**1. Can you find the second highest number in given?**

**package** com.traning.org;

**import** java.util.Scanner;

**public** **class** ArrayNumber {

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

System.***out***.print("Enter the number of elements: ");

**int** n = scanner.nextInt();

**if** (n < 2) {

System.***out***.println("Error: Please enter at least two numbers to find the second highest");

**return**;

}

**int**[] numbers = **new** **int**[n];

System.***out***.println("Enter the elements:");

**for** (**int** i = 0; i < n; i++) {

numbers[i] = scanner.nextInt();

}

scanner.close();

**int** highest = Integer.***MIN\_VALUE***;

**int** secondHighest = Integer.***MIN\_VALUE***;

**for** (**int** number : numbers) {

**if** (number > highest) {

secondHighest = highest;

highest = number;

} **else** **if** (number > secondHighest && number < highest) {

secondHighest = number;

}

}

System.***out***.println("Second highest number: " + secondHighest);

}

}

**OUTPUT:**

A screenshot of a computer

Description automatically generated

**2. Find the first repeating element In the array.**

**import** java.util.HashSet;

**public** **class** RepetingEle {

**public** **static** **int** findFirstRepeatingElement(**int**[] arr) {

HashSet<Integer> set = **new** HashSet<>();

**for** (**int** num : arr) {

**if** (set.contains(num)) {

**return** num;

}

set.add(num);

}

**return** -1;

}

**public** **static** **void** main(String[] args) {

**int**[] arr = {1, 2, 3, 4, 2, 5, 6};

System.***out***.println("Numbers of Elements: 1 2 3 4 2 5 6");

**int** result = *findFirstRepeatingElement*(arr);

**if** (result != -1) {

System.***out***.println("The first repeating element is: " + result);

} **else** {

System.***out***.println("No repeating element found in the array.");

}

}

}

**OUTPUT:**

A screenshot of a computer

Description automatically generated

**3. Write a code to print all the first n prime numbers, where n will be given as input.**

**package** com.traning.org;

**import** java.util.Scanner;

**public** **class** PrimeNumbers {

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

System.***out***.print("Enter the value of n: ");

**int** n = scanner.nextInt();

scanner.close();

**int** count = 0;

**int** num = 2;

System.***out***.println("First " + n + " prime numbers:");

**while** (count < n) {

**if** (*isPrime*(num)) {

System.***out***.print(num + " ");

count++;

}

num++;

}

}

**public** **static** **boolean** isPrime(**int** num) {

**if** (num <= 1) {

**return** **false**;

}

**if** (num <= 3) {

**return** **true**;

}

**if** (num % 2 == 0 || num % 3 == 0) {

**return** **false**;

}

**for** (**int** i = 5; i \* i <= num; i += 6) {

**if** (num % i == 0 || num % (i + 2) == 0) {

**return** **false**;

}

}

**return** **true**;

}

}

**OUTPUT:**

A screenshot of a computer

Description automatically generated

**4. Write a program to get the sum of even and odd numbers in an array.**

**package** com.traning.org;

**public** **class** EvenOdd {

**public** **static** **void** main(String[] args) {

**int**[] no = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

**int** sumEven = 0;

**int** sumOdd = 0;

**for** (**int** number : no) {

**if** (number % 2 == 0) {

sumEven += number;

} **else** {

sumOdd += number;

}

}

System.***out***.println("Array: " + java.util.Arrays.*toString*(no));

System.***out***.println("Sum of even numbers: " + sumEven);

System.***out***.println("Sum of odd numbers: " + sumOdd);

}

}

**OUTPUT:**

A screenshot of a computer

Description automatically generated

**5. Write a program to print all the elements of Fibonacci series**

**package** com.traning.org;

**import** java.util.Scanner;

**public** **class** Fibonacci {

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

System.***out***.print("Enter the Number: ");

**int** n = scanner.nextInt();

scanner.close();

**int** firstTerm = 0, secondTerm = 1;

System.***out***.println("Fibonacci Series (First " + n + " Numbers):");

**for** (**int** i = 0; i < n; i++) {

System.***out***.print(firstTerm + " ");

**int** nextTerm = firstTerm + secondTerm;

firstTerm = secondTerm;

secondTerm = nextTerm;

}

}

}

**OUTPUT:**

A screenshot of a computer

Description automatically generated