

# A Paper on Students' Results Sorting System

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**Abstract-** The main theme of this particular project is to create an android application for sorting the students' results of a university. This project will mainly benefit the faculty of the university and put an end to their manual calculation work. The sorted results will mainly be categorized into three: viewing the results of the entire class, viewing the results of a particular subject or viewing results of a particular student. After sorting, the results can be easily viewed in each one of the above stated manners. By viewing the results in such various manners the faculty can easily list out or group the slow learners and help them out by giving extra attention. This will in turn benefit the students. This project currently runs on a static database in the android studio. We can improvise this by trying to link it with a small manually created external database. This can be enhanced in the future by linking it to any college database and can be used for real time utilization. This project can also be further improvised into a hybrid application which in future can be used as desktop application, web application or a mobile application. This project can be used in future by any university for analyzing the results of the entire university and can even further examine the subjects where many students have arrears and accordingly prepare for giving more assistance in those subjects to all the students. In this manner the university can work towards improving the quality of the education they provide and can support their students in a better manner.

**Keywords-** results sorting, manualwork, android application,

## I. INTRODUCTION

In the current system, this sorting of results is done manually by the faculty which is a very tedious job. It may even have some inaccurate final grouping. It is indeed a very time consuming task. The current application consists of a static manually database created in the android studio. The student data and their details are also decided only by the developer. This system or application can benefit the university by saving a lot of time and also increase the accurateness of the work done. This app can be easily accessed by the faculty anytime in that period of the semester. It can be further be put to actual implementation by actually linking it with the college database by requesting the authorization. This project can be further improvised as it can

also be developed as a hybrid application which in future can be used as desktop application, web application or a mobile application on various platforms. In this project the main role is played by the database containing the results of the university and sorting that database. Currently a small static database is created for the results obtained by the students and is stored in our android application. One another database is also statically created which will contain the credentials of the faculty only through which they can access the sorted results' list. Depending upon the option selected by the faculty the results will be projected

## II. RELATED WORKS

### 2.1 PURPOSE

The idea is to design an android application which contains a small static database in the android studio itself.

### 2.2 OBJECTIVE

- To create an android application.
- To ease faculty's manual calculations.
- To save time.
- To automate the work done.
- To analyze the results and assist the students in need.

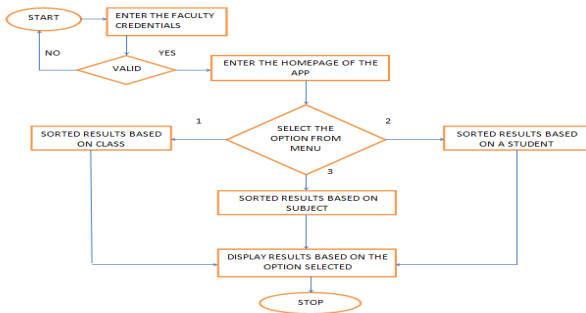
## III. SYSTEM DESIGN

This deals with data flow diagram, detailed flow graph, requirement analysis, and the design process of the front and back end design of the student information management organization.

### 3.1 DATA FLOW DIAGRAM (DFD)

Modelling is one of the parameter which plays an important role in designing some project or application. DFD is one of the graphical modeling tool. DFD represents the entire flow graph of the project from starting point of Project to end of project. A Data Flow Diagram (DFD) is a graphical representation of the "flow" of Student Information System. A data flow diagram can also be used for the design of Data Processing. DFD shows the Communication between the

system and external entities. This context-level DFD is then “exploded” to show more Detail of the system being modeled. A DFD represents flow of data through a system. Data flow diagrams are commonly used during problem examination. It views a system as function that transforms the given input into required output. Movement of data through the different transformations or processes in the system is shown in DataFlow Diagram. The function of the individual entities will be explained in detail in the flow graph.

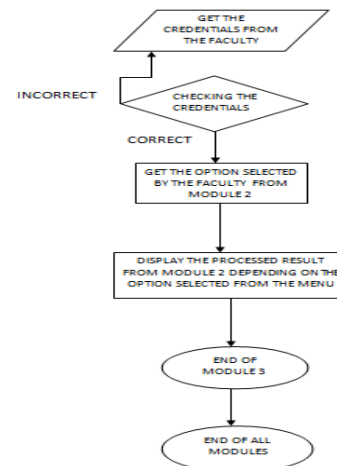


### 3.2 DETAILED FLOW GRAPH

In this hierarchical representation is given regarding the results’ sorting system. The detailed flow graph is shown in the below figure .The design of the results’ sorting system includes the login pagewhere the faculty have to enter their credentials to enter into the app and access the homepage of the application. The entirefaculty in the static database has unique username and password. Only after the login the faculty can access the homepage .after the faculty enters the credentials the app checks the credentials with the static database and accordingly proceeds.

