Day - 3 printf(), scanf() and Variables

[Smruti Ranjan Nayak]   Day - 3

What is Printf() :

- **printf()** **function is used for** **output.** **It prints the given statement to the console.**

Syntax of Printf :

```
print("Format String",Arugument);
```

> **Format String** **can be** **%d (Integer) ,** **%c (Character) ,** **%s (String) ,** **%f (float) etc .**

Example :

1. Write a Program Print " Hello World "?

Ans :

```
#include <stdio.h>
int main(){
  printf("Hello World!");
  return 0;
}
```

```
// Output : Hello World!
```

2. Write a Program Print " 8teen "?

Ans :

```
#include <stdio.h>
int main(){
  printf("%dteen",8);
  return 0;
}

// Output : 8teen
```

What is Scanf() :

- **scanf() function is used for input from the user. It reads the input data from the console.**

Syntax of Scanf() :

```
scanf("format string",argument_list);
```

Example :

1. Write a Program to take age from the user?

```
#include <stdio.h>

int main(){

  int age;
  scanf("%d",&age);// if user enter the age is 8
  print("User age is %d ",age); // print the age in console or command line
  return 0;

}
```

```
//output: user age is 8
```

Variables in C :

A **variable** is the name of the memory location. It is used to store data. Its value can be changed, and it can be reused many times.

Syntax of Variables :

```
DataType VariableName;
```

Example :

```
int age;
```

Here age is VariableName and The Int is DataType

```
int a=10,b=20;//declaring 2 variable of integer type
float c = 2.0,d = 3.8,e = 450.0;
char f = 'a';
```

Rules for defining variables

- A variable can have alphabets, digits, and underscore.
- A variable name can start with the alphabet, and underscore only. It can't start with a digit.
- No whitespace is allowed within the variable name.
- A variable name must not be any reserved word or keyword, e.g. int, float, etc.

Valid Variables Name :

Non-Valid Variables Name :

```
int a;
int _ab;
int a30;
```

```
int 2;
int a b;
int long;
```

Problem :

1. Write a Program to Find Out the Cube of a Given Number by a User?

2. What is the Output of the Below Program?

```
#include <stdio.h>

int main(){
  printf("I am a Beginner");
  return 0;
}
```

3. What is the output of the bellow Program?

```
#include <stdio.h>

int main(){
  printf("Code%d",8);
  return 0;
}

options :
a ) Code%d8
b ) Code%d
c ) code8
d ) Code8
```

4. What is the output of the bellow program?

```
#include<stdio.h>
int main(){
  printf("Sum : %d",8+5);
}
```

5. What is the output of the bellow program?

```
#include <stdio.h>
int main(){
  printf("%f");
}

Options :
a ) 0.000000
b ) %f
c ) error
d ) none of the above
```