Tugas Praktikun Pemrograman Berorientasi Objek

Disusun Oleh :

Agil Deriansyah Hasan
4522210125

Dosen Pengampu :

Adi Wahyu Pribadi , S.Si., M.Kom
Prak. Pemrograman Berorientasi Objek - A

S1-Teknik Informatika
Fakultas Teknik
Universitas Pancasila 2023/2024

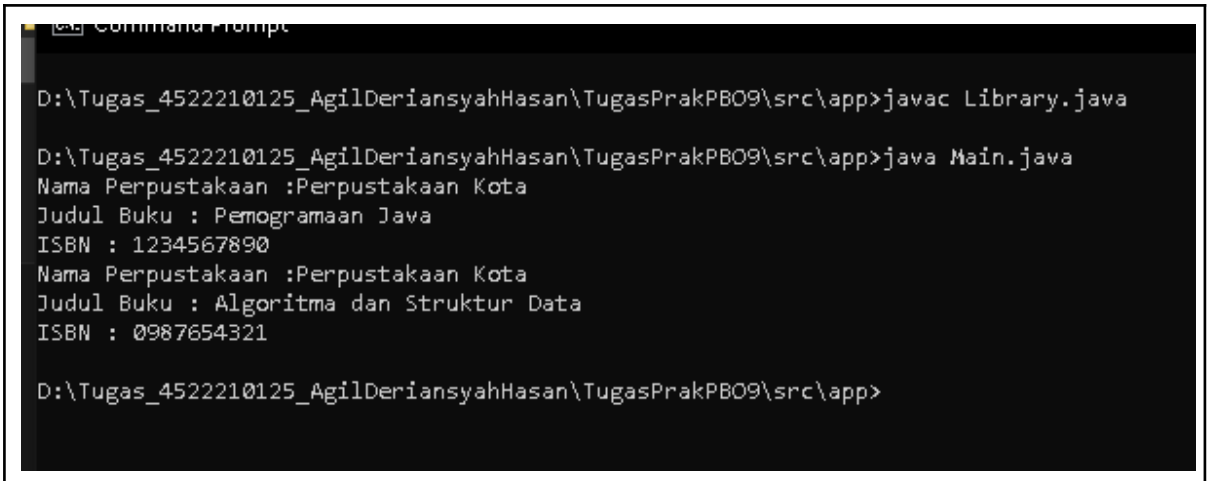
Laporan

Libary.java

```
public class Library {
    static String libraryName;

    public static String getLibraryName(){
        return libraryName;
    }
    static class Book{
        private String title;
        private String author;
        private String isbn;


        public Book(String title, String author, String isbn){
            this.title=title;
            this.author=author;
            this.isbn=isbn;
        }

        public void displayBookInfo(){
            System.out.println("Nama Perpustakaan :" +
Library.getLibraryName());
            System.out.println("Judul Buku : " + title);
            System.out.println("ISBN : " + isbn);
        }
    }
}
```

Main.java

```
public class Main {
    public static void main(String[] args){
        //Mengatur nama perpustakaan
        Library.libraryName = "Perpustakaan Kota";

        //Membuat Objek buku
        Library.Book book1 = new Library.Book("Pemogramaan
Java","Budi","1234567890");
        Library.Book book2 = new Library.Book("Algoritma dan Struktur
Data", "Siti", "0987654321");

        //Menampilkan Informasi buku
        book1.displayBookInfo();
        book2.displayBookInfo();
    }
}
```



ATM.java

```
public class ATM {
    private String location;
    public ATM(String location) {
        this.location = location;
    }
    class BankAccount {
        private String accountNumber;
        private double balance;
            public BankAccount(String accountNumber) {
                this.accountNumber = accountNumber;
                this.balance = 0.0;
            }
            public void deposit(double amount) {
                if (amount > 0) {
                    balance += amount;
                    System.out.println("Deposit: Rp" +
String.format("%,.2f", amount));
                } else {
                    System.out.println("Jumlah deposit harus
positif.");
                }
            }
            public void withdraw(double amount) {
                if (amount > 0 && amount <= balance) {
                    balance -= amount;
                    System.out.println("Withdraw: Rp" +
                    String.format("%,.2f", amount));
                } else {
                    System.out.println("Penarikan tidak valid.");
                }
```

```
            }
            public void displayAccountInfo() {
                System.out.println("Lokasi ATM: " +
ATM.this.location);
                System.out.println("Nomor Akun: " + accountNumber);
                System.out.println("Saldo Sekarang: Rp" +
String.format("%,.2f", balance));
                System.out.println("-----------------------------");
            }
    }
}
```

