LAPORAN PRAKTIKUM 6

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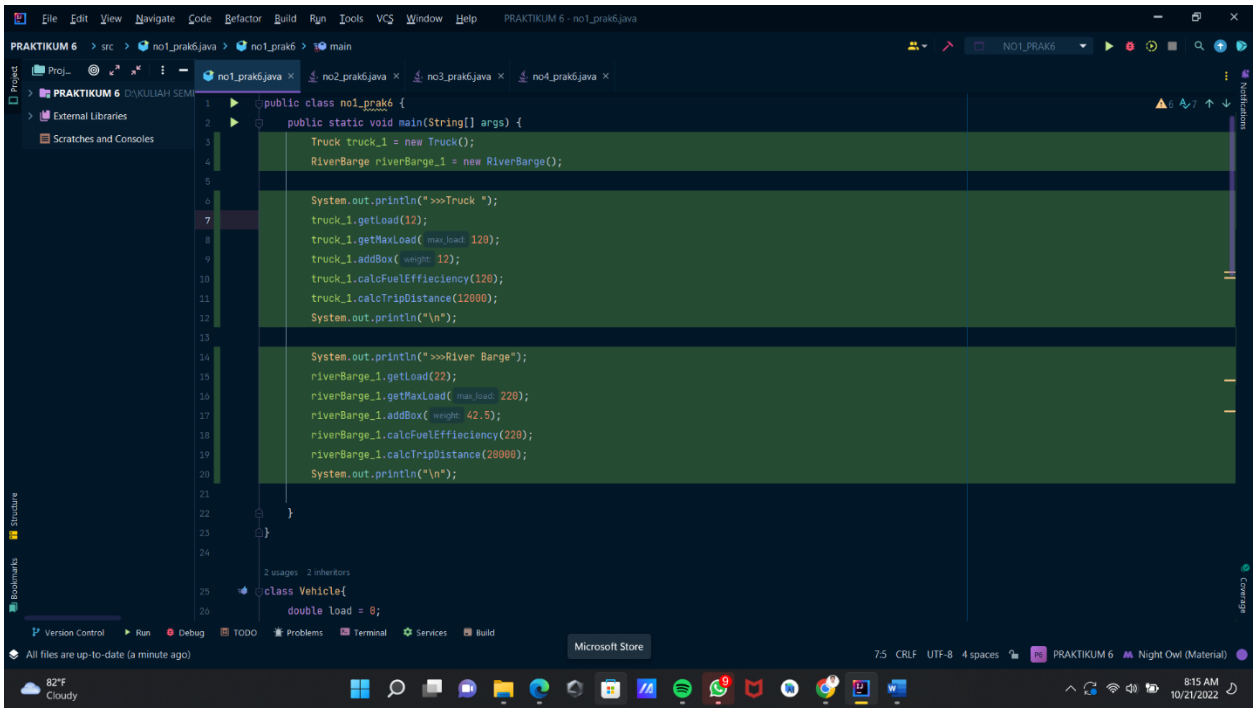
Universitas Negeri Surabaya

Fakultas Vokasi

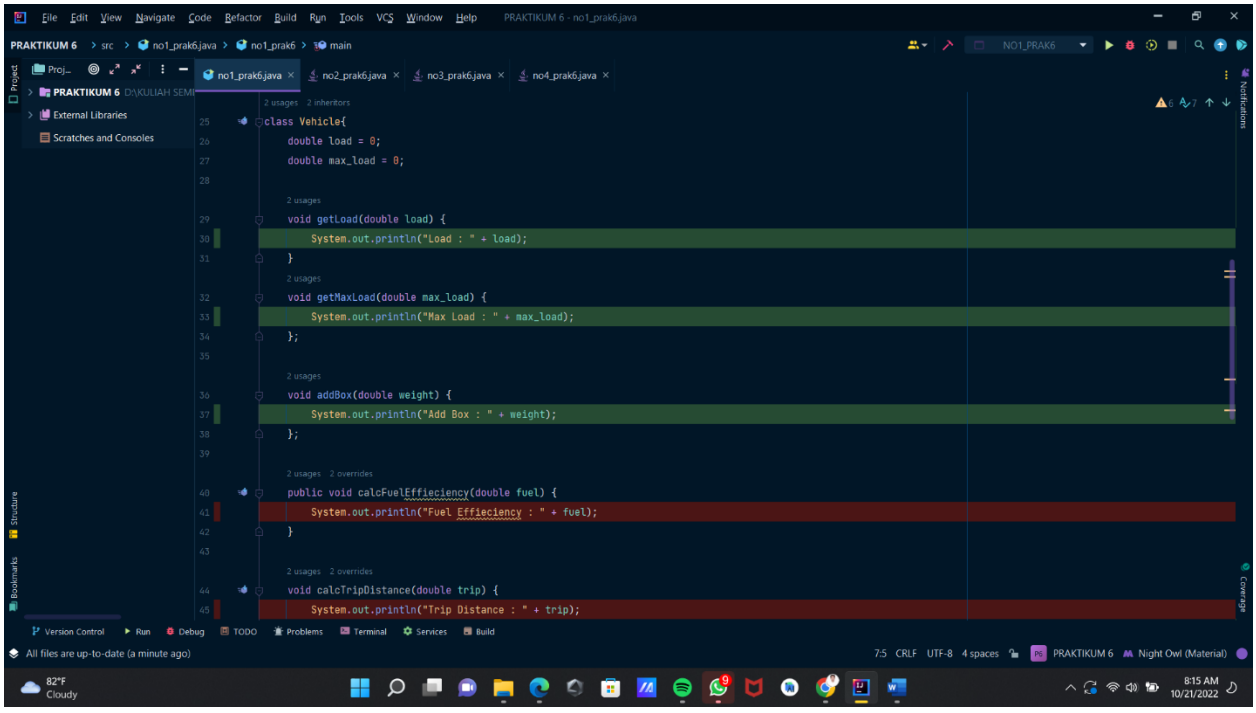
Prodi D IV Manajemen Informatika

2022/2023

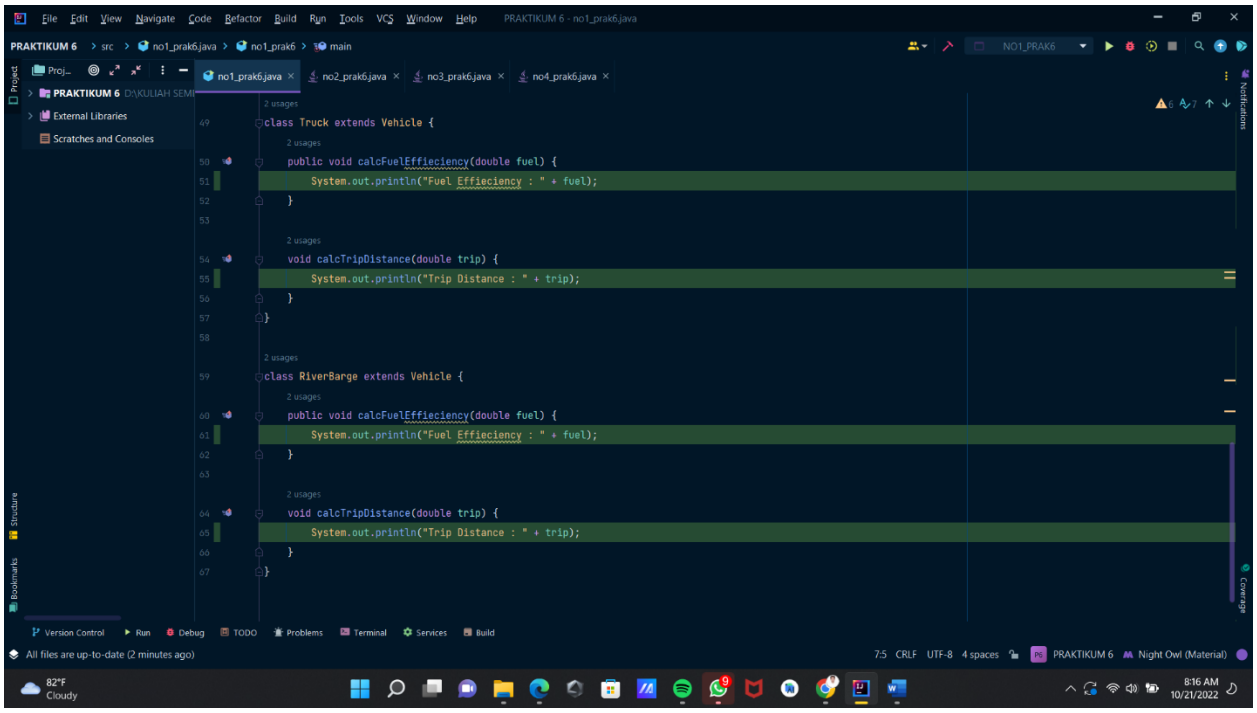
>>Codingan no1



```
public class no1_prak6 {
    public static void main(String[] args) {
        Truck truck_1 = new Truck();
        RiverBarge riverBarge_1 = new RiverBarge();

        System.out.println(">>>Truck ");
        truck_1.getLoad(12);
        truck_1.getMaxLoad( max_load: 120);
        truck_1.addBox( weight: 12);
        truck_1.calcFuelEffieciency(120);
        truck_1.calcTripDistance(12000);
        System.out.println("\n");

        System.out.println(">>>River Barge");
        riverBarge_1.getLoad(22);
        riverBarge_1.getMaxLoad( max_load: 220);
        riverBarge_1.addBox( weight: 42.5);
        riverBarge_1.calcFuelEffieciency(220);
        riverBarge_1.calcTripDistance(20000);
        System.out.println("\n");

    }
}

2 usages  2 inheritors
class Vehicle{
    double load = 0;
```

