 

Faculty of Technology and Engineering

Chandubhai S Patel Institute of Technology

Department of Computer Science & Engineering

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| Academic Year | : | 2022-23 | Semester | : | 3 |
| Course code | : | CE251 | Course name | : | Java Programming |

Part - 4

# Practical - 1

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| Aim | Write a program to show the try - catch block to catch the different types of exception. |
| Code | /\*      Name : Aswani Darsh.      ID   : 21CE006.      Pr   : WAP to show the try - catch block to catch the different types of exception.  \*/  class \_006\_4\_1 {      public static void main(String[] args) {          // ArrayIndexOutOfBound          try {              int a = 10;              System.out.println(a / 0);          } catch (Exception e) {              System.out.println(e);          }          // ArrayIndexOutOfBoundsException          try {              int[] array = new int[3];              System.out.println(array[3]);          } catch (Exception e) {             System.out.println(e);          }          // ClassCastException          try {              Object obj = new Object();              String sobj = (String) obj;          } catch (Exception e) {              System.out.println(e);          }          // NullPointerException          try {              Integer b = null;              if (b == 10) {                  System.out.println("Same");              } else {                  System.out.println("Not same");              }          } catch (Exception e) {              System.out.println(e);          }          // NumberFormatException          try {              String s = "9.45";              Integer i = Integer.parseInt(s);              System.out.println(i);          } catch (Exception e) {              System.out.println(e);          }          // IllegalArgumentException          try {              Thread.sleep(-100);          } catch (Exception e) {              System.out.println(e);          }          // NegativeArraySizeException          try {              int[] array2 = new int[-3];          } catch (Exception e) {              System.out.println(e);          }      }  } |  |

# Practical-2

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| Aim | Write a program to generate user defined exception using “throw” and “throws” keyword. | | |
| Code |  | // package Practicle\_file;  /\*      Name : Aswani Darsh.      ID   : 21CE006.      Pr   : Write a program to generate user defined exception using “throw” and “throws” keyword.  \*/  import java.util.\*;  class Myexception extends Exception{      public Myexception(String s)      {          super(s);      }  }  public class \_006\_4\_2 {      public static void main(String[] args) {          Scanner s =new Scanner(System.in);          int b = 300;          System.out.println("Enter amount to be deposited  :");          int d = s.nextInt();          b+=d;          boolean f =true;          while(f)          {              System.out.println("Enter Amount to be withdrawn");              int w = s.nextInt();              if(b>w){                  b-=w;                  System.out.println("Your Money has been successfully withdrawn!....");                  System.out.println("Balance of your account : "+b);              }              else{                  f=false;                  try{                      throw new Myexception("Not Sufficient funds");                  }                  catch(Myexception e)                  {                      System.out.println(e.getMessage());                  }              }          }      }  } |  |

# Practical - 3

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| Aim | Write a program that raises two exceptions. Specify two ‘catch’ clauses for the two exceptions. Each ‘catch’ block handles a different type of exception. For example the exception could be ‘ArithmeticException’ and  ‘ArrayIndexOutOfBoundsException’. Display a message in the ‘finally’ block. | | |
| Code |  | /\*      Name : Aswani Darsh.      ID   : 21CE006.      Pr   : Write a program that raises two exceptions. Specify two ‘catch’ clauses for the      two exceptions. Each ‘catch’ block handles a different type of exception. For      example the exception could be ‘ArithmeticException’ and      ‘ArrayIndexOutOfBoundsException’. Display a message in the ‘finally’ block.  \*/  public class \_006\_4\_3 {      public static void main(String[] args) {          int a[] = new int[5];          String ptr = null;          try          {              if (ptr.equals("Darsh"))                  System.out.print("Same");              else                  System.out.print("Not Same");          }          catch(Exception e)          {              System.out.println("NullPointerException Caught");          }          try {              System.out.println(a[10]);          }          catch (ArrayIndexOutOfBoundsException e) {              System.out.println("ArrayIndexOutOfBounds Exception occurs");          }          try{              a[4]=30/0;          }          catch (ArithmeticException e) {              System.out.println("Arithmetic Exception occurs");          }            finally{              System.out.println("rest of the code");          }      }  } |  |
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