



SGP ETechno Teacher: A Digital platform for Teacher to Store and Maintain Data on Cloud for Secure and Efficient Access

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ABSTRACT

In day-to-day life it is hectic for teachers to keep their records in offline format as there are chances of documents, papers, files, etc. getting misplaced. It is getting time consuming to make files for all information, attendance, mark list, etc. separately. In SGP Technoteacher we overcome all these problems by providing the data in online platform. It will reduce the load over teacher and provide all information needed on one platform. This is a virtual/digital platform which allows us to create/edit/update the complete information about the college, student, teacher, etc. Here we'll get latest information about teacher. It also provides the support that a faculty can also check about his daily schedule, upload leave application and attendance. Here HOD and principle will work as an administrator and can be able to see all information of teacher. Through this platform we will collect information about teacher and provide it directly to HOD and principle to keep these records properly. Maintaining student's attendance records will get simpler. Database will be provided so that teacher will be able to input data and change as required according to given element requirement. In this project leave application applied by teacher will be directly sent to higher authorities to be sanctioned, they will be given the option to accept or decline the application. HOD and principle will be able to track the appraisal of the faculty easily. This project will be beneficiary for the whole system and provide ease to everyone. In a nutshell, this will stand as a virtual/digital diary of teacher.

1. Introduction

This website will be exclusively for the comfort of teacher. In today's chaotic environment it becomes very difficult for the teachers to keep their work manually in format of document, paper, file, etc. there are many chances to lose document by chance. It becomes a mess to handle too much paper by oneself. In cases of natural calamities like flood and tsunami there are chances to lose all the information. Consumption of paper waste increases causing pollution. It is tough to maintain daily attendance of every student and again there are chances to lose it. For teachers it is even time consuming to write the leave application and go personally to the higher authorities to sanction it. It is not safe to store any sensitive information offline as there is no security guaranteed.

The most important documentation of the teacher that is their diary is too stressful to maintain offline as it contains too many points in it like personal information, professional information, their education degree, time-table, syllabus schedule details, lesson plans, etc. We here have overcome all these problems in our website.

It is very eco-friendly to store everything in virtual format. There are extremely less chances to lose any document which is stored in virtual format. It is safer and keeps sensitive information protected from unauthorized users more effectively. Teacher will be able to access the information from the website whenever they want as they will be able to login from multiple devices at once. It is much easier to store data virtually on a single platform. Even in the cases of natural calamities information will be safely stored and can be accessed from any corner of the world. It is possible to store data compactly.

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It becomes easy to sanction the leave by just requesting online to the higher authorities. Monthly attendance maintaining becomes effortless here. Maintaining the diary here becomes easy. Overall, it becomes stressless for the teachers to maintain their records.

We will provide online platform to teachers. Every teacher will have their separate login IDs and password and only higher authorities and the user itself will be able to access the information which will be input in the website. Teacher will be able to rewrite the information. We will provide excel file for attendance purpose.

1.1. Dashboard

. This page will dynamically report important pieces of data from the platform. It will contain simple analysis like tab's option, weekly plan, subject percentage, etc. It will be like the front view for all data.

1.2. Personal Information

This page will contain elements like full name, address, district, taluka, city, state, pin code, date of birth, gender, age, religion, caste, mobile no, telephone no, email address, marital status, blood group, mother tongue, Aadhar card no, pan card no, etc which will help to keep all professional information about teacher updated.

1.3. Academic Information

. This page will include points like name of school, name of college, percentage of ssc, percentage of hsc/diploma, percentage of degree, branch, certificates of every marksheet, teaching experience, extracurricular activities/courses, post, etc.

1.4. Course-file

Here teacher will be able to upload teaching plan of syllabus monthly, weekly accordingly. All details regarding teaching method will be uploaded here as per their plan.

