# Software Project Management Plan for “Online Student Result Management System”

1. **Introduction**

This specification document describes the capabilities that will be provided by the software application STUDENT RESULT MANAGEMENT SYSTEM. It also states the various constraints by which the system will abide. The intended audience for this document are the development team, testing team and end users of the product.

* 1. **Project Overview**

The "Student Result Management System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to

eliminate and in some cases reduce the hardships faced by this existing system.

Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner. The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Student Result Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

* 1. **Project Deliverables**

1. Preliminary Project Plan 01.12.2021

2. Requirements Specification 10.12.2021

3. Analysis [Object model, Dynamic model, and User interface] 17.12.2021

4. Architecture Specification 26.12.2021

5. Component/Object Specification 09.12.2021

6. Source Code 18.12.2021 - 31.12.2021

7. Test Plan 01.12.2021 - 07.12.2021

8. Final Product Demo 08.12.2021 - 12.12.2021

* 1. **Evolution of this document**

This document will be updated as the project progresses. Updates should be expected in the following sections:

1. ***References*** - updated as necessary.
2. ***Definitions, acronyms, and abbreviations*** - updated as necessary.
3. ***Organizational Structure*** will be updated as the team leaders are assigned for each phase.
4. ***Technical Process -*** this section will be revised appropriately as the requirements and design decisions become clearer.
5. ***Schedule –*** as the project progresses, the schedule will be updated accordingly.

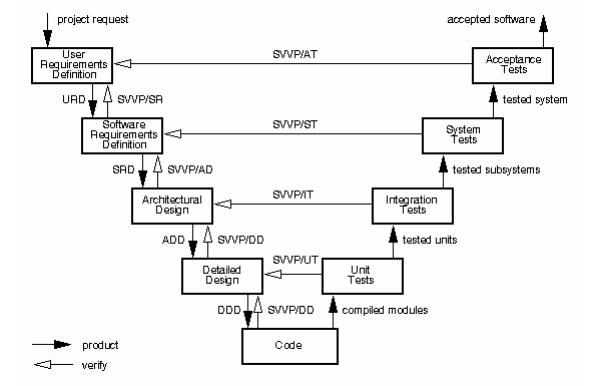
**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision** | **Date** | **Updated By** | **Update Comments** |
| 0.1 | 01.11.2021 | Tarwinder Singh | First Draft |
| 0.2 | 01.12.2021 | Tarwinder Singh | Second Draft/Final Draft |

* 1. **References**
* IEEE Std 1058-1998, IEEE Standard for Software Project Management Plans
* IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications
* IEEE Std 1016-1998, IEEE Recommended Practice for Software Design Descriptions
  1. **Definitions, Acronyms, and Abbreviations**

1. SRMS             Student Result Management System
2. SDS                 Software Design Specification
3. SPMP              Software Project Management Plan
4. SRS                 Software Requirements Specification
5. J2SE                Java 2 Platform, Standard Edition
6. JSP                  JavaServer Pages
7. JSTL                JavaServer Pages Standard Tag Library
8. PM Project Manager
9. QAM Quality Assurance Manager
10. **Project Organization**
    1. **Process Model**

The process used for this project will be a V-model such that each stage of the model allows us to do testing after completing a phase. Referring to the diagram below, each phase is tested after completion.



* 1. **Organizational Structure**

Team Members –

* + 1. Tarwinder Singh

|  |  |  |
| --- | --- | --- |
| **Name** | **Organization/**  **Position** | **Contact Information** |
| Tarwinder Singh | ITech Project Manager | [tarwinder303@gmail.com](mailto:tarwinder303@gmail.com)  09007421542 |
| Tarwinder Singh | ITech Business Analyst | [tarwinder303@gmail.com](mailto:tarwinder303@gmail.com)  09007421542 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Days** | **Deliverable** | **Team Leader** | **Deliverable Description** |
| 9 | 1 | Tarwinder Singh | Project Plan |
| 7 | 2 |  | Requirements Specification |
| 9 | 3 |  | Analysis |
| 13 | 4 |  | Architecture Specification |
| 9 | 5 |  | Component/Object Specification |
| 14 | 6 |  | Source Code |
| 7 | 7 |  | Test Plan |
| 5 | 8 |  | Final Deliverable |

## Organizational Boundaries and Interfaces

Team leaders throughout each development of the phases will be responsible for coordinating team meetings, updates, communications, and team deliverables.

