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| --- | --- |
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| Roll Number | 21SW036 |
| Section # | 03 |
| Lab # | 01 |

**Task#01**

Question statement

Implement the following classes:

1.Employeeclass (Employee.java)

2.MenuBuilder class (MenuBuilder.java)

# Employee.Java

**Code:**

public 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 is: "+age);  
  
 // Create a variable called isAManager of type boolean and assign it the value  
 // true.  
 boolean isAManager = true;  
  
 // Print the isAManager variable to the console.  
 System.*out*.println(isAManager);  
  
 // Create a variable called yearsOfService of type double and assign it the  
 // value 2.5.  
 double yearsOfService = 2.5;  
  
 // Print the yearsOfService variable to the console.  
 System.*out*.println(yearsOfService);  
  
 // 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.  
 // 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, secondBonus = 22.00, thirdBonus = 35.00;  
  
 // Print out the sum of the variables called firstBonus, secondBonus and  
 // thirdBonus.  
 System.*out*.println("Sum of vars is "+(firstBonus + secondBonus + thirdBonus));  
  
 }  
  
}

**Output: Graphical user interface, text

Description automatically generated**

# MenuBuilder.Java

**Code:**

import java.util.ArrayList;  
  
public 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 = "Dream Menu";  
  
 // Print the menuTitle variable to the console.  
 System.*out*.println("Menu Title is "+menuTitle);  
  
 // Create a variable called menu of type ArrayList.  
 ArrayList<String> menu = new ArrayList<>();  
  
 // Create a variable called starter of type string and pass in the name of  
 // your favourite starter.  
 String starter = "Juice";  
  
 // 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 = "Full Stack Development";  
  
 // 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 = "Jelly";  
  
 // Add the dessert variable to the ArrayList called menu.  
 menu.add(dessert);  
  
 // Print the menu variable to the console.  
 System.*out*.println("Menu List is ");  
 System.*out*.println(menu);  
 }  
}

**Output:**

Text

Description automatically generated

**Task#02**

Question statement

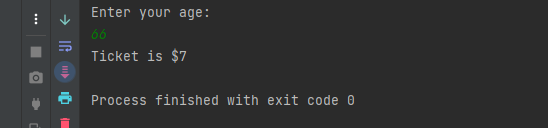
Write a java program which will take age and display the theatre ticket cost for adult(age>13) ticket is $10•for the child(age<13) ticket cost is $5•there is a special discount for senior citizens(age>65)and ticket is $7 for them

# Age.Java

**Code:**

import java.util.Scanner;  
  
public class Age {  
 public static void main(String[] args) {  
  
 int age;  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.println("Enter your age: ");  
 age = sc.nextInt();  
  
 if(age<=13){  
 System.*out*.println("Ticket is $5");  
 } else if(age>13 && age<=65){  
 System.*out*.println("Ticket is $10");  
 } else if(age>65){  
 System.*out*.println("Ticket is $7");  
 }  
  
 } // end of main() method  
} // end of program

**Output:**

****

**Output:**

**Graphical user interface, text

Description automatically generated**

**Task#03**

Question statement

Implement a Multiple-Choice Question

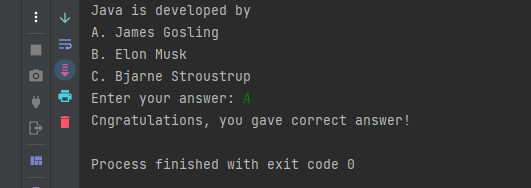
* Creative: One Question, Three Answer Choices(one correct)
* Ask the user a question
* Output answer choices to the User.
* Collect user’s Input(that is, they answer they provide)
* Point out appropriate message to the user (depending on their answer)

# MCQs.Java

**Code:**

import java.util.Scanner;  
  
public class MCQs {  
 public static void main(String[] args) {  
  
 Scanner sc = new Scanner(System.*in*);  
 String choiceOne, choiceTwo, choiceThree;  
 String answer;  
  
 choiceOne = "James Gosling"; choiceTwo = "Elon Musk"; choiceThree = "Bjarne Stroustrup";  
  
 System.*out*.println("Java is developed by ");  
 System.*out*.println("A. " +choiceOne);  
 System.*out*.println("B. " +choiceTwo);  
 System.*out*.println("C. " +choiceThree);  
  
 answer = sc.next();  
  
  
 if(answer.equalsIgnoreCase("a") || answer.equals("1")){  
 System.*out*.println("Cngratulations, you gave correct answer!");  
 } else {  
 System.*out*.println("Sorry, Correct answer is "+choiceOne);  
 }  
  
 } // end of main() method  
} // end of program

**Output:**

****

**Output:**

**Text

Description automatically generated**

**Task#04**

Question statement

Calculate an Employee’s Salary

**Input 01:** Number of hours the employee works per week

**Input 02:** Amount the money the Employee makes per hour

**Output:** Employee’s Gross Yearly Salary

**Bonus:** Can you add an input that accounts for vacation days

* The employee does not get paid for vacation days
* One vacation day = Eight hours of work

# EmployeeSalary.Java

**Code:**

import java.util.Scanner;  
  
public class EmployeeSalary {  
 public static void main(String[] args) {  
  
 Scanner sc = new Scanner(System.*in*);  
 int hours, money, salary;  
  
 System.*out*.print("Enter number of hours per week: ");  
 hours = sc.nextInt();  
 System.*out*.print("Enter amount of money per hour: ");  
 money = sc.nextInt();  
  
 salary = hours \* money;  
 System.*out*.println("$"+money+"per hour X "+hours+" hours per week = $"+salary);  
 System.*out*.println("Gross yearly Salary is $"+salary+"\*"+ 52+" = "+salary\*52);  
  
 int noOfVacationDays, vacationHours;  
 System.*out*.print("Enter number of vacation days: ");  
 noOfVacationDays = sc.nextInt();  
 vacationHours = 8 \* noOfVacationDays;  
 int remainingSalary = vacationHours \* money;  
 System.*out*.println("Gross yearly salary after excluding vacation hours is $"+((salary\*52)-remainingSalary));  
 } // end of main() method  
} // end of program

**Output:**

**Text

Description automatically generated**