**Compiler Design (Assignment 1)**

**Problem:**

Assume a file of C program having code of many C functions is provided as an input to Lex program. Write a Lex programs which prints the name of all the functions defined or declared with its return type and list of arguments with their types. Invalid function headers should not be shown in output. Assume that 10 can maximum number of arguments. Assume basic data types (int, float, double, char, long, short, void) are only available. Example:

#include<stdio.h>

int func1(float x1, float x2);

void func2(){printf(“Hello World”);}

float func3()

{

}

void func4(;

void func5(

{

}

void func6;

void func7(int,float);

void func8(x1,float x2);

void func9(x1,float x2)

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Output for above input should be as follows:

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Function: func1

Return Type: int

Arguments:

x1 of type int

x2 of type float

Function: func2

Return Type: void

Arguments:

No Arguments

Function: func3

Return Type: float

Arguments:

No Arguments

**Input-Output:**

1. The program requires a read.c file as an input and creates a write.txt as an intermediary, then displays the output with the desired changes.