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| **Department of Computer Science & Engineering, SDMCET, Dharwad-2**    **AOOP Assignment Submission Report**  **[Submitted as part of CTA Assignment No-1]**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Course: | | Advanced Object-Oriented Programming | | | Course Code: | 18UCSE508 | | Semester: | | V |  | | Division: | A | |  | | | Submitted by: | |  | | | USN: | 2SD20CS077 | | Name: |  | Prajwal Dange | | |
| AOOP Assignment Submission Report   1. **Problem Definition:**   Write a Java program to generate and handle any three built-in exceptions and display appropriate  error messages.  18UCSE508/CTA/Assignment-1 Prajwal Dange 2 |
| AOOP Assignment Submission Report  **2. Java Program:**  class  package TEST;  *// Java program to demonstrate // ArithmeticException*  class ArithmeticException\_Demo {  public static void main(String args[])  {  try {  int a = 30, b = 0;  int c = a / b; *// cannot divide by zero* System.*out*.println("Result = " + c);  }  catch (ArithmeticException e) {  System.*out*.println("Can't divide a number by 0");  }  } }  18UCSE508/CTA/Assignment-1 Prajwal Dange 2    AOOP Assignment Submission Report  */// Java program to demonstrate // ArrayIndexOutOfBound*  class ArrayIndexOutOfBound\_Demo {  public static void main(String args[])  {  try {  int a[] = new int[5];  a[6] = 9; // accessing 7th element in an array of  // size 5  System.out.println("Array Index is in bound");  }catch (ArrayIndexOutOfBoundsException e) {  System.out.println("Array Index is Out Of Bounds");  }  }  }  *// Java program to demonstrate // File\_notFound*  s class File\_notFound\_Demo {   public static void main(String args[])  {  try {   *// Following file does not exist* File file = new File("E:// file.txt");   FileReader fr = new FileReader(file);  }  catch (FileNotFoundException e) {  System.*out*.println("File does not exist");  }  } }  18UCSE508/CTA/Assignment-1 Prajwal Dange 3 |
| AOOP Assignment Submission Report  **3. Screen Shots of Execution:**        18UCSE508/CTA/Assignment-1 Prajwal Dange 3 |
| AOOP Assignment Submission Report   1. **Problem Definition:**   .  Write a Java program to read an integer and check whether the number is prime or not. If negative  number is entered, throw an exception NegativeNumberNotAllowedException and if entered  number is not prime, then throw NumberNotPrimeException.  18UCSE508/CTA/Assignment-1 Prajwal Dange  AOOP Assignment Submission Report    **2. Java Program:**  import java.lang.\*; import java.util.\*; import java.util.Scanner;  public class Question2 {   public static void main(String[] args)throws NegativeNumberNotAllowedException ,NumberNotPrimeException {  Scanner sc = new Scanner(System.*in*);  System.*out*.print("Enter the Number = ");  int input = sc.nextInt();  if(input<0){  throw new NegativeNumberNotAllowedException("Negative number are not please enter a valid number");   }else if(!(*isPrime*(input))){   throw new NumberNotPrimeException("Entered number is a Not prime Plaese Enter the a prime number");  }else{  System.*out*.println("You Entered number = " + input);  }    }  static boolean isPrime(int input) {  boolean flag = false;   int i=2;  for(i=2;i<=input/2;i++){  if(input % i == 0){  flag = true;  }  }    18UCSE508/CTA/Assignment-1 Prajwal Dange 3  AOOP Assignment Submission Report    return flag;   }  }  class NegativeNumberNotAllowedException extends Exception{    String str;  NegativeNumberNotAllowedException(String str){  this.str = str;  }  public String toString() {  return this.str;  }  }   class NumberNotPrimeException extends Exception{   String str;  NumberNotPrimeException(String str){  this.str = str;  }  public String toString() {  return this.str;  }  }  18UCSE508/CTA/Assignment-1 Prajwal Dange 6 |
| AOOP Assignment Submission Report  **3. Screen Shots of Execution:**  18UCSE508/CTA/Assignment-1 Prajwal Dange 7 |