1.5. Time-table

Teacher will be able to upload time table here making it convenient for them to access it

1.6. Attendance

Teacher will be able to upload daily attendance of the students

1.7. Leave Application

Teacher will be able to write a note containing the reason for the leave application here and send it to the higher authorities to approve. Once the application is approved it will be updated as per that.

1.8. Self-Documentation (PBAS)

Teacher will be able to upload certificates, documents, all proofs related to the workshop, seminar, webinar conducted by them.

2. Literature Review

While selecting a topic for our mega-project we searched a lot of topics, but we didn't find them that useful for today's condition. Then we consulted with our guide and he came forth with the problems that teachers are facing in today's life about managing their documents so we came up with an idea to solve them. So, we came up with this project which will be implemented in our college itself. When we discussed the problems with our team members in front of our guide, we found some problems for teachers in real world and we listed them as follows:

- 1) Loads of papers are wasted in manual data storage.
- 2) It is very difficult to search a particular document in the tons of paper.
- 3) It is time consuming for teachers.
- 4) There are chances to misplace important documents.
- 5) Sensitive data is not secure.

6) In natural calamities everything will be lost.

Then we discussed with our guide we came up with this solution. We decided to design an online digital platform which provided easy access, secure storage and hassle free process to work out every activity for teachers.

3. Advantages and Disadvantages

Advantages

- It will keep the sensitive information safe and secure.
- It will be easy to access the data.
- Paper work and time consumption will be reduced.
- Chances of losing data is reduced.

Disadvantages

- Network connection problem may interrupt the application

4. Objectives

- Design and implement online digital platform to save/update/delete data of daily routine work
- To provide secure access to sensitive data of teachers.
- Design and implement well organized data structure to reduce paper work and time.

5. Methodology

5.1 Module 1: Dashboard is basically the front view of all data. It will contain the tabs option of the website contents. It will contain all the important information about the data from the website. It provides a-glance views of objectives on the platform. Visibility of total system will be gained here. In the dashboard different data sources will be combined on this single page. It will be an information management tool that will monitor and analyze the information.

5.2 Module 2: Personal Information Personal information tab will contain all the personal data of the teacher. This will help to maintain the records of personal information about teacher for emergency purpose. Teacher will have to fill their basic information according to the points mentioned on the form. It will ask information like full name, address, district, taluka, city, state, pin code, date of birth, gender, age, religion, caste, mobile no, telephone no, email address, marital status, blood group, mother tongue, Aadhar card no, pan card no, etc.

5.3 Module 3: Academic Information Academic information tab will have all the academic that is professional information of the teacher. It will help to find the qualification of the teacher. It will contain elements like name of school, name of college, percentage of ssc, percentage of hsc/diploma, percentage of degree, branch, certificates of every mark sheet, teaching experience, extracurricular activities/courses, post, etc

5.4 Module 4: Course-file Course file literally contains every detail about the teacher's academic year ahead. It will contain points like faculty profile, PO's, PSO's, PEO's, academic calendar, individual time-table, student roll call with phone no's, teaching and examination scheme and syllabus, course plan, sessional test schedule, result analysis, progressive assessment of practical and theory, feedback and appreciation letter, notes, etc. It is very hectic to maintain hardcopy of these documents so to overcome them we have provided this online platform to store this information

5.5 Module 5: Time-Table In this tab teachers will be able to upload their time-table. It will contain the subjects allocated to them and scheduled time and class accordingly

5.6 Module 6: Attendance section will be to upload student's attendance on daily basis. It will make easy to keep proper record of student's attendance of each lecture.

5.7 Module 7: Leave Application Leave application tab is going to reduce teacher's effort to apply for leave. In this teacher will directly send a leave application online to the higher authorities and they will have the option to accept or reject it.

5.8 Module 8: Self Documentation (PBAS) This tab will be for uploading teacher's certificates, documents, proofs related to workshop, seminar, etc. Teacher will be able to upload his/her extracurricular activities here. We are going to use JavaScript language to design the platform. For database php tool will be used to save the data. We will develop it on visual studio code.

