Sports Event Management System

Software Requirement Specification

Version I

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Introduction

As per definition given by DeSensi, Kelley, Blanton and Beitel in 2003, a sport event management system generally known as SMS involves any combination of skills related to planning, organizing, directing, controlling, budgeting, leading, and evaluating within the context of an organization or department whose primary product or service is related to sport or physical activity.

In this project we are emphasizing on SMS at a collage level where we can include selection and tracking of both students and events which takes place state, national and international level. SMS is introduced due to the below nature of abilities:

- Less manual paperwork, time and manpower is required if SMS takes over.
- Easily assessable to access, wherever and whenever.
- Data procurement and tracking is easy

Purpose

This purpose of this request is to provide detail how this system manages the activity of much sport at a time. It also deals with the selection of student at collages, university and even at state level. This system will provide the serving activity in quick and easy manner. It will consume less amount of time as it is based on automatic system

Scope

Sport Event management system is the application of project management to the creation and development of festivals and Events

Overview

As SRS document is a manual of a project provided it is prepared before you kick-start a project, we will be assessing and show case the preferred mode of requirement analysis, designing, coding and maintenance. We are assuming that we are using XP model and there is no limit to investment in this project.

Advantages	Disadvantages
• Close contact with the customer	• Additional work
• No unnecessary programming work	• Customer must participate in the process
• Stable software through continuous testing	• Relatively large time investment
• Error avoidance through pair programming	• Relatively high costs
• No overtime, teams work at their own pace	• Requires version management
• Changes can be made at short notice	• Requires self-discipline to practice
• Code is always clear and comprehensible	• Requires more manpower

XP Model:

XP Workflow
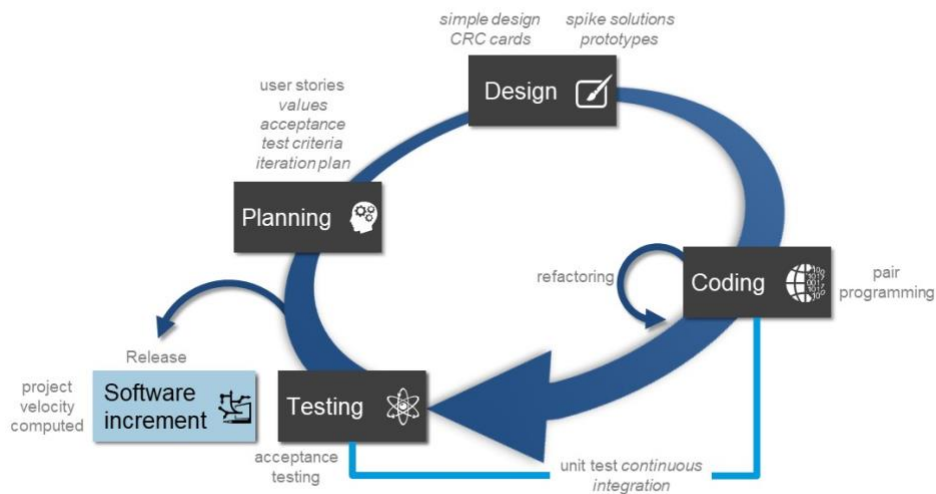
Problem Statement

The problem of planning, organization, time management, on proper use of resource, budget, allocation of resource and space management

Effect:

Effect is on management, organizations, workers and students

Impact:

The impact of these problems is not proper completion of sports events at its specific time.

<center>**Requirement Analysis**</center>

Every collage needs an SMS to ease their manpower and paperwork. They can keep their students updated and can connect to them whenever required.

Objective & Scope:

In this project we would be including separate interfaces for admin, faculty and students. They can pass information and maintain data like for what event is taking place at where and when. Student data who are enrolled for that event. Critical information can be passed by raising quarry both by faculty and student.

For this project we need SD's who can maintain database, develop both androids, IOS and web development.

