CS-382 Programming Tools

Lab Assignment #2

Objective: To write a program using vi for checking valid/invalid syntax for "if" statement.

Create a text file (named as "syntax.txt") in vi editor having a set of valid/invalid if statements.

Content of syntax file

```
#include <stdio.h>
int main()
{
   int number;
   printf("Enter an integer: ");
   scanf("%d", &number);
   // Test expression is true if number is less than 0
   if(1)
            {
             printf("hello form 1");
            }
   If(1||0)
            {
             printf("hello form 1||0");
            }
   If(1#0)
            {
             printf("hello form 1#0");
            }
   if(a
            {
             printf("Hello form a");
            }
   if (number < 0)
            {
             printf("You entered %d.\n", number);
            }
  If(number < 0)
            {
             printf("You entered %d.\n", number);

  If number < 0
            {
             printf("You entered %d.\n", number);
             }

   printf("The if statement is easy.");

   return 0;
}
```

Question 1: Write a program in vi editor thtat read "syntax.txt" file and checks the syntax of all *if statements* in the "syntax.txt" file and print the valid/invalid messages (print **valid** for correct if statement and print **invalid** for incorrect if statement).

For an example: When your program encounter "if(1)" statement the output of your program should be:

"if(1)" statement is valid.

In case of **"if(a"** statement your program should print the output as follows:

"if(a" statement is invalid.

Question 2: Generalize your code that read a file containing C program with if statement and checks and prints the valid/invalid statement for *all the occurrences of if statement* in the input file.