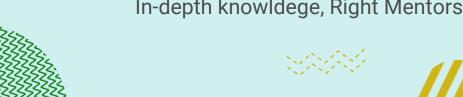
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Format specifiers in C are used in printf() & scanf() functions to determine the datatype of printing value. Float Format Specifier

Everything you should know about float format specifier is given below,

Example :-

```
If you want to print float value, program will be look like this
     a = 1.12
    printf(" a = %f ", a );
    Output :-
     a = 1.12
Here, %f:- is format specifier for float types.
```

Example:-

```
a = 1
printf(" a = %f ", a );
Output :-
a = 1.000000
```

Here,

decimal value which is 1.000000

you assigned a = 1, but used %f so compiler will recognize it as a float value so output will be in

Similarly,

```
For double format specifier is %lf
     For String format specifier is %s
     For integer format specifier is %d
Now the output of float and double is too long if you have observed in theabove example. Output was a
```

= 1.0000000 **Float Output Format**

You can restrict the decimal values after dot like this,

Example:-

float a = 3.122222223;

```
printf("a = %.2f ", a);
     Output :-
     a = 3.12
%.2f will restrict the values upto two decimal values.
```

%.3f will restrict the values upto three decimal values. float a = 3.122222223;

```
printf("a = %.3f ", a);
     Output:-
      a = 3.122
One more format specifier is mostly asked in interview questions,
     Example:-
     float a = 1.289999;
```

```
Output:-
     _ _1.29 where _ are spaces
%6.2f:- means output will be in 6 columns
Here,
```

a = 1.28999;

also in count it also requires space to get stored.

printf(" a = %6.2f ", a);

So after applying %6.2f it will print two spaces before 1 and .2f means two digits after dot. Include dot

space | space

Example:-			
	float a = 1.289999;		

a 1 before dot .

printf(" a = %5.2f ", a);

%5.2f :- prints answer in 5 columns.

Space will only be added when there are not enough digits.

If a is 1111.2344444, it prints 1111.23

printf(" a = %5.3f ", a);

```
Output :-
                                   2
                                             9
                                                        0
```

Here, %5.3f :- prints answer in 5 columns .

```
Include dot also in the count it also requires space to get stored.
Example:-
float a = 1.289999;
```

three digits after dot as there is .3f

Output:-

two digits after dot as there is .2f

and space and 1 before dot.

Here,

```
float a = 1111.289999;
    printf(" a = \%5.3f ", a);
Output:-
```

a = 1111.290

Example:-

Before dot it contains enough digits than 5 so it will store 1111 in one block and rest in another.

Here,

Quick Recap:-Question

printf(" %5.2f ", a); Answer

If a is 11.2344444, it prints 11.23 If a is 1.2344444 , it prints _1.234 , where _ is one leading whitespace character.

All about integers Example:-

If you want to print an integer value

a = 1,printf("a = %d ", a); Here,

%d :- is format specifier for integer types. Output:-

Example:-

a = 1

Output :- a = 1

.12 from 1.12.

int a = 1.12;

Since you used %d in printf(), compiler will recognise it as an integer value . So it skips decimal value

Integer Output Format

a = 1234

a = _12

int a = 123;

printf("a = %d", a);

Even if you give float value to int like,

```
int a = 1234;
    printf("a = %3d", a);
    Output :-
```

```
printf("a = %3d", a);
Output :-
a = 123
int a = 12;
printf("a = %3d", a);
Output :-
```

```
where, \_ is space
int a = 1;
printf("a = %3d", a);
Output :-
a = _ _1
where, _ are spaces.
```

```
Codzify.com
```

3) How to use %5.2f format specifier in C Programming?

the Increment and Decrement Operators concept asked in GATE **CSE** 5) Article on different storage classes

functions is explained in depth in this article.

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