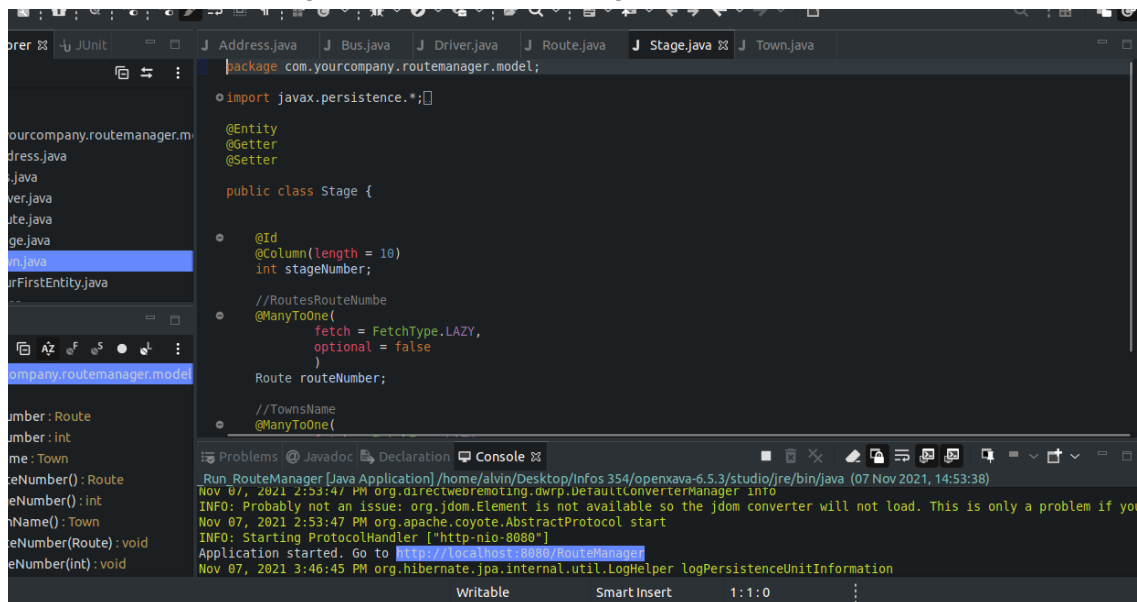


## Code Explanation

Buses will move to different stages and this code is for the stages and record the data of the stages and it is associated or mapped to the route as routes have different stages and the town is associated to the stages also as different stages will occur in different town vice versa.



```
package com.yourcompany.routemanager.model;

import javax.persistence.*;

@Entity
@Getter
@Setter

public class Stage {

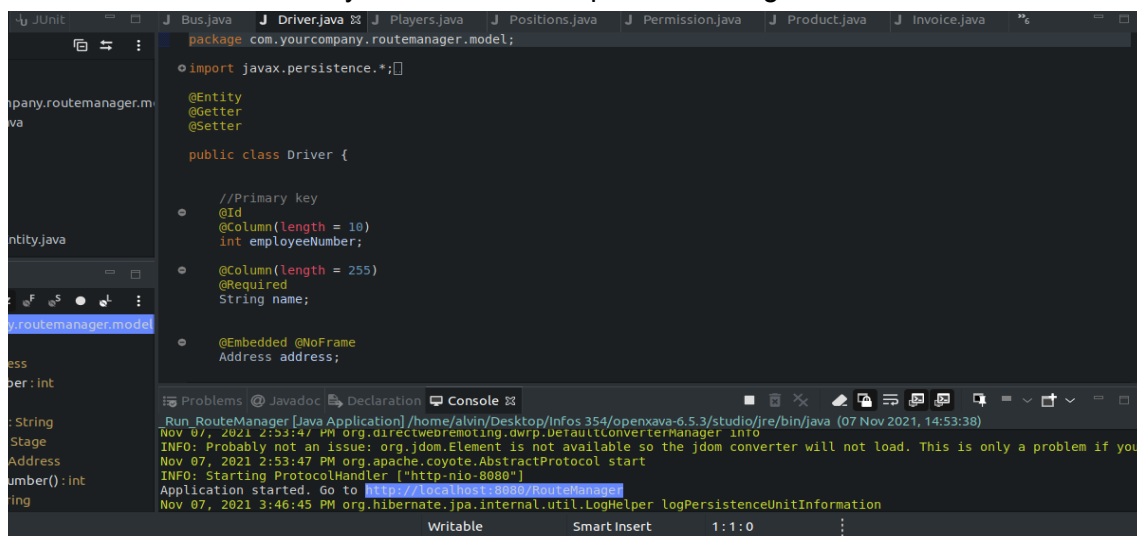
    @Id
    @Column(length = 10)
    int stageNumber;

    //RoutesRouteNumber
    @ManyToMany(
        fetch = FetchType.LAZY,
        optional = false
    )
    Route routeNumber;

    //TownsName
    @ManyToMany(
        fetch = FetchType.LAZY,
        optional = false
    )
    Town townsName;
}
```

Run RouteManager [Java Application] /home/alvin/Desktop/Infos 354/openxava-6.5.3/studio/jre/bin/java (07 Nov 2021, 14:53:38)  
Nov 07, 2021 2:53:47 PM org.directwebremoting.dwrp.DefaultConverterManager info  
INFO: Probably not an issue: org.jdom.Element is not available so the jdom converter will not load. This is only a problem if you  
Nov 07, 2021 2:53:47 PM org.apache.coyote.AbstractProtocol start  
INFO: Starting ProtocolHandler ["http-nio-8080"]  
Application started. Go to <http://localhost:8080/RouteManager>  
Nov 07, 2021 3:46:45 PM org.hibernate.jpa.internal.util.LogHelper logPersistenceUnitInformation

