LAB WORKSHEET -04

QUESTION -01

```
package Q_01;

import java.util.Scanner;

public class Q_01 {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);

        System.out.print("Enter the first number: ");
      int num1 = scanner.nextInt();

      System.out.print("Enter the second number: ");
      int num2 = scanner.nextInt();

      System.out.print("Enter the third number: ");
      int num3 = scanner.nextInt();

      int smallest;


      if (num1 <= num2 && num1 <= num3) {
         smallest = num1;
      } else if (num2 <= num1 && num2 <= num3) {
         smallest = num2;
      } else {
         smallest = num3;
      }

      System.out.println("The smallest number is: " + smallest);

      scanner.close();
   }
}
```

QUESTION -02

```
package Q_02;

import java.util.Scanner;

public class Q_02 {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);

      System.out.println("0. Magenta");
      System.out.println("1. Cyan");
      System.out.println("2. Red");
      System.out.println("3. Blue");
      System.out.println("4. Green");
      System.out.println("Select one color from the above list:");

      int selection = scanner.nextInt();

      switch (selection) {
         case 0:
            System.out.println("You selected Magenta");
            break;
         case 1:
            System.out.println("You selected Cyan");
            break;
         case 2:
            System.out.println("You selected Red");
            break;
         case 3:
            System.out.println("You selected Blue");
            break;
         case 4:
            System.out.println("You selected Green");
            break;
         default:
            System.out.println("Invalid selection");
      }

      scanner.close();
   }
}
```

QUESTION -03

```
package Q_03;

import java.util.Scanner;

public class Q_03 {
   public static void main(String[] args) {

      Scanner scanner = new Scanner(System.in);


      System.out.print("Enter a power of 10 (6, 9, 12, etc.): ");
      int power = scanner.nextInt();


      switch (power) {
         case 6:
            System.out.println("Million");
            break;
         case 9:
            System.out.println("Billion");
            break;
         case 12:
            System.out.println("Trillion");
            break;
         case 15:
            System.out.println("Quadrillion");
            break;
         case 18:
            System.out.println("Quintillion");
            break;
         case 21:
            System.out.println("Sextillion");
            break;
         case 30:
            System.out.println("Nonillion");
            break;
         case 100:
            System.out.println("Googol");
            break;
         default:
            System.out.println("No corresponding word for this power of 10.");
```

```
    }


    scanner.close();
  }
}
```

QUESTION -04

```
package Q_04;

import java.util.Scanner;

public class Q_04 {
  public static void main(String[] args) {

    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter a year: ");
    int year = scanner.nextInt();



    if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {
      System.out.println(year + " is a Leap Year.");
    } else {
      System.out.println(year + " is Not a Leap Year.");
    }

    scanner.close();
  }
}
```

QUESTION -05

```
package Q_05;

import java.util.Scanner;

public class Q_05 {

   public static void main(String[] args) {

      String[] entrees = {"Tofu Burger", "Cajun Chicken", "Buffalo Wings", "Rainbow Fillet"};
      double[] entreePrices = {3.49, 4.59, 3.99, 2.99};

      String[] sideDishes = {"Rice Cracker", "No-Salt Fries", "Zucchini", "Brown Rice"};
      double[] sideDishPrices = {0.79, 0.69, 1.09, 0.59};

      String[] drinks = {"Cafe Mocha", "Cafe Latte", "Espresso", "Oolong Tea"};
      double[] drinkPrices = {1.99, 1.90, 2.49, 0.99};


      Scanner scanner = new Scanner(System.in);


      System.out.println("Welcome to MyJava Lo-Fat Burgers! Here is our menu:");


      int entreeChoice = getValidChoice(scanner, entrees, "entree");


      int sideDishChoice = getValidChoice(scanner, sideDishes, "side dish");

      int drinkChoice = getValidChoice(scanner, drinks, "drink");


      double totalPrice = entreePrices[entreeChoice] + sideDishPrices[sideDishChoice] +
drinkPrices[drinkChoice];


      System.out.println("\nYour Order:");
      System.out.println("Entree: " + entrees[entreeChoice] + " - $" +
entreePrices[entreeChoice]);
      System.out.println("Side Dish: " + sideDishes[sideDishChoice] + " - $" +
sideDishPrices[sideDishChoice]);
```

```
        System.out.println("Drink: " + drinks[drinkChoice] + " - $" + drinkPrices[drinkChoice]);


        System.out.printf("\nTotal Price: $%.2f\n", totalPrice);


        scanner.close();
    }


    private static int getValidChoice(Scanner scanner, String[] items, String category) {
        int choice;
        while (true) {
            System.out.println("\n" + category + " options:");
            for (int i = 0; i < items.length; i++) {
                System.out.println((i + 1) + ". " + items[i]);
            }
            System.out.print("Please choose a " + category + " by entering the number (1-" +
items.length + "): ");
            choice = scanner.nextInt() - 1;
            if (choice >= 0 && choice < items.length) {
                break;
            } else {
                System.out.println("Invalid choice! Please enter a number between 1 and " +
items.length + ".");
            }
        }
        return choice;
    }
}
```