

Student Administration System

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It tracks all the details of a student from day one to the end of his course, completed semesters years, coming semester year curriculum details are available for future references too. A Student Administration System (SAS) is a software application. This System must have database that contains student information and it must be able to help the administrator to manipulate data, update database and also nice interface to make it easier to use. The database holds details of the program and student data offered by the University and is used to manage student financial information. Students are able update their enrolment and contact details stored in SAS. This system will focus on TUM (Technological University Mandalay), it is easier and faster to protect time losses. Java compiles straight from source code to executable code, with no object file. Although Java classes are similar to C# classes, there are the some important differences relating to constants, base classes, constructor and static constructor.

2. Database Management System

Nowadays, computerized system is very useful in economic and electronic fields and it can be applied practically and effectively. In order to build a computerized system, programming language, database file and a connection language to join database file and coding are essential of the system. There are many programming language such as C, C++, JAVA, C# and so on. Each language has its own properties and methods. For this system JAVA programming language is applied, it can take displaying data and MySQL Query Browser 1.1.12 is used a database file (data contains) for storing data. It can store data as user desire but it is not possible to make calculation. MySQL 1.2.12 is necessary as a

ABSTRACT

Student Administration System is primarily a paper based method to manage of student information or student profile detail. Nowadays, most people are not interested paper based application. So, find more efficient solution to reduce paper waste, and staff workload. Administration System is the most suitable solution for people who want to request without paper and view for their request. Decision support system is used for easily making decisions by administrators. Administration System is accessible from anywhere and works with a secure login. The system is fully secure and protected from accessing without authorization. With a user friendly interface requests and approvals can be completed quickly and accurately. Administration System is an automatic system that allows users to apply for management of their data with easily.

KEYWORDS: computer, Java Language, Query Language (MySQL 1.2.12) Server, student data

1. INTRODUCTION

Student administration system is a kind of management information system for education establishments to manage student data. This system is to allow the administrator of any organization to edit and find out the personal details of a student and allows the student to keep up to date his profile.

connection tool between programming language and database. Figure1. illustrates database management system.



Figure.1. Program and DBMS (Database Management System) Sever Connection

3. System Flow Diagram

Figure2. shows the complete system flow diagram of the Student Administration System. Each part of performance is as shown in the following articles.

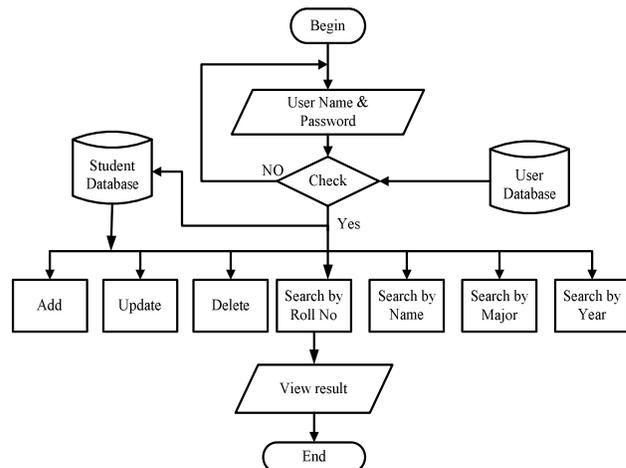


Figure3. Flow Diagram for Student Administration System

3.1. Database Construction

Database construction is very important role of the student administration system. The database server is created before starting the system. To create the database server, The MySQL server software 1.2.12 is needed. Firstly, the server type, server name and authentication process are needed to write.

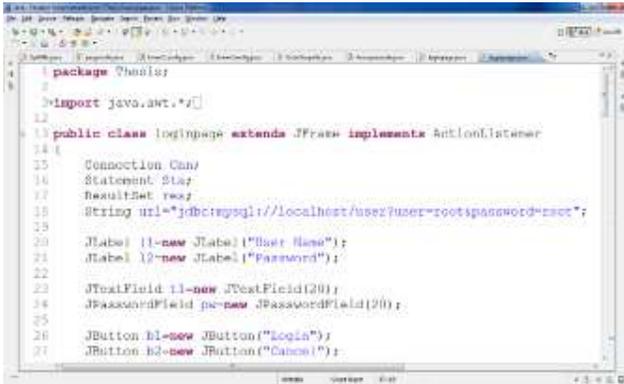


Figure4. Java Language Style in Student Administration System

And then, the database name and owner name is required to create a new database. The step of the database construction is shown in Figure4. [13Rhi]. Figure5. shows Connection to MySQL Server.