<center>**Design**</center>
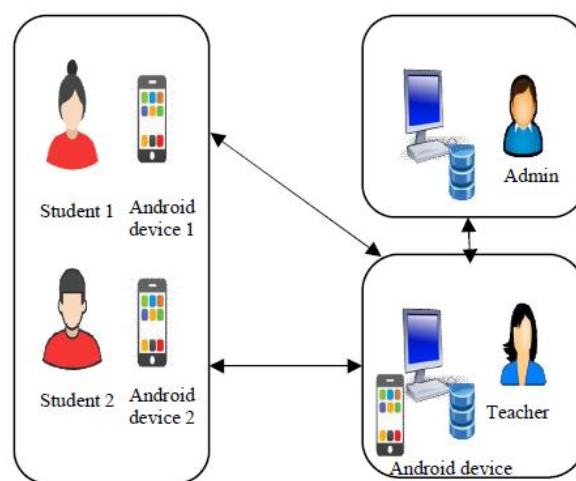
This system is being implemented such a way that it is flexible for future developments and adding different functionalities for future enhancement. The programming language in our case will be java, and the other is scripting language in our case we use XML/HTML along with JSP pages and mogo DB, where JSP allows the java code to be inserted into HTML/XML and Mogo DB is used for maintaining database.
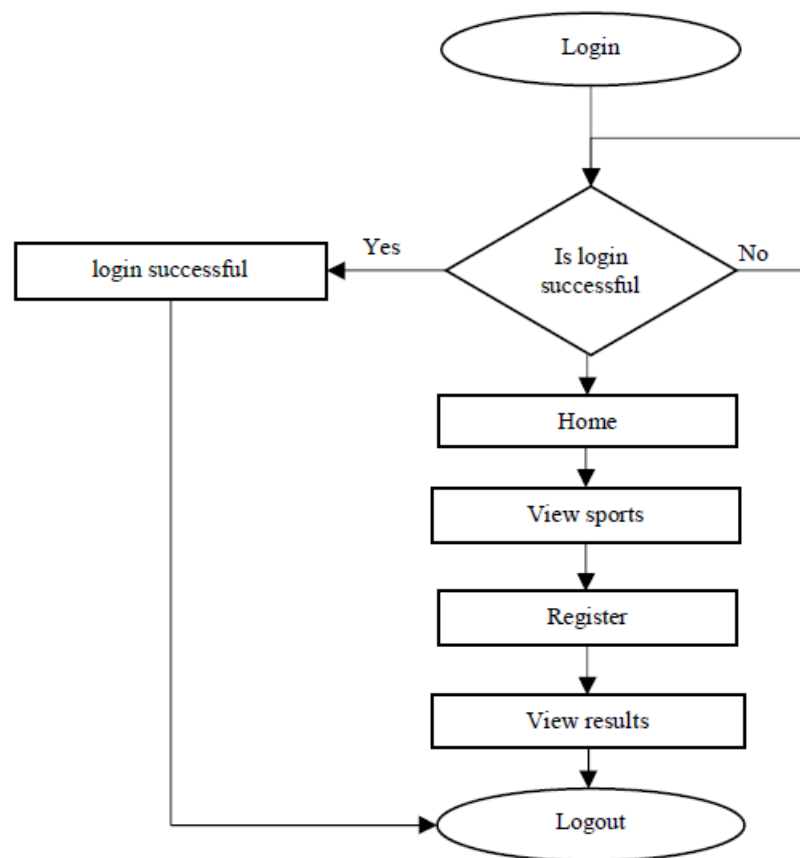
This design is divided into 3 modules:

