Ex No: 09

Date: 20/09/2019

MAXIMUM OF N ELEMENTS USING GENERIC FUNCTION

Aim:

*To create a java program to find the maximum of n elements using generic function.

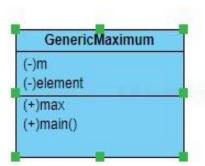
Requirements:

* Write a java program to find the maximum value from the given type of elements using a generic function.

Algorithm:

- 1. Create a package maximum.
- 2. Create a class GenericMaximum in the above package.
- 3. Generate the generic methods to the program.
- 4. Declare for loop to compare the elements.
- 5. Declare array list for integer, double and string.
- 6. Give the required array for integer, double and string.
- 7. Print the maximum value of integer, double and string.
- 8. Stop.

Class Diagram:



```
Program:
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package maximum;
public class GenericMaximum {
      public static <E extends Comparable<E>> E max(E[]ele)
            E m;
      m=ele[0];
                  for(E e:ele)
                  {
                        if(e.compareTo(m)>0) {
                              m=e;
                        }
                  }
                  return m;
      }
      public static void main(String[] args) {
            // TODO Auto-generated method stub
            Integer[] intArray= {1,2,3,4,5,6,7};
            Double[] doubleArray= {1.1,2.2,3.3,4.4,5.5,6.6,7.7};
            String[] strArray=
{"Mahendra", "Singh", "Dhoni", "Sachin", "Tendulkar"};
            Integer intMax;
            Double doubleMax;
            String strMax;
            intMax=max(intArray);
doubleMax=max(doubleArray);
            strMax=max(strArray);
            System.out.println("Max Integer:"+intMax);
```

```
System.out.println("Max Double:"+doubleMax);
System.out.println("Max String:"+strMax);
}
```

Output:

Max Integer:7 Max Double:7.7 Max String:Tendulkar

Result:

*Thus the java program to find the maximum of n elements using generic function is written and executed successfully.