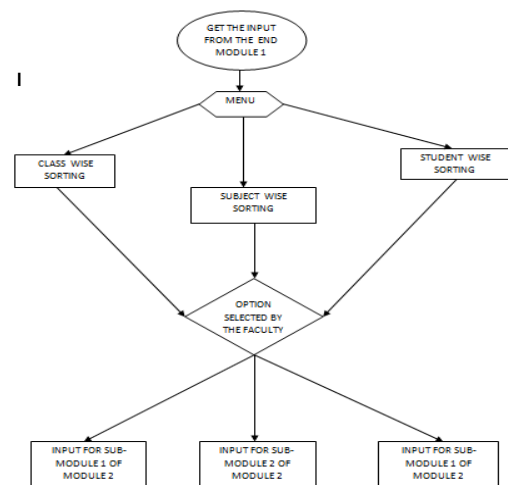
#### 3.2.1 LOGIN PAGE

In the login page the faculty has to enter their login id and password, if the given details are incorrect they will again be redirected to the home page and if the details are correct then the menu will be displayed where they can select their choice of class wise, subject wise and student wise, the results will be displayed according to their choice.



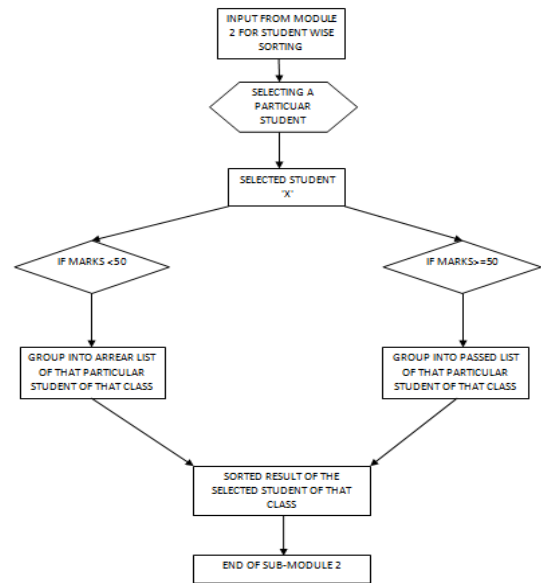
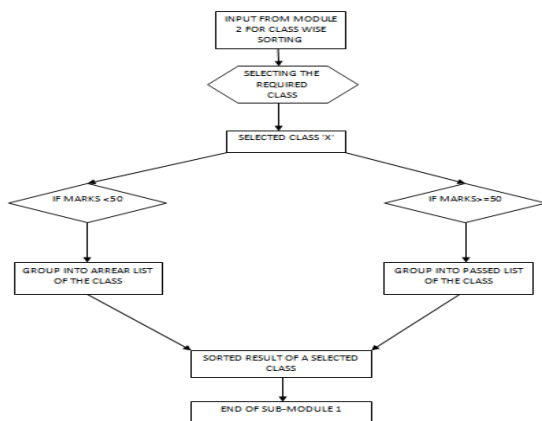
#### 3.2.1 MENU

After the login, the faculty will be able to access the homepage of the application .in the menu or the homepage of the application the faculty can view 3 options: class wise sorting, subject wise sorting and student wise sorting. Depending upon the option selected by the faculty the app is directed to the next screen.



#### 3.2.2 CLASS WISE

In the class wise results, the results will be displayed according to the respected classes that are selected by the faculty. After the login page the faculty will be redirected to the menu where the faculty can select the class wise results, results are displayed based on the fixed value. If the marks gained by the students are less than 50 then they are failed, if the marks gained are greater than or equal to 50 they are displayed in the pass list

