Task Report: Building a Simple Command-Line Calculator Application in Python

# 1. Description

I worked on building a simple command-line calculator application in Python. The objective was to create a functional calculator capable of performing basic arithmetic operations such as addition, subtraction, multiplication, and division. The focus was on designing a user-friendly interface and implementing robust input validation.

# 2. Responsibilities

## 2.1 Design the User Interface

- Objective: Create a simple and intuitive user interface for the calculator.  
- Approach: Used Python's input() function to gather user input and display prompts.  
- Details: The interface guides the user through the process of entering numbers and selecting operations, with clear instructions provided to ensure ease of use.

## 2.2 Implement Arithmetic Functions

- Objective: Develop functions to perform basic arithmetic operations.  
- Functions Implemented:  
 - Addition: def add(x, y):  
 - Subtraction: def subtract(x, y):  
 - Multiplication: def multiply(x, y):  
 - Division: def divide(x, y):  
- Details: Each function takes two numerical inputs and returns the result of the operation.

## 2.3 Handle User Input Validation

- Objective: Ensure the calculator behaves predictably and handles errors gracefully.  
- Approach: Implemented input validation to check for:  
 - Correct numerical input.  
 - Division by zero errors.  
 - Invalid operation selections.  
- Details: Provided clear error messages to the user and prompted them to re-enter valid input.

# 3. Summary

This project involved designing and implementing a command-line calculator application in Python. The focus was on creating a simple user interface, implementing basic arithmetic functions, and ensuring robust input validation for reliable and user-friendly operation.