

```
#include<iostream>
using namespace std;
class Dada{
public:
    int d = 20;
};
class Papa : public Dada
{
public:
    int a = 10; // d = 20;
};

class Beta : public Papa {
public:
    int b = 5; // a = 10, d = 20
};

int main()
{
    Beta obj;
    cout<<obj.d;
    return 0;
}
```

## What is Inheritance ?

Inheritance allows a class to acquire properties and characteristics of another class.

In above example class Beta inherit class Papa.

```
class Beta : public Papa
```

And class Papa inherit class Dada.

```
class Papa : public Dada
```

Because of inheritance, object of Beta class can access variable of Papa class and variable of Dada class.

## What are the types of Inheritance in C++ ?

1. Single inheritance
2. Multiple inheritance
3. Multilevel inheritance

### 1. Single Inheritance

When there is only one Child class and only one Parent class.

### 2. Multiple Inheritance

When a child class have more than one parent class.

```
class Beta : public Papa, public Dada
```

### 3. Multilevel Inheritance

When there is more than one single parent class.

```
class Papa : public Dada
class Beta : public Papa
```