**SRS DOCUMENT**

**AIM:** To prepare document of software requirements specification. Designing SRS

document for Parent Teacher portal.

# Requirements:

To prepare SRS document we need to have good knowledge on the project and also editor tools like MS Word required to prepare it.

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# Introduction:-

The introduction of Software Requirement Specification provides an overview of the entire SRS purpose, scope, definitions, acronyms, abbreviations, references and overview of SRS.

It is a complete description of the behavior of a system to be developed. It includes Functional Requirements and Non-Functional Requirements.

# Purpose

The purpose of this SRS document is to provide a detailed overview of the parent teacher portal.

# Intended Audience

The intended audience for this document includes the development team, Parents/guardians, and Teachers/administration involved in the planning, development of the Parent-Teacher Portal.

# Product Scope

The Parent-Teacher Portal will be a web-based application that allows parents and teachers to interact and access information related to students. The Portal enables to perform the following actions:

* + - Login/registration for Parents for secure access.
    - calendar to manage important dates.
    - Parents make fees payment online and get the soft copy of the recipe which

they can download and update their dues.

* + - A student tracker to indicate whether student is in college or not in academic

times

* + - Displaying the dashboard.
    - Teacher feedback to students .
    - A good and simple interface to parents.
    - Transparent Communication.
    - Institution event notification and inventations.
    - Proper maintainance strategy.

# Glossary

This should define all technical terms and abbreviations used in this document.

Parent: A user role representing parents or guardians of students.

Teacher: A user role representing teachers or educators.

Calendar: A feature that displays important dates, events, and reminders.

Fees Payment System: A feature that allows parents to view and make online

payments for student fees.

Student Tracker: A feature that provides information about a student's presence in college during academic times

Responsive Design: Design that adapts to different screen sizes and devices.

Login System: A feature that provides secure access to the portal and user-specific information.

# Overall Description

A parent-teacher portal is an online tool that allows parents to access information about their student's academic progress and success. The portal provides real-time access to college information, student activities, enrollment and registration, attendance reports, fee payment, college news and parent-teacher communication.

# Product Perspective

Before the automation of new features, the system suffered from the following

Drawbacks:

* Usability Issues: The portal may have a complex or confusing user interface, making it difficult for users to navigate and find the

information they need. It may lack intuitive design elements or clear instructions, leading to user frustration and reduced adoption.

* Limited Functionality: The current portal may lack essential features

that are necessary for effective communication and collaboration

between parents and teachers. For example, it may not have a comprehensive calendar system, a robust student tracker, or a

feedback mechanism.

* Performance and Stability: The portal may suffer from performance

issues, such as slow loading times or frequent system crashes,

impacting the user experience. It may not be able to handle a large

number of concurrent users or scale effectively to meet increasing demands.

* Lack of Mobile-Friendly Design: If the current portal is not mobile-

friendly or responsive, it may restrict access and usability for users

who primarily use mobile devices. With the increasing use of smart

phones and tablets, it is crucial for the portal to be accessible and optimized for different screen sizes.

* Lack of transparent communication: Transparent communication

refers to an open and clear line of communication where both parties

can easily exchange information, share concerns, and discuss the

progress and well-being of the student.

**2.2 PRODUCT FUNCTIONS:**

The Parent-Teacher Portal will include the following key features:

2.2.1 Calendar

Allows parents and teachers to view, manage, and update important dates, events, and reminders.

2.2.2 Student Tracker

Provides parents and teachers with access to check student’s presence in college during academic times.

2.2.3 Dashboard

Provides an overview of student performance, including grades, attendance, and upcoming assignments.

2.2.4 Teacher Feedbacks

Allows teachers to provide feedback on student academic performance, learning methods, extra circular activities, attendance percentage.

2.2.6 Course Management

Enables teachers to organize, manage, and update course materials, assignments, and resources.

2.2.7 Notifications

Sends messages or alerts to users regarding important updates, events, or deadlines.

2.2.8 Transparent Communication

Facilitates open and clear communication between parents, teachers, and students through messaging or discussion forums.

# 2.3 User Classes and Characteristics

The Parent-Teacher Portal is designed to cater to Two main user classes:

2.3.1 Parents

Parents or guardians of students who will use the portal to access information about their child's academic progress, communicate with teachers, make online fee payments, view important dates, and participate in discussions.

2.3.2 Teachers

Teachers or educators who will utilize the portal to manage courses, update student information, communicate with parents, track student performance, and access relevant resources and tools.

# Assumption and Dependencies

# The development and deployment of the Parent-Teacher Portal are based on the

# following assumptions and dependencies:

# Users will have internet access and compatible web browsers.

# The portal will be hosted on a reliable web server with sufficient bandwidth.

# Integration with existing school management systems may be required for

# data synchronization and retrieval.

# Users will be responsible for maintaining the security and confidentiality of

# their login credentials.

# The portal will be designed and optimized for mobile devices, ensuring a responsive and user-friendly experience.

# 3. Requirement Specification

All the requirements like Software and Hardware are explained here.

