

## Pointers

**Pointer:-** Pointer is a variable that holds the address of another variable. They have data type just like variables, for example an integer type pointer can hold the address of an integer variable and a character type pointer can hold the address of a char variable. It is denoted by (\*).

### **Syntax:-**

```
data_type *pointer_name;
```

### **Example:-**

```
#include <iostream>
using namespace std;
int main()
{
    int *p;      //Pointer declaration
    int var=101;
    p = &var;
    cout<<"Address of var: "<<&var<<endl;
    cout<<"Address of var: "<<p<<endl;
    cout<<"Address of p: "<<&p<<endl;
    cout<<"Value of var: "<<*p;
    return 0;
}
```

### **Output:-**

Address of var: 0x7fff5dffc0c

Address of var: 0x7fff5dffc0c

Address of p: 0x7fff5dffc10

Value of var: 101

### **Pointer and array:-**

#### **Example:-**

```
#include <iostream>
using namespace std;
int main()
{
    int *p;          //Pointer declaration
    int arr[]={1, 2, 3, 4, 5, 6};    //Array declaration
    p = arr;
    for(int i=0; i<6;i++)
    {
        cout<<*p<<endl;
        p++;
    }
    return 0;
}
```

#### **Output:-**

1  
2  
3  
4  
5  
6

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