Admin Module
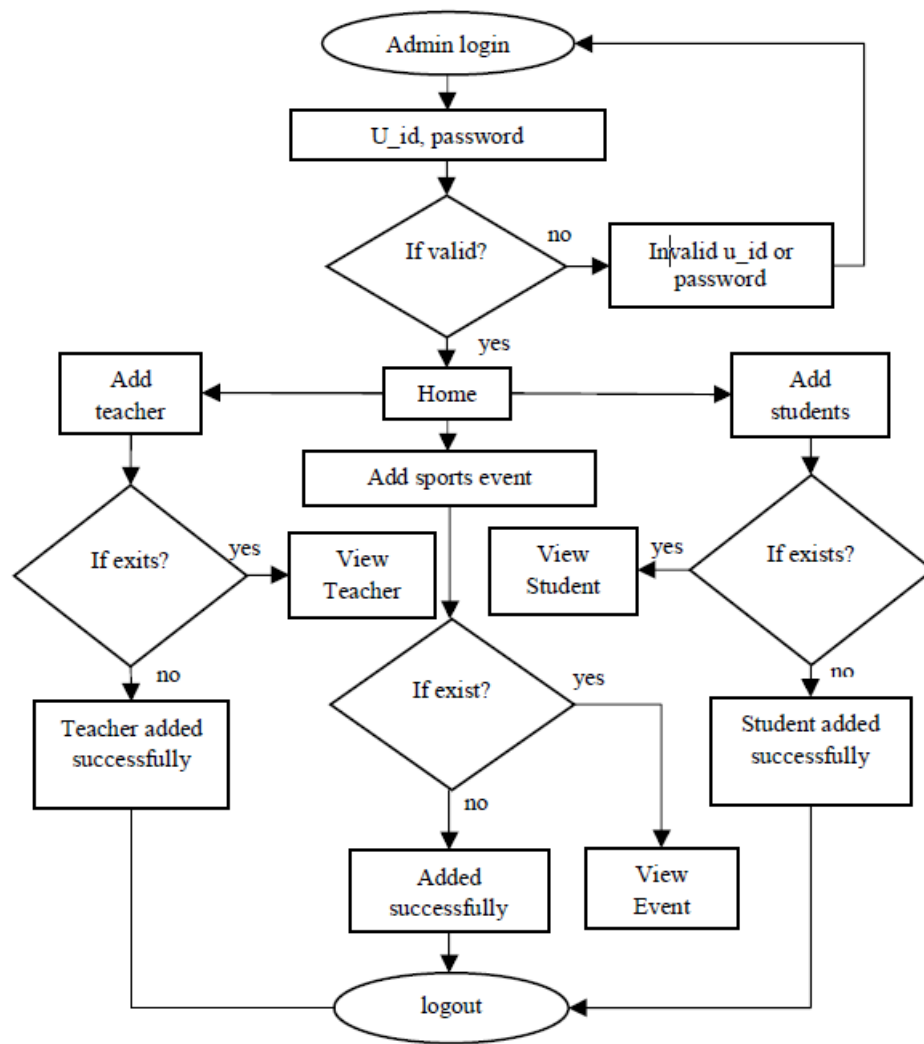
Teacher Module
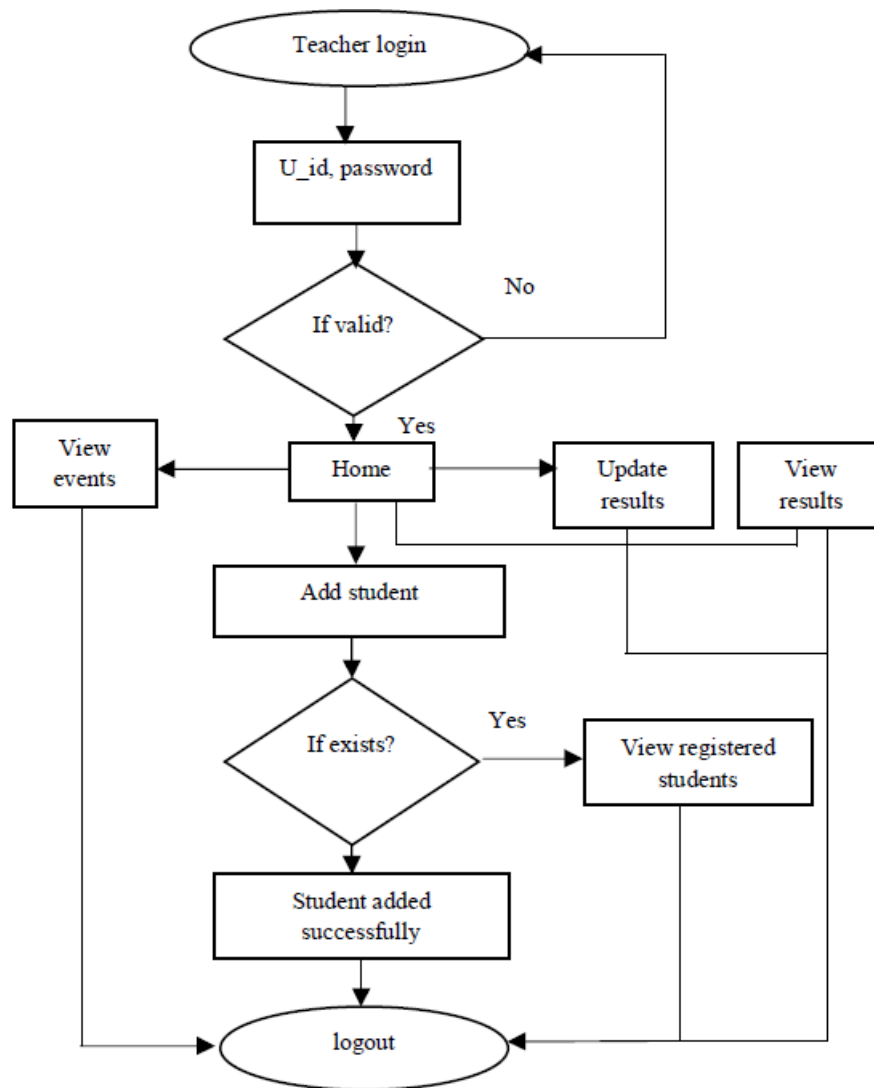
Student Module