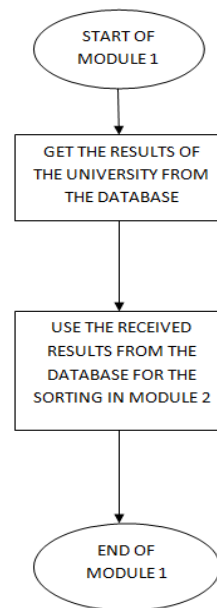
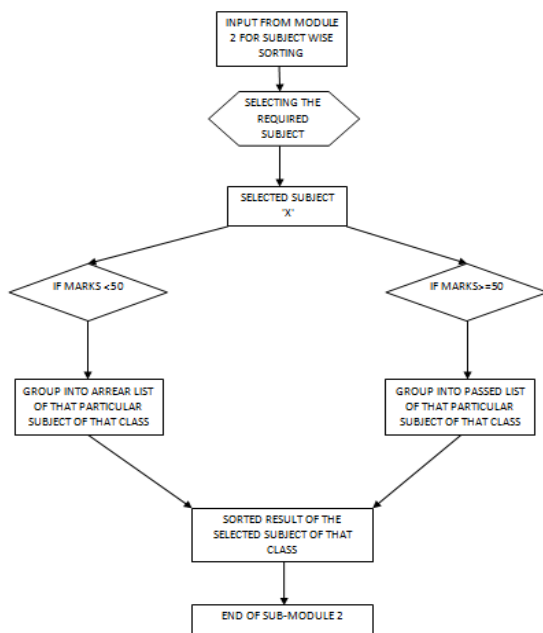


**3.2.3 SUBJECT WISE**

After selecting the subject wise results then select the subject in which the results has to be displayed, the passed list and failed list of the students of the subject selected will be displayed separately

**3.2.5 DATA COLLECTION FROM STATIC DATABASE**

Depending upon the option selected by the faculty and the required data, the data is collected from the static database and then the pass and fail is categorized accordingly.



**3.2.4 STUDENT WISE**

Student wise results will be displayed for getting the results of each student. The faculty can get the results of each student by entering their details such as roll no, name etc.\

**IV. REQUIREMENT ANALYSIS**

The basic needs for the plan of the results' sorting system are

- Every faculty should have their personal credentials for Login service.
- Faculty can view the sorted results of the students in three manners.

- The data must be collected and verified from the static database in the android studio

#### 4.1 FUNCTIONAL REQUIREMENTS

The students' result sorting system aims to progress the good and effective categorization of the students results of a university.

The faculty and the marks database are the two major useful needs in the system. The faculty is giving individual credentials to login to the application. This ensures that only the faculty can access this application and get the sorted results list.

#### 4.2 NON-FUNCTIONAL REQUIREMENTS

##### 4.2.1 PERFORMANCE REQUIREMENTS:

The proposed organization that we are leaving to develop will be used as the chief performance system for helping the organization in improving the quality of the education they provide and can support their students in a better manner.

This majorly reduces the manual work of the faculty and also improves the accuracy of results sorting.

##### 4.2.2 SAFETY REQUIREMENTS:

Since it is a static database in the android studio, there will be no harm caused to database until and unless the application or the database in the android studio is tampered.

##### 4.2.3 SECURITY REQUIREMENTS:

The only security requirement in this system is the faculty credentials only with which any faculty can access the sorted results. Else they will not be able to access the sorted results.

### V. DESIGN PROCESS

#### 5.1 TECHNOLOGIES USED

##### 5.1.1 HTML

HTML is also useful language for making an android application. HTML is a hypertext markup language which is in reality a backbone of our android application. We used this language to make our application more useful as well as competent.

##### 5.1.2 JAVA

Android applications are developed using the Java language. As of now, that's really your only option for native applications. Java is a very popular programming language developed by Sun Microsystems (now owned by Oracle). Developed long after C and C++, Java incorporates many of the powerful features of those powerful languages while addressing some of their drawbacks. Still, programming languages are only as powerful as their libraries. These libraries exist to help developers build applications.

Some of the Java's important core features are:

- It's easy to learn and understand
- It's designed to be platform-independent and secure, using virtual machines
- It's object-oriented

Android relies heavily on these Java fundamentals. The Android SDK includes many standard Java libraries (data structure libraries, math libraries, graphics libraries, networking libraries and everything else you could want) as well as special Android libraries that will help you develop awesome Android applications.

### VI. CONCLUSION

This project can be used in future by any university for analyzing the results of the entire university and can even further examine the subjects where many students have arrears and accordingly prepare for giving more assistance in those subjects to all the students. In this manner the university can work towards improving the quality of the education they provide and can support their students in a better manner.

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