

# ASSIGNMENT – 3

## 1. Write a C program to test whether a given identifier is valid or not

### Source Code:

```
#include <stdio.h>
#include<conio.h>
#include<string.h>

int main(){
    char str[40],n;
    int flag=0,i;
    printf("Enter the Identifier: ");
    gets(str);
    n=strlen(str);
    if(! ((str[0]>='a' && str[0]<='z') || (str[0]>='A' && str[0]<='Z') || str[0]=='_')){
        flag=1;
    }

    for(i=1; i<n; i++){
        if (!((str[i] >= 'a' && str[i] <= 'z')|| (str[i] >= 'A' && str[i] <= 'Z')||
            (str[i] >= '0' && str[i] <= '9') || str[i] == '_')){
                flag=1;
            }
    }

    if (flag==1){
        printf("Its not a valid identifier");
    }else{
        printf("Its a valid identifier");
    }
    return 0;
}
```

PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

```
PS C:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03> cd "c:\Users\Sakshi Jain\Desktop\assignm
ents\SS\ASS03\" ; if ($?) { gcc q1.c -o q1 } ; if ($?) { .\q1 }
Enter the Identifier: _xyz123
Its a valid identifier
PS C:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03> █
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS C:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03> cd "c:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }
Enter the Identifier: 123xyz
Its not a valid identifier
PS C:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03> █
```

## 2. Write a C program to identify whether a given line is a comment or not.

### Source Code:

```
#include <stdio.h>
#include<conio.h>
#include<string.h>

int main(){
    int n;
    char line[100];
    printf("Enter comment: ");
    gets(line);
    n=strlen(line);
    if (line[0] == '/' && line[1] == '/') {
        printf("It is a single-line comment");
        return 1;
    }

    if (line[n- 2] == '*'&& line[n- 1] == '/' && line[0] == '/' && line[1] == '*') {
        printf("It is a multi-line comment");
        return 1;
    }

    printf("It is not a comment");
    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Sakshi Jain> cd "c:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03\" ; if ($?) { gcc q2.c -o q2 } ; if ($?) { .\q2 }
Enter comment: //Hello this is a comment
It is a single-line comment
PS C:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03> █
```

```
PS C:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03> cd "c:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03\" ; if ($?) { gcc q2.c -o q2 } ; i
f ($?) { .\q2 }
Enter comment: /* Hey this is a multiline comment */
It is a multi-line comment
PS C:\Users\Sakshi Jain\Desktop\assignments\SS\ASS03> █
```