North Western University

Course Title : Digital Logic Design laboratory

Course Code : CSE- 2102

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Introduction:

The Simple Calculator Using Java Swing is a small-scale project designed to showcase the fundamental principles of graphical user interface (GUI) programming in Java. This calculator application provides a user-friendly interface that enables users to perform basic arithmetic calculations easily.

The Java Swing library, known for its versatility and cross-platform capabilities, forms the backbone of this project. With Java Swing, developers can create interactive GUI applications that run seamlessly on various operating systems.

The primary goal of this project is to demonstrate the integration of Java programming concepts with graphical elements to build a functional calculator. By following the project's code and design, you can gain a better understanding of how to utilize Java Swing components effectively and create an intuitive user experience.

Key Features:

User-Friendly Interface: The calculator offers a clean and intuitive interface, resembling traditional calculators. Users can perform calculations by clicking on buttons or using keyboard inputs.

Basic Arithmetic Operations: The calculator supports standard arithmetic operations, including addition, subtraction, multiplication, and division. These operations are implemented using Java's core mathematical functions.

Error Handling: The calculator incorporates error handling mechanisms to prevent incorrect inputs and calculations. It provides meaningful error messages and ensures smooth operation even in case of unexpected user actions.

Responsive Design: The calculator application is designed to adapt to different screen sizes and resolutions. It provides a responsive layout that adjusts dynamically to ensure optimal user experience across various devices.

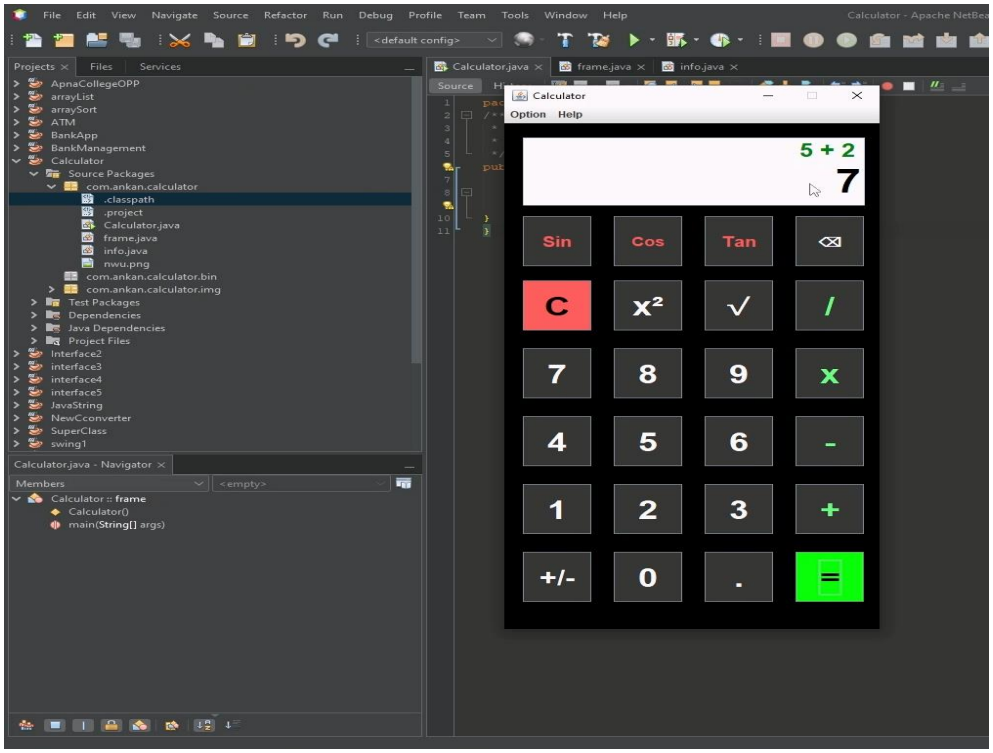
Objective:

The purpose of this lab project was to build a Basic Calculator System. This program in Java is a program that take two input number and calculate them and output them. It typically takes input such as the number pressing the button and display them in the display section.