| AOOP Assignment Submission Report   1. **Problem Defination:**   Write a Java program to perform the following operations:  a) Read a line of text  b) Search for a sub-string SDMCET (case insensitive search)  c) If found, then print success message  d) Otherwise throw an exception SubStringNotFoundException with appropriate message  18UCSE508/CTA/Assignment-1 Prajwal Dange 7 |
| AOOP Assignment Submission Report   1. **Java Program:**   import java.util.\*;  import java.util.Scanner;  /\*  Question number 3 : To check for the substring sdmcet which is case insensitive.  \*/  public class Question\_3 {  public static void main(String[] args)throws SubstringNotFoundException {    Scanner sc= new Scanner(System.in);  System.out.print("Enter the String =");  String testString = sc.nextLine();  testString = testString.toUpperCase();  String subString="SDMCET";    int i=0,j=0;  while(i<testString.length()){  if(testString.charAt(i)==subString.charAt(j) && j<subString.length()-1){  i++;  j++;  }else{  i++;  }  } //end of while    if(j == subString.length()-1){  System.out.println("Substring is present");  }else{  throw new SubstringNotFoundException("Substring is not found !! please enter the valid input");  }  18UCSE508/CTA/Assignment-1 Prajwal Dange 8  AOOP Assignment Submission Report  }    }  class SubstringNotFoundException extends Exception{  String str;  SubstringNotFoundException(String str){  this.str = str;  }  public String toString() {  return this.str;  }  }  18UCSE508/CTA/Assignment-1 Prajwal Dange 8 |
| AOOP Assignment Submission Report  **3. Screen Shots of Execution:**      18UCSE508/CTA/Assignment-1 Prajwal Dange 9 |
| AOOP Assignment Submission Report   1. **Problem Defination:**   Write a Java program to perform the following operations:  a) Create a file named Alphabets.txt and insert appropriate data into it  b) Read the file and copy all the consonants into another file named Consonants.txt  c) If vowel is encountered, throw an exception VowelNotAllowedException and continue until  end of file  18UCSE508/CTA/Assignment-1 Prajwal Dange 10 |
| AOOP Assignment Submission Report  **2.Java program:**  import java.util.Scanner; import java.io.\*;   public class Assignment\_4 {   public static void main(String[] args) {   try{   FileWriter w = new FileWriter("Alphabets.txt");  Scanner sc = new Scanner(System.*in*);  System.*out*.print("Enter the data to write in the file :");  String str = sc.nextLine();  w.write(str);  w.close();  File file = new File("Alphabets.txt");   Scanner reader = new Scanner(file);  StringBuilder s = new StringBuilder();  FileWriter write = new FileWriter("Consonate.txt");  while(reader.hasNext()){  String data = reader.next();  for (int i = 0; i < data.length(); i++) {  if(*isVowel*(data.charAt(i))){  System.*out*.println("vowel found " + data.charAt(i));   }else{  s.append(data.charAt(i));  }  }  18UCSE508/CTA/Assignment-1 Prajwal Dange 10  AOOP Assignment Submission Report    write.write(s.toString());  }  write.close();   }  catch(VowelNotFoundException v){  System.*out*.println("vowel found");  }catch(FileNotFoundException e){  System.*out*.println(e);   }catch(IOException ex){  System.*out*.println(ex);  }  }   static boolean isVowel(char c) throws VowelNotFoundException{  if(c == 'a' || c =='e' || c =='i' || c =='o' || c =='u' || c =='A' || c =='E' || c =='I'|| c =='O'|| c =='U'){  return true;  }else{  return false;  }  }  class VowelNotFoundException extends Exception{  String str;  VowelNotFoundException(String str){  this.str = str;  }  public String toString() {  return this.str;  }   }  18UCSE508/CTA/Assignment-1 Prajwal Dange 11 |
| AOOP Assignment Submission Report    **3. Screen Shots of Execution:**    18UCSE508/CTA/Assignment-1 Prajwal Dange 12 |
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