Interface:

Code

The pseudo code for admin is as follows:

1. START ADMIN LOGIN
2. Enter admin Id and password
3. Admin Id and password are verified with the database.
4. IF (id, password valid)
    a. Admin login into the HOME page
        i. Adding sports event by event Id
        ii. IF (event id exists)
        iii. viewing the events.
        iv. ELSE
        v. Events are Added Successfully
        vi. END IF
5. Add a teacher by giving Teacher Id
    a. IF (teacher id exists)
    b. View the teacher's details
    c. ELSE
    d. ADD teacher and display teacher added successfully
    e. END IF

6. Add a student by giving student Id
   a. IF (exists)
   b. View the student details
   c. ELSE
   d. Add student successfully, and give a message
   e. END IF
7. ELSE
8. Display invalid admin Id or password
9. END IF
10. END

The pseudo code for teacher module is given as follows:

1. START TEACHER LOGIN
2. Enter teacher Id and password.
3. Teacher Id and password are verified with the database
4. IF (valid)
5. Teacher login to the HOME page
   a. Add a student
      i. IF (student id exists)
      ii. View the details of students
      iii. ELSE
      iv. student will be added successfully
      v. END IF
   b. view the results
   c. view events
   d. update results
6. Else
7. Invalid teacher id or password
8. END

The pseudo code for student is as follows:

1. START STUDENT LOGIN
2. Enter student Id and password
3. student Id and password are verified in the database
4. IF (valid student id)
5. Student login to the HOME page
   a. Check the sports details
   b. Register to the sports by entering event Id
   c. Viewing results
6. End IF
7. END