6. System Configuration

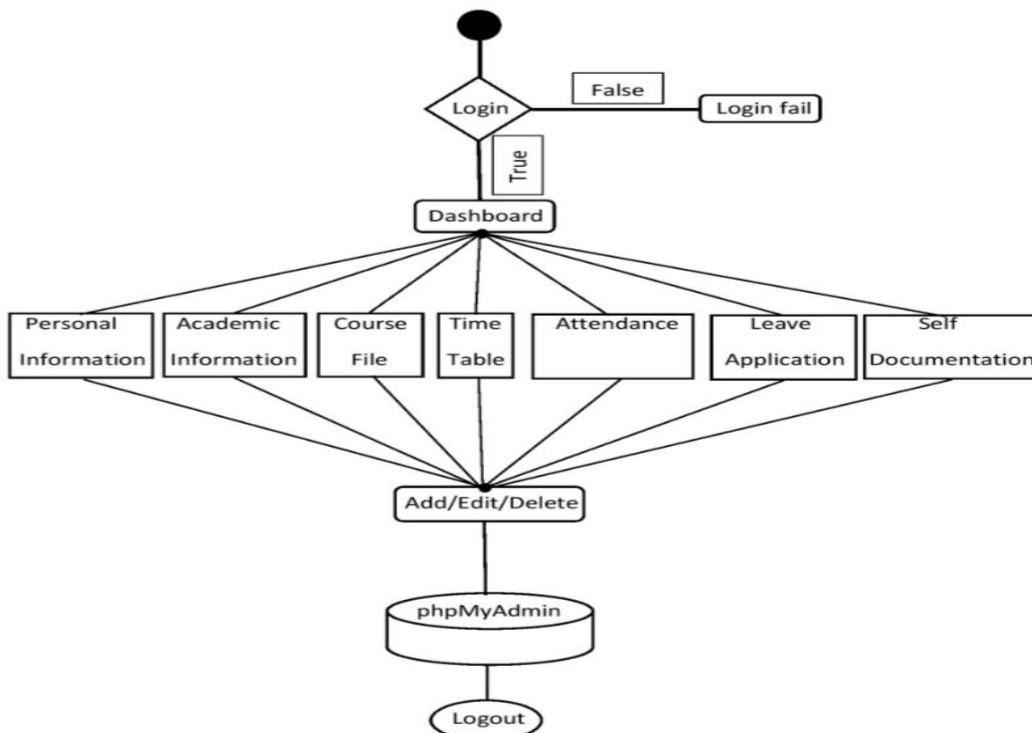
Hardware Requirement

- Processor - intel core i3/ core 2 duo
 - RAM - 2 GB (min)
 - Hard Disk - 256 GB (min)
- ### Software Requirement
- Operating System - Windows 7 and onwards
 - Languages - JavaScript and PHP
 - Visual Studio Code Compiler
 - XAMPP
 - Browser - Chrome, Firefox, Opera, Browser, etc.

Database Requirement

- SQL/phpMyAdmin

7. Flowchart



8. Scope of Project

The intention behind this project is to reduce the stress over the teacher's and reduce their efforts about manually storing the data. The mess caused by all those papers will be reduced due to this digital platform. We will provide a safe and secure place to store teacher's data. It is going to reduce the efforts of teacher to manage the document and reduce the time required and teachers will be able to give that time for their teaching planning. Sanctioning leave will get easier for teacher. Maintaining attendance record is going to be easier too.

9. Conclusion

We came across various concepts in JavaScript, PHP to create this website. Through this platform teachers are going to be benefited as it will provide ease to maintain all their records. We have put many modules like personal information, academic information, course file, attendance, leave application and self-documentation so teachers will be able to fill all these data separately in them. It is a secure platform for any sensitive information of the teacher.

10. Reference

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