* 1. **Functional Requirements: -**

Functional Requirements for the Parent-Teacher Portal:

* User Registration and Login: The portal should provide a registration process for parents to create their accounts and a secure login system for accessing the portal.
* User Roles and Permissions: The system should support different user roles such as parents, teachers, and administrators, with appropriate permissions and access levels for each role.
* Calendar Functionality: The portal should include a calendar feature to display important dates, such as school events, holidays, examinations, and parent-teacher meetings.
* Fees Payment System: The portal should facilitate online payment of school fees, including options for viewing fee details, generating invoices, and providing secure payment methods.
* Student Tracker: The portal should allow parents and teachers to track and monitor students' presence in college during academic times
* Dashboard: A personalized dashboard should be provided for each user role, displaying relevant information such as upcoming events, recent notifications, student performance summaries, and quick access to important features.
* Student Feedback: The portal should enable parents to provide feedback on their child's progress, teacher interactions, and overall school experience, fostering effective communication and collaboration.
* Course Management: Teachers should be able to manage course materials, lesson plans, assignments, and assessments within the portal, providing a centralized platform for curriculum management.
* Notifications: The system should support notifications to keep parents and teachers informed about important updates, announcements, deadlines, and any specific actions required..
  1. **Non-Functional Requirements: -**

Non-functional Requirements for the Parent-Teacher Portal:

Usability: The portal should have an intuitive and user-friendly interface, ensuring ease of navigation and minimizing the learning curve for users.

Mobile-Friendly Responsive Design: The portal should be responsive and compatible with various devices, including desktops, laptops, tablets, and smartphones, ensuring a seamless user experience across different screen sizes.

Performance and Scalability: The system should be able to handle a large number of concurrent users, provide quick response times, and scale effectively to accommodate future growth in user base and data volume.

Security: The portal should implement robust security measures to protect user data, including encryption, secure authentication mechanisms, access controls, and regular security audits.

Reliability: The system should be highly reliable, minimizing downtime and ensuring data integrity, backups, and disaster recovery mechanisms.

Performance Testing: The system should undergo performance and load testing to ensure it can handle expected user loads and perform optimally under various usage scenarios.

Documentation and Support: Comprehensive documentation should be provided to guide users on system usage and troubleshooting. Additionally, there should be accessible channels for user support and assistance.

# 4.System Features

# The hardware and software requirements for a Parent-Teacher Portal will depend on the specific features and functionalities that are included in the system. Here are some general guidelines for the hardware and software requirements

##### **Hardware Requirements**:

##### Processor: Intel Core i3 or higher

##### Memory (RAM): 4 GB or higher

##### Storage: 100 GB or higher

##### Display: 14-inch or higher with a minimum resolution of 1024x768

##### Internet connection: High-speed broadband with a minimum speed of 2 Mbps

##### **Software Requirements**

# Operating System: Windows 10 or Mac OS X 10.15 or higher

# Web Browser: Chrome, Firefox, or Safari

# Database: MySQL or SQL Server

# Programming Languages: PHP, JavaScript, HTML, and CSS

# Libraries: Bootstrap.

# Content Management System: WordPress Microsoft office.

# Testing Requirements

Testing Requirements for the Parent-Teacher Portal:

1. Unit Testing: Perform unit testing on individual components or modules of the portal to ensure they function correctly and meet the specified requirements. This includes testing functions, classes, and methods in isolation.
2. Integration Testing: Conduct integration testing to verify the proper functioning and interaction of different modules within the portal. Test the integration points, data flow, and communication between various components to ensure seamless operation.
3. User Interface Testing: Test the user interface of the portal to ensure it is intuitive, user-friendly, and visually appealing. Verify that all elements are properly displayed, forms are validated, and user interactions are responsive.
4. Functional Testing: Perform functional testing to validate that all the specified features and functionalities of the portal are working as intended. Test scenarios such as user registration, login, calendar management, fees payment, student tracking, course management, notifications, and feedback submission.
5. Performance and Load Testing: Conduct performance and load testing to assess the portal's performance under normal and peak load conditions. Measure response times, server resource utilization, and the portal's ability to handle a high volume of concurrent users.
6. Security Testing: Perform security testing to identify vulnerabilities and ensure that user data is protected. Test authentication mechanisms, data encryption, access controls, and protection against common security threats such as SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF).
7. Compatibility Testing: Test the portal's compatibility across different browsers, operating systems, and devices to ensure consistent functionality and user experience. Verify that the portal is responsive and displays correctly on various screen sizes and resolutions.
8. Usability Testing: Conduct usability testing with representative users to evaluate the portal's ease of use, navigation, and overall user experience. Gather feedback on the intuitiveness of the interface, clarity of instructions, and efficiency of completing common tasks.

**9. References:**

[www.google.com](http://www.google.com)

[www.powerschool.com](http://www.powerschool.com)

[www.rgukt.ac.in](http://www.rgukt.ac.in)

**CONCLUSION:** SRSdocument for Parent-Teacher Portal for effective communication between Teachers and Parents was created successfully.