**Document: System Requirement Specification Document**

**Title: System Requirement Specification for Student Data Store, Analysis and Report Generation.**

**Team:**

Direct Customer, Indirect Customer, Architect, Business Analyst

Quality Assurance Team, System Analyst.

**Objective (Purpose): Student Data Store, Analysis and Report Generation.**

The Student Information Management System provides a comprehensive solution for clients through a dedicated gateway using internet. It will allow clients to register students and maintain a database of their details such as personal information, academics and remarks and generate a report based on the available data.

**Scope:**

This system allows the client to maintain the record of the students’ information. The client will be able to access, modify the information and generate a report based on requirement such as result, overall performance and extracurricular activities.

The system will be able to show best performing students, events, highlighting initiatives through customized dashboard.

**Requirements:**

**Functional Requirements:**

Any student will be able to view their profile which will contain their personal information as well as academic records. Students will be allowed to edit only their personal information and academic information can only be viewed. Student should be registered and authenticated by the school to access their profile. Students will have to login through the login portal, which will have 24/7 availability.

Staff will be able to monitor and access the student profile and edit the personal as well as the academic information. Staff can edit the information like marks, attendance, remarks for extracurricular activities, grade according to their behavior.

Admin will have full access to student profiles and staff record. Admin can add new student and remove old student records. Admin can modify the accounts status of any student. Admin can also add new staff record or remove the record of the staff that has left the organization. Admin can contact the parents of the student to convey some information or in case of emergency.

Principal can only view students profile and staff profile and cannot edit any information. Staff and admin will have to be a registered user and login through the portal to access the profiles.

Dashboard will provide information using graph, score cards, key performance indicators as well Grid data presentation. Admin and staff will be able to monitor daily activities using their personalized dashboard. Students will be able get their report related information using Student Dashboard.

**Non-Functional Requirements:**

**Security:**

Registered students will be allowed to access their profile through authentication process. System will provide access to the content, operations using Role based security (Authorization) (Permissions based on Role). System will automatically log of all users after some time due to inactiveness. System will block operations for inactive user and would redirect for authentication. Sensitive data will be always encrypted across communication. User proper firewall to protect servers from outside fishing and vulnerable attacks.

**Reliability:**

The system will backup data on regular basis and recover in short time duration to keep system operational continuous updates are maintained, continuous administration is done to keep system operational. During peak hours system will maintain same user experience by managing load balancing.

Availability uptime: 24/7 available (99.999%)

**Maintainability:**

Database software will be used to maintain System data Persistence. A readymade Web Server will be installed to host online shopping portal (Web Site) to management server capabilities. IT operations team will easily monitor and configure System using administrative tools provided by Servers. Separate environment will be maintained for system for isolation in production, testing, and development.

**Portability:**

System will provide User Interface (HTML, CSS, JS) through which users will be able to access their personalized portals.

System can be deployed to single server, multi-server, to any OS, Cloud (Azure or AWS or GCP)

**Accessibility:**

Only registered personnel will be able to access the profile after authentication.

Admin can reject or approve change requests based on role provided.

Principal will be able to view daily, weekly, monthly, annual track records through customized dashboard.

Students will be able to see their performance graph.

**Durability:**

System will retain input change for 15 minutes even though user loose internet connection and join again.

System will implement backup and recovery for retaining students’ data, staff accessed data and admin accessed data over time.

**Efficiency:**

On the day of result, maximum number of students will login, view result with same response time. At the time of the admissions, admin team will access the application to input the data with same response time.

System will be able to manage all the changes with isolation.

**Modularity:**

System will designed and developed using reusable, independent or dependent administration scenarios in the form of modules.

These modules will be loosely coupled and highly cohesive.

**Scalability:**

System will be able to provide consistent user experience to admin, staff as well as students irrespective of load.

**Safety:**

Online student portal will be secure from malicious attack, fishing. Online student portal functionalities are protected from outside with proper firewall configuration. Online student portal will be always kept updated with latest anti-virus software.

Student data will be backed up periodically to ensure safety of data using incremental back up strategy. Role based security will be applied for Application data and operations accessibility.