TIME TABLE MANAGEMENT

**A**

**PROJECT SYNOPSIS**

**OF**

**MAJOR PROJECT**

**BACHELOR OF TECHNOLOGY**

**In**

**Computer Science & Engineering**

SUBMITTED

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GUIDED

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**OBJECTIVE**

The objectives of the application are-

* To reduce paperwork.
* Reduced operational time.
* Reduced manual anomalities
* Increased accuracy and reliability.
* Increased operational efficiency.
* Real time updates**.**
* Simplify management.

This application package can be readily used by non-programming personal avoiding human handled chance of error. This project is used by three types of users

1. Admin (Time Table Manager).
2. Faculties.
3. Students.

The Admin will get a pre-defined timetable view. This view is also available to faculties as well as the students so as to assist them regarding the scheduled lectures.

All the faculties have to confirm their presence for the scheduled lectures before a specified time. If any faculty is unavailable, admin is notified through Push Notification.

Admin also gets a list of all the faculties available for replacement, ranked according to their probability of being assigned as replacement. Admin selects the most relevant faculty as replacement.

The selected faculty along with the Class Representatives of the specific class are notified about the replacement through Push Notifications.

The Class Representatives can also inform the Admin in case faculty is unavailable.

Application can be upgraded according to user’s and administrator’s requirements with little changes.

New features can be added as per requirements.

**MODIFICATION AND IMPROVEMENT OVER THE EXISTING IMPLEMENTATION**

**Present State:**

* No Software present at all.
* Time consumed in arranging replacements if faculty is unavailable.
* Manual creation & selection of most appropriate faculty for replacement out of all the available faculties.
* The selected faculty has to be informed manually.
* No real time updates for students.
* Sometimes urgent replacement needs to be done which can be a headache for the time table manager.

**After implementation of project:**

* Easy to use GUI.
* Real time updates for Admin, Faculties and students about the scheduled lectures.
* Faculties will notify about their availability for the scheduled lectures beforehand.
* Admin gets informed immediately in case of unavailability of any faculty for any scheduled lectures.
* Admin gets a list of all the faculties available for replacement, ranked according to their probability of being assigned as replacement. Admin selects the most relevant faculty as replacement.
* Respective Faculty and Class Representatives are informed through push notifications automatically.
* Burden of Time Table manager decreases.

**SCOPE**

This project has a large scope as it has the following features which help in making it easy to use, understand and modify it:

* Automation of Time Table Management Procedure.
* No Need to do Paper Work.
* To save the environment by using paper free work.
* To increase the accuracy and efficiency of the management procedure.
* Real time updates.

This application package can be readily used by non-programming personal avoiding human handled chance of error. This project is used by three types of users:

1. Admin (Time Table Manager).
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**Main Points are:-**

* Simplified Management of Time Table.
* No paperwork required.
* Reduction in burden of time table manager.
* Real-time Information Publishing through push notification.

**SIGNIFICANCE OF PROJECT**

The significance of the project is to provide the following benefits:

* The significance of project is to automate the Management process of the time table.
* There is no worry of checking the availability of faculty time to time.
* Eco-friendly nature of the project as there is no need to do any paper work.
* Faculties have the advantage of confirming their availability or non-availability from any place without the headache of informing the admin.
* Admin gets freedom from the burden of checking availability of faculties for replacement with the help of real time updates.
* Automatic push notifications to inform changes to the specific faculty and Class Representatives etc.

**TOOLS AND TECHNOLOGY USED**

**Tool**:

* **Android Studio v2.1**: Android Studio is the official IDE of Android. It provides the fastest tools for building apps on every type of Android device based on IntelliJ IDEA. On top of IntelliJ's powerful code editor and developer tools, Android Studio offers even more features that enhance productivity when building Android apps, such as: flexible Gradle-based build system, fast and feature-rich emulator, instant Run to push changes to your running app, code templates and GitHub integration, built-in support for Google Cloud Platform etc.
* **MySQL**: MySQL is an open-source relational database management system(RDBMS). MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation. MySQL is written in C and C++. Its SQL parser is written in yacc. As a database, it is a software product whose primary function is to store and retrieve data as requested by other software applications, be it those on the same computer or those running on another computer across a network (including the Internet).

**Technology:**

* **Android** : - Android is a mobile operating system developed by Google, based on the Linux kernel and designed primarily for touch-screen mobile devices such as smart phones and tablets. Android's user interface is mainly based on direct manipulation, using touch gestures that loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects.  Its open nature has encouraged a large community of developers and enthusiasts to use the open-source code as a foundation for community-driven projects. The project can be run on minimum Android v4.0.0 Ice cream sandwich
* **JAVA:** - Java is a commonly used language and many programmers know it, it can run on a virtual machine (VM) so no need to recompile for different phones, better security, many development tools available for Java, and Java is a known industry language with most phones compatible with it.
* **SQL**:- SQL is a structured query language used for querying database.
* **XML**: - It is used for giving eye catching look to the android application i.e. it is responsible for developing the layout of any android application. And also providing easy to use GUI.
* **PHP**:- It is a web development language used to build websites and connect with web services. The language is used for generation of application programming interface or API used in android to access database over web services framework Lumen.

**TIME FRAME REQUIRED FOR VARIOUS STAGES OF PROJECT IMPLEMENTATION**

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| --- | --- | --- |
| S. No. | PHASES | TIME DURATION |
| 1. | Software Requirement Specification | 1MONTH-VII SEM |
| 2. | System Design | 2,3MONTH-VII SEM |
| 3. | Coding | 4 MONTH- VII SEM,  1 MONTH VIIISEM |
| 4. | Implementation | 2,3 MONTH VIII SEM |
| 5. | Testing and Report Generation | 4MONTH VIII SEM |

**REFERENCES**

* www.developer.android.com
* www.stackoverflow.com
* www.developers.google.com/android