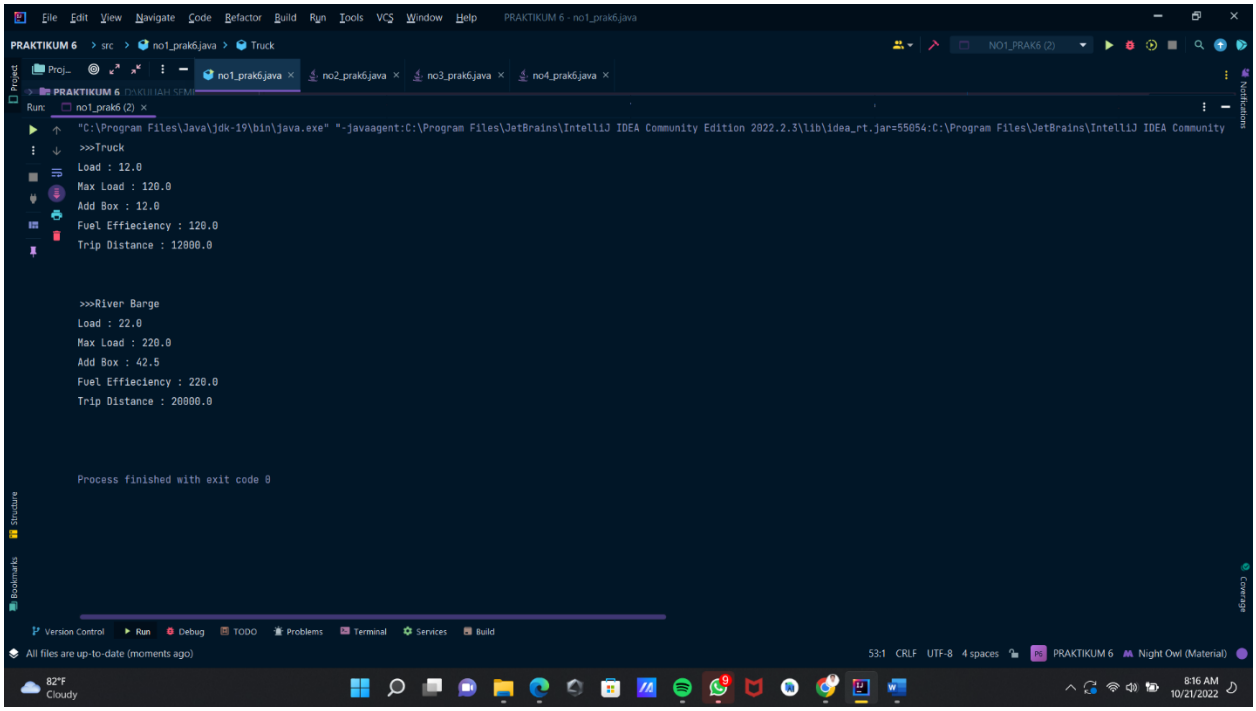


```
2 usages  2 inheritors
class Vehicle{
    double load = 0;
    double max_load = 0;

    2 usages
    void getLoad(double load) {
        System.out.println("Load : " + load);
    }
    2 usages
    void getMaxLoad(double max_load) {
        System.out.println("Max Load : " + max_load);
    };

    2 usages
    void addBox(double weight) {
        System.out.println("Add Box : " + weight);
    };

    2 usages  2 overrides
    public void calcFuelEffieciency(double fuel) {
        System.out.println("Fuel Effieciency : " + fuel);
    }

    2 usages  2 overrides
    void calcTripDistance(double trip) {
        System.out.println("Trip Distance : " + trip);
```



```
class Truck extends Vehicle {
    public void calcFuelEffieciency(double fuel) {
        System.out.println("Fuel Effieciency : " + fuel);
    }

    void calcTripDistance(double trip) {
        System.out.println("Trip Distance : " + trip);
    }
}

class RiverBarge extends Vehicle {
    public void calcFuelEffieciency(double fuel) {
        System.out.println("Fuel Effieciency : " + fuel);
    }

    void calcTripDistance(double trip) {
        System.out.println("Trip Distance : " + trip);
    }
}
```

Hasil:

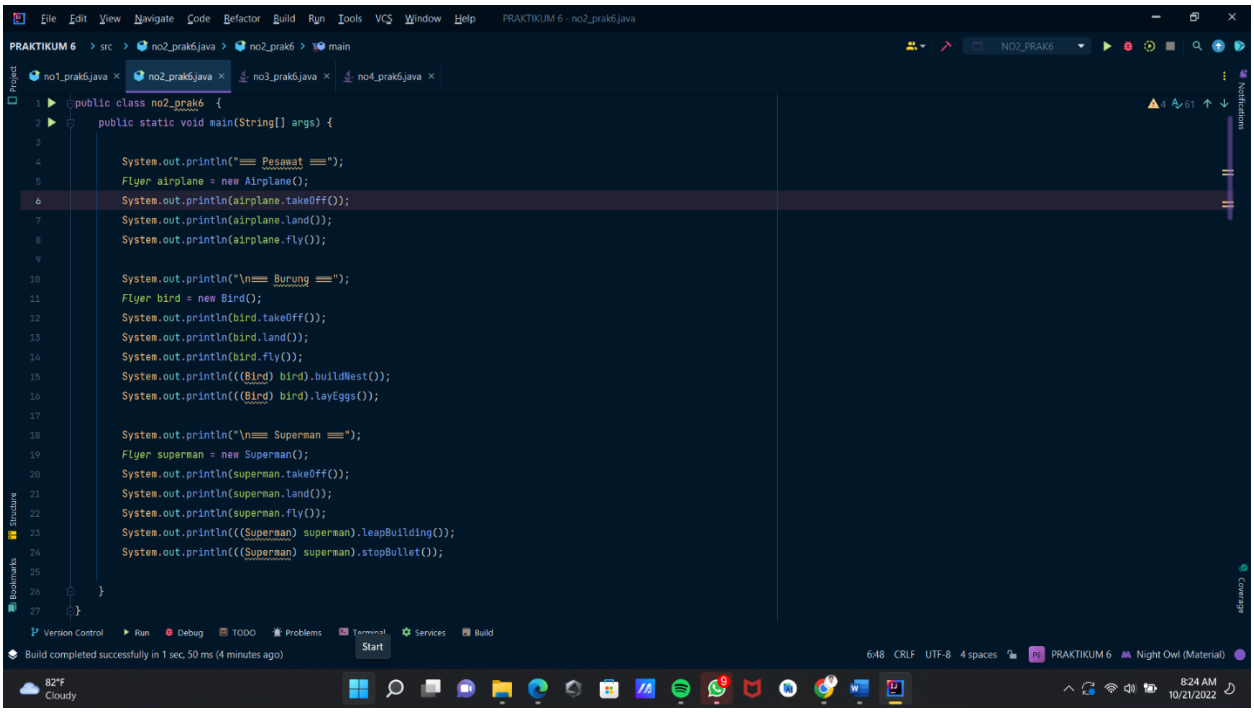


```
"C:\Program Files\Java\jdk-19\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea_rt.jar=55054:C:\Program Files\JetBrains\IntelliJ IDEA Community
>>>Truck
Load : 12.0
Max Load : 120.0
Add Box : 12.0
Fuel Effieciency : 120.0
Trip Distance : 12000.0


>>>River Barge
Load : 22.0
Max Load : 220.0
Add Box : 42.5
Fuel Effieciency : 220.0
Trip Distance : 20000.0


Process finished with exit code 0
```

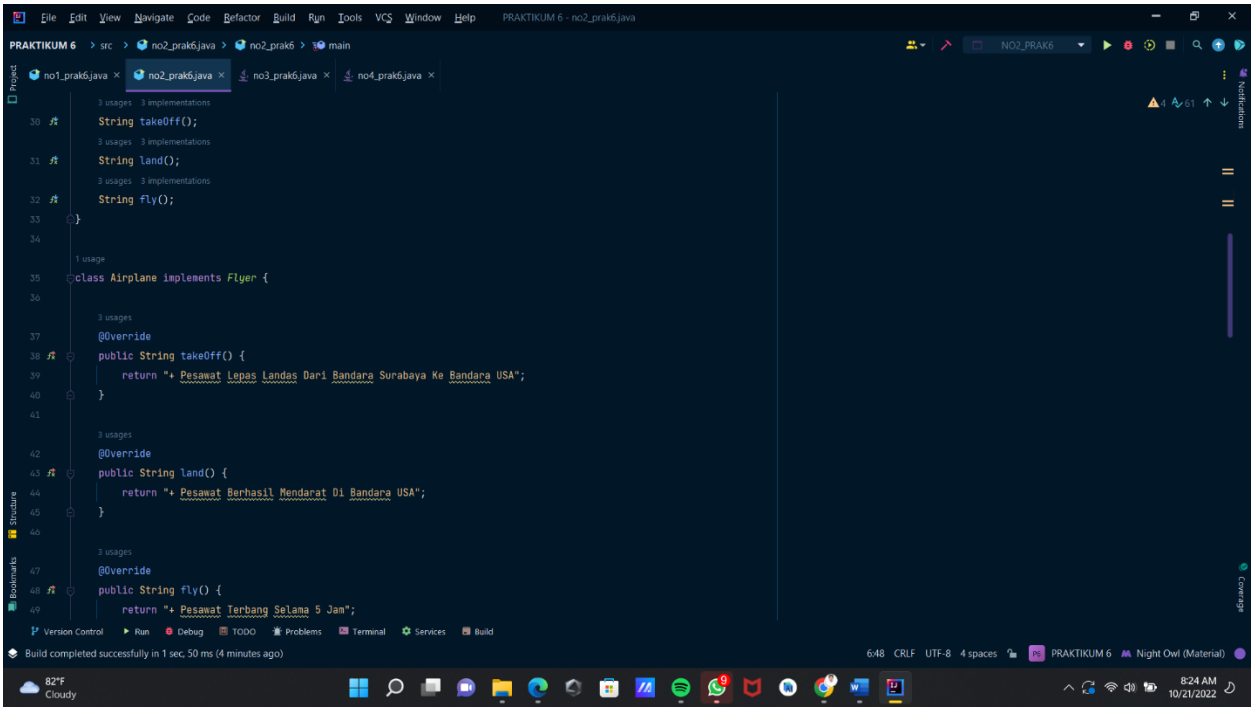
ANALISI:

Dari diatas abstract dan methode diletakkan pada class vehicle parent class sehingga bisa diakses dari pembagian 2 method

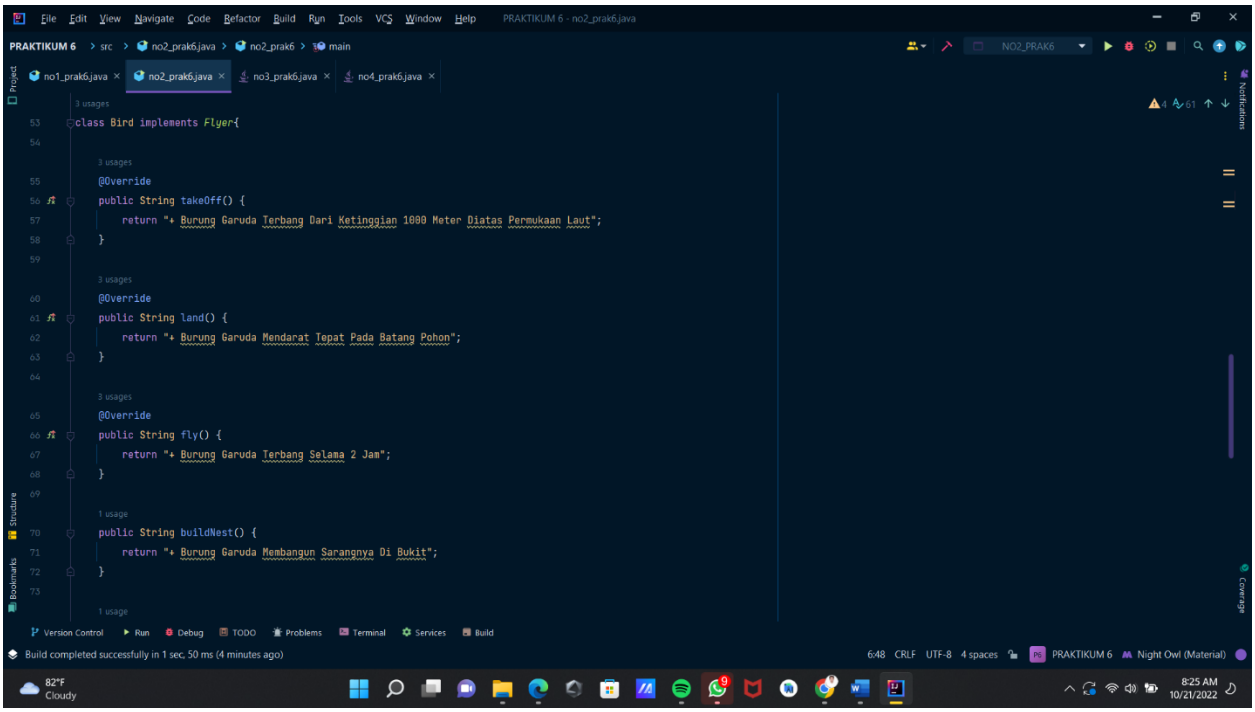
>>>codingan no2

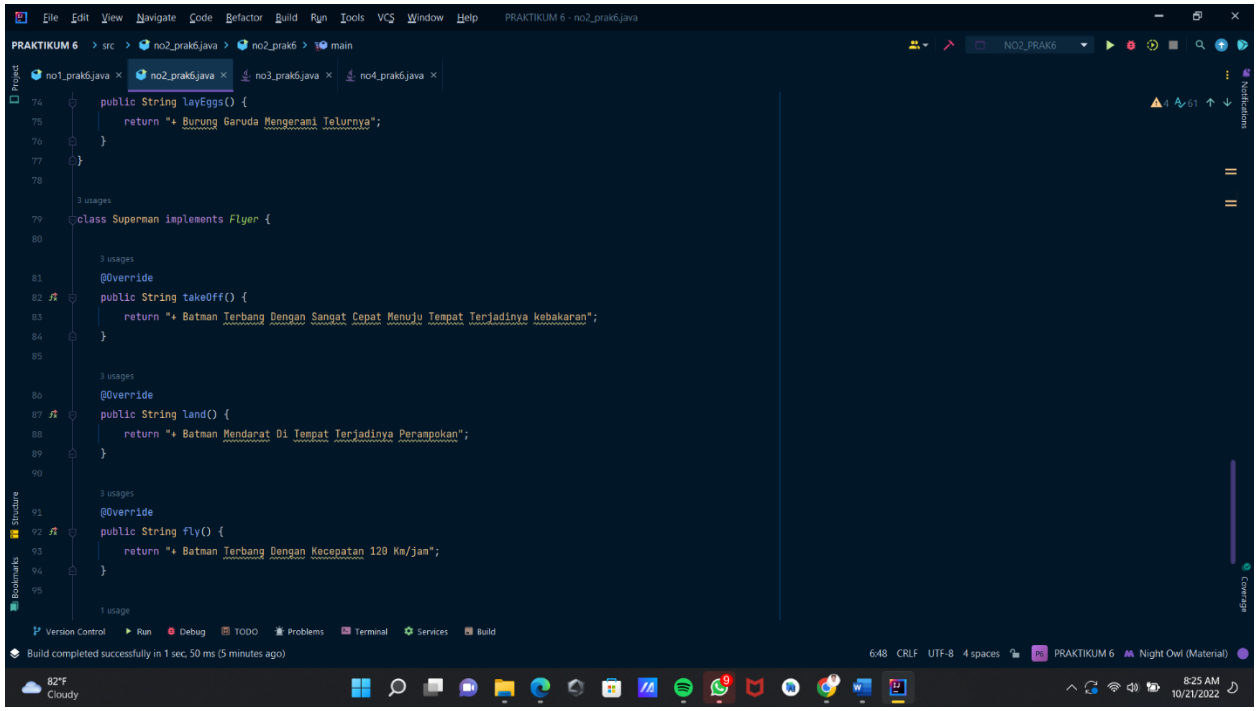


```java
public class no2_prak6 {
    public static void main(String[] args) {

        System.out.println("== Pesawat ==");
        Flyer airplane = new Airplane();
        System.out.println(airplane.takeOff());
        System.out.println(airplane.land());
        System.out.println(airplane.fly());

        System.out.println("\n== Burung ==");
        Flyer bird = new Bird();
        System.out.println(bird.takeOff());
        System.out.println(bird.land());
        System.out.println(bird.fly());
        System.out.println(((Bird) bird).buildNest());
        System.out.println(((Bird) bird).layEggs());

        System.out.println("\n== Superman ==");
        Flyer superman = new Superman();
        System.out.println(superman.takeOff());
        System.out.println(superman.land());
        System.out.println(superman.fly());
        System.out.println(((Superman) superman).leapBuilding());
        System.out.println(((Superman) superman).stopBullet());

    }
}
```

