

Program: Generics Demo

```
import java.util.*;
class Gener<T,U,V>
{
    T usn;
    U attendance;
    V cgpa;
    Gener(T n,U a,V c)
    {
        usn = n;
        attendance = a;
        cgpa = c;
    }
    void display()
    {
        System.out.println("=====");
        System.out.println("USN of student: "+usn);
        System.out.println("Attendance = "+attendance);
        System.out.println("CGPA = :"+cgpa);
    }
}
class GenDemo
{
    public static void main(String args[])
    {
        Scanner in = new Scanner(System.in);
        String USN;
        int attd;
        double cg;
        System.out.println("Enter the USN of the student:");
        USN = in.next();
        System.out.println("Enter the attendance % of the student:");
        attd = in.nextInt();
        System.out.println("Enter the CGPA of the student:");
        cg = in.nextDouble();
        Gener<String, Integer, Double> ob = new Gener<String, Integer,
Double>(USN, attd, cg);
        ob.display();
    }
}
```

OUTPUT:

```
Enter the USN of the student:
1BM19CS073
Enter the attendance % of the student:
90
Enter the CGPA of the student:
9.375
=====
USN of student: 1BM19CS073
Attendance = 90
CGPA = :9.375
-----
```

Program: Father Son Exception

```
import java.util.*;
class AgeException extends Exception
{
    public String toString()
    {
        return " Age of son and father cannot be less than 0 as well Age of the Son
cannot be more than age of father or illegal marriage ";
    }
}
class Father
{
    int fage;
    Scanner in = new Scanner(System.in);
    Father()
    {
        System.out.println("Enter the father's age");
        fage = in.nextInt();
    }
}
class Son extends Father
{
    int sage;
    Scanner in = new Scanner(System.in);
    Son()
    {
        System.out.println("Enter the son's age");
        sage = in.nextInt();
    }
}
class FSEx
{
    static void WrongAge(int f,int s) throws AgeException
    {
        if(f<0 || s<0 || f-s<21)
            throw new AgeException();
        System.out.println("No logical or legal problems arised");
    }
    public static void main(String args[])
    {
        Son ob = new Son();
        try
        {
            WrongAge(ob.fage,ob.sage);
        }
        catch (AgeException e)
        {
            System.out.println("Exception arised: " + e);
        }
    }
}
```

OUTPUT:

```
Enter the father's age
25
Enter the son's age
60
Exception arised:  Age of son and father cannot be less than 0 as well Age of t
he Son cannot be more than age of father or illegal marriage

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(program exited with code: 0)
Press return to continue
█
```