

```

22 *
23 * @Column is also optional which will customizes the column
24 *
25 * @Id ==> It will create primary Key
26 *
27 * Primary Key Auto Population can be done both at JPA and Database Level
28 *
29 * JPA will create a database sequence and it will use this sequence for populating primary key ==> AUTO
30 *
31 */
32
33
34 @Entity
35 @Table(name = "tbl_ticket")
36 public class Ticket {
37
38     @Id
39     @GeneratedValue(strategy = GenerationType.AUTO)
40     @Column(name="ticket_id")
41     private Integer ticketId;
42
43     @Column(name = "passenger_name", length = 50)
44     private String passengerName;
45
46
47     @Column(name="source_station")
48     private String sourceStation;
49
50     @Column(name="destination_station")
51     private String destinationStation;
52
53     @Column(name="travel_date")
54     private Date travelDate;
55
56     private String email;
57

```

the above example shows the mention the size of the data to be inserted in the column
 @Column(name="passenger_name", length=50)
 it accepts only 50 characters only

@Id

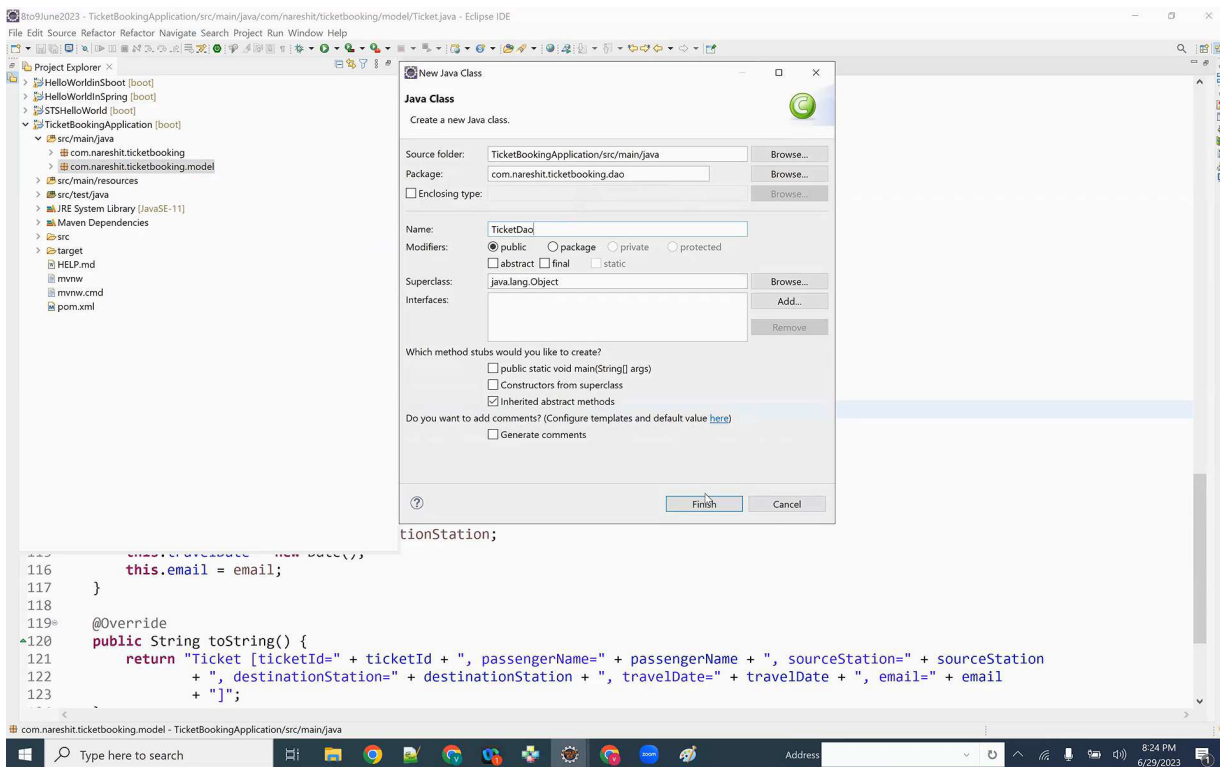
- Primary key should be a unique value.
- If users give the primary key as input, then we cannot guarantee uniqueness of the primary key
- we can generate primary key
 - o at database level
 - o at JPA level (framework level)
- Primary key auto population can be done both at JPA and Database level
- JPA will create a database sequence and it will use the sequence for populating the primary keys

@GeneratedValue(strategy=GenerationType.Auto)

- This annotation is used to generate the primary keys.
- JPA will create a sequence, this sequence used to populate the primary key.

what is the purpose of the DAO class ?

- it is a wrapper up on the Database



@Repository

