CSC262 Java Programming

**Assignment Solution**

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| Assignment Week# | 1 |

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# How to submit your Assignment

After filling all the parts in this file, please follow the following steps.

1. Add your name and ID to the first page.
2. Save the file in the original format (Docx or Doc)

(please do not convert to other file formats e.g. PDF, ZIP, RAR, …).

1. Rename the file as

*YOUR* ***First*** *Name - YOUR* ***Last*** *Name- YOUR student ID-* CSC262*.docx*

**Example:**

John – Smith - 234566435 - CSC262.docx

1. Upload the file and submit it (only using Blackboard)

# HW 1 - Solution

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| Your JAVA code for this HW |
| public class SquareCube {  public static void main(String[] args) {  System.out.println("\nNumber Square Cube");  int n = 0;  System.out.println("\n"+n+" "+n\*n+" "+n\*n\*n);  n = 1;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 2;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 3;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 4;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 5;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 6;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 7;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 8;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 9;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  n = 10;  System.out.println(n+" "+n\*n+" "+n\*n\*n);  }    } |

Run the code and insert the result in the following box.

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| Sample Run Result |
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# HW 2 - Solution

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| Your JAVA code for this HW |
| import java.util.Scanner;  public class BMICalculator {  public static void main(String[] args) {  Scanner keyboard = new Scanner(System.in);  final int CONVERSION\_FACTOR = 703;  int weight\_in\_pounds, height\_in\_inches;  double BMI;  System.out.println("Enter your weight in pounds: ");  weight\_in\_pounds = keyboard.nextInt();  System.out.println("Enter your height in inches: ");  height\_in\_inches = keyboard.nextInt();  BMI = (double)(weight\_in\_pounds\*CONVERSION\_FACTOR)/(height\_in\_inches\*height\_in\_inches);  String indResult;  if (BMI < 18.5) {  indResult = "Underweight";  } else if (BMI >= 18.5 && BMI <= 24.9) {  indResult = "Normal";  } else if (BMI >= 25 && BMI <= 29.9) {  indResult = "Overweight";  } else {  indResult = "Obese";  }  System.out.println("BMI Result: " +BMI);  System.out.println("Department of Health and Human Services/National Institute of Health");  System.out.println("--------------------------------------------------------------------");  System.out.println("| BMI Values |");  System.out.println("| Underweight: less than 18.5 |");  System.out.println("| Normal: between 18.5 and 24.9 |");  System.out.println("| Overweight: between 25 and 29.9 |");  System.out.println("| Obese: 30 or greater |");  System.out.println("--------------------------------------------------------------------");  System.out.println("Your individual result by this chart: " + indResult);  }  } |

Run the code and insert the result in the following box.

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| Sample Run Result |
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# HW 3 - Solution

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| Your JAVA code for this HW |
| import java.util.Scanner;  public class AccountTest {  public static void main(String[] args) {  double withdrawalAmount;  Account account1 = new Account("Jane Doe", 1000.00);  System.out.println(account1.getName() + " balance: " + account1.getBalance());  Scanner in = new Scanner (System.in);  System.out.println("Enter the amount that you would like to withdrawal: ");  withdrawalAmount = in.nextDouble();  System.out.printf("Subtracting %.2f from account balance%n", withdrawalAmount);  account1.withdraw(withdrawalAmount);  System.out.println(account1.getName() + "'s balance: " + account1.getBalance());  }    }  class Account {  private String name;  private double balance;  public Account (String name, double balance) {  this.name = name;  if (balance > 0.0) {  this.balance = balance;  }  }    public void deposit (double depositAmount) {  if (depositAmount > 0.0) {  balance = balance + depositAmount;  }  }    public void withdraw (double withdrawalAmount) {  if (balance > withdrawalAmount) {  balance = balance - withdrawalAmount;  } else {  System.out.println("Withdrawal amount exceeded account balance");  }  }    public double getBalance() {  return balance;  }    public void setName(String name) {  this.name = name;  }    public String getName() {  return name;  }  } |

Run the code and insert the result in the following box.

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| Sample Run Result |
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# HW 4 - Solution

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| Your JAVA code for this HW |
| package employeetest;  class Employee {  // The three instance var  private String firstName, lastName;  private double monthlySalary;  // Constructor  public Employee (String firstName, String lastName, double monthlySalary) {  // Initilization  setFirstName(firstName);  setLastName(lastName);  setMonthlySalary(monthlySalary);  }    // Accesors and Mutators  public void setFirstName(String firstName) {  this.firstName = firstName;  }    public void setLastName(String lastName) {  this.lastName = lastName;  }    public void setMonthlySalary(double salary) {  if (salary > 0) {  this.monthlySalary = salary;  } else {  System.out.println("Invalid entry: the salary should be a positive number");  }  }    public String getFirstName() {  return firstName;  }    public String getLastName() {  return lastName;  }    public double getMonthlySalary() {  return monthlySalary;  }  }  public class EmployeeTest {  public static void main(String[] args) {  Employee employeeA = new Employee("Jose", "Toledo", 82000.00);  Employee employeeB = new Employee("Tim", "Cook", 100289.00);  System.out.println("This is your first employee's information");  System.out.println("-----------------------------------------");  System.out.println("First name: " + employeeA.getFirstName() + "\nLast Name: " + employeeA.getLastName() + "\nMonthlySalary: $" + employeeA.getMonthlySalary() + "\nYearly Salary: $" + (employeeA.getMonthlySalary()\*12) + "\nNow we will give " + employeeA.getFirstName() + " a raise of 10% which comes out to: " + (((employeeA.getMonthlySalary() \* 1.1))\*12));  System.out.println("-----------------------------------------");  System.out.println("This is your second employee's information");  System.out.println("-----------------------------------------");  System.out.println("First name: " + employeeB.getFirstName() + "\nLast Name: " + employeeB.getLastName() + "\nMonthlySalary: $" + employeeB.getMonthlySalary() + "\nYearly Salary: $" + (employeeB.getMonthlySalary()\*12) + "\nNow we will give " + employeeB.getFirstName() + " a raise of 10% which comes out to: " + (((employeeB.getMonthlySalary() \* 1.1))\*12));  }  } |

Run the code and insert the result in the following box.

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# HW 5 - Solution

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| Your JAVA code for this HW |
| import java.util.Scanner;  public class Triangle {  public static void main(String[] args) {  double side1, side2, side3;  Scanner in = new Scanner(System.in);  System.out.println("You will now enter three nonzero values");  // Three sides  System.out.println("Enter side 1: ");  side1 = in.nextDouble();  System.out.println("Enter side 2: ");  side2 = in.nextDouble();  System.out.println("Enter side 3: ");  side3 = in.nextDouble();    // Test of the triangle  if (side1 + side2 > side3) {  if (side1 + side3 > side2) {  if (side2 + side3 > side1) {  System.out.println("Those numbers can be the sides of a triangle");  } else {  System.out.println("These cannot be the sides of a triangle.");  }  } else {  System.out.println("These cannot be the sides of a triangle.");  }  }  }  } |

Run the code and insert the result in the following box.

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# HW 6 - Solution

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| Your JAVA code for this HW |
| import java.util.Scanner;  public class Factorial {  public static void main(String[] args) {  int integer, factorial;  Scanner in = new Scanner(System.in);  System.out.println("Please enter a non-negative number: ");  integer = in.nextInt();  while (integer < 0) {  System.out.println("Please enter a non-negative number: ");  integer = in.nextInt();  }    if (integer == 0) {  System.out.println("The factorial value of 0 is 1");  } else {  factorial = 1;  for(int counter = integer; counter >= 1; counter--) {  factorial = factorial \* counter;  }  System.out.println(integer + "!: " + factorial);  }  }  } |

Run the code and insert the result in the following box.

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| Sample Run Result |
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