EXPERIMENT NO. 10

Date : 14/09/23
Roll No.: B037

AIM:

To create a user defined exception class.

THEORY:

* Custom Exception

> In Java, custom exceptions allow developers to create their own exception classes tailored to specific application requirements.

> By extending existing exception classes developers can create custom exception hierarchies.

> Custom exceptions enhance code readability and enable developers to handle specific error scenarioses more precisely.

> To create a custom exception developers define a new class that extends Exception or any of its subclasses.

> They can add additional fields and methods to provide more context about the exception

Output:

```
exception occured Age less than 18 you cannot vote
```

PROGRAM 1:

```
class InvalidAgeException extends Exception
{
   InvalidAgeException(String s)
    {
      super(s);
    }
}
class Main
{
  static void validate (int age) throws InvalidAgeException.
  {
    if (age<18)
    {
      throw new InvalidAgeException("Age less than 18,
                                        you cannot vote");
    }
    else
    {
      System.out.println ("Welcome to voting");
    }
~~{~~ }
  public static void main(String args[])
  {
    try
    {
     validate (17);
    }
```

Output:

```
Exception occured Roll No cannot be negative
```

```
    catch (Exception e)
    {
      System.out.println("exception occured "+e.getMessage());
    }
  }
}
```

PROGRAM 2:

```
class InvalidRollException extends Exception
{
    InvalidRollException(String s)
    {
      super(s);
    }
}

class Main
{
   static void validate(int roll) throws InvalidRollException
   {
     if(roll<0)
     {
       throw new InvalidRollException(" Roll No. cannot
                                        be negative");
     }
    else
    {
      System.out.println("Valid roll no.");
    }
  }
  public static void main(String args[])
  {
    try
    {
      validate(-12);
    }
    catch(Exception e)
    {
      System.out.println("Exception occured"+ e.getMessage());
    }
  }
}
```

PROCEDURE:

Step 1: Start
Step 2: Open Notepad
Step 3: Write the code
Step 4: Compile the code in command prompt
Step 5: Run the code in command prompt.
Step 6: Check the output:
Step 7: Stop

CONCLUSION:

Hence, we have created user defined exception class in JAVA.

28/5/23