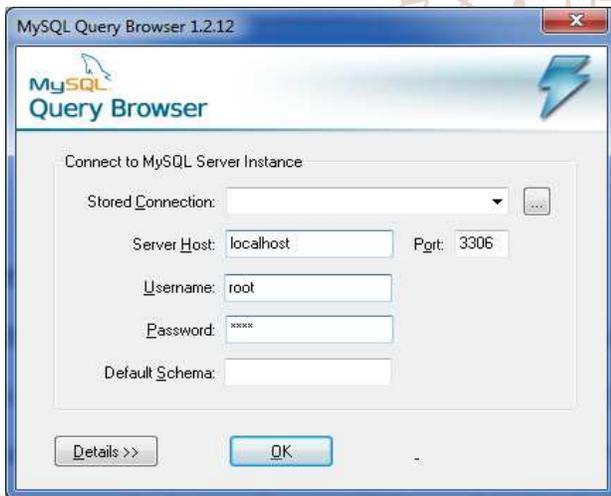


Figure5. Connection to MySQL Server

3.2. Table Creating in Database

Table creating is included in the database server. Because database is a collection of tables with typed columns. In table creating, column name, data type and allow null are included. In this database system, user table and student data table are designed in MySQL Server. database table. Among database, in this system, student data database has been shown as example as photo. The student Roll No, student Name, Major, Year, NRC, Father Name, Ph No and Address are included under the column name. In the data type, it may be integer, variable character that are depending upon the user conditions.. The student data table creating in the database server is shown in Figure6. [17Bes]

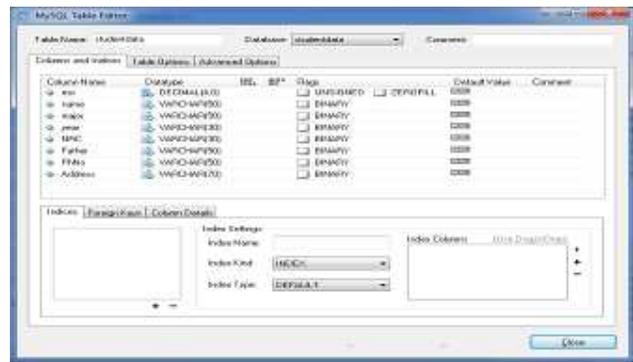


Figure6. Student data Table Creating in Database

3.3. Table Saving in Database

Data saving section is a saving of the user information at the column name and the data type. It is very important because the user information can check if the error occurs about the system. If the new user used the system, the user needed to create register. This registration will automatically save at the data saving table in database. Student data saving in the database is shown in Figure7.

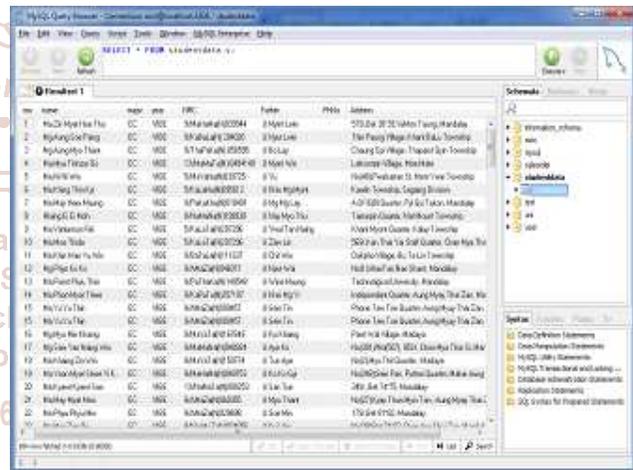


Figure7. Table Saving in Database

3.4. Retrieving Data from the Table

The storing data in the database table can be retrieved by using the following steps:

- Create a Java Connection to the MySQL database.
- Define the select statement
- Execute the SELECT query, getting a Java Result set from that query.
- Iterate over the Result Set, getting the database fields (columns) from each row of data that is returned.
- Close the Java database connection.
- Catch any SQL exceptions that may come up during the process.

In this system, database username is "root", and the password is "root". The database is running on the same computer where this program is run, so the database host name is "local host". Output will vary depending on the actual data in database table. [14Ano]. Retrieving Method from Database is as shown in Figure8.

```

71- public void actionPerformed(ActionEvent e)
72- {
73-     if (e.getSource() == b1)
74-     {
75-         try
76-         {
77-             Conn=DriverManager.getConnection(url);
78-             System.out.println("Get Connected");
79-             String q="select * from login where user='"+txt.getText()
80-             Sta=Conn.createStatement();
81-             res=Sta.executeQuery(q);
82-             if(res.next())
83-             {
84-                 this.setVisible(false);
85-                 new MainPage();
86-                 Validate();
87-                 JOptionPane.showMessageDialog(this,"Login Successful");
88-             }

```

Figure8. Retrieving Method from Database



Figure10. Login Page of the System

3.5. Data Add Process

In this system, student data are needed to add in the database. The database name is studentda and table name is student data. In table, student roll no, student name, major, year, NRC, father name, Ph no and Address are included.

