

**TUGAS MATA KULIAH
PEMROGRAMAN BERORIENTASI OBJEK PRAKTEK**

LAPORAN UTS

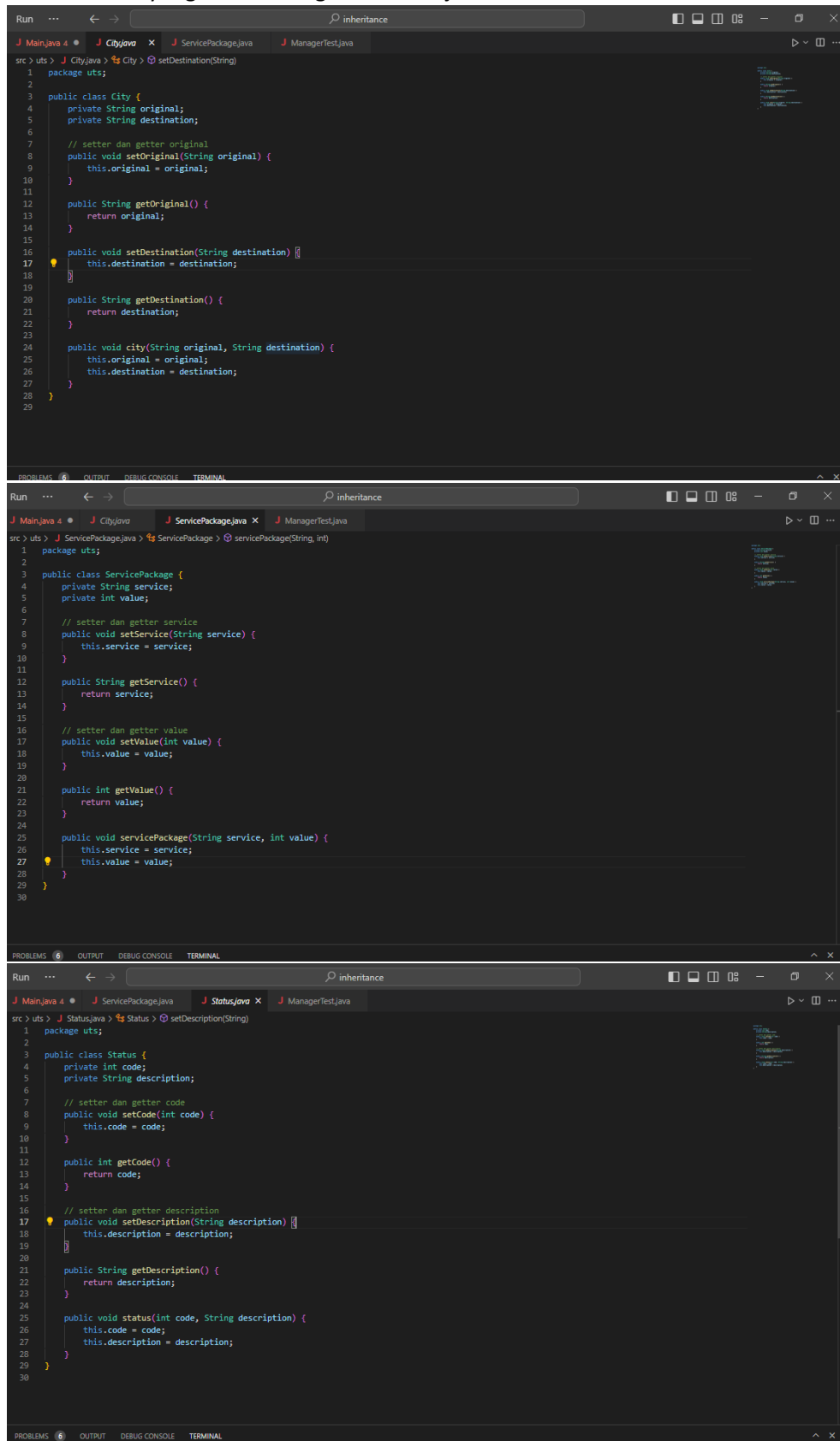


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**JURUSAN TEKNIK KOMPUTER DAN INFORMATIKA PROGRAM
STUDI DIPLOMA III TEKNIK INFORMATIKA POLITEKNIK
NEGERI BANDUNG**

2023

1. Buatlah kelas yang similar dengan struktur json diatas



The image displays three screenshots of an IDE, likely IntelliJ IDEA, showing the implementation of three Java classes: City, ServicePackage, and Status. Each screenshot includes a Run toolbar at the top, a tab bar with the current file, and a terminal window at the bottom.