Main.java

```
public class Main {
    public static void main(String[] args){
        //Mengatur nama perpustakaan
        Library.libraryName = "Perpustakaan Kota";

        //Membuat Objek buku
        Library.Book book1 = new Library.Book("Pemogramaan
Java","Budi","1234567890");
        Library.Book book2 = new Library.Book("Algoritma dan Struktur
Data", "Siti", "0987654321");

        //Menampilkan Informasi buku
        book1.displayBookInfo();
        book2.displayBookInfo();
    }
}
```

```
D:\Tugas_4522210125_AgilDeriansyahHasan\TugasPrakPBO9\src\com>javac ATM.java Main.java

D:\Tugas_4522210125_AgilDeriansyahHasan\TugasPrakPBO9\src\com>java Main.java
Lokasi ATM: Jakarta
Nomor Akun: 0011223344
Saldo Sekarang: Rp0.00
-----------------------------
Deposit: Rp1,000,000.00
Lokasi ATM: Jakarta
Nomor Akun: 0011223344
Saldo Sekarang: Rp1,000,000.00
-----------------------------
Withdraw: Rp500,000.00
Lokasi ATM: Jakarta
Nomor Akun: 0011223344
Saldo Sekarang: Rp500,000.00
-----------------------------
```

FactorialCalculator.java

```
import java.util.Scanner;

public class FactorialCalculator {
    public void calculate(int number) {
        //Local Inner Class
        class Factorial {
            private int n;
            public Factorial(int n) {
            this.n = n;
            }
        public int getResult() {
            int result = 1;
            for (int i = 2; i <= n; i ++) {
            result *= i;
        }
            return result;
    }
    }
        //Membuat objek dari Local Inner Class
        Factorial factorial = new Factorial(number);
        int result = factorial.getResult();
        System.out.println("Faktorial dari " + number + " adalah " +
result);
    }
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Masukkan angka: ");
        int num = scanner.nextInt();
        FactorialCalculator calculator = new
        FactorialCalculator();
        calculator.calculate(num);
        scanner.close();
    }
}
```

```
Command Prompt

D:\Tugas_4522210125_AgilDeriansyahHasan\TugasPrakPBO9\src\util>javac FactorialCalculator.java

D:\Tugas_4522210125_AgilDeriansyahHasan\TugasPrakPBO9\src\util>java FactorialCalculator.java
Masukkan angka: 5
Faktorial dari 5 adalah 120

D:\Tugas_4522210125_AgilDeriansyahHasan\TugasPrakPBO9\src\util>
```

Tugas

SimpleTimer.java

```java
package TugasPrakPBO8.util;

import java.util.Timer;
import java.util.TimerTask;

public class SimpleTimer {
    public static void main(String[] args) {
        System.out.println("Timer dimulai .");
        Timer timer = new Timer();
        TimerTask task = new TimerTask() {
        int counter = 1;
        @Override
        public void run() {
            if (counter <= 5) {
                System.out.println("Detik ke-" + counter);
                counter++;
            } else {
                System.out.println("Timer selesai.");
                timer.cancel();
            }
        }
    };
//Menjadwalkan tugas setiap 1 detik (1000 ms)
timer.scheduleAtFixedRate(task, 0, 1000);
    }
}
```

```
D:\Tugas_4522210125_AgilDeriansyahHasan\TugasPrakPBO9\src\util>java SimpleTimer.java
Timer dimulai .
Detik ke-1
Detik ke-2
Detik ke-3
Detik ke-4
Detik ke-5
Timer selesai.
```