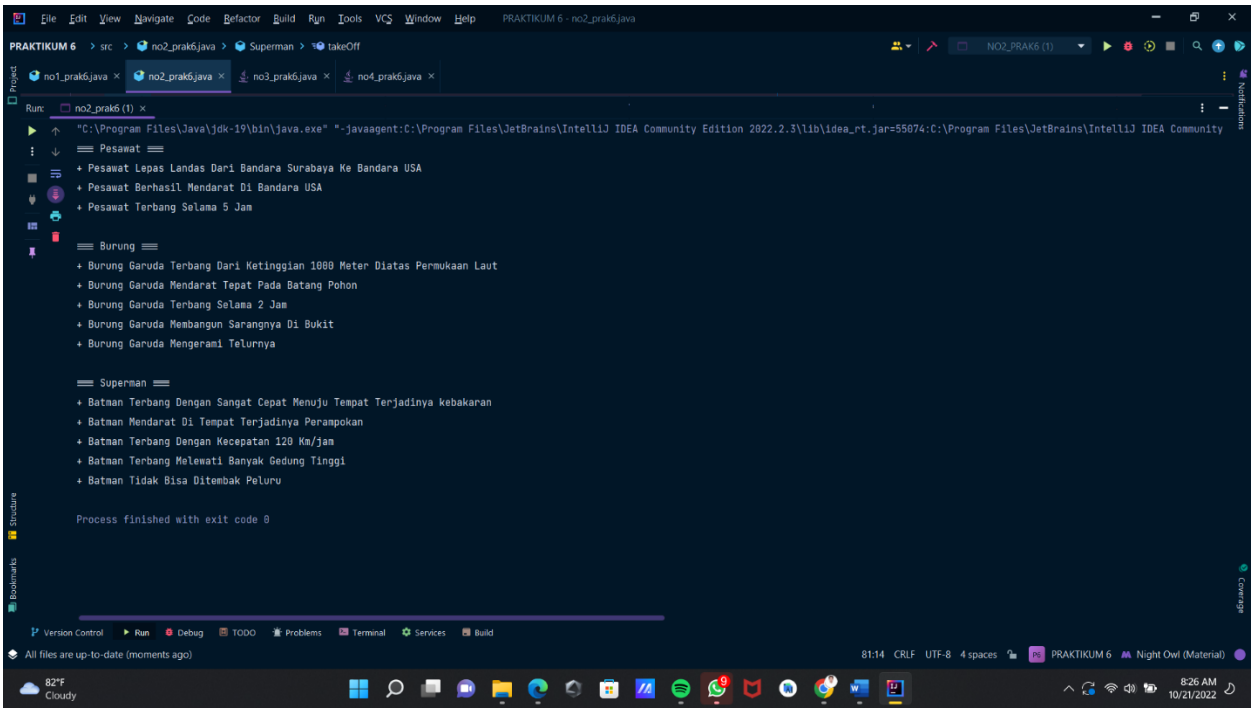


```java
    String takeOff();
    String land();
    String fly();
}

class Airplane implements Flyer {

    @Override
    public String takeOff() {
        return "+ Pesawat Lepas Landas Dari Bandara Surabaya Ke Bandara USA";
    }

    @Override
    public String land() {
        return "+ Pesawat Berhasil Mendarat Di Bandara USA";
    }

    @Override
    public String fly() {
        return "+ Pesawat Terbang Selama 5 Jam";
```

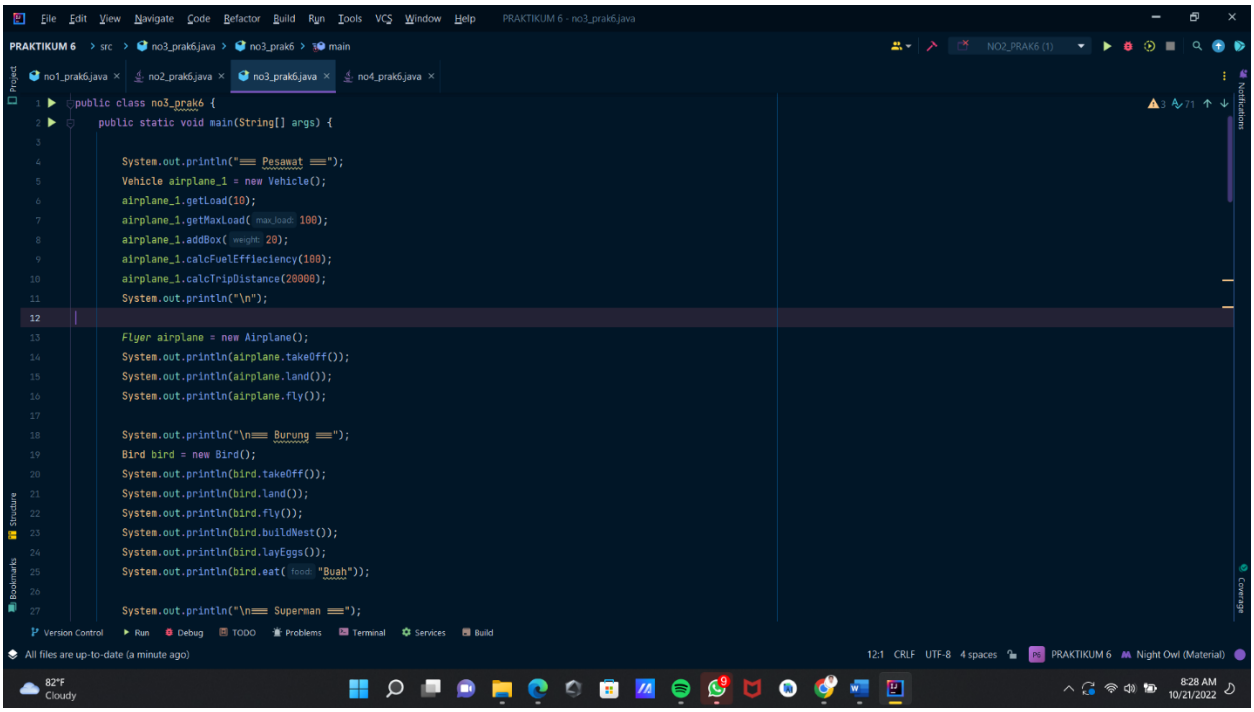

File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no2_prak6.java
PRAKTIKUM 6 › src › no2_prak6.java › no2_prak6 › main
NO2_PRAK6
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
3 usages
class Bird implements Flyer{
3 usages
@Override
public String takeOff() {
return "+ Burung Garuda Terbang Dari Ketinggian 1000 Meter Diatas Permukaan Laut";
}
3 usages
@Override
public String land() {
return "+ Burung Garuda Mendarat Tepat Pada Batang Pohon";
}
3 usages
@Override
public String fly() {
return "+ Burung Garuda Terbang Selama 2 Jam";
}
1 usage
public String buildNest() {
return "+ Burung Garuda Membangun Sarangnya Di Bukit";
}
1 usage
Version Control
Run
Debug
TODO
Problems
Terminal
Services
Build
Build completed successfully in 1 sec, 50 ms (4 minutes ago)
6:48 CRLF UTF-8 4 spaces
PRAKTIKUM 6
Night Owl (Material)
82°F
Cloudy
8:25 AM
10/21/2022

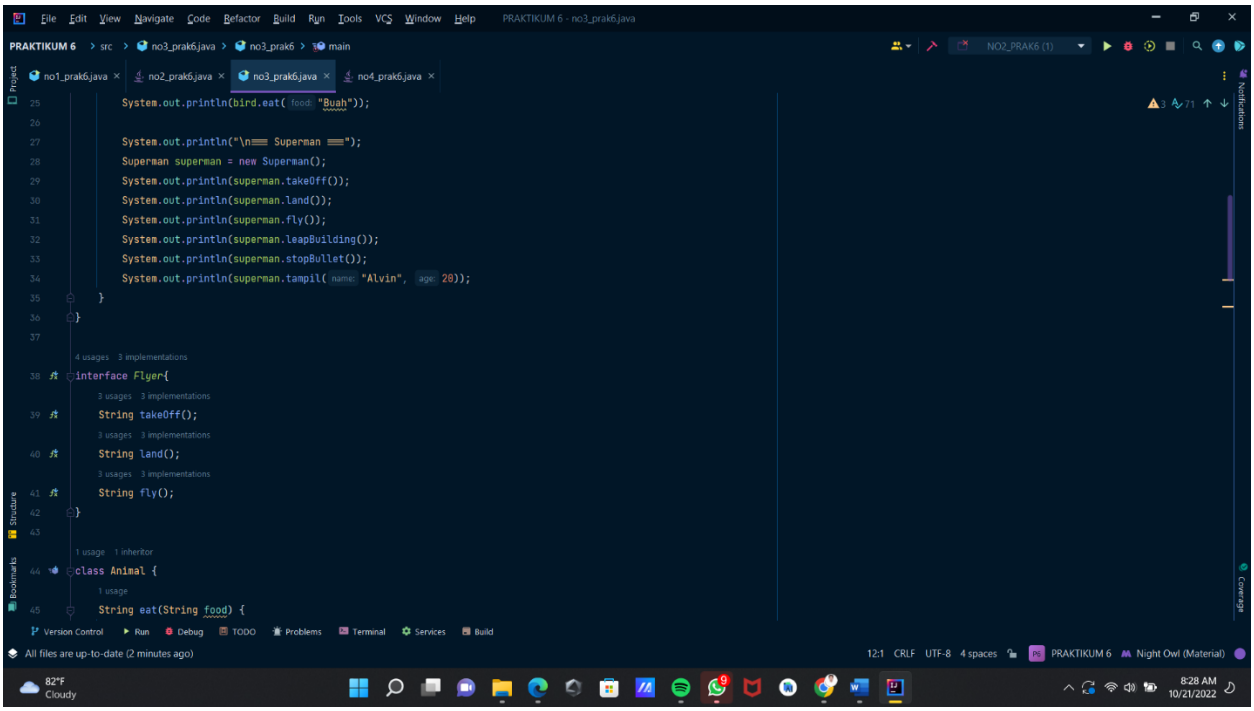

File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no2_prak6.java
PRAKTIKUM 6 › src › no2_prak6.java › no2_prak6 › main
NO2_PRAK6
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
public String layEggs() {
return "+ Burung Garuda Mengerami Telurnya";
}
}
3 usages
class Superman implements Flyer {
3 usages
@Override
public String takeOff() {
return "+ Batman Terbang Dengan Sangat Cepat Menuju Tempat Terjadinya kebakaran";
}
3 usages
@Override
public String land() {
return "+ Batman Mendarat Di Tempat Terjadinya Perampokan";
}
3 usages
@Override
public String fly() {
return "+ Batman Terbang Dengan Kecepatan 120 Km/jam";
}
1 usage
Version Control
Run
Debug
TODO
Problems
Terminal
Services
Build
Build completed successfully in 1 sec, 50 ms (5 minutes ago)
6:48 CRLF UTF-8 4 spaces
PRAKTIKUM 6
Night Owl (Material)
82°F
Cloudy
8:25 AM
10/21/2022

