

Programming 1

Final project requirements

The project is to be done in groups, each group of four students. It is totally inhibited to copy any part of your project from Internet or from other groups.

Notes:

You must make project calculator with one of each project (library management system) or Hotel Reservation System(There is 5 Bonus degrees for GUI)

1. Calculator System (mandatory)

Calculator in Java is used to calculate addition, subtraction, multiplication, division, modulus, power of numbers, etc. We can do this calculator operation using a plain Java switch case and using Java swing standalone application.

Make this project for operations, "%", "/", "*", "-", "+")

("^" and calculate (+ and *) for list of numbers , and get factorial of number by recursive function (5!=5*4*3*2*1) there is option for user to exit from program , For example when user press on Q the program is ended

1. Hotel Reservation System (Optional)

It's not easy to come up with your features for a project but doing that is exactly what is going to get your creative juices flowing.

We've all been to a hotel sometime in our lives, haven't we? How about a system to automate reservations and other details? So your application should include a two dimensional array of strings. Each room is represented in a row with its index 0, 1, 2, 3.... And the values in column are strings (Id as a string example A-230, total price for one night, Name of person who reserved it) and another Boolean array that is joined to the first array by index of the room that represent whether the room is reserved or not. The system should be able to book or cancel rooms and check for the availability of rooms on the go. The only thing a user has to do is enter their details when they want to book – with proper validation for every field added, you can search of rooms by room number or the availability of rooms and insert or delete any room in hotel.

2. Library Management System (Optional)

The Library Management System has become an essential tool for public libraries, school libraries, college libraries. The Library management system helps librarians to manage, maintain and monitor the library. Here we are supposed to design and implement a simple library management system in Java, where have operated the following operations Add a

new book, delete a book , Check Out a book, display specific book status borrow or not), search specific book by book id or its Author and we can display all books and we can sorting books according to its ids. Your application should include a two dimensional array of strings representing each book by its name and author name and its category. Another array including the book number is linked to the first array by index.