City.java

```
src > uts > J City.java > City > setDestination(String)
package uts;

public class City {
    private String original;
    private String destination;

    // setter dan getter original
    public void setOriginal(String original) {
        this.original = original;
    }

    public String getOriginal() {
        return original;
    }

    public void setDestination(String destination) {
        this.destination = destination;
    }

    public String getDestination() {
        return destination;
    }

    public void city(String original, String destination) {
        this.original = original;
        this.destination = destination;
    }
}
```

ServicePackage.java

```
src > uts > J ServicePackage.java > ServicePackage > servicePackage(String, int)
package uts;

public class ServicePackage {
    private String service;
    private int value;

    // setter dan getter service
    public void setService(String service) {
        this.service = service;
    }

    public String getService() {
        return service;
    }

    // setter dan getter value
    public void setValue(int value) {
        this.value = value;
    }

    public int getValue() {
        return value;
    }

    public void servicePackage(String service, int value) {
        this.service = service;
        this.value = value;
    }
}
```

Status.java

```
src > uts > J Status.java > Status > setDescription(String)
package uts;

public class Status {
    private int code;
    private String description;

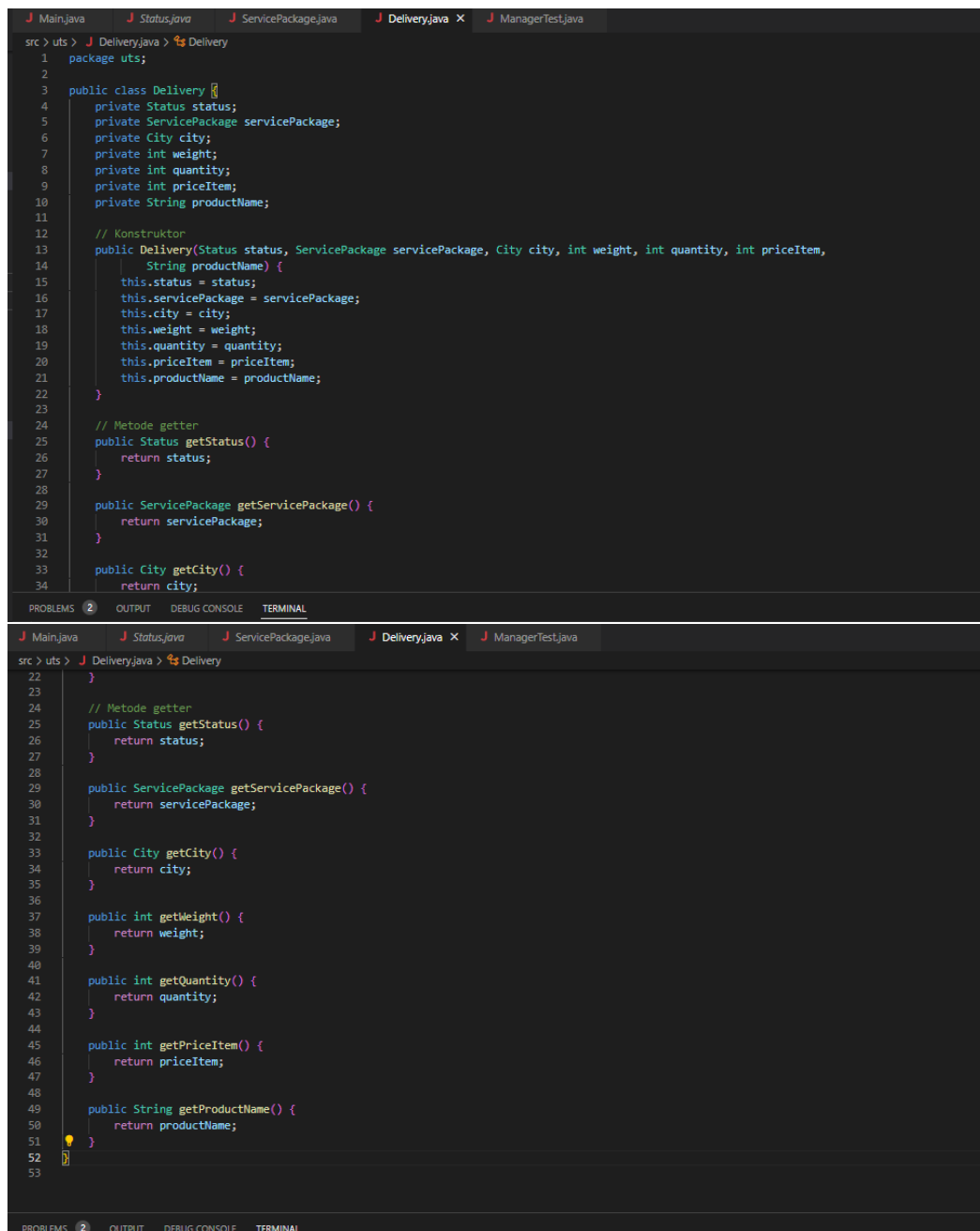
    // setter dan getter code
    public void setCode(int code) {
        this.code = code;
    }

    public int getCode() {
        return code;
    }

    // setter dan getter description
    public void setDescription(String description) {
        this.description = description;
    }

    public String getDescription() {
        return description;
    }

    public void status(int code, String description) {
        this.code = code;
        this.description = description;
    }
}
```



