Home Tasks

Task 6:

Create an Array list that:

- Ask the user to enter 5 numbers as input
- Check if the list contains a prime number, then display that the list has prime numbers and display the sum of the numbers present at even indices like elements present at 0th, 2nd and 4th indices will be added.
- If the list doesn't contain prime numbers, then display the sum of the numbers present at odd indices like elements present at 1st and 3rd indices will be added.

Task 7:

Create a Java class called "Person" to represent a person's name. The Person class should have the following properties and behaviors:

- A final instance variable fullName of type String, on the basis of understanding initialize with this variable in way that will not generate the error.
- A method named getFullName() that returns the full name.
- A method named setFullName(String name) that allows setting the full name only if it has not been set before (i.e., fullName is not already initialized).

Implement the Person class with the described behavior and demonstrate its usage in a separate main class and method.

Task 8:

Design a BankAccount class with the following attributes:

- accountNumber (an integer)
- accountHolderName (a string)
- balance (a double)
- Implement a static variable called total Accounts inside the Bank Account class to keep track of the total number of bank accounts created.
- Write a constructor for the BankAccount class that takes the account number, account holder's name, and initial balance as parameters. In this constructor, increment the totalAccounts variable by 1 to reflect the creation of a new account.
- Implement a static method called getTotalAccounts() that returns the total number of bank accounts created.
- Create three instances of the BankAccount class to represent three different accounts, each with different account numbers, names, and initial balances. Ensure that the totalAccounts variable accurately reflects the total number of accounts created.

Write a Java program that demonstrates the use of your BankAccount class. Create and display the details of several bank accounts, including the total number of accounts created.