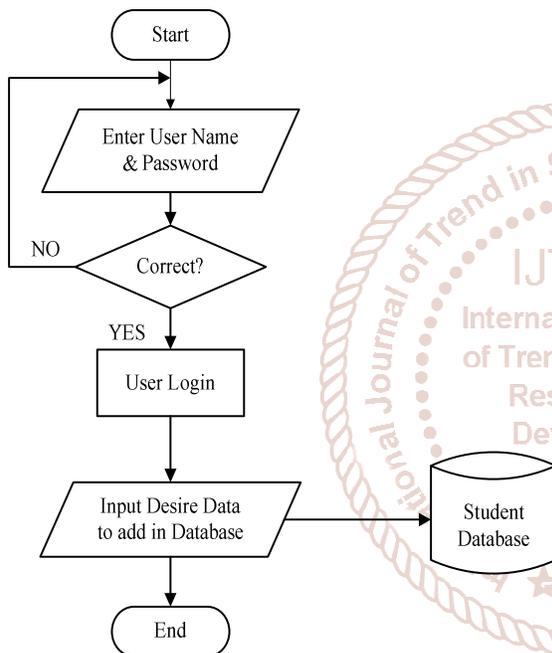


Figure9. Flowchart of Data Add Process

Figure9 illustrates the adding step of the system. [18Sau]. According to the Figure9, in Input Desire Data Base , delete, search, update and view all information can be used respectively in the place of add.

4. Results

The result of each part is as shown in the following Figures.

4.1. Login Page of the System

Login form is the main entry for the system. To use this system, admin filling username and password needed to be corrected. Changing username and password can also be done. The function of the login button is to compare the inputted username and password with is username, password and confirm password existing in the database table. If the compare data are matched, the page of the system will be displayed. If the inputted data is error, the message box will be displayed. Figure10. shows the login page of the system.

4.2. Change Password Page

In this system, the username can change password when the use of user are transferred into another user. At that time, the original the username and password are must be corrected. So, user can change new password.



Figure11.Change Password Form of the System

When click the change button, the user can change new password. After changing the password, the user can also return the login page by clicking Back Login Page button. Figure11. describes the example of Change Form of the system.

4.3. User Login Data Page

The user needs to create own username and password to log in this system. This system will identify according to their username and password. Therefore, the user needs to key in the correct username and password to access this system. The page in Figure12 shows the example of user login page for this system. In this page, the user enter the correct username and password which stored in the database. If the user wrongs the username and password, the system cannot be accessed and user does not use this system.



Figure12. User Login Page

5. Main Page of the System

The main page is included the function of each frame in the menu. In this page, user can work Add new, Update, Delete, Searching (by roll no, by name, by major, by year) and view all student information.

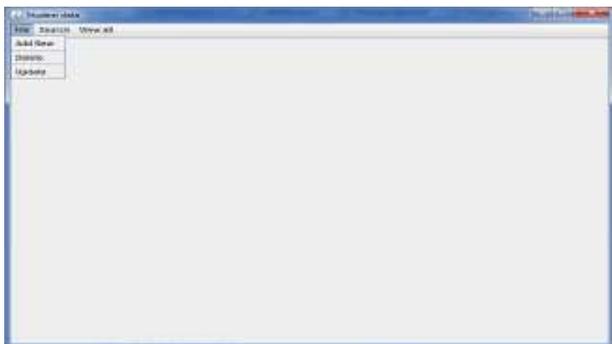


Figure13 File Menu of the Main Page

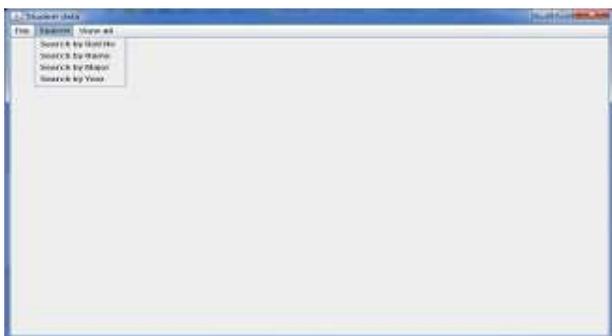


Figure14. Search Menu of the Main Page

There are three main menus in the Main Page such as File Menu, Search Menu and View Menu. Figure13, illustrates the file menu of the main page. Figure14, shows the search menu of the main page and Figure15, describes the view menu of the main page.

