



ATTENDANCE MANAGEMENT SYSTEM



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INTRODUCTION

★ **Definition:** Attendance Management System is software developed for daily student attendance in schools, colleges and institutes. It facilitates access to the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating attendance eligibility criteria of a student.

★ **Purpose:** The purpose of developing attendance management systems is to computerize the traditional way of taking attendance. Another purpose for developing this software is to generate the report automatically at the end of the session or in the between of the session.

★ **Scope:** The scope of the project is the system on which the software is installed, i.e. the project is developed as a desktop application, and it will work for a particular institute. But later on the project can be modified to operate it online.

INTRODUCTION



Overview: The Attendance Management System basically has two main modules for proper functioning:- First module is admin which has the right for creating space for new batch. Any entry of new faculty, Updating in subject if necessary, and sending notice. Second module is handled by the user which can be a faculty or an operator. Users have a right of making daily attendance, generating reports.

DESCRIPTION

★ **Product Perspective:** The product Attendances Management system is an independent product and does not depend on any other product or system. The product will automate various tasks associated with handling student details and better organizing the stored information and optimum performance, thus helping the Colleges to ensure smooth working of these processes.

★ **Product Functions:** Our system has two types of accessing modes-

(i) **Administrator**- Administrator has rights to manage student details, add a new student. Admin can update his profile, and also can give help to the teachers and students.

(ii) **User**- There are two users:-

Student:- Student do the login and see profile, Attendance Details etc.

Teacher:- Teacher do the login and view the student details.

DESCRIPTION

★ **User Characteristics:** This software gives access to two kinds of users.

1. Administrator- The administrators have features access to add, delete and modify information stored in the database.
- ★ 2. Authorized User- Teaching staff have access to view the data stored in the database. Students have access to view the data stored in the database.

★ **Constraints:** Interface is only in English, no other language option is available. Users can login with his assigned username and password, no guest facilities are available.

★ **Assumptions and Dependencies:** We assume that the Office personnel do all the data entry based on the correct values obtained from forms and registers. We assume that the computers that will use the software will be part of the college LAN. Users with administrator access should be careful in deleting or modifying any information knowingly or unknowingly which will lead to inconsistency of the database..

SYSTEM ANALYSIS

★ **Introduction:** Analysis can be defined as breaking up of any whole so as to find out their nature, function etc. It defines design as to make preliminary sketches of or to sketch a pattern or outline for a plan. The various tasks in the system analysis include the following-

- ★ Understanding application.
- ★ Planning.
- ★ Scheduling.
- ★ Developing candidate solution.
- ★ Performing trade studies.
- ★ Performing cost benefit analysis.
- ★ Recommending alternative solutions.
- ★ Supervising, installing and maintaining the system.

★ **Existing System-** Existing system is a manual entry for the students. Here the attendance will be carried out in the hand written registers. It will be a tedious job to maintain the record for the user. The human effort is more here. The retrieval of the information is not as easy as the records are maintained in the hand written registers. This application requires correct feed on input into the respective field. Suppose the wrong inputs are entered, the application resists work and the user finds it difficult to use.

★ **Proposed System-** To overcome the drawbacks of the existing system, the proposed system has been evolved. This project aims to reduce the paperwork and save time to generate accurate results from the student's attendance. The system provides the best user interface. The efficient reports can be generated by using this proposed system. Advantages of Proposed System- It is trouble-free to use.

★ **Feasibility Study-** Feasibility analysis begins once the goals are defined. It starts by generating broad possible solutions, which are possible to give an indication of what the new system should look like.

REQUIREMENT SPECIFICATION

★ Hardware Requirements-

- ★ External Hard Drives or DVDs
- ★ Internet
- ★ Minimum 2GB RAM
- ★ I3 Processor
- ★ 1024 x 765 Display

★ Software Requirements-

- ★ Operating Systems(Windows 7 or above)
- ★ Programing language(JAVA/Python)
- ★ Front End(HTML, CSS, JAVA Script, Bootstrap)
- ★ Back End(Django)
- ★ Tools(VS Code, Sublime Text Editor, Xampp)

SOFTWARE DESCRIPTION

★ **Sublime Text:** Sublime Text is a shareware cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and markup languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses.

★ **Features-**

- Column selection and multi-select editing
- Auto completion
- Syntax highlight and high contrast display
- In-editor code building
- Snippets
- Goto anything

★ **Hypertext Markup Language-** HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

★ **Cascading Style Sheets:** CSS is a stylesheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file which reduces complexity and repetition in the structural content as well as enabling the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

Separation of formatting and content also makes it possible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device



Django: Django is a Python-based free and open-source web framework that follows the model-template-views (MTV) architectural pattern. It is maintained by the Django Software Foundation (DSF), an American independent organization.

