

1BM19CS079

LIKITHA B

WEEK-10(OOJ-LAB-PROGRAMS)

PROGRAM-1

1. Write a program to demonstrate generics with multiple object parameters.

CODE-

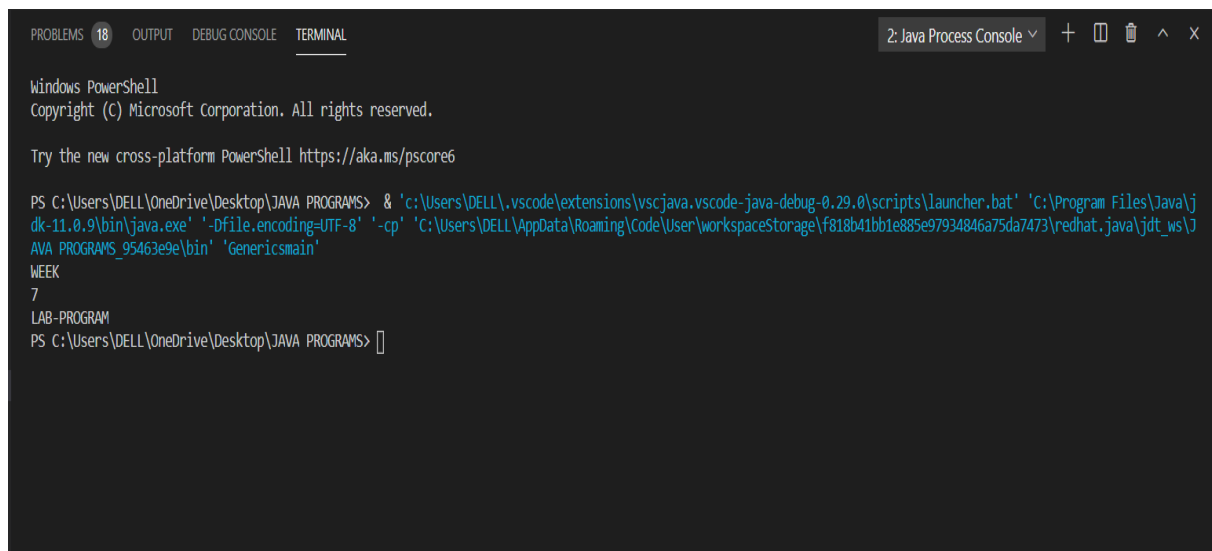
```
class Generics<T, U,S>
{
    T obj1;
    U obj2;
    S obj3;
    Generics(T obj1, U obj2,S obj3)
    {
        this.obj1 = obj1;
        this.obj2 = obj2;
        this.obj3 = obj3;
    }
    public void print()
    {
        System.out.println(obj1);
        System.out.println(obj2);
        System.out.println(obj3);
    }
}
```

```
}  
  
}
```

class Genericsmain

```
{  
  
    public static void main (String[] args)  
  
    {  
  
        Generics <String,Integer, String> obj =  
  
            new Generics<String, Integer,String>("WEEK", 7,"LAB-PROGRAM");  
  
  
        obj.print();  
  
    }  
  
}
```

OUTPUT-



```
PROBLEMS 18 OUTPUT DEBUG CONSOLE TERMINAL 2: Java Process Console  
Windows PowerShell  
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Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\Users\DELL\OneDrive\Desktop\JAVA PROGRAMS> & 'c:\Users\DELL\.vscode\extensions\vscjava.vscode-java-debug-0.29.0\scripts\launcher.bat' 'C:\Program Files\Java\jdk-11.0.9\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\User\workspaceStorage\f818b41bb1e885e97934846a75da7473\redhat.java\jdt_ws\JAVA PROGRAMS_95463e9e\bin' 'Genericsmain'  
WEEK  
7  
LAB-PROGRAM  
PS C:\Users\DELL\OneDrive\Desktop\JAVA PROGRAMS> 
```

PROGRAM-2

2. Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class

called "Father" and derived class called "Son" which extends the base class. In Father class, implement a constructor which takes the age and throws the exception Wrong Age() when the input

age=father's age.

