

Submission Report
On
Student Management System

BACHELOR OF TECHNOLOGY
COMPUTER SCIENCE AND ENGINEERING

By

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ABSTRACT

Our project explains about the student management. This project mainly explains the various actions related to student details. This project shows some ease in adding, editing and deleting the student details. It also provides a less time-consuming process for viewing, adding, editing and deleting the marks of the students.

Our project includes

- Student Registration
- Subject Allocation
- Semester wise selection.
- Examination marks entry
- Displaying branch and semester wise result

INTRODUCTION

Student Management System is software which is helpful for students as well as the school authorities. In the current system all the activities are done manually. It is very time consuming and costly. Our Student Management System deals with the various activities related to the students.

There are mainly 3 modules in this software

- User module
- Student Module
- Mark management Module.

In the Software we can register as a user and user has of two types, student and administrator. Administrator has the power to add new user and can edit and delete a user. A student can register as user and can add edit and delete his profile. The administrator can add edit and delete marks for the student. All the users can see the marks.

EXISTING SYSTEM:

System Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is what all problems exist in the present system? What must be done to solve the problem? Analysis begins when a user or manager begins a study of the program using existing system.

During analysis, data collected on the various files, decision points and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram, interviews, etc. Training, experience and common sense are required for collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the frame work of the solution. Thus it should be studied thoroughly by collecting data about the system. Then the proposed system should be analyzed thoroughly in accordance with the needs.

System analysis can be categorized into four parts :-

- System planning and initial investigation
- Information Gathering
- Applying analysis tools for structured analysis
- Feasibility study Cost/ Benefit analysis.

In the current system we need to keep a number of records related to the student and want to enter the details of the student and the marks manually. In this system only the teacher or the school authority views the mark of the student and they want to enter the details of the student. This is time consuming and has much cost.

FEATURES

1. **Object-oriented programming:** The program defines a Student class with attributes such as name, ID, subject list, and percentage list. Objects of the Student class are created and added to an Array List.
2. **ArrayList:** An ArrayList is used to store the Student objects. It allows the program to add, remove, and display the students dynamically.
3. **Scanner:** The program uses a Scanner object to get user input from the console.
4. **Switch statement:** The program uses a switch statement to execute different actions based on the user's input.
5. **For loop:** A for loop is used to input the subjects and percentages for a new student and to display the subject and percentage information for each student.
6. **If statement:** An if statement is used to check if the student to be removed exists in the ArrayList.
7. **System.out:** The program uses System.out statements to display output to the console.
8. **Static methods:** The program defines three static methods: addStudent(), removeStudent(), and displayAllStudents(), to add, remove, and display student information, respectively.

OUTPUT

```
PROBLEMS (3) OUTPUT DEBUG CONSOLE TERMINAL
PS E:\Study\B.Tech\4th Sem\CSE310- JAVA\Project\Code> cd "e:\Study\B.Tech\4th Sem\CSE310- JAVA\Project\Code\" ; if ($?) { javac StudentManagementSystem.java } ; if ($?) { java StudentManagementSystem }
Enter 1 to add a student
Enter 2 to remove a student
Enter 3 to display all students
Enter 4 to exit
Enter your choice: 1
Enter student name: Shubham
Enter student ID: 12220830
Enter subject 1 name: Maths
Enter Maths percentage: 93
Enter subject 2 name: English
Enter English percentage: 99
Enter subject 3 name: Computer
Enter Computer percentage: 98
Student added!
Enter 1 to add a student
Enter 2 to remove a student
Enter 3 to display all students
Enter 4 to exit
Enter your choice: █
```

```
PROBLEMS (3) OUTPUT DEBUG CONSOLE TERMINAL
Enter English percentage: 99
Enter subject 3 name: Computer
Enter Computer percentage: 98
Student added!
Enter 1 to add a student
Enter 2 to remove a student
Enter 3 to display all students
Enter 4 to exit
Enter your choice: 3
Student Name: Shubham
Student ID: 12220830
Subjects and Marks:
Maths: 93.0
English: 99.0
Computer: 98.0
Average Percentage: 96.66666666666667
Enter 1 to add a student
Enter 2 to remove a student
Enter 3 to display all students
Enter 4 to exit
Enter your choice: █
```

CONTRIBUTION

1. Himanshu Kumar (12220790)

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Contribution - Code & Adding Features of Java

2. Shubham Chandel (12220830)

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Contribution - Code & Fix Errors

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Contribution - Research on Student Management System & Report Making

CONCLUSION

Our project is only a humble venture to satisfy the needs in an Institution. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the organization.

The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses