

LAB NO.08

1. Constructor

```
#include<iostream>
using namespace std;
class ractange{
private:
    int height,width;
public:
    int area();
    ractange();
    ~ractange();
};

int ractange::area(){
    return height*width;
}

ractange::ractange(){
    height=0;
    width=0;
    cout<<"Constructing"<<endl;
}

ractange::~~ractange(){
    cout<<"Destructing"<<endl;
}

int main()
{
    ractange obj;//constructor call when object create
                // but destructor call when object realese
    cout<<"Area="<<obj.area()<<endl;
}
```

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Constructing
Area=0
Destructing
Process returned 0 (0x0) execution time :
Press any key to continue.

LAB NO.08

2. Copy Constructor

```
#include<iostream>
using namespace std;
class saidul{
private:
    int a,b;
public:
    saidul(int x,int y):a(x),b(y){}
    int add(){
        return a+b;
    }
    ~saidul(){
        cout<<"Destructoring"<<endl;
    }
};

int main()
{
    saidul s(3,6);
    cout<<s.add()<<endl;
    saidul r=s; ///
    cout<<r.add()<<endl;
    return 0;
}
```

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Destructoring
Destructoring

Process returned 0 (0x0) executi

copy constructor ///

LAB NO.08

3. Parameterized Constructor

```
#include<iostream>
using namespace std;
class saidul{
private:
    int a,b;
public:
    saidul(int x=0,int y=0) {
        a=x;
        b=y;
    }
    //saidul(int a,int b):a(a),b(b){} // alternative way ini
    void dis() {
        cout<<a+b<<endl;
    }
};
int main()
{
    saidul s(4,9);
    s.dis();
    return 0;
}
```

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Process returned 0 (0x0) execution time : 0.948 s
Press any key to continue.

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4. Encapsulation

```
#include<iostream>
using namespace std;
class saidul{
private:
    int a,b;
public:
    int add()
    {
        return a+b;
    }
    void set(int x,int y){
        a=x;
        b=y;
    }
};
int main()
{
    saidul s;
    s.set(4,5);
    cout<<s.add();
    return 0;
}
```

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Process returned 0 (0x0) executio
Press any key to continue.

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5. Inheritance

```
objectoriented.cpp -- copy_constructor.cpp -- destruct.cpp -- multiple_inheritance.cpp -- multiple_inheritance.cpp --  
#include<iostream>  
using namespace std;  
class A{  
protected:  
    int a;  
};  
class B{  
protected:  
    int b;  
};  
class C:public A,public B{  
protected:  
    int c;  
public:  
    C(int a=0,int b=0,int c=0){  
        this->a=a;  
        this->b=b;  
        this->c=c;  
    }  
    void display()  
    {  
        cout<<a<<' '<<b<<' '<<c<<endl;  
    }  
};  
int main()  
{  
    C obj(2,3,4);  
    obj.display();  
    return 0;  
}
```

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6. This Pointer

```
#include<iostream>
using namespace std;
class saidul{
private:
    int a,b;
public:
    int add() {
        return a+b;
    }
    void set(int a,int b) {
        this->a=a;
        this->b=b;
    }
};
int main()
{
    saidul s;
    s.set(4,8);
    cout<<s.add()<<endl;
}
```

