LAB 3 .. BASIC LANGUAGE CONSTRAINTS

import java.util.\*;

public class Check

{

public static void main(String a[])

{

int n;

Scanner sc= new Scanner(System.in);

System.out.println("Enter a number");

n=sc.nextInt();

if(n>0)

System.out.println("Positve");

else

System.out.println("Negative");

}

}

Lab 4: Classes and Objects

|  |
| --- |
| public class Person { |
|  | String firstName, lastName; | |
|  | char gender; | |
|  | public Person() {} | |
|  | public Person(String firstName, String lastName, char gender) { | |
|  | //super(); | |
|  | this.firstName = firstName; | |
|  | this.lastName = lastName; | |
|  | this.gender = gender; | |
|  | } | |
|  | public String getFirstName() { | |
|  | return firstName; | |
|  | } | |
|  | public void setFirstName(String firstName) { | |
|  | this.firstName = firstName; | |
|  | } | |
|  | public String getLastName() { | |
|  | return lastName; | |
|  | } | |
|  | public void setLastName(String lastName) { | |
|  | this.lastName = lastName; | |
|  | } | |
|  | public char getGender() { | |
|  | return gender; | |
|  | } | |
|  | public void setGender(char gender) { | |
|  | this.gender = gender; | |
|  | }  }  Lab 7: Exception Handling  6.1   |  | | --- | | package com.cg.eis.bean; | |  |  | |  | public class Employee { | |  | String id; | |  | String name; | |  | double salary; | |  | String designation; | |  | String insuranceScheme; | |  | public String getId() { | |  | return id; | |  | } | |  | public void setId(String id) { | |  | this.id = id; | |  | } | |  | public String getName() { | |  | return name; | |  | } | |  | public void setName(String name) { | |  | this.name = name; | |  | } | |  | public double getSalary() { | |  | return salary; | |  | } | |  | public void setSalary(double salary) { | |  | this.salary = salary; | |  | } | |  | public String getDesignation() { | |  | return designation; | |  | } | |  | public void setDesignation(String designation) { | |  | this.designation = designation; | |  | } | |  | public String getInsuranceScheme() { | |  | return insuranceScheme; | |  | } | |  | public void setInsuranceScheme(String insuranceScheme) { | |  | this.insuranceScheme = insuranceScheme; | |  | } | |  | @Override | |  | public String toString() { | |  | return "Employee [id=" + id + ", name=" + name + ", salary=" + salary + ", designation=" + designation | |  | + ", insuranceScheme=" + insuranceScheme + "]"; | |  | } | |  |  | |  | } | |  |  | |  |  | | **6.2** |  | |  |  | |  | package com.eg.eis.service; | |  |  | |  | public interface EmployeeService { | |  | Object employeeDetails(); | |  | void insuranceScheme(); | |  | void displayDetails(Object e1); | |  | } | |  |  | |  |  | |  |  | |  |  | |  | package com.eg.eis.service; | |  |  | |  | import java.util.Scanner; | |  | import com.cg.eis.bean.\*; | |  | public class EmployeeServiceImplementation implements EmployeeService { | |  |  | |  | @Override | |  | public Employee employeeDetails() { | |  | Scanner sc = new Scanner(System.in); | |  | System.out.println("Enter employee details: id, name, salary, designation, insurance scheme"); | |  | Employee a1 = new Employee(); | |  | String id = sc.nextLine(); | |  | String name = sc.nextLine(); | |  | double salary = sc.nextDouble(); | |  | String designation = sc.nextLine(); | |  | String insuranceScheme = sc.nextLine(); | |  | a1.setId(id); | |  | a1.setName(name); | |  | a1.setSalary(salary); | |  | a1.setDesignation(designation); | |  | a1.setInsuranceScheme(insuranceScheme); | |  | sc.close(); | |  | return a1; | |  | } | |  |  | |  | @Override | |  | public void insuranceScheme() { | |  | System.out.println("Finds the insurance scheme of an Employee based on salary and designation. "); | |  |  | |  | } | |  |  | |  | @Override | |  | public void displayDetails(Object e1) { | |  | String output = e1.toString(); | |  | System.out.println(output); | |  |  | |  | } | |  |  | |  | } | |  |  | |  |  | | **6.02** |  | |  | package com.cg.eis.pf; | |  |  | |  | import com.eg.eis.service.\*; | |  | import com.cg.eis.bean.