CODE-

```
class WrongAge extends Exception
```

```
{
```

```
    public String toString()
```

```
    {
```

```
        return "Please enter the right age:"+"Son's age > Father's age";
```

```
    }
```

```
}
```

```
class Father
```

```
{
```

```
    int age;
```

```
    Father(int age1)
```

```
    {
```

```
        age=age1;
```

```
        System.out.println("Father age:"+age);
```

```
    }
```

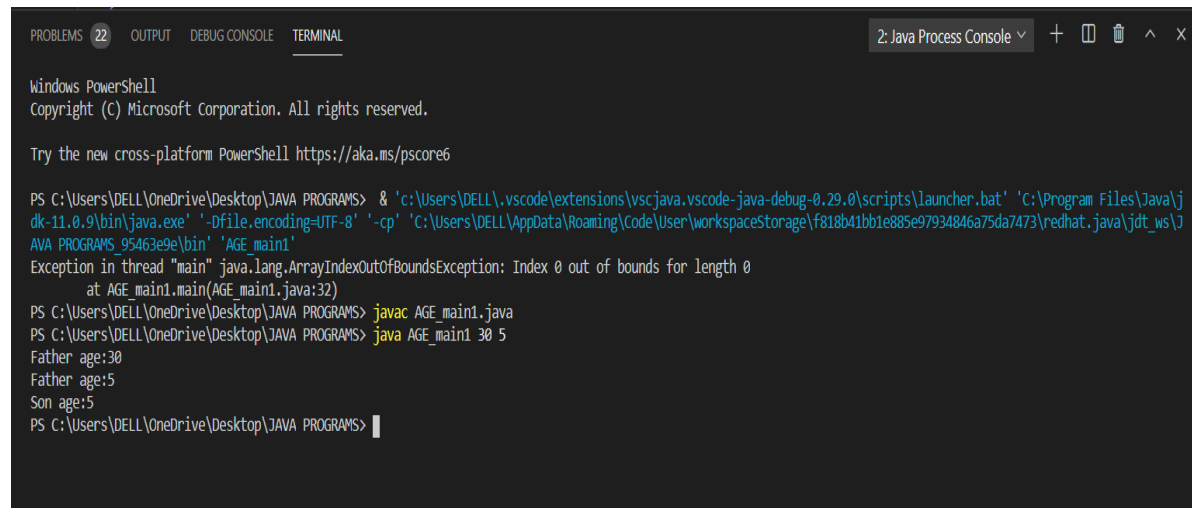
```
}
```

```
class Son extends Father
{
    Son(int age1)
    {
        super(age1);
        System.out.println("Son age:"+age);
    }
}

class AGE_main1
{
    public static void main(String args[]) throws WrongAge
    {

        int i=args.length;
        int j=Integer.parseInt(args[0]);
        int k=Integer.parseInt(args[1]);
        if(i<=0 || k>j)
        {
            throw new WrongAge();
        }
        else
        {
            Father f=new Father(j);
            Son s=new Son(k);
        }
    }
}
```

```
}  
  
}
```



```
PROBLEMS 22 OUTPUT DEBUG CONSOLE TERMINAL 2: Java Process Console  
Windows PowerShell  
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Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\Users\DELL\OneDrive\Desktop\JAVA PROGRAMS> & 'c:\Users\DELL\.vscode\extensions\vscjava.vscode-java-debug-0.29.0\scripts\launcher.bat' 'C:\Program Files\Java\jdk-11.0.9\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\User\workspaceStorage\f818b41bb1e885e97934846a75da7473\redhat.java\jdt_ws\JAVA PROGRAMS_95463e9e\bin' 'AGE_main1'  
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index 0 out of bounds for length 0  
    at AGE_main1.main(AGE_main1.java:32)  
PS C:\Users\DELL\OneDrive\Desktop\JAVA PROGRAMS> javac AGE_main1.java  
PS C:\Users\DELL\OneDrive\Desktop\JAVA PROGRAMS> java AGE_main1 30 5  
Father age:30  
Son age:5  
PS C:\Users\DELL\OneDrive\Desktop\JAVA PROGRAMS> |
```