**LAB# 01**

**Roll No:21sw062**

**Section: 2**

**TASK NO:1**

**1. Employee class:**

class Employee{  
 public static void main(String[] args) {  
  
 // Create a variable called age of type int and assign it the value 29.  
 int age=29;  
  
 // Print the age variable to the console.  
 System.*out*.println(age);  
  
 // Create a variable called isAManager of type boolean and assign it the value  
 // true.  
 boolean isManager =true;  
  
 // Print the isAManager variable to the console.  
 System.*out*.println(isManager);  
 // Create a variable called yearsOfService of type double and assign it the  
 // value 2.5.  
 double yearsOfServices=2.5;  
 // Print the yearsOfService variable to the console.  
 System.*out*.println(yearsOfServices);  
 // Create a variable called baseSalary of type int and assign it the value 3000.  
 int baseSalary=3000;  
 // Create a variable called overtimePayment of type int and assign it the value  
 // 40.  
 int overtimePayment=40;  
 // Create a variable called totalPayment of type int and assign it to the value  
 // of baseSalary added to overtimePayment.  
 int totalPayment=baseSalary+overtimePayment;  
 // Print the totalPayment variable to the console.  
 System.*out*.println(totalPayment);  
 // Create three variables all of type double on a single line.  
 double a,b,c;  
 // They should be called firstBonus, secondBonus and thirdBonus and they should  
 // be assigned the values 10.00, 22.00 and 35.00.  
 double firstBonus=10.00;  
 double secondBonus=20.00;  
 double thirdBonus=30.00;  
 // Print out the sum of the variables called firstBonus, secondBonus and  
 // thirdBonus.  
 System.*out*.println("sum: "+ (firstBonus+secondBonus+thirdBonus));  
 }  
}

**OUTPUT:**

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\lib\idea\_rt.jar=61301:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\hp\IdeaProjects\practice\out\production\practice DSA  
 29  
 true  
 2.5  
 3040  
 sum: 60.0  
  
 Process finished with exit code 0

**2.MenuBuilder class:**

import java.util.ArrayList;  
  
 class MenuBuilder{  
 public static void main(String[] args) {  
  
 // Create a variable called menuTitle of type String and assign it the value "My  
 // Dream Menu:".  
 String menuTitle="My Dream Menu: ";  
 // Print the menuTitle variable to the console.  
 System.*out*.println(menuTitle);  
 // Create a variable called menu of type ArrayList.  
 ArrayList menu=new ArrayList();  
 // Create a variable called starter of type string and pass in the name of  
 // your favourite starter.  
 String starter="Fries";  
 // Add the starter variable to the ArrayList called menu.  
 menu.add(starter);  
 // Create a variable called mainCourse of type string and pass in the name of  
 // your favourite main course.  
 String mainCourse="sandwich";  
 // Add the mainCourse variable to the ArrayList called menu.  
 menu.add(mainCourse);  
 // Create a variable called dessert of type string and pass in the name of  
 // your favourite dessert.  
 String dessert="custurd";  
 // Add the dessert variable to the ArrayList called menu.  
 menu.add(dessert);  
 // Print the menu variable to the console.  
 System.*out*.println(menu);  
  
 }  
 }

**OUTPUT:**

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\lib\idea\_rt.jar=61319:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\hp\IdeaProjects\practice\out\production\practice DSA1  
 My Dream Menu:  
 [Fries, sandwich, custurd]  
  
 Process finished with exit code 0

**TASK NO:2**

Write a java program whichwill take age and display the theatre ticket cost

•For adult(age>13) ticket is $10

•for the child(age<13) ticket cost is $5

•there is a special discount for senior citizens(age>65)and ticket is $7 for them

public class condition {  
 public static void main(String[] args) {  
 Scanner s=new Scanner(System.*in*);  
 System.*out*.print("Enter age: ");  
 int age= s.nextInt();  
 if (age>13 && age<65){  
 System.*out*.println("Ticket price is: 10$");  
 } else if (age<13 && age>0) {  
 System.*out*.println("ticket price is 5$");  
 }else if (age>=65){  
 System.*out*.println("ticket price is: 7$");  
 }else  
 System.*out*.println("Invalid age");  
  
 }  
}

**OUTPUT:**

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\lib\idea\_rt.jar=61341:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\hp\IdeaProjects\practice\out\production\practice condition  
 Enter age: 45  
 Ticket price is: 10$  
  
 Process finished with exit code 0

**TASK NO:3**

* Creative one question, three answer choices (one is correct)
* Ask the user a question
* Output answer choices to questions
* Collect user’s input (that is, the answer that provide)
* Print out the appropriate message to the user (depending on if they were correct or incorrect).

import java.util.Scanner;  
  
public class Task3 {  
 public static void main(String[] args) {  
 String question="choose the correct value of the gravity";  
 double a=8.9,b=9.8,c=10.8,choice;  
 System.*out*.println(question);  
 System.*out*.println("a:"+a);  
 System.*out*.println("b:"+b);  
 System.*out*.println("c"+c);  
 Scanner input=new Scanner(System.*in*);  
 System.*out*.println("enter the correct choice");  
 choice=input.nextDouble();  
 if (choice==b){  
 System.*out*.println("correct Answer");  
 }else {  
 System.*out*.println("WRONG!!");  
 }  
  
 }  
}

**OUTPUT:**

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\lib\idea\_rt.jar=61354:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\hp\IdeaProjects\practice\out\production\practice Task3  
 choose the correct value of the gravity  
 a:8.9  
 b:9.8  
 c10.8  
 enter the correct choice  
 8.9  
 WRONG!!  
  
 Process finished with exit code 0

**TASK NO:4**

* **Input 1:** number of hours the employee works per week
* **Input 2:** amount of money the employee makes per hour
* **Output:** employee’s gross yearly salary.
* Do not worry about taxes, , 401k savings or anything that might come out of an employee’s paycheck for this example
* **Bonus:** can you add an input that accounts for vacation days?
* The employee does not get paid for the vacation days
* One vacation day= eight hours of work

import java.util.Scanner;  
  
 class Bonus {  
 public static void main(String[] args) {  
 Scanner input=new Scanner(System.*in*);  
 System.*out*.print("Enter the working hours per week: ");  
 int hours=input.nextInt();  
 System.*out*.println("Enter Salary per an hour");  
 int salary=input.nextInt();  
 System.*out*.println("Enter vacation days");  
 int vacation=input.nextInt();  
 System.*out*.println("Total yearly salary: "+ (hours\*salary\*52));  
 System.*out*.println("Bonus: "+((hours\*salary\*52)-((vacation\*8)\*salary)));  
 }  
}

**OUTPUT:**

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\lib\idea\_rt.jar=60134:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\hp\IdeaProjects\practice\out\production\practice Bonus  
 Enter the working hours per week: 12  
 Enter Salary per an hour  
 3000  
 Enter vacation days  
 2  
 Total yearly salary: 1872000  
 Bonus: 1824000  
  
 Process finished with exit code 0