**INPUT AND OUTPUT IN C**

**Format Specifier**

**Format specifier is used during input and output. It is a way to tell the compiler what type of data is in a variable during taking input using scanf() or printing using printf().**

| Data Type | Format Specifier |
|---|---|
| **int** | **%d** |
| **char** | **%c** |
| **float** | **%f** |
| **double** | **%lf** |
| **Short int** | **%hd** |
| **Unsigned int** | **%u** |
| **Long int** | **%li** |
| **Long long int** | **%lli** |
| **Unsigned long int** | **%lu** |
| **Unsigned long long int** | **%llu** |
| **Signed character** | **%c** |
| **Unsigned character** | **%c** |
| **Long double** | **%lf** |

❖ **Output In C**

In C programming, printf() is one of the main output function that sends formatted output to the screen.

**Syntax**

printf("Tech4Ladies");

**Example**

- ❖ #include <stdio.h>
- ❖ int main()
- ❖ {
- ❖ printf("Tech4Ladies");
- ❖ return 0;
- ❖ }

**Explanation**

❖ All C programs must contain the main() function. The compiler start to execute your code from the main() function.
❖ The printf() is a library function to send formatted output to the screen. The function prints the string inside quotations.
❖ To use printf() in our program, we need to include stdio.h header file using the #include <stdio.h> statement.
❖ We use %d format specifier to print int types. , the %d inside the quotations will be replaced by the value of tech4ladies in example 2 below
❖ The return 0; statement inside the main() function is the "Exit status" of the program. It's optional.

**Example 2**

❖ #include <stdio.h>
❖ int main()
❖ {
❖ int tech4ladies = 5;
❖ printf("Number = %d", tech4ladies);
❖ return 0;
❖ }

**Input In C**

**In C programming, scanf() is one of the commonly used function to take input from the user. The scanf() function reads formatted input from the standard input such as keyboards.**

**Example**

❖     **#include <stdio.h>**
❖      **int main()**
❖      **{**
❖      **char Ladies;**
❖      **printf("Enter a character: ");**
❖      **scanf("%c",&Ladies);**
❖      **printf("You entered %c.", Ladies);**
❖      **return 0;**
❖      **}**