BRACT’s

Vishwakarma Institute of Information Technology

Department of Computer Engg.

# **LIST OF LAB ASSIGNMENTS**

**ACADEMIC YEAR: 2018- 2019**

CLASS: **TE** DIV :**A,B,C** SEMESTER: **II**

SUBJECT: **SPOS Lab**

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| **Assignment No.** | **PROBLEM STATEMENT** | **Start Date** |
|  | Write a program using Lex specifications to implement lexical analysis phase of compiler to generate tokens of subset of ‗Java program. | 1/01/2018 |
|  | Write a program using Lex specifications to implement lexical analysis phase of compiler to count no. of words, lines and characters of given input file. | 16/1/2018 |
|  | Write a program using YACC specifications to implement syntax analysis phase of compiler to validate type and syntax of variable declaration in Java. | 22/1/2019 |
|  | Write a program using YACC specifications to implement syntax analysis phase of compiler to recognize simple and compound sentences given in input file. | 29/1/2019 |
|  | Write a Java program (using OOP features) to implement following scheduling algorithms:  FCFS , SJF (Preemptive), Priority (Non-Preemptive) and Round Robin (Preemptive) | 05/02/2019 |
|  | Design suitable data structures and implement pass-I of a two-pass assembler for pseudo-machine in Java using object oriented feature. Implementation should consist of a few instructions from each category and few assembler directives. | 12/02/2019 |
|  | Implement Pass-II of two pass assembler for pseudo-machine in Java using object oriented features. The output of assignment-1 (intermediate file and symbol table) should be input for this assignment. | 19/02/2019 |
|  | Design suitable data structures and implement pass-I of a two-pass macro-processor using OOP features in Java | 26/02/2019 |
|  | Write a Java program for pass-II of a two-pass macro-processor. The output of assignment-3 (MNT, MDT and file without any macro definitions) should be input for this assignment. | 12/03/2019 |
|  | Write a program to create Dynamic Link Library for any mathematical operation and write an application program to test it. (Java Native Interface / Use VB or VC++). | 19/03/2019 |
|  | Study assignment on process scheduling algorithms in Android and Tizen. | 26/03/2019 |
|  | Write a Java program to implement Banker‘s Algorithm | 26/03/2019 |
|  | Implement UNIX system calls like ps, fork, join, exec family, and wait for process management (use shell script/ Java/ C programming). | 29/03/2019 |
|  | Write a Java Program (using OOP features) to implement paging simulation using  1. Least Recently Used (LRU)  2. Optimal algorithm | 02/04/2019 |

Subject Coordinator(s) Head of Department

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