Lab Report2

Course Title: Compiler Design Lab Course Code: CSE 314

## Task1: Design a Lexical Analyzer Using Flex.

**Objective:** Write a lexical analyzer in Flex that:

- Reads a C-like source file.
- Identifies:
  - o Keywords (int, float, if, else, return, etc.)
  - Identifiers
  - Numbers (integers and floating-point)
  - Operators (+, -, \*, /, =, ==, etc.)
  - Punctuation (;, ,, (), {}, [])
- Ignores spaces, tabs, and comments.

## Task2: Design an Arithmetic Expression Evaluator

**Objective:** Write a program using **Lex** and **Bison** that:

- 1. Reads an arithmetic expression from the user.
- 2. Supports:
  - Addition (+)
  - Subtraction (-)
  - Multiplication (\*)
  - Division (/)
  - o Parentheses ()
- 3. Evaluates the result and prints it.