

# CS 358 Compiler Techniques Lab

## Assignment 9

Maximum Marks: 100

Start Date: 04.04.2025 02:30 pm

Submission Deadline: 10.04.2025 11:59 pm

### Instructions:

1. This assignment must be done individually.
2. *For late submissions, 10% is deducted for each hour late after an assignment is due.*
3. You need to submit your code and document in Google Classroom.
4. You should submit **only one zip file** containing your code and document (ReadMe). You should name your zip file as **rollNumber&name.zip**.

**Question 1 [Marks: 25]:** Write a LEX and YACC program to check whether an input string is a palindrome or not.

**Question 2 [Marks: 25]:** Write a LEX and YACC program to evaluate an arithmetic expression containing +, -, \*, /, and parentheses (), following the BODMAS rule.

**Question 3 [Marks: 25]:** Implement a LEX and YACC program to detect and count occurrences of a specific word in an input statement.

**Question 4 [Marks: 25]:** Write a LEX and YACC program to check whether a given string follows a specific grammar rule, such as  $A \rightarrow aAb \mid bBa \mid \epsilon$ .