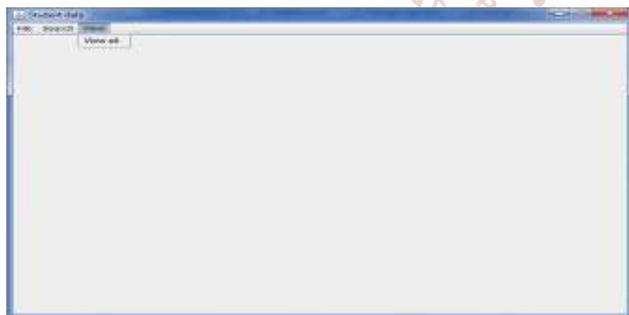


Figure15.View Menu of the Main Page of the System

6. Action Pages of each Function

There are action pages of each function in the administration system. Among them, example of the each action pages are as follow.

6.1. Search by Name Page

In this page, user can find the student information by filling only the name beside the text field want to search. Figure16, shows the result of search by name.



Figure16.Search Result by Name

6.2. Update Page



Figure17.Update Student Information Page

When the student information are wrong or mistake data, user can update correct data of the information in this page.. By filling the text fields user wants to update the data and then click the update button. By doing this way, the user can update the information which have been in the database. Figure17, is an example of Update Student Information Page.

6.3. Search by Year

In this system, user can also search by year in this page. The user can search by filling the year want to search in the text field. The data are seen by scrolling the scroll bar in the right sight. The result of Search by Year is as shown in Figure 18.

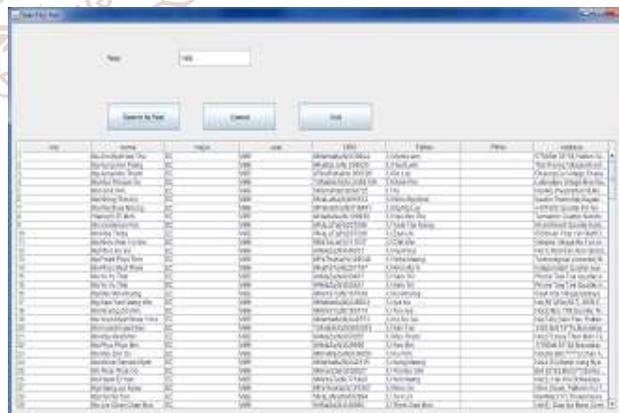


Figure18.Search Result by Year

7. Discussions

In this system, Student Administration System is implemented by using MySQL database and Java Programming Language. This system gave more reliable and faster the student administration system compared to current manual ways of taking student information.

This system recorded the information is very convenient manner using the database table. The system is developed very helpful in saving valuable time of students and teachers,

paper and generating report at the required time. In host computer system, MySQL software is used for the database server. MySQL server benefits the system security. The data can be stored in the database. The memory storage was depended on the space of the hard disk. The larger hard disk space, the data can be saved. The window form applications are implemented with the Java Language.

8. Conclusion

In a conclusion, this system mainly reviewed the research and development work with the help of MySQL Query Browser. By developing this system, the knowledge of database construction and design using Java Language are realized. This system has been developed using MySQL 1.2.12, the system was able to process and update database with more ease. It helps in developing a total integrated system. In terms of performance and efficiency, this system has provided a convenient method of administration system compared to the traditional method of administration system. By using database, the data is more organized. Thus, it can be implemented in either an academic institution or in the organizations.

9. REFERENCES

- [1] [18Ano] Student Management System, January, 2018, <https://www.softwaresuggest.com>
- [2] [18Sau] Saurar Adhikari: Student Management System using Java with source code and database, July, 2018, <https://1-tube.ru>watch>
- [3] [17Ano] Student information and accounting system of Cagayan state (PDF), Feb, 2017, www.ijrr.com>sites>fites>issues.files
- [4] [17Alv] Alvin Alexander: Student Administration System, Aug, 2017, <https://alvinoxalexander.com>java>
- [5] [17Bes] BestCsharp blog, July, 2017
- [6] [17Jos] Josiah Maphones: Student Management System in Java with MySQL database, November, 2017
- [7] [14Ano] Student Administration System, August, 2014, www.en.m.wikipedia.org>wiki>Student
- [8] [13Rhi] Rhipkins: Student Management System, Feb, 2013, www.nzccr.org.nz>set

