Practical No: 05

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Title:
Write a program to demonstrate runtime polymorphism (Virtual Function Concept).

Source Code for Virtual Function:

```cpp
#include<iostream>
#include<string>
using namespace std;
class data
{
    protected:
        int side,l,b;
    public :
    void getdata()
    {
        cout<<"Enter the length:";
        cin>>l;
        cout<<"Enter the breadth :";
        cin>>b;
    }
    virtual void area()
    {
        cout<<"hello";
        }
};

class reactangle: public data
{
```

```cpp
        public:
        void area(){
    cout<<l*b<<endl;}
};

class triangle: public data
{
    public:
    void area(){
    cout<<0.5*l*b<<endl;}
};

int main()
{
    int ch;
    int m;
    reactangle r;
    triangle t;
    data *ptr;
    do
    {
        cout<<"Enter choice :\n1.Reactangle \n2.Triangle
"<<endl;
        cin>>ch;
        switch(ch)
        {
            case 1:
            ptr=&r;
            ptr->getdata();
            ptr->area();
            break;

            case 2:
            ptr=&t;
            ptr->getdata();
            ptr->area();
```

```
            break;

        }

        cout<<"Do you want to continue ?:";
    cin>>m;
    }
    while(m==1);
        return 0;
}
```

Output :

Enter choice :
1.Reactangle
2.Triangle
1
Enter the length:5
Enter the breadth :4
20
Do you want to continue ?:1
Enter choice :
1.Reactangle
2.Triangle
2
Enter the length:40
Enter the breadth :50
1000
Do you want to continue ?:

End