Assignment Report

Course Name:Concept of Programming Languages
Course Code:CSE425
Section:04

Submitted by
Name:Ishrat Jahan
ID:1921909042

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1 Introduction

Assignment-1 comprised the topics of the lectures discussed in the class till date that included Concepts like the basic Preliminaries,Programming Domains,Implementation Methods,Programming Environments,Syntax and Semantics

2 Explanation of work

The answers to the following questions in the Assignment-1 consists questions regarding some of the basics we were taught in the class.
Questions 1-8 required theoretical answers.Some were basic questions, so the answers are according to what the questions asked for.After going through the lecture slides and notes once,it was easier to answer questions 1-8.Some other questions required knowledge from external sources.So to answer those I had to google and learn about them from external sources and then answer the questions. References:Geek for geeks,w3 resource,stack overflow

In question-9,we were asked to design a C program which required our knowledge from CSE115 course. Question-9 basically was to take a C program as input and do a lexical analysis on the input file.Therefore,the code was written step by step according to what the code wanted. The first step was to create a file containing a C program and save it to run lexical analysis on it. It was done in Notepad and saved as .txt file.The second step was to write appropriate functions to identify valid keywords,identifiers,symbols,string literals,delimiters,parenthesis and so on.Therefore,by exporting the include ¡stdbool.h¿ library function the Boolean functions were written for lexical units.The third step was to extract the sub-string and writing the parse function which will do the lexical analysis.The sub string read each character starting from the 0 index and continued until right=left and the program is terminated.The lexical analysis program basically does the parsing which is checking for each lexical units and returns true/false depending on the results and prints it on the console.The last part was the main function where the program.txt(C program file) was opened by using fopens and read by fgetc() and passed in the function lexical analysis for desired output.As the parameter was passed the lexical analysis was done on the program and showed in the console. Reference:Geek for geeks,w3 resources

3 Strategies

The only strategy I opted for to solve the questions is go through the slides once before starting and solve the theoretical questions.Following the completion of questions 1-8 I focused on solving Question-9 at the very end after going through CSE115 notes and some external notes.

4 Challenges

There were quite a few challenges I faced while solving the Assignment questions.The foremost one is I missed 3 of my initial classes so I didn't have any idea of what and how things were discussed in the topics so I had to go through all of them one by one myself and understand each of them.Moreover,solving question-9 was tough as it took time to understand how to extract the program into substrings and write a parse function.Rest of the codes were easier to write but as these two was supposed to do the main parts,it was quite difficult to debug every error encountered while writing the functions,Besides,with every error there was an ever changing codes in the program as everything had to be written from scratch and sometimes all got mixed up.

5 Incomplete Modules

There were no incomplete modules.All questions were answered.

6 Limitation of work

The only limitation of work faced while doing this assignment was lack of knowledge on some topics.