Usecase
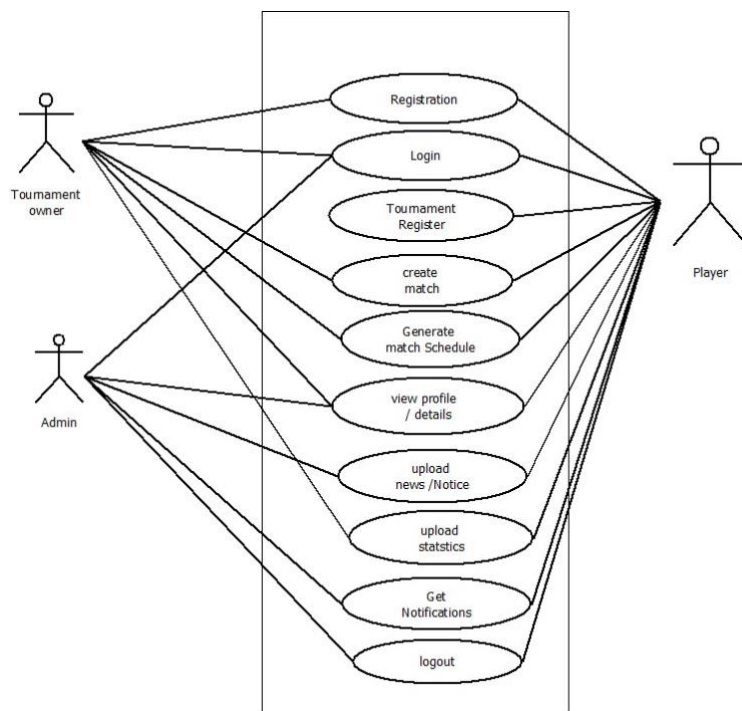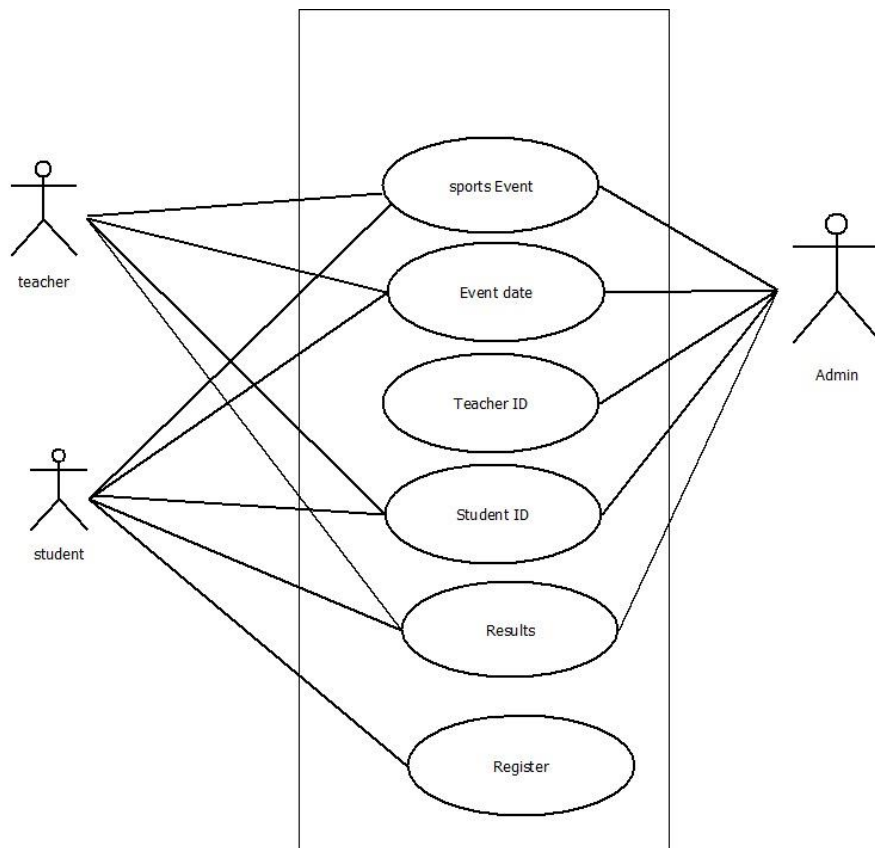
SYSTEM SPECIFICATION

Hardware Specification

      The selection of hardware is very important in the existence and proper working of any of the software. When selecting hardware, the size and capacity requirements are also important. The hardware must suit all application developments.

