

POLITEKNIK NEGERI MALANG
TEKNOLOGI INFORMASI
TEKNIK INFORMATIKA



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TI – 1A

16

Class Book

```
package Minggu16;

public class Book {
    public String isbn;
    public String title;

    public Book(){
    }

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

    public String toString(){
        return "ISBN: " + this.isbn + " Title: " + this.title;
    }
}
```

Class Customer

```
package Minggu16;

public class Customer {

    public int id;

    public String name;


    public Customer() {

    }


    public Customer(int id, String name) {

        this.id = id;

        this.name = name;

    }


    public String toString(){

        return "ID: " + this.id + " Nama: " + this.name;

    }

}
```

Class DemoArrayList

```
package Minggu16;

import java.util.ArrayList;

public class DemoArrayList {

    public static void main(String[] args) {

        ArrayList<Customer> customers = new ArrayList<>();

        Customer customer1 = new Customer(1, "Zakia");
        Customer customer2 = new Customer(5, "Budi");

        customers.add(customer1);
        customers.add(customer2);

        customers.add(new Customer(4, "Cica"));
        customers.add(2, new Customer(100, "Rosa"));

        System.out.println(customers.indexOf(customer2));

        Customer customer = customers.get(1);
        System.out.println(customer.name);
        customer.name = "Budi Utomo";

        ArrayList<Customer> newCustomers = new ArrayList<>();
        newCustomers.add(new Customer(201, "Della"));
        newCustomers.add(new Customer(202, "Victor"));
        newCustomers.add(new Customer(203, "Sarah"));

        customers.addAll(newCustomers);
        System.out.println(customers);

        for (Customer cust : customers) {
            System.out.println(cust.toString());
        }
    }
}
```

Class StackDemo

```
package Minggu6;

import java.util.Stack;

public class StackDemo {

    public static void main(String[] args) {

        Book book1 = new Book("1234", "Dasar Pemrograman");

        Book book2 = new Book("7145", "Hafalah Shalat Delisa");

        Book book3 = new Book("3562", "Muhammad Al-Fatih");

        Stack<Book> books = new Stack<>();

        books.push(book1);

        books.push(book2);

        books.push(book3);

        Book temp = books.peek();

        if(temp != null) {

            System.out.println(temp.toString());

        }

        Book temp2 = books.pop();

        if(temp2 != null) {

            System.out.println(temp2.toString());

        }

        for (Book book : books) {

            System.out.println(book.toString());

        }

        System.out.println(books);

    }

}
```

Class TreeSetDemo

```
package Minggu16;

import java.util.TreeSet;

public class TreeSetDemo {

    public static void main(String[] args) {

        TreeSet<String> fruits = new TreeSet<>();

        fruits.add("Mangga");
        fruits.add("Apel");
        fruits.add("Jeruk");
        fruits.add("Jambu");

        for (String temp : fruits) {
            System.out.println(temp);
        }

        for (String fruit : fruits) {
            System.out.println(fruit);
        }

        System.out.println("First: " + fruits.first());
        System.out.println("Last: " + fruits.last());

        fruits.remove("Jeruk");
        System.out.println("Setelah remove " + fruits);

        fruits.pollFirst();
        System.out.println("Setelah poll first " + fruits);

        fruits.pollLast();
        System.out.println("Setelah poll last " + fruits);
    }
}
```

Class Sorting

```
package Minggu16;

import java.util.ArrayList;
import java.util.Collections;
import java.util.List;

public class Sorting {

    public static void main(String[] args) {

        ArrayList<String> daftarSiswa = new ArrayList<>();

        daftarSiswa.add("Zainab");

        daftarSiswa.add("Andi");

        daftarSiswa.add("Rara");

        Collections.sort(daftarSiswa);

        System.out.println(daftarSiswa);

    }

}
```

OUTPUT

DemoArrayList

```
1
Budi
[ID: 1 Nama: Zakia, ID: 5 Nama: Budi Utomo, ID: 100 Nama: Rosa, ID: 4 Nama: Cica, ID: 201 Nama: Della, ID: 202 Nama: Victor, ID: 203 Nama: Sarah]
ID: 1 Nama: Zakia
ID: 5 Nama: Budi Utomo
ID: 100 Nama: Rosa
ID: 4 Nama: Cica
ID: 201 Nama: Della
ID: 202 Nama: Victor
ID: 203 Nama: Sarah
```

StackDemo

```
ISBN: 3562 Title: Muhammad Al-Fatih
ISBN: 3562 Title: Muhammad Al-Fatih
ISBN: 1234 Title: Dasar Pemrograman
ISBN: 7145 Title: Hafalah Shalat Delisa
[ISBN: 1234 Title: Dasar Pemrograman, ISBN: 7145 Title: Hafalah Shalat Delisa]
```

TreeSetDemo

```
Apel  
Jambu  
Jeruk  
Mangga  
Apel  
Jambu  
Jeruk  
Mangga  
First: Apel  
Last: Mangga  
Setelah remove [Apel, Jambu, Mangga]  
Setelah poll first [Jambu, Mangga]  
Setelah poll last [Jambu]
```

Sorting

```
PS E:\Mata Kuliah\Algoritma Struktur Data SMT2> [Andi, Rara, Zainab]
```

Link Github : <https://github.com/Ariqq16/semester2>