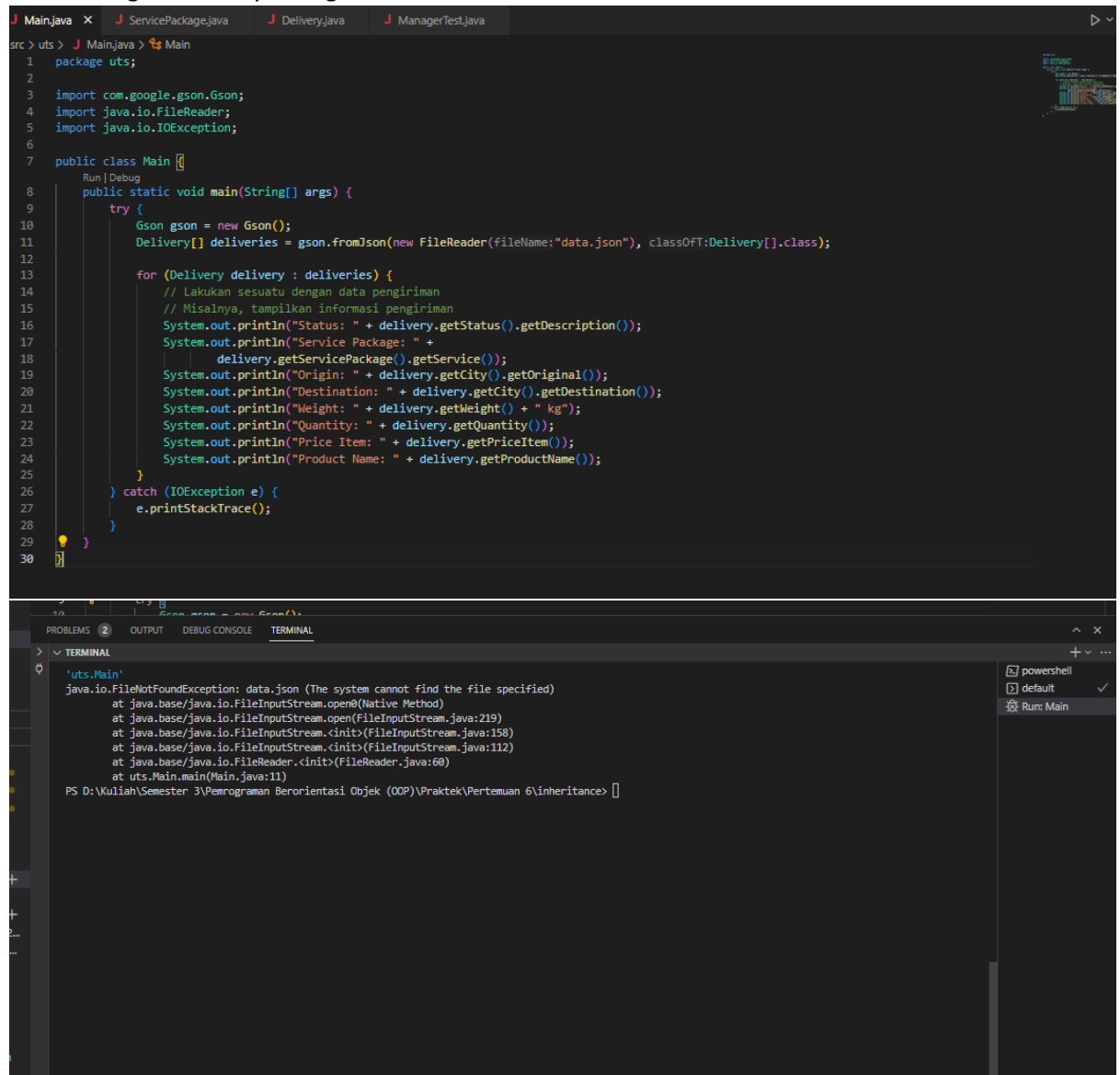
```
src > uts > J Delivery.java > Delivery
1 package uts;
2
3 public class Delivery {
4     private Status status;
5     private ServicePackage servicePackage;
6     private City city;
7     private int weight;
8     private int quantity;
9     private int priceItem;
10    private String productName;
11
12    // Konstruktor
13    public Delivery(Status status, ServicePackage servicePackage, City city, int weight, int quantity, int priceItem,
14        String productName) {
15        this.status = status;
16        this.servicePackage = servicePackage;
17        this.city = city;
18        this.weight = weight;
19        this.quantity = quantity;
20        this.priceItem = priceItem;
21        this.productName = productName;
22    }
23
24    // Metode getter
25    public Status getStatus() {
26        return status;
27    }
28
29    public ServicePackage getServicePackage() {
30        return servicePackage;
31    }
32
33    public City getCity() {
34        return city;
35    }
36
37    public int getWeight() {
38        return weight;
39    }
40
41    public int getQuantity() {
42        return quantity;
43    }
44
45    public int getPriceItem() {
46        return priceItem;
47    }
48
49    public String getProductName() {
50        return productName;
51    }
52
53 }
```