This is the code of the Entity of the driver and it provides information of the driver such as employee number, the driver's name and address(that is embedded into the entity). The drivers are associated with a many to one relationship with the stage number as well.



```
package com.yourcompany.routemanager.model;

import javax.persistence.*;

@Entity
@Getter
@Setter

public class Driver {

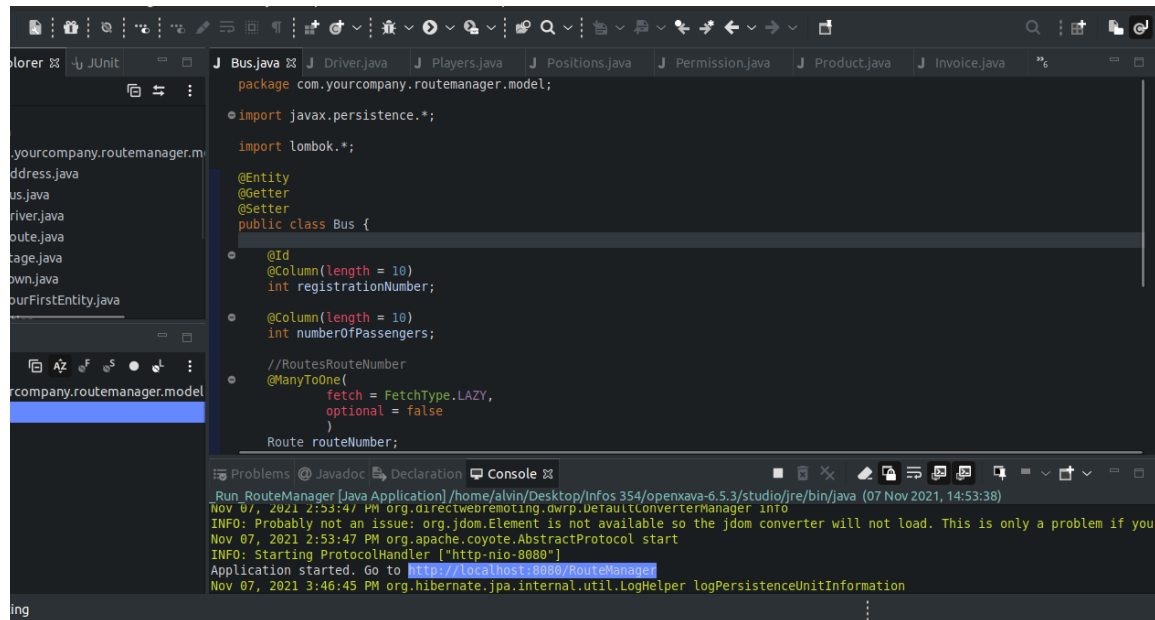
    //Primary key
    @Id
    @Column(length = 10)
    int employeeNumber;

    @Column(length = 255)
    @Required
    String name;

    @Embedded @NoFrame
    Address address;
}
```

Run RouteManager [Java Application] /home/alvin/Desktop/Infos 354/openxava-6.5.3/studio/jre/bin/java (07 Nov 2021, 14:53:38)  
Nov 07, 2021 2:53:47 PM org.directwebremoting.dwrp.DefaultConverterManager info  
INFO: Probably not an issue: org.jdom.Element is not available so the jdom converter will not load. This is only a problem if you  
Nov 07, 2021 2:53:47 PM org.apache.coyote.AbstractProtocol start  
INFO: Starting ProtocolHandler ["http-nio-8080"]  
Application started. Go to <http://localhost:8080/RouteManager>  
Nov 07, 2021 3:46:45 PM org.hibernate.jpa.internal.util.LogHelper logPersistenceUnitInformation

Bus entity records the registration number of the bus, and the number of passengers that the bus can provide capacity for. It is associated with the Route number, employee numbers and towns names. Due to the fact that busse will go on a certain route and the employee number will let us know who is driving the bus.



The screenshot shows an IDE with a project named 'yourcompany.routemanager.model'. The main editor displays the following Java code for the `Bus` entity:

```
package com.yourcompany.routemanager.model;

import javax.persistence.*;
import lombok.*;

@Entity
@Getter
@Setter
public class Bus {

    @Id
    @Column(length = 10)
    int registrationNumber;

    @Column(length = 10)
    int numberOfPassengers;

    //RoutesRouteNumber
    @ManyToOne(
        fetch = FetchType.LAZY,
        optional = false
    )
    Route routeNumber;
}
```

The console at the bottom shows the following output:

```
Run RouteManager [Java Application] /home/alvin/Desktop/Infos 354/openxava-6.5.3/studio/jre/bin/java (07 Nov 2021, 14:53:38)
Nov 07, 2021 2:53:47 PM org.directwebremoting.dwrp.DefaultConverterManager info
INFO: Probably not an issue: org.jdom.Element is not available so the jdom converter will not load. This is only a problem if you
Nov 07, 2021 2:53:47 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8080"]
Application started. Go to http://localhost:8080/routeManager
Nov 07, 2021 3:46:45 PM org.hibernate.jpa.internal.util.LogHelper logPersistenceUnitInformation
```