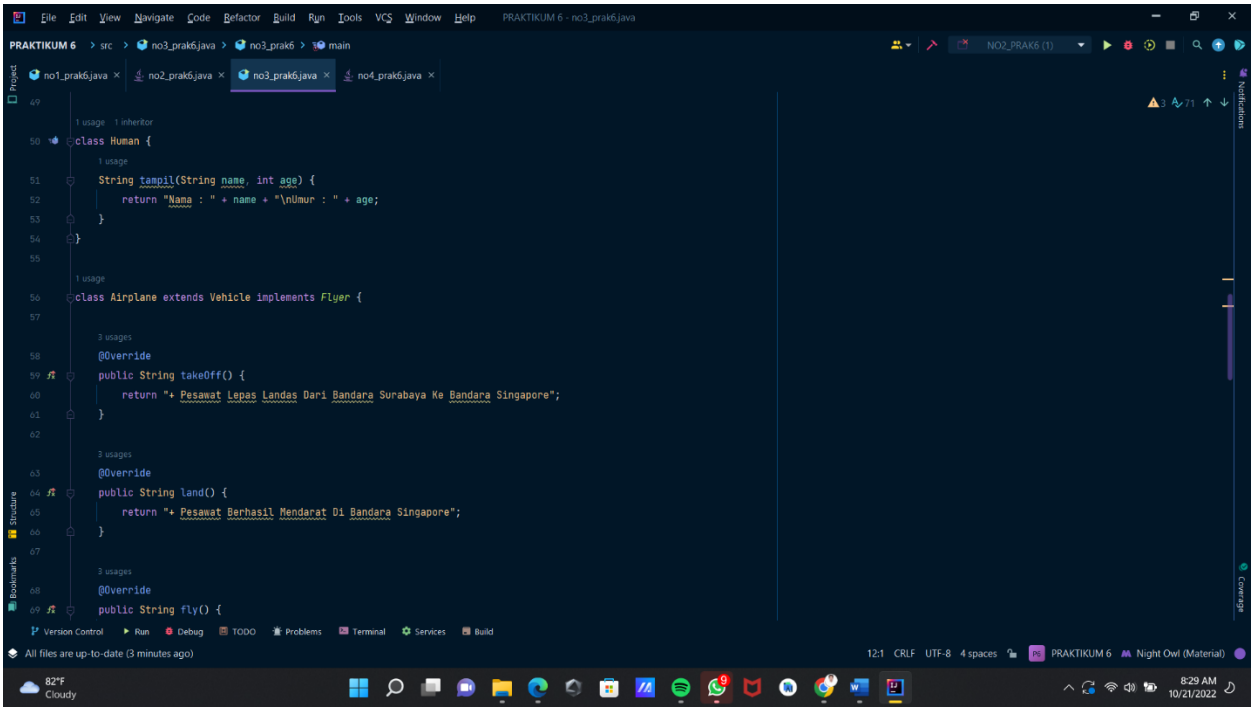
Hasil;