2. Pada kelas Delivery terdapat relasi dengan kelas Status, ServicePackage, City. Menurut anda jenis relasi antar kelas apa yang tepat di terapkan pada kelas berikut
 - Kelas “Status” dengan kelas “Deliver” memiliki relasi komposisi, karena objek “Status” diciptakan bersamaan dengan objek Delivery dan akan dihancurkan ketika objek Delivery dihancurkan
 - Komposisi, karena “ServicePackage” selalu ada bersama objek “Delivery” dan tidak memiliki makna atau keberadaan yang independen tanpa objek “Delivery”
 - Komposisi, karena objek “City” selalu ada bersama objek “Delivery” dan tidak memiliki makna atau keberadaan yang independen tanpa objek “Delivery”
3. Terapkan clean code pada program yang dibuat! jelaskan teknik clean code apa saja yang diterapkan!

Saya menerapkan clean code dengan menginstall sonarlint di netbeans, jadi saya mencopy code yang saya buat di vscode ke netbeans untuk mengecek smell code, dan hasilnya aman.

Untuk kerapihan code saya menggunakan extensions yang ada di vscode yaitu prettier

4. Pada main program tuliskan code untuk menampilkan jumlah produk yang harus dibayarkan beserta ongkos kirimnya dengan format



```
1 package uts;
2
3 import com.google.gson.Gson;
4 import java.io.FileReader;
5 import java.io.IOException;
6
7 public class Main {
8     public static void main(String[] args) {
9         try {
10             Gson gson = new Gson();
11             Delivery[] deliveries = gson.fromJson(new FileReader(fileName:"data.json"), classOf:Delivery[].class);
12
13             for (Delivery delivery : deliveries) {
14                 // Lakukan sesuatu dengan data pengiriman
15                 // Misalnya, tampilkan informasi pengiriman
16                 System.out.println("Status: " + delivery.getStatus().getDescription());
17                 System.out.println("Service Package: " +
18                     delivery.getServicePackage().getService());
19                 System.out.println("Origin: " + delivery.getCity().getOriginal());
20                 System.out.println("Destination: " + delivery.getCity().getDestination());
21                 System.out.println("Weight: " + delivery.getWeight() + " kg");
22                 System.out.println("Quantity: " + delivery.getQuantity());
23                 System.out.println("Price Item: " + delivery.getPriceItem());
24                 System.out.println("Product Name: " + delivery.getProductName());
25             }
26         } catch (IOException e) {
27             e.printStackTrace();
28         }
29     }
30 }
```

```
"uts.Main"
java.io.FileNotFoundException: data.json (The system cannot find the file specified)
    at java.base/java.io.FileInputStream.open0(Native Method)
    at java.base/java.io.FileInputStream.open(FileInputStream.java:219)
    at java.base/java.io.FileInputStream.<init>(FileInputStream.java:158)
    at java.base/java.io.FileInputStream.<init>(FileInputStream.java:112)
    at java.base/java.io.FileReader.<init>(FileReader.java:60)
    at uts.Main.main(Main.java:11)
PS D:\Kuliah\Semester 3\Pemrograman Berorientasi Objek (OOP)\Praktek\Pertemuan 6\inheritance >
```