* 1. **Project Responsibilities**

For the most vital responsibilities per phase of each team members, please refer to segment 2.2. Ultimately the project team is responsible for the successful delivery of the product. The team member tasks per deliverable according to expertise and the phases are as given below:

1. Project Plan – Whole Team
2. Requirements Specification – TBD
3. Analysis – TBD
4. Architecture Specification – TBD
5. Component/Object Specification – TBD
6. Source Code – TBD
7. Test Plan – TBD
8. Final Deliverable – Entire Team

|  |  |  |
| --- | --- | --- |
| **Name** | **Organization/**  **Position** | **Role/Responsibilities** |
| Tarwinder Singh | ITech Project Manager | * Managing and leading the project team. * Developing and maintaining a detailed project plan. * Monitoring project progress and performance. * Managing project evaluation and dissemination activities. * **Develop corrective actions when necessary.** |
| Tarwinder Singh | ITech Business Analyst | * Prepare reports on project plans, status, progress, risks, deadlines and resource requirements. * Develop and perform work flow analysis to find out the difficulties in reaching goals. * Provide project cost estimates. |
| Tarwinder Singh | ITech Designer | * Propose effective design solutions to meet project goals. * Prepare design layouts and sketches according to company design standards. * Keeping of records and files. |
| Tarwinder Singh | ITech Staff | * Documentation of daily activities. * Making kick-off meeting reports. * In-charge of materials needed for team building activities. |

1. **Managerial Process**
   1. **Management Objectives and Priorities**

The management objective is to deliver the product in time and of high quality. The PM and QAM work together to achieve this by respectively checking that progress is made as planned and monitoring the quality of the product at various stages.

* 1. **Assumptions, Dependencies, and Constraints**

In this project plan, a number of factors are taken into account. The following list shows the way milestones on various project phases have been scheduled:

• The team budget of 5 persons x 365 hours = 1825 hours

• The project deadline of August 12th.

• The final presentation is on August 12th.

• The peer evaluation deadline is on August 8th.

• Other days the weekends holiday is closed (June 5th, June 12th, June 19th, June 26th, July 3rd, July 10th, July 17th, July 24th, July 31th, August 7th).

NOTE: Due to the deadline of 12th August 2021, running out of time will have its reflection on the product, and not on the duration of the project. By assigning a priority to every user requirement, a selection can be made of user requirements that may be dropped out if time runs out.

* 1. **Risk Management**

This section mentions any potential risks for the project. Also, schedules or methods are defined to prevent or to reduce the risks as below:

* + 1. Technology risk
    2. People risk
    3. Financial risk
    4. Market risk
    5. Structure/process risk

The following are the possible risks to be encountered during the development of the project and how they can be prevented.

1. Miscommunication

*Prevention*: Team members should not hesitate to ask and re‐ask questions if things are unclear. Team members should have a written copy of the tasks assigned to them every meeting.

*Correction*: When it becomes clear that miscommunication is causing problems, the team members should gather in a meeting to clear things up.

1. Time shortage

*Prevention*: Care is taken to plan enough spare time.   *Correction*: When tasks fail to be finished in time or when they are finished earlier than planned the project planning is adjusted

1. Illness or absence of team members

*Prevention*: Team members should warn their team leader or the PM timely before a planned period of absence.

*Correction*: Work can be taken over quickly by someone else or be distributed among the team members if a person gets ill.

Monitoring and Controlling Mechanisms:

The monitoring of progress is done by the PM using the following means:

Project Kick-off Meetings

The project group meetings take place within the class room or through chat. These meetings are meant to inform each other of the progress made on various tasks and to assign new tasks.

Progress Report

Progress report is done every Friday. This is meant to inform and show the progress in the development of the project and how things are going.

* 1. **Monitoring and Controlling Mechanisms**

The monitoring of progress is done by the PM using the following means:

* + 1. Weekly project status meetings
    2. Shared document repository
    3. Project tracking by MS project plan
    4. Tracking utilizing baselines in MS project

1. **Technical Process**
   1. **Methods, Tools, and Techniques**

The project will be implemented utilizing V-model methodology, and tools such as Dreamweaver, Microsoft Project, Star UML, Java, MySQL, QTP, and Load Runner will be utilized. The risks for each category are listed to complete the project successfully. For each risk, a description, a probability of occurrence, the associated action and the impact of the risk are given.

* 1. **Software Documentation**

Documentation such as Project Charter, Business Requirement Document, Functional Specification document, Cost Benefit Analysis, Technical Specification document, Detail Design Document, Test Plan, Implementation Plan, Detailed Project Report, and Benefit Realization document.

* 1. **Project Support Functions**

All project support documents will be completed in applicable phases.

1. **Work Elements, Schedule, and Budget**
   1. The project is accounted for project resources, technologies and tools required to whole analysis, implementation, and test of the application.
   2. The project lead will be rotated for each phase within 5 team members.
   3. The document for all phases will be revised in subsequent phases if applicable.

Budget and Resource Allocation

Salary 80,000.00

Office Operations/Supplies/Equipment/Consumables 40,000.00

Miscellaneous 10,000.00

**Total**  **Rs. 130,000.00**

Schedule

