

BASIC CALCULATOR

project Report

Prepared For
A&D TECH

Prepared By
BHAVNESH DEEP



PROBLEM STATEMENT:

The goal is to create a basic calculator application in Java that performs basic arithmetic operations: addition, subtraction, multiplication, and division. The application should also handle invalid inputs and division by zero.

SOLUTION OVERVIEW:

This project involves creating a basic calculator program in Java that performs simple arithmetic operations: addition, subtraction, multiplication, and division. The calculator takes user input to select an operation and then prompts the user for two numbers to perform the chosen operation. The result of the operation is then displayed.

KEY COMPONENTS:

- **Arithmetic Functions:** Defined methods for addition, subtraction, multiplication, and division.
- **User Interaction:** Utilizes the Scanner class for input from the user.
- **Control Flow:** Uses a loop and switch-case to handle user choices and perform the corresponding operations.

CHALLENGES AND RESOLUTIONS:

1. Handling Division by Zero:

- **Challenge:** Preventing division by zero, which would result in an arithmetic exception.
- **Resolution:** Added a condition in the division method to check if the denominator is zero and return an appropriate message.

2. User Input Validation:

- **Challenge:** Ensuring the user inputs valid choices and numbers.
- **Resolution:** Used a switch-case to handle valid operation choices and a default case to catch invalid inputs.

GitHub Link : <https://github.com/BhavneshDeep/A-D-INTERSHIP.git>

LinkedIn : https://www.linkedin.com/posts/bhavneshdeep_java-programming-coding-activity-7213266414571311105--Yff?utm_source=share&utm_medium=member_desktop