\*; | |  | public class UserInput { | |  | public static void main(String args[]) { | |  |  | |  | EmployeeServiceImplementation emp1 = new EmployeeServiceImplementation(); | |  | Employee e1 = emp1.employeeDetails(); | |  | emp1.insuranceScheme(); | |  | emp1.displayDetails(e1); | |  |  | |  |  | |  | } | |  | } |  |  | | --- | | public class PersonDetails602 { | |  | String firstName; | |  | String lastName; | |  | char gender; | |  | int age; | |  | public String getFirstName() { | |  | return firstName; | |  | } | |  | public void setFirstName(String firstName) { | |  | this.firstName = firstName; | |  | } | |  | public String getLastName() { | |  | return lastName; | |  | } | |  | public void setLastName(String lastName) { | |  | this.lastName = lastName; | |  | } | |  | public char getGender() { | |  | return gender; | |  | } | |  | public void setGender(char gender) { | |  | this.gender = gender; | |  | } | |  | public int getAge() { | |  | return age; | |  | } | |  | public void setAge(int age) { | |  | if(age<=15) { | |  | throw new InvalidAgeException(); | |  | } | |  | this.age = age; | |  | } | |  | public PersonDetails602() { | |  |  | |  | } | |  | @Override | |  | public String toString() { | |  | return "Person Details [First Name = " + firstName + ", Last Name = " + lastName + ", Gender = " + gender + ", Age = " | |  | + age + "]"; | |  | } | |  |  | |  |  | |  | } | |  |  | |  |  | |  |  | |  |  | |  | import java.util.Scanner; | |  |  | |  | public class Person602 { | |  | public static void main(String args[]) { | |  |  | |  | try{ | |  | Scanner sc = new Scanner(System.in); | |  | String firstName = sc.nextLine(); | |  | String lastName = sc.nextLine(); | |  | String gender = sc.next(); | |  | int age = sc.nextInt(); | |  | PersonDetails602 p1 = new PersonDetails602(); | |  | p1.setFirstName(firstName); | |  | p1.setLastName(lastName); | |  | p1.setGender(gender.charAt(0)); | |  | p1.setAge(age); | |  | System.out.println(p1.toString()); | |  | sc.close(); | |  | } catch (InvalidAgeException e1){ | |  | System.out.println("Age should be above 15 years. Invalid."); | |  | } | |  | } | |  | } | |  |  | |  |  | |  |  | |  |  | |  |  | |  | public class InvalidAgeException extends RuntimeException { | |  |  | |  | /\*\* | |  | \* | |  | \*/ | |  | private static final long serialVersionUID = 1L; | |  |  | |  | public InvalidAgeException() { | |  |  | |  | } | |  |  | |  | public InvalidAgeException(String message) { | |  | super(message); | |  |  | |  | } | |  |  | |  | public InvalidAgeException(Throwable cause) { | |  | super(cause); | |  |  | |  | } | |  |  | |  | public InvalidAgeException(String message, Throwable cause) { | |  | super(message, cause); | |  |  | |  | } | |  |  | |  | public InvalidAgeException(String message, Throwable cause, boolean enableSuppression, boolean writableStackTrace) { | |  | super(message, cause, enableSuppression, writableStackTrace); | |  |  | |  | } | |  |  | |  | } |  |  | | --- | | public class PersonDetails602 { | |  | String firstName; | |  | String lastName; | |  | char gender; | |  | int age; | |  | public String getFirstName() { | |  | return firstName; | |  | } | |  | public void setFirstName(String firstName) { | |  | this.firstName = firstName; | |  | } | |  | public String getLastName() { | |  | return lastName; | |  | } | |  | public void setLastName(String lastName) { | |  | this.lastName = lastName; | |  | } | |  | public char getGender() { | |  | return gender; | |  | } | |  | public void setGender(char gender) { | |  | this.gender = gender; | |  | } | |  | public int getAge() { | |  | return age; | |  | } | |  | public void setAge(int age) { | |  | if(age<=15) { | |  | throw new InvalidAgeException(); | |  | } | |  | this.age = age; | |  | } | |  | public PersonDetails602() { | |  |  | |  | } | |  | @Override | |  | public String toString() { | |  | return "Person Details [First Name = " + firstName + ", Last Name = " + lastName + ", Gender = " + gender + ", Age = " | |  | + age + "]"; | |  | } | |  |  | |  |  | |  | } | |  |  | |  |  | |  |  | |  | **6.3** | |  | import java.util.Scanner; | |  |  | |  | public class Person602 { | |  | public static void main(String args[]) { | |  |  | |  | try{ | |  | Scanner sc = new Scanner(System.in); | |  | String firstName = sc.nextLine(); | |  | String lastName = sc.nextLine(); | |  | String gender = sc.next(); | |  | int age = sc.nextInt(); | |  | PersonDetails602 p1 = new PersonDetails602(); | |  | p1.setFirstName(firstName); | |  | p1.setLastName(lastName); | |  | p1.setGender(gender.charAt(0)); | |  | p1.setAge(age); | |  | System.out.println(p1.toString()); | |  | sc.close(); | |  | } catch (InvalidAgeException e1){ | |  | System.out.println("Age should be above 15 years. Invalid."); | |  | } | |  | } | |  | } | |  |  | |  |  | |  |  | |  |  | |  |  | |  | public class InvalidAgeException extends RuntimeException { | |  |  | |  | /\*\* | |  | \* | |  | \*/ | |  | private static final long serialVersionUID = 1L; | |  |  | |  | public InvalidAgeException() { | |  |  | |  | } | |  |  | |  | public InvalidAgeException(String message) { | |  | super(message); | |  |  | |  | } | |  |  | |  | public InvalidAgeException(Throwable cause) { | |  | super(cause); | |  |  | |  | } | |  |  | |  | public InvalidAgeException(String message, Throwable cause) { | |  | super(message, cause); | |  |  | |  | } | |  |  | |  | public InvalidAgeException(String message, Throwable cause, boolean enableSuppression, boolean writableStackTrace) { | |  | super(message, cause, enableSuppression, writableStackTrace); | |  |  | |  | } | |  |  | |  | } |   Lab 8: Input Output Classes   |  | | --- | | Package co.fileHandling; | |  |  | |  | import java.io.BufferedReader; | |  | import java.io.BufferedWriter; | |  | import java.io.FileNotFoundException; | |  | import java.io.FileReader; | |  | import java.io.FileWriter; | |  | import java.io.PrintWriter; | |  | import java.util.ArrayList; | |  | import java.util.Collections; | |  | import java.util.Iterator; | |  | import java.util.List; | |  | import java.util.Scanner; | |  | public class ReadingAndWriting { | |  |  | |  | public static void main(String args[]) throws Exception { | |  | try{ | |  | Scanner sc = new Scanner(System.in); | |  |  | |  | System.out.print("Enter the complete path: "); | |  | String path = sc.nextLine(); | |  | FileReader reader = new FileReader(path); | |  | BufferedReader br = new BufferedReader(reader); | |  | FileWriter writer = new FileWriter(path); | |  | List<String> input = new ArrayList<String>(); | |  | String line; | |  | while((line=br.readLine())!=null) { | |  | input.add(line); | |  | System.out.println(line); | |  | } | |  | System.out.println("Contents successfully read."); | |  | Collections.reverse(input); | |  |  | |  | PrintWriter output = new PrintWriter(new BufferedWriter(new FileWriter("src\\co\\fileHandling\\Output.txt"))); | |  | for (Iterator<String> i = input.iterator(); i.hasNext();) { | |  | //while((line=br.readLine())!=null) { | |  | //} | |  | output.println((String) i.next()); | |  | } | |  | System.out.println("Contents successfully written."); | |  | sc.close(); | |  | reader.close(); | |  | writer.close(); | |  | output.close(); | |  | } catch(Exception e) { | |  | System.out.println("Something went wrong."); | |  | } | |  |  | |  | } | |  | } |   **8.2** | |
|  |  | |
| package co.fileHandling; | |
|  | |  | |
|  | | //import java.io.BufferedWriter; | |
|  | | import java.io.File; | |
|  | | import java.io.FileWriter; | |
|  | | import java.util.Scanner; | |
|  | | import java.lang.Exception; | |
|  | |  | |
|  | | public class Numbers { | |
|  | |  | |
|  | | public static void main(String[] args) throws Exception { | |
|  | |  | |
|  | | System.out.println("Enter the complete path: "); | |
|  | | //String path = sc.nextLine(); | |
|  | | File file = new File("src\\co\\fileHandling\\numbers2.txt"); | |
|  | | if(file.createNewFile()) { | |
|  | | System.out.println("file created succesfully"); | |
|  | | } | |
|  | | else { | |
|  | | System.out.println("Error in file creation."); | |
|  | | } | |
|  | | FileWriter writer = new FileWriter(file); | |
|  | | //BufferedWriter br = new BufferedWriter(writer); | |
|  | | writer.write("0,1,2,3,4,5,6,7,8,9,10"); | |
|  | | System.out.println("Succesfully written."); | |
|  | |  | |
|  | | Scanner sc = new Scanner(file); | |
|  | | sc.useDelimiter(","); | |
|  | | String ch; | |
|  | | //System.out.println("file created succesfully"); | |
|  | | while(sc.hasNextLine()) { | |
|  | | //System.out.println("file created succesfully"); | |
|  | | ch = sc.next(); | |
|  | | if(((int)(ch.charAt(0))%2)== 0) | |
|  | | System.out.println(ch); | |
|  | |  | |
|  | | } | |
|  | | writer.close(); | |
|  | | //br.close(); | |
|  | | sc.close(); | |
|  | | } | |
|  | |  | |
|  | | } | |