

# Week 7

17 June 2024 09:24 AM

1. Prefix and post fix operator ( ++i , i++)
2. Conditional expression ( ? : )
3. Flags
4. Arrays
5. Arrays with for loop
6. How to store string in array
7. walkthrough

## 1. Prefix and post fix operator ( ++i , i++)

++i -> pre increment increase the variable by 1 before the line exits

i++ -> post increment increase the variable by 1 after the line exits

## 2. Conditional expression ( ? : )

## 3. Walkthrough ->

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

```
int main() {
    int a = 0; // 9
    int b = 10; // 10
```

```
    int flag = 1; // true
```

```
    for (int i = a; i < b && flag; i++) {
```

```
        printf("%d\n", i);
        if (i == 5) {
            flag = 0; // false
        }
    }
```

	a	b	i	Flag
inta = 0;	0	?	?	?
int b = 10;	0	10	?	?
int flag = 1;	0	10	?	1
for	0	10	0	1
	0	10	1	1

```

if (i == 5) {
    flag = 0; // false
}
return 0;
}

```

for	0	1	2	3	4
for	0	10	1	1	
for	0	10	2	1	
for	0	10	3	1	
for	0	10	4	1	
for	0	10	5	1	
flag = 0	0	10	5	0	
for	0	10	<del>5</del>	0	→

return 0;

out → 0  
 ↑  
 2 3 4  
 5

- 1.
2. Escape sequence ( \ )
3. Scanf and printf ( g )
4. Casting
5. Switch case
6. For loop ( g )
7. Convert one loop to another
8. Prefix and post-fix operator ( ++i , i++ )
9. Conditional expression ( ? : )
10. Flags
11. Walkthrough
12. Arrays
13. Arrays with for loop
14. Parallel array

## Macros

```
#define PI 3.14159

int main(void)
{
    double radius, area;

    printf("Enter radius : ");
    scanf("%lf", &radius);

    area = PI * radius * radius;
    // At compile-time, the above statement becomes:
    // area = 3.14159 * radius * radius

    printf("The area of your circle is : %lf\n", area);

    return 0;
}
```

### printf and scanf

```
printf("Hi, everyone. \n");
printf("Hi, everyone. \");
char a;

scanf(" %c", &a);
printf("the value of a is %c\n", a);
Output:
The value of a is 11
```

### casting

Trying to convert one type into another

```
// Online C compiler to run C program online
#include <stdio.h>

int main() {
    // double b = 11.99;
    // int a = 10.99;
    // printf("the value of a is %d\n", a);
    // a = b;
    // printf("the value of b is %d\n", (int)b);

    // -> implicit
    // -> explicit

    double a = 2; // -> 2.00
    double b = 3; // -> 3.00
    double c;
    c = (int)a % (int)b; // we cannot use % with doubles

    printf("The value of c is :%lf\n",c);

    return 0;
}
```

### Switch Case

```
switch (value){
```

```

case 1: printf("hi");
        break;
case 1: printf("hi");
        break;
default:
        break;

```

```
};
```

### For loop (g):

// Online C compiler to run C program online  
#include <stdio.h>

```

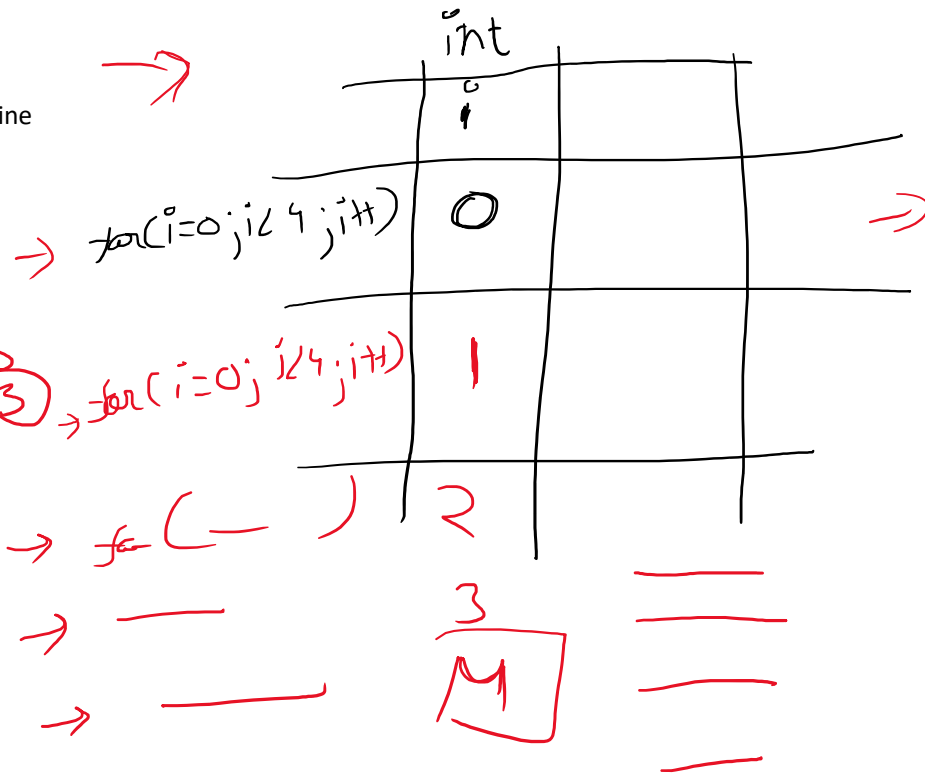
-> int main() {
->     int i;
->     for (i = 0; i < 4; i++) {
->         printf("Value of i now is %d\n", i);
->     }
->     printf("Value of i now is %d\n", i);

```

```

return 0;
}

```



output →  
0  
1  
2

### Arrays:

```

{}
[i]
Name[] = [];

```