Processor   :   i3 or above.

System Bus :   32Bit or 64Bit

RAM   :   4 GB or Above

HDD   :   500 GB or Above

Monitor   :   14" LCD or Above

Key Board   :   108 Keys

Mouse   :   Any Type of mouse

Mobile   :   Android supported mobile phone

Software specification

One of the most difficult tasks is selecting software, once the system requirement is find out then we have to determine whether a particular software package fits for those system requirements. This section summarizes the application requirement.

Operating System   : Windows 10 Any 32 bit or 64 bit platform

Front End   : Android, .NET

Back End   : Microsoft SQL Server 2008 and Above

IDE   : Eclipse or Android studio

       : Microsoft Visual Studio 2010 and Above

Feasibility Study:

 A feasibility study is an in-depth analysis that considers all important aspects of a proposed project to determine its likelihood of success. Business success can be defined primarily by return on investment. That means the project will generate enough returns to justify the investment

Technical Feasibility:

This includes limitations that may affect hardware components, performance, and ability to achieve desired results. This feasibility study examines all the capabilities offered by the system and checks if everything is possible within the specified resources. Some of the common technical components are listed below.

- ❖ Operating Systems
- ❖ Programming Devices
- ❖ Programming Tools (HTML, CSS, Java, etc.)
- ❖ Charts and Design Tools
- ❖ Databases (MySQL)

3.8 Non Functional Requirements

1. **Efficiency** :
- At peak load, the system must be able to handle 10 club matches.
- The system must be capable of supporting 1000 concurrent users without issue.
- The system must respond to the user in no more than 5 seconds.

2. **Security** :
- While logging in the system the patient must have registered email and password
- In the event of a forgotten password or email, the security question and reference option must be provided during registration.
- Unauthorised access will be blocked by the firewall and secured with encryption

3. **Availability :**
- The system must be available for more than 90 percent of the time for the access
- The maintenance time should be less than 10 hours per week
- When users request service, the system should be available: The system should be operational 24 hours a day, seven days a week, so that the user can access the application whenever they want.
- Time to restart the system after the failure must be less than 2 hours

4. **Reliability :**
- The system must be bugs free satisfying all the requirements and provide good overall user experience
- Accuracy of the system must be high
- All the data in the database must be backed up in cloud to avoid the loss of patient information

5. **Operatiblity :**
- The system can be operated with the intermediate computer skill level
- The system must be operable in browsers like chrome, microsoft edge, etc
- The information system can be maintained easily by the enginee

6. Maintainability :

- The system should be easy to maintain.
- In order for the system to be easy to maintain it should be done with an object oriented language which is easy to maintain.
- Maintenance of the system should be cost efficient
- Maintenance of the system should be less frequent
- The system should be able to easily adapt to changes made.
- The system should be able to handle additional international conventions such as languages, timezones and styles.
- Timezone must match user's.

IMPLEMENTATION

One of the most critical stages of the system development life cycle is implementation. The implementation stage entails converting the design phase into a real system using various programming and scripting languages. The implementation and system ideas will be designed during the design phase. We will put each module's flow into action in a real-world system. The real systems will be implemented in this phase and validated in the following phase after successful implementation. The systems have been designed in such a way that they are adaptable to future developments and the addition of new functionalities for future enhancement. There are two types of computer languages that are used: programming languages, such as java, and scripting languages, such as XML/HTML and JSP pages, which allow java code to be inserted into HTML/XML.

Conclusion

Sports will be one of the most important activities or events to take place at colleges. College sports were managed using the traditional management system. It was tedious to manage all of this data manually because there were so many sports and so much data to manage. In this sports event management platform, we attempt to create a simple process in which all of the data about sports and students is managed automatically by the database.

References

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IEEE Computer Society, 1998

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Data Flow: https://www.javatpoint.com/software-engineering-data-flow-diagrams