Assignment -04

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Polymorphism :-

Polymorphism is that in which we can perform a task in multiple forms or ways. It is applied to the functions or methods. Polymorphism allows object to decide which form of function to implement at compile-time as well as run-time.

Example:-

```
#include<iostream.h>
using namespace std;
class A {
    int a,b,c;
public :
     void add (int x,inty)
 { a = x;
   b = y
 cout<<"add of a+b is:"<<(a+b)<< end;
 }
  void add (int x,inty,int z)
  {
     a = x;
     b = y;
     c = z;
  cout <<"add of x+y+z is:"<<(a+b+c)<<endl;
  }
   virtual void print()
  {
   cout<<"classA's method is running"<<endl;
  }};
   classB : public A{
  public : void print ()
   {
    cout<<"ClassB's method is running"<<endl;
  }};
    int main()
  {
    A a;
  a : add(6,5);
   b/print(); }
```

Inheritance:-

Inheritance is one in which a new class is created that inherits properties of already exist class. It supports concept of code reusability & reduces length of code in object oriented programming.

Types:-

1. Single inheritance 2. Multi-level inheritance

3. Multiple inheritance 4. Hybrid inheritance

5. Hierarchial inheritance.

Example program (cpp)

```
#include<iostream.h>
using namespace< std;
Class A{
 int a,b
 public:
 void add(int x, inty)
{
  a=x;
  b=y;
  cout<<(a+b)<<endl;}};
 ClassB : publiA{
 publi:
     void print(int x,inty)
  { add(x,y);}};
int main()
 { B b1;
   b1print(5,6);
 }
```