

Practical-10.(b)

Aim:Write a C++ program to get maximum of two number using Class template.

Algorithm:(i)Start

(ii)class{...};

(iii)Main function

(iv)Print the result

(v)Stop

Theory:Templates are the foundation of generic programming,which involves writing code in a way that is independent of any particular type.

Program:

```
#include <iostream>
```

```
#include <stdio.h>
```

```
template<class T>
```

```
class TClassMax
```

```
{
```

```
    T x,y;
```

```
    public:
```

```
    TClassMax()
```

```
    {}
```

```
TClassMax(T first,T second)
{
    x=first;
    y=second;
}
T getMaximum()
{
    if(x>y)
        return x;
    else
        return y;
}
};

int main(){
    std::cout<<"08_Rabin Nadar"<<std::endl;
    TClassMax <int> iMax;//(100,75);
    int a,b,i;
    TClassMax <float> fMax;//(90.78,750.98);
    float c,d,j;

    std::cout<<"Class Template programs : Generic
Programing : Get Maximum Number\n";
```

```
std::cout<<"Enter A,B values(integer): ";  
std::cin>>a>>b;  
iMax=TClassMax<int>(a,b);  
i=iMax.getMaximum();  
std::cout<<"Result Max Int: "<<i;  
std::cout<<"\n\nEnter C,D values(float): ";  
std::cin>>c>>d;  
fMax=TClassMax<float>(c,d);  
j=fMax.getMaximum();  
std::cout<<"Result Max Float: "<<j;  
return 0;  
}
```

Output:

```
Output Clear  
/tmp/CgUDSKsawA.o  
08_Rabin Nadar  
Class Template programs : Generic Programing : Get Maximum Number  
Enter A,B values(integer): 5 8  
Result Max Int: 8  
  
Enter C,D values(float): 10.2 58.3  
Result Max Float: 58.3|
```

Conclusion:

We have successfully written the code and executed it.