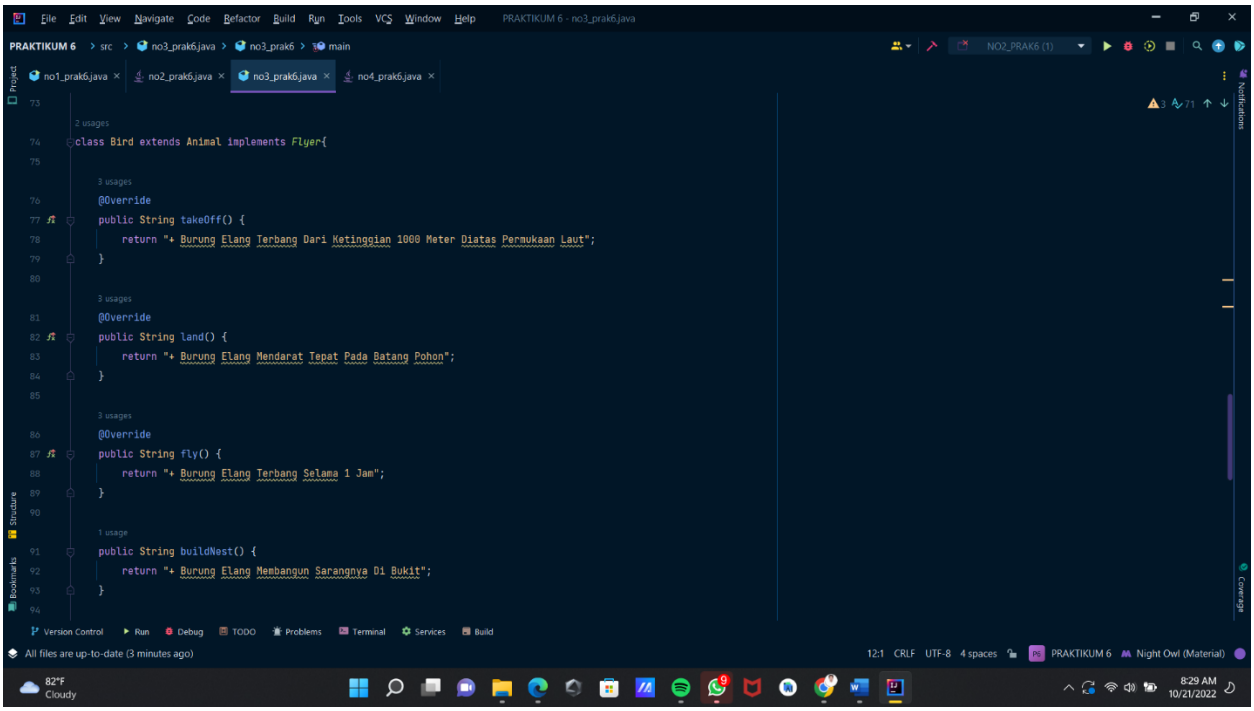


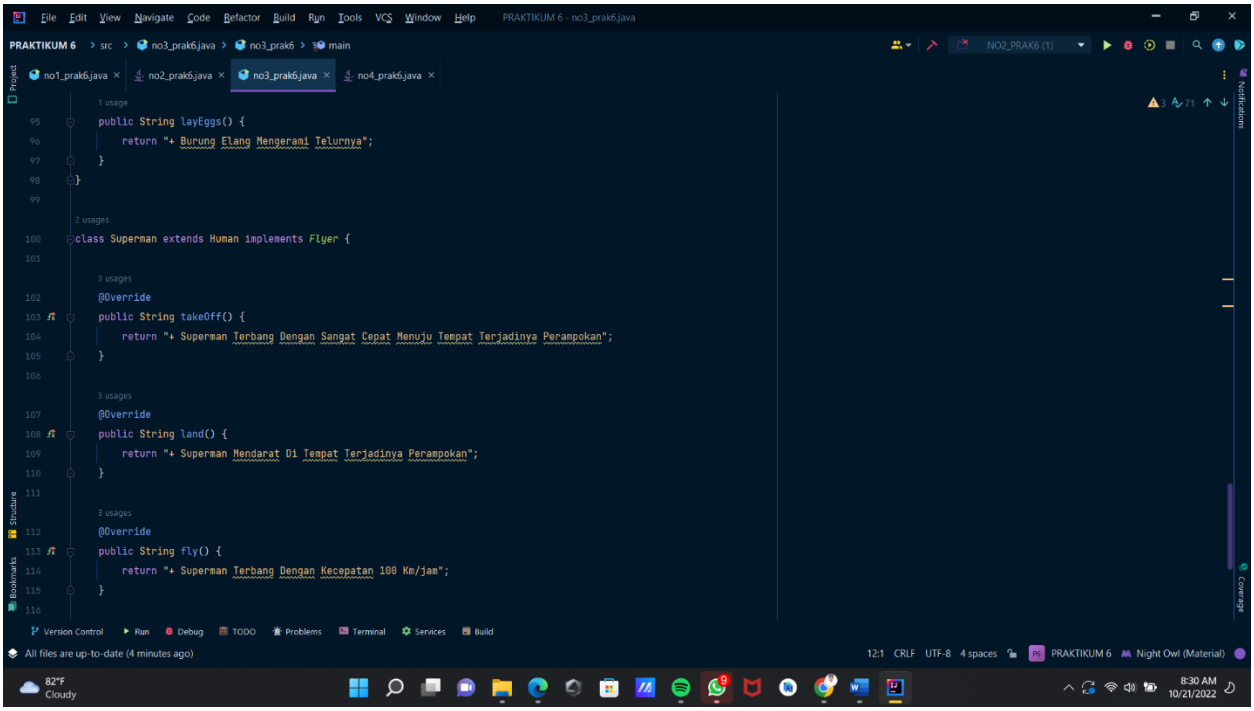
>>>codingan no.3



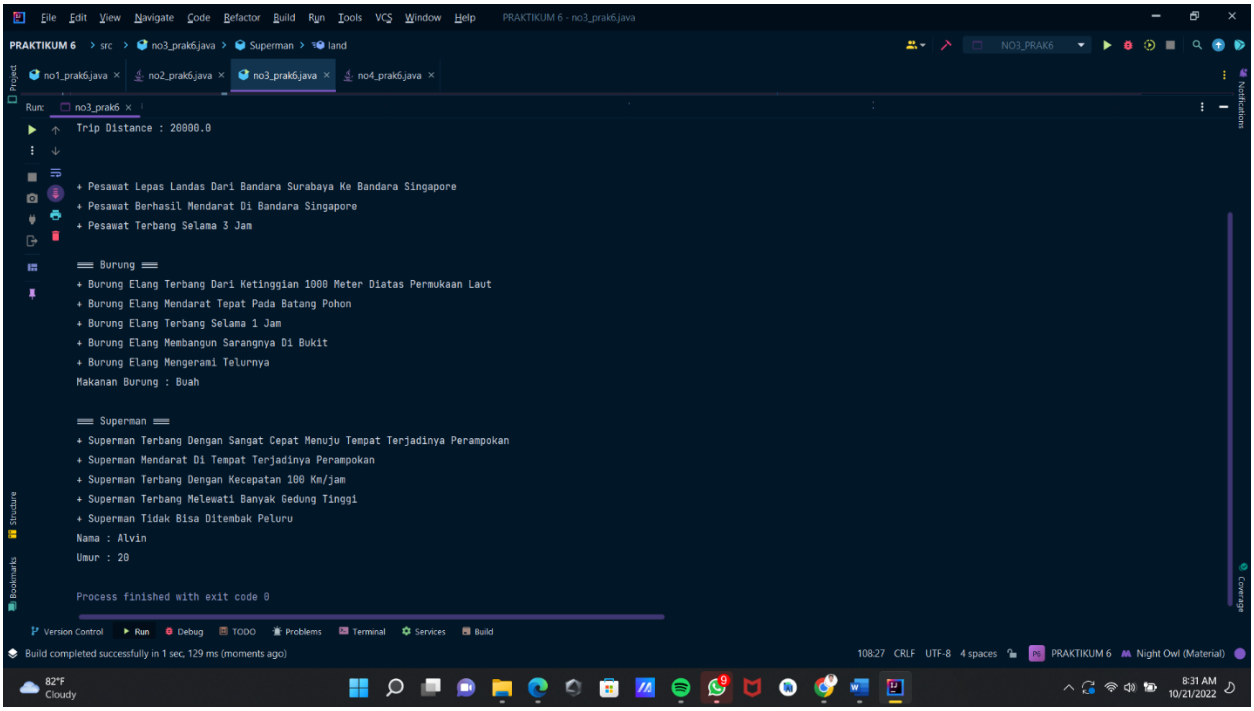

File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no3_prak6.java
PRAKTIKUM 6 > src > no3_prak6.java > no3_prak6 > main
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
System.out.println(bird.eat(food: "Buah"));
System.out.println("\n== Superman ==");
Superman superman = new Superman();
System.out.println(superman.takeOff());
System.out.println(superman.land());
System.out.println(superman.fly());
System.out.println(superman.leapBuilding());
System.out.println(superman.stopBullet());
System.out.println(superman.tampil(name: "Alvin", age: 20));
4 usages 3 implementations
interface Flyer{
3 usages 3 implementations
String takeOff();
3 usages 3 implementations
String land();
3 usages 3 implementations
String fly();
1 usage 1 inheritor
class Animal {
1 usage
String eat(String food) {
Version Control Run Debug TODO Problems Terminal Services Build
All files are up-to-date (2 minutes ago)
12:1 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:28 AM 10/21/2022


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no3_prak6.java
PRAKTIKUM 6 > src > no3_prak6.java > no3_prak6 > main
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
1 usage 1 inheritor
class Human {
1 usage
String tampil(String name, int age) {
return "Nama : " + name + "\nUmur : " + age;
}
}
1 usage
class Airplane extends Vehicle implements Flyer {
3 usages
@Override
public String takeOff() {
return "+ Pesawat Lepas Landas Dari Bandara Surabaya Ke Bandara Singapore";
}
3 usages
@Override
public String land() {
return "+ Pesawat Berhasil Mendarat Di Bandara Singapore";
}
3 usages
@Override
public String fly() {
Version Control Run Debug TODO Problems Terminal Services Build
All files are up-to-date (3 minutes ago)
12:1 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:29 AM 10/21/2022

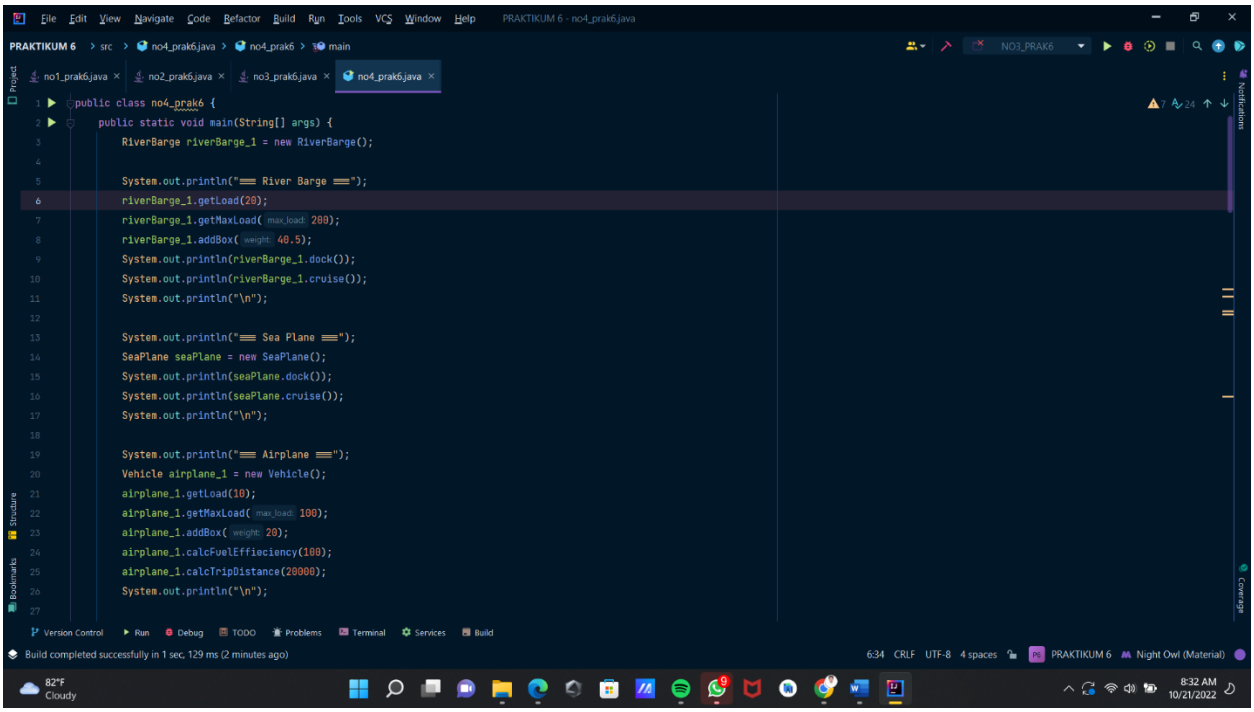

File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no3_prak6.java
PRAKTIKUM 6 > src > no3_prak6.java > no3_prak6 > main
NO2_PRAK6 (1)
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
2 usages
class Bird extends Animal implements Flyer{
3 usages
@Override
public String takeOff() {
return "+ Burung Elang Terbang Dari Ketinggian 1000 Meter Diatas Permukaan Laut";
}
3 usages
@Override
public String land() {
return "+ Burung Elang Mendarat Tepat Pada Batang Pohon";
}
3 usages
@Override
public String fly() {
return "+ Burung Elang Terbang Selama 1 Jam";
}
1 usage
public String buildNest() {
return "+ Burung Elang Membangun Sarangnya Di Bukit";
}
Version Control Run Debug TODO Problems Terminal Services Build
All files are up-to-date (3 minutes ago)
12:1 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:29 AM 10/21/2022