Django's primary goal is to ease the creation of complex, database-driven websites. The framework emphasizes reusability and "pluggability" of components, less code, low coupling, rapid development, and the principle of don't repeat yourself. Python is used throughout, even for settings, files, and data models.

Django also provides an optional administrative create, read, update and delete interface that is generated dynamically through introspection and configured via admin models.

Some well known sites that use Django include PBS, Instagram, Mozilla, The Washington Times.

Django can be run in conjunction with Apache, Nginx using WSGI, Gunicorn, or Cherokee using flup (a Python module).

Django officially supports five database backends: PostgreSQL, MySQL, MariaDB, SQLite, and Oracle.

SYSTEM TESTING



Introduction- Once source code has been generated, software must be tested to uncover (and correct) as many errors as possible before delivery to the customer. Our goal is to design a series of test cases that have a high likelihood of finding errors. To uncover the errors software techniques are used. These techniques provide systematic guidance for designing tests that Exercise the internal logic of software components, and Exercise the input and output domains of the program to uncover errors in program function, behavior and performance. Internal program logic is exercised using —White box test case design Techniques. Software requirements are exercised using —Black box test case Design techniques. In both cases, the intent is to find the maximum number of errors with the Minimum amount of effort and time.



Testing Methodologies- A strategy for software testing must accommodate low-level tests that are necessary to verify that a small source code segment has been correctly implemented as well as high-level tests that validate major system functions against customer requirements. A strategy must provide guidance for the practitioner and a set of milestones for the manager.

- Unit testing
- System testing
- Performance testing

SYSTEM MAINTENANCE



Software maintenance is far more than finding mistakes. Provision must be made for environment changes which may affect either the computer, or other parts of the computer based systems. Such activity is normally called maintenance. It includes both the Improvement of the system functions and the corrections of faults which arise during the operation of a new system. It may involve the continuing involvement of a large proportion of computer Department resources. The main task may be to adapt an existing system in a changing environment. Backup for the entire database files are taken and stored in storage devices like pen drives and disks so that it is possible to restore the system at the earliest. If there is a breakdown or collapse, then the system gives provision to restore database files. Storing data in a Separate secondary device leads to an effective and efficient maintenance of the system. The nominated person has sufficient knowledge of the organization's computer passed proposed change

ADMIN PAGE

GLAMS x Django x User Role x Image File x aasthaaga x Select use x My Drive x Project Re x icon card: x How To C x Cards - M x

127.0.0.1:8000/admin/auth/user/

Django administration

WELCOME, AASTHA. [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Authentication and Authorization > Users

ATTEN_MANAG_SYS

Classes [+ Add](#)

Communication_students [+ Add](#)

Facultys [+ Add](#)

Leaves [+ Add](#)

Student_users [+ Add](#)

Subject attendance tables [+ Add](#)

Subjects [+ Add](#)

Teacher_users [+ Add](#)

« AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#)

Users [+ Add](#)

Select user to change

Search

Action: Go 0 of 2 selected

<input type="checkbox"/>	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input type="checkbox"/>	aastha	aastha.agarwal_cs18@gla.ac.in			
<input type="checkbox"/>	khushi				

2 users

FILTER

By staff status

All

Yes

No

By superuser status

All

Yes

No

By active

All

Yes

No

ENG 23:27

STUDENT LOGIN PAGE

← → ↻ 🏠 127.0.0.1:8000/whu_login/ 📄 ⭐ 🔒 🌐 ⋮

LOGIN

Login

[Forgot password?](#)

[Create New Login](#)

ADMIN LOGIN

← → ↻ 🏠 ⓘ 127.0.0.1:8000/admin/login/?next=/admin/ 🔑 ☆ 🌐 ⚙️ 👤 ⋮

Django administration

You are authenticated as khushi, but are not authorized to access this page. Would you like to login to a different account?

Username:

Password:

Log in

STUDENT DETAIL VIEW PAGE

127.0.0.1:8000/admin/atten_manag_sys/student_user/1/change/

☆ ⚙️ 👤 ⋮

ATTEN_MANAG_SYS

Class + Add

Communication_students + Add

Faculty + Add

Leaves + Add

Student_users + Add

Subject attendance tables + Add

Subjects + Add

Teacher_users + Add

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

First name: jhjhjh

Last name: jhjhjh

Personal email: dck@gmail.com

Official mail: dck@gmail.com

Phone num: 1234567890

Aadhar num: 6736736637

Father name: yes

Father official mail: yes@gmail.com

Mother name: yhw

Mother official mail: uyw@gmail.com

Sibling name: edx

Sibling mail: edew@gmail.com

Sibling num: 989898989

Delete


Save and add another

Save and continue editing

SAVE



REFERENCES

- Book References(Web Engineering Book)
 - www.w3school.com
 - www.javapoint.com
 - www.udemy.com
 - www.youtube.com
 - www.geeksforgeeks.com
 - Faculty Guidelines: Mr. Sharad Gupta
- 

THANK YOU.

