Project

Date Due: March , 2026

Total: 100 marks

Instructions

1. Topics
   (a) Option 1
   Read and prepare a presentation from the textbook.
      i. Chapter 6 or 7.
      ii. Repeat instructions 2a and 2b for Chapter 8.

   (b) Option 2
   Read and prepare a presentation from other sources (other textbooks, published papers, web – applications, tools, computing standards).
   Examples: New grammar types, special parsers, new parsing algorithms, interesting properties of context-free grammars, other tools for compiling, other format representations for compiler compilers, software tools.

   (c) Option 3
   A hot subject of your choice related to ***modern*** compiler design.

2. Requirements
   (a) Prepare a 25 minute presentation for one of the selected topics (30 marks option 1/60 marks otion 2 or 3)
   (b) Submit a 1-2 page summary of your presentation which highlights the main points covered in your talk. (10 marks)
   (c) Presentation (30 marks).

Textbook Topics

1. Chapter 6
   (a) Intermediate Code Generation
   (b) Sec. 6.6 Control Flow (Case Statements)

   (c) Sec 6.7 Backpatching & Procedure Calls

2. Chapter 7 Run-Time Environments
   (a) Sec 7.3 Access to Non-local Names & Parameter Passing

3. Chapter 8 Code Generation
   (a) Sec 8.2-8.3 Target Language & Addresses in the Target Code
   (b) Sec 8.4 Basic Blocks and Flow Graphs
   (c) Sec 8.5 Optimization of Basic Blocks
   (d) Sec 8.6-8.7 Code Generator & Peephole Optimization