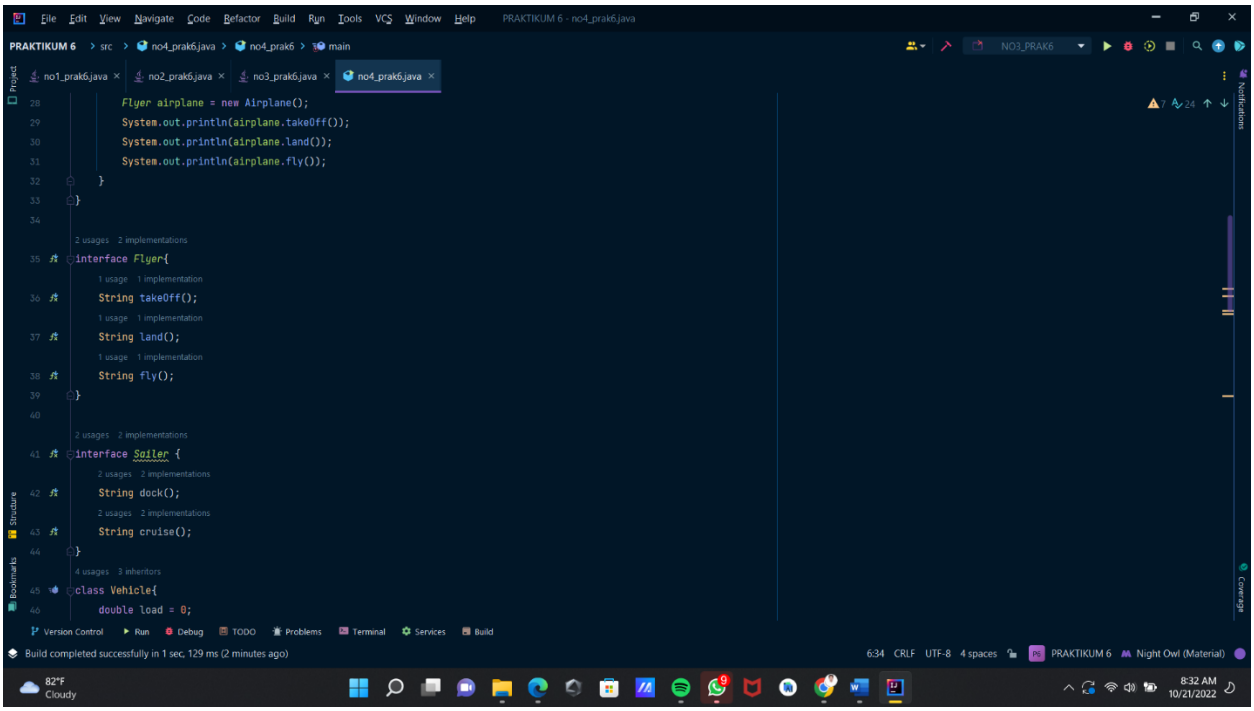

File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no3_prak6.java
PRAKTIKUM 6 > src > no3_prak6.java > no3_prak6 > main
NO2_PRAK6 (1)
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
1 usage
public String layEggs() {
return "+ Burung Elang Mengerami Telurnya";
}
}
2 usages
class Superman extends Human implements Flyer {
3 usages
@Override
public String takeOff() {
return "+ Superman Terbang Dengan Sangat Cepat Menuju Tempat Terjadinya Perampokan";
}
3 usages
@Override
public String land() {
return "+ Superman Mendarat Di Tempat Terjadinya Perampokan";
}
3 usages
@Override
public String fly() {
return "+ Superman Terbang Dengan Kecepatan 100 Km/jam";
}
Version Control Run Debug TODO Problems Terminal Services Build
All files are up-to-date (4 minutes ago)
12:1 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:30 AM 10/21/2022

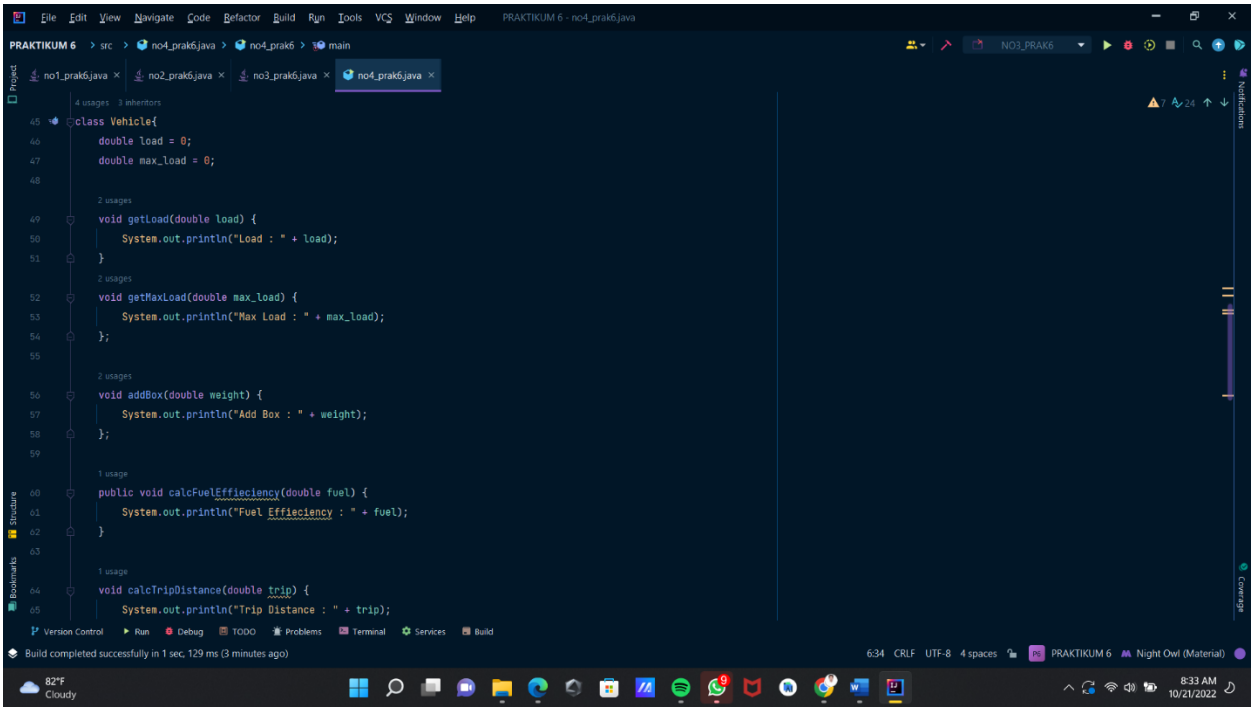
Hasil:

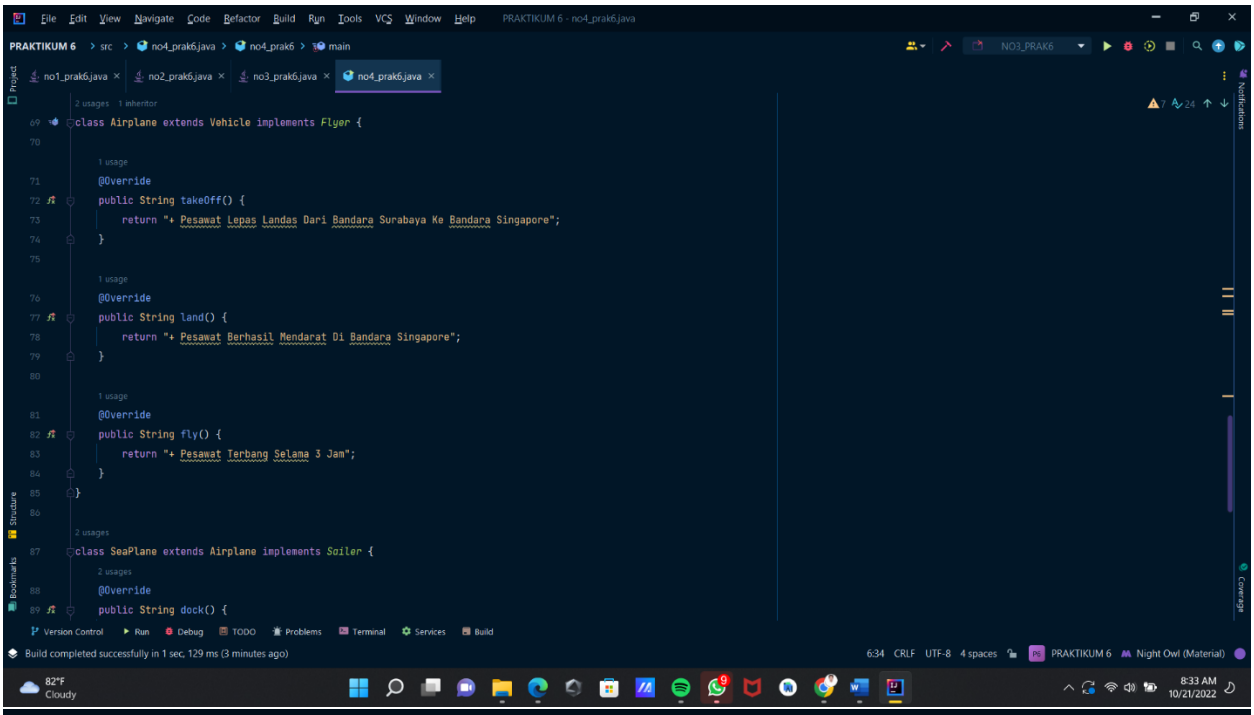


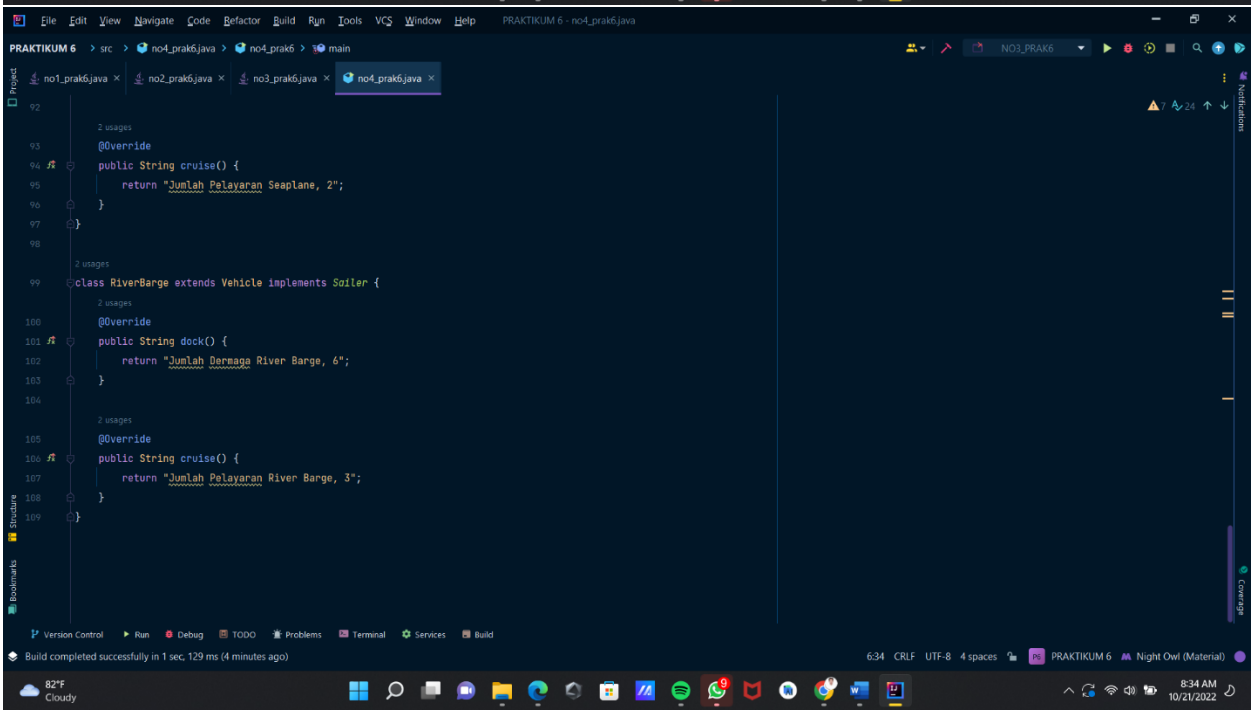
>>>codingan no4



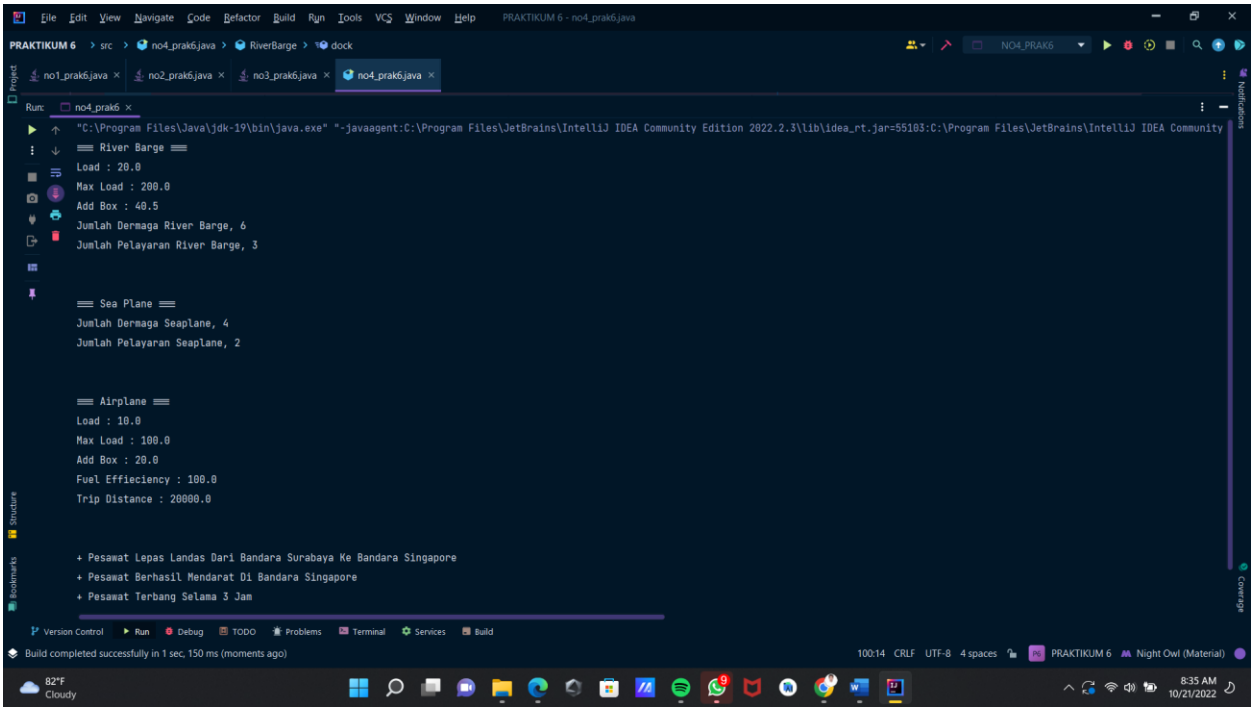

File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no4_prak6.java
PRAKTIKUM 6 > src > no4_prak6.java > no4_prak6 > main
NO3_PRAK6
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
Flyer airplane = new Airplane();
System.out.println(airplane.takeOff());
System.out.println(airplane.land());
System.out.println(airplane.fly());
}
}
2 usages 2 implementations
interface Flyer{
1 usage 1 implementation
String takeOff();
1 usage 1 implementation
String land();
1 usage 1 implementation
String fly();
}
2 usages 2 implementations
interface Sailer {
2 usages 2 implementations
String dock();
2 usages 2 implementations
String cruise();
}
4 usages 3 inheritors
class Vehicle{
double load = 0;
Version Control Run Debug TODO Problems Terminal Services Build
Build completed successfully in 1 sec, 129 ms (2 minutes ago)
6:34 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:32 AM 10/21/2022


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no4_prak6.java
PRAKTIKUM 6 > src > no4_prak6.java > no4_prak6 > main
NO3_PRAK6
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
4 usages 3 inheritors
class Vehicle{
double load = 0;
double max_load = 0;
2 usages
void getLoad(double load) {
System.out.println("Load : " + load);
}
2 usages
void getMaxLoad(double max_load) {
System.out.println("Max Load : " + max_load);
};
2 usages
void addBox(double weight) {
System.out.println("Add Box : " + weight);
};
1 usage
public void calcFuelEffieciency(double fuel) {
System.out.println("Fuel Effiecient : " + fuel);
}
1 usage
void calcTripDistance(double trip) {
System.out.println("Trip Distance : " + trip);
Version Control Run Debug TODO Problems Terminal Services Build
Build completed successfully in 1 sec, 129 ms (3 minutes ago)
6:34 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:33 AM 10/21/2022


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no4_prak6.java
PRAKTIKUM 6 > src > no4_prak6.java > no4_prak6 > main
NO3_PRAK6
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
2 usages 1 inheritor
class Airplane extends Vehicle implements Flyer {
1 usage
@Override
public String takeOff() {
return "+ Pesawat Lepas Landas Dari Bandara Surabaya Ke Bandara Singapore";
}
1 usage
@Override
public String land() {
return "+ Pesawat Berhasil Mendarat Di Bandara Singapore";
}
1 usage
@Override
public String fly() {
return "+ Pesawat Terbang Selama 3 Jam";
}
}
2 usages
class SeaPlane extends Airplane implements Sailer {
2 usages
@Override
public String dock() {
Version Control Run Debug TODO Problems Terminal Services Build
Build completed successfully in 1 sec, 129 ms (3 minutes ago)
6:34 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:33 AM 10/21/2022


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no4_prak6.java
PRAKTIKUM 6 > src > no4_prak6.java > no4_prak6 > main
NO3_PRAK6
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
2 usages
@Override
public String cruise() {
return "Jumlah Pelayaran Seaplane, 2";
}
}
2 usages
class RiverBarge extends Vehicle implements Sailer {
2 usages
@Override
public String dock() {
return "Jumlah Dermaga River Barge, 6";
}
2 usages
@Override
public String cruise() {
return "Jumlah Pelayaran River Barge, 3";
}
}
Version Control Run Debug TODO Problems Terminal Services Build
Build completed successfully in 1 sec, 129 ms (4 minutes ago)
6:34 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:34 AM 10/21/2022

Hasil:


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
PRAKTIKUM 6 - no4_prak6.java
PRAKTIKUM 6 > src > no4_prak6.java > RiverBarge > dock
NO4_PRAK6
no1_prak6.java
no2_prak6.java
no3_prak6.java
no4_prak6.java
Run: no4_prak6
"C:\Program Files\Java\jdk-19\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea_rt.jar=55103:C:\Program Files\JetBrains\IntelliJ IDEA Community
== River Barge ==
Load : 20.0
Max Load : 200.0
Add Box : 40.5
Jumlah Dermaga River Barge, 6
Jumlah Pelayaran River Barge, 3
== Sea Plane ==
Jumlah Dermaga Seaplane, 4
Jumlah Pelayaran Seaplane, 2
== Airplane ==
Load : 10.0
Max Load : 100.0
Add Box : 20.0
Fuel Effieciency : 100.0
Trip Distance : 20000.0
+ Pesawat Lepas Landas Dari Bandara Surabaya Ke Bandara Singapore
+ Pesawat Berhasil Mendarat Di Bandara Singapore
+ Pesawat Terbang Selama 3 Jam
Version Control Run Debug TODO Problems Terminal Services Build
Build completed successfully in 1 sec, 150 ms (moments ago)
100:14 CRLF UTF-8 4 spaces PRAKTIKUM 6 Night Owl (Material)
82°F Cloudy
8:35 AM 10/21/2022