Assignment No : 4

Que 1:

```
package assignment4;


class Food
{
String foodName;
String cuisine;
String foodType;
int quantityAvailable;
double unitPrice;
}
class Q1
{
public static void main(String[] args)
{
Food fd=new Food();
fd.foodName="Panner-65";
fd.foodType="Veg";
fd.quantityAvailable=5;
fd.unitPrice=40;
System.out.println(fd.foodName+" "+fd.foodType+" "+fd. quantityAvailable+"
"+fd.unitPrice);
}
}
```

Que 2:

```
package assignment4;
import java.util.Scanner;
class Calculator {
    public double findAverage(int num1, int num2, int num3) {
        double average = (num1 + num2 + num3) / 3.0;
        return Math.round(average * 100.0) / 100.0;
    }
}
public class Q2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter three numbers: ");
        int num1 = sc.nextInt();
        int num2 = sc.nextInt();
        int num3 = sc.nextInt();

        Calculator calculator = new Calculator();

        double result = calculator.findAverage(num1, num2, num3);
        System.out.println("Average: " + result);
    }
}
```

Que 3:

```
package assignment4;
class Area{
        public double circle_a(double r) {
                return 3.14*r*r;
        }
   public double square_a(double s) {
                return s*s;
        }
   public double rectangle_a(double l,double b) {
          return l*b;
   }
}
public class Q3 {
  public static void main(String args[])
  {
          Area a=new Area();
          System.out.println("Area of Circle : "+a.circle_a(5));
          System.out.println("Area of Square:  "+a.square_a(4));
          System.out.println("Area of Rectangle : "+a.rectangle_a(5,4));
  }
}
```

Que 4:

```
package assignment4;
class Order {
    private String foodName;
    private String cuisine;
    private String foodType;
    private int quantity;
    private double price;
    private double totalPrice;

    public Order(String foodName, String cuisine, String foodType, int quantity,
double price) {
        this.foodName = foodName;
        this.cuisine = cuisine;
        this.foodType = foodType;
        this.quantity = quantity;
        this.price = price;
    }

    public double calculateTotalPrice(int unitPrice) {
        double basePrice = unitPrice * quantity;
        totalPrice = basePrice + (0.05 * basePrice);
        return totalPrice;
    }

    public String getFoodName() {
        return foodName;
```

```
    }

    public String getCuisine() {
        return cuisine;
    }

    public String getFoodType() {
        return foodType;
    }

    public int getQuantity() {
        return quantity;
    }

    public double getPrice() {
        return price;
    }

    public double getTotalPrice() {
        return totalPrice;
    }
}

public class Q4 {
        public static void main(String[] args) {
```

```
        Order order = new Order("Cheeze Pizza", "Italian", "Pizza", 1, 300.0);
        double totalPrice = order.calculateTotalPrice(300);

        System.out.println("Order details ---> ");
        System.out.println("Ordered food: " + order.getFoodName());
        System.out.println("Cuisine: " + order.getCuisine());
        System.out.println("Food type: " + order.getFoodType());
        System.out.println("Quantity: " + order.getQuantity());
        System.out.println("Price: " + order.getPrice());
        System.out.println("Total Price: " + totalPrice);
    }
}
```

Que 5:

```
package assignment4;
class sumOfDigits{
    public int a,b,s=0;
    sumOfDigits(int a){
        this.a=a;
    }
    void sum() {
        while(a!=0) {
            b=a%10;
            s=s+b;
```

```
                a=a/10;
            }
            System.out.println("Sum of digits : "+s);
        }

}
public class Q5 {
        public static void main(String args[]) {
            sumOfDigits s =new sumOfDigits(123);
            s.sum();
        }
}
```

Que 6:

```
package assignment4;

public class Q6 {
   public int add(int a, int b) {
      return a + b;
   }
   public int add(int a, int b, int c) {
      return a + b + c;
   }
   public double add(double a, double b) {
```

```
        return a + b;
    }

    public static void main(String[] args) {
        Q6 example = new Q6();

        int sum1 = example.add(10, 20);
        System.out.println("Sum of 10 and 20 (int): " + sum1);

        int sum2 = example.add(10, 20, 30);
        System.out.println("Sum of 10, 20, and 30 (int): " + sum2);

        double sum3 = example.add(10.5, 20.5);
        System.out.println("Sum of 10.5 and 20.5 (double): " + sum3);
    }
}
```

Que 7:

```
package assignment4;

class Foods{
String foodName;
String cuisine;
String foodType;
```

```
int quantityAvailable;
double unitPrice;


Foods(String foodName,String cuisine,String foodType,int
quantityAvailable,double unitPrice){
        this.foodName=foodName;
        this.cuisine=cuisine;
        this.foodType=foodType;
        this.quantityAvailable=quantityAvailable;
        this.unitPrice=unitPrice;
}
void display() {
System.out.println(foodName+" "+foodType+" "+quantityAvailable+"
"+unitPrice);
}
}


public class Q7
{
public static void main(String[] args)
{
Foods fd = new Foods("Panner-65","","Veg",5,40);
fd.display();
}
}
```

Que 8:

```
package assignment4;
class Book {
 String title;
 String author;
 double price;
 int pages;
 Book(String title, String author, double price, int pages) {
    this.title = title;
    this.author = author;
    this.price = price;
    this.pages = pages;
 }
 Book(String title, String author) {
    this.title = title;
    this.author = author;
    this.price = 0.0;
    this.pages = 0;
 }
 Book() {
    this.title = "Unknown";
    this.author = "Unknown";
    this.price = 0.0;
    this.pages = 0;
 }
```

```
 void display() {
    System.out.println("Title: " + title);
    System.out.println("Author: " + author);
    System.out.println("Price: $" + price);
    System.out.println("Pages: " + pages);
 }
}

public class Q8 {
 public static void main(String[] args) {

    Book book1 = new Book("Java Programming", "John Doe", 29.99, 500);
    book1.display();
    System.out.println();

    Book book2 = new Book("Python Programming", "Jane Doe");
    book2.display();
    System.out.println();

    Book book3 = new Book();
    book3.display();
 }
}
```

Que 9:

```
package assignment4;
import java.util.Scanner;
class ArithmeticOperation {
   public double add(double num1,double num2) { return num1 + num2; }
   public double sub(double num1,double num2) { return num1 - num2; }
   public double mul(double num1,double num2) { return num1 * num2; }
   public double div(double num1,double num2) {
      if (num2 == 0) throw new ArithmeticException("Division by zero is not allowed.");
      return num1 / num2;
   }
}

public class Q9
{
   public static void main(String[] args) {

      Scanner scanner = new Scanner(System.in);
      System.out.print("Enter the first number: ");
      double num1 = scanner.nextDouble();
      System.out.print("Enter the second number: ");
      double num2 = scanner.nextDouble();

      ArithmeticOperation op = new ArithmeticOperation();
      System.out.println("Addition: " + op.add(num1,num2));
```

```
        System.out.println("Subtraction: " + op.sub(num1,num2));
        System.out.println("Multiplication: " + op.mul(num1,num2));
        System.out.println("Division: " + op.div(num1,num2));
    }
}
```