lacking -

- Result unavailable - Information about the winners of each event and points of every team/player in the event.
- Player performance profile - The individual performance of each player.
- About Recreational events - Timings and venue details of the events that are not part of Inter-IIT but for leisure of the students.

Additional Issues -

- Past Schedule removal - The events which are completed should be removed from the schedule list.
- Overall Scoreboard - No cumulative scoreboard for the whole tournament.
- Reminder - Lack of reminder facility before matches/events.
- Sports Equipments - No facility for players to request sports equipment.

Affinity Diagram

From the above points, we generated the following affinity diagram -