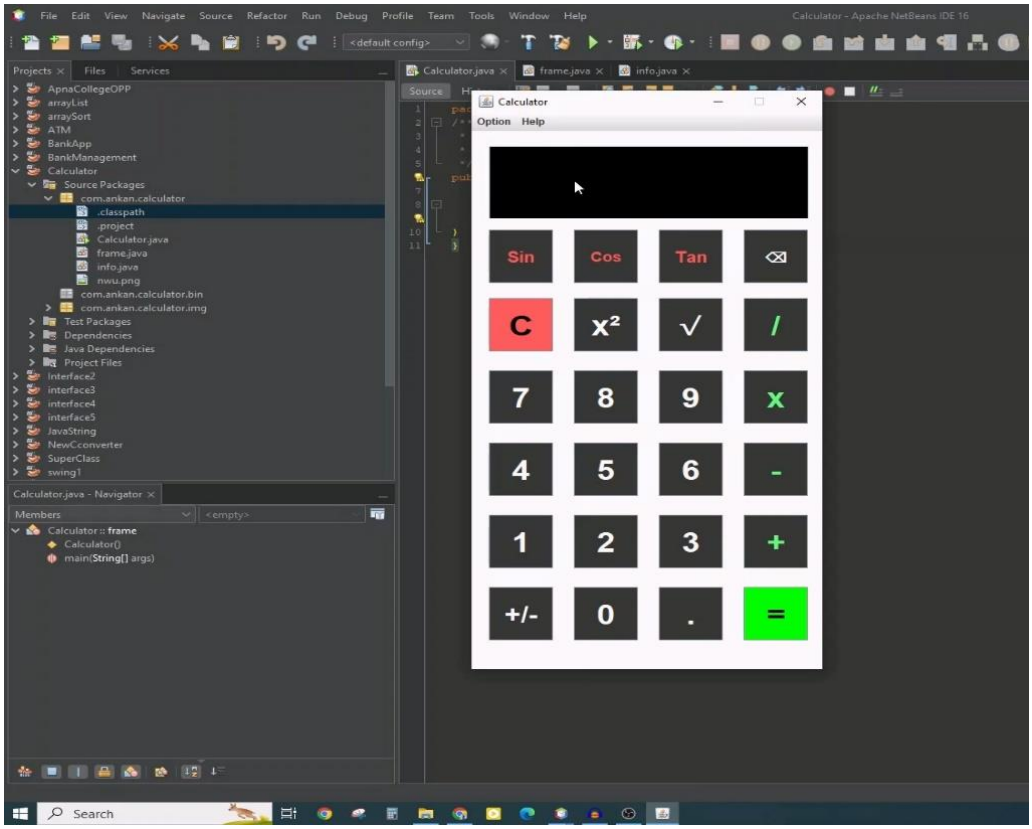
Description:

1.User Interface:

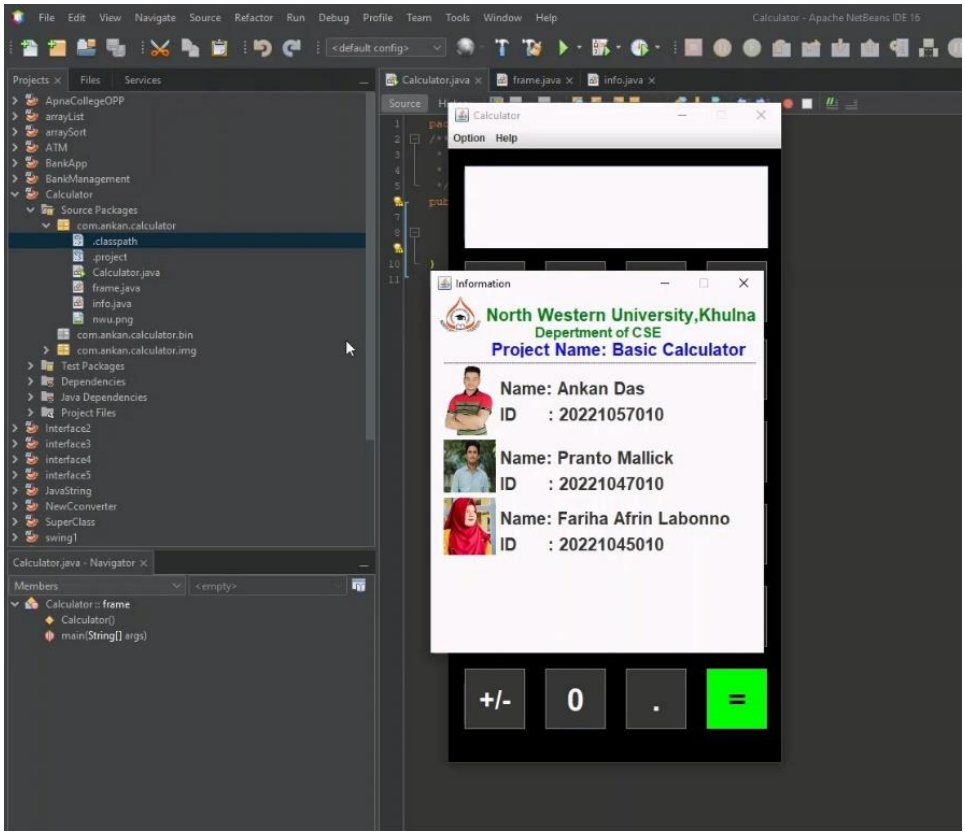
Dark Theme:



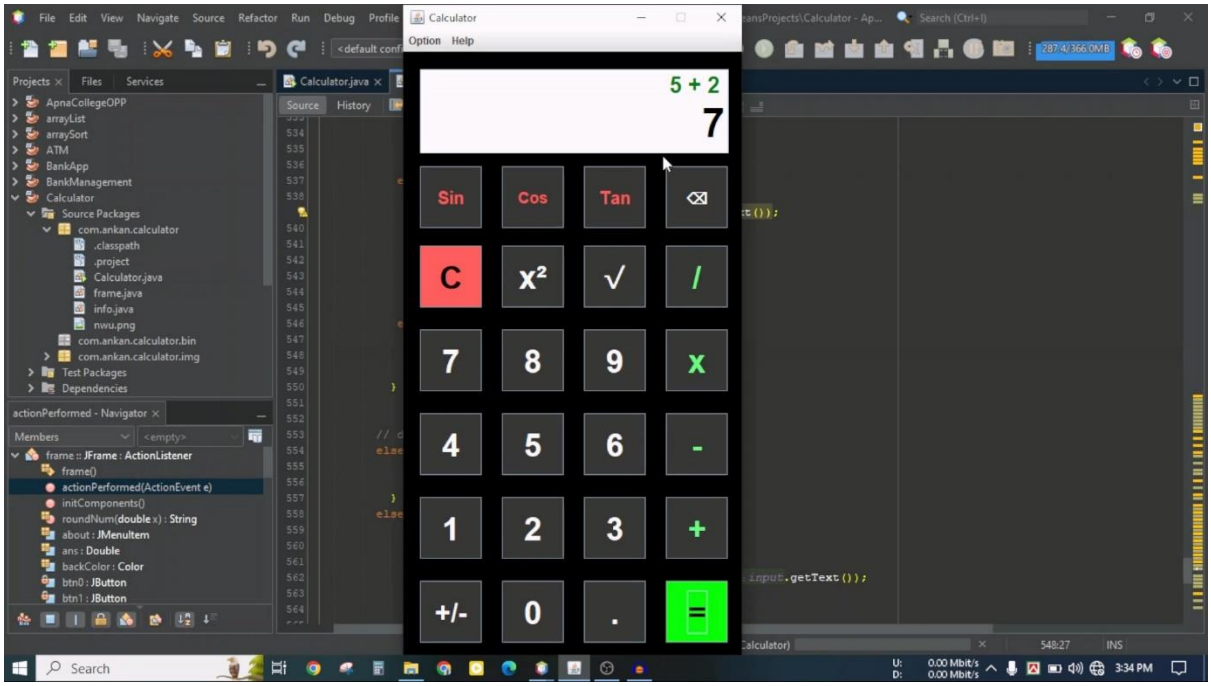
Light Theme:



Information Section:



Input & Output:



Dependencies

NetBeans IDE 8.2: NetBeans IDE lets you quickly and easily develop Java desktop. For built this project we use Java language and Java Built in Packages. After Install all packages the project will run successfully. Remember to handle errors and validate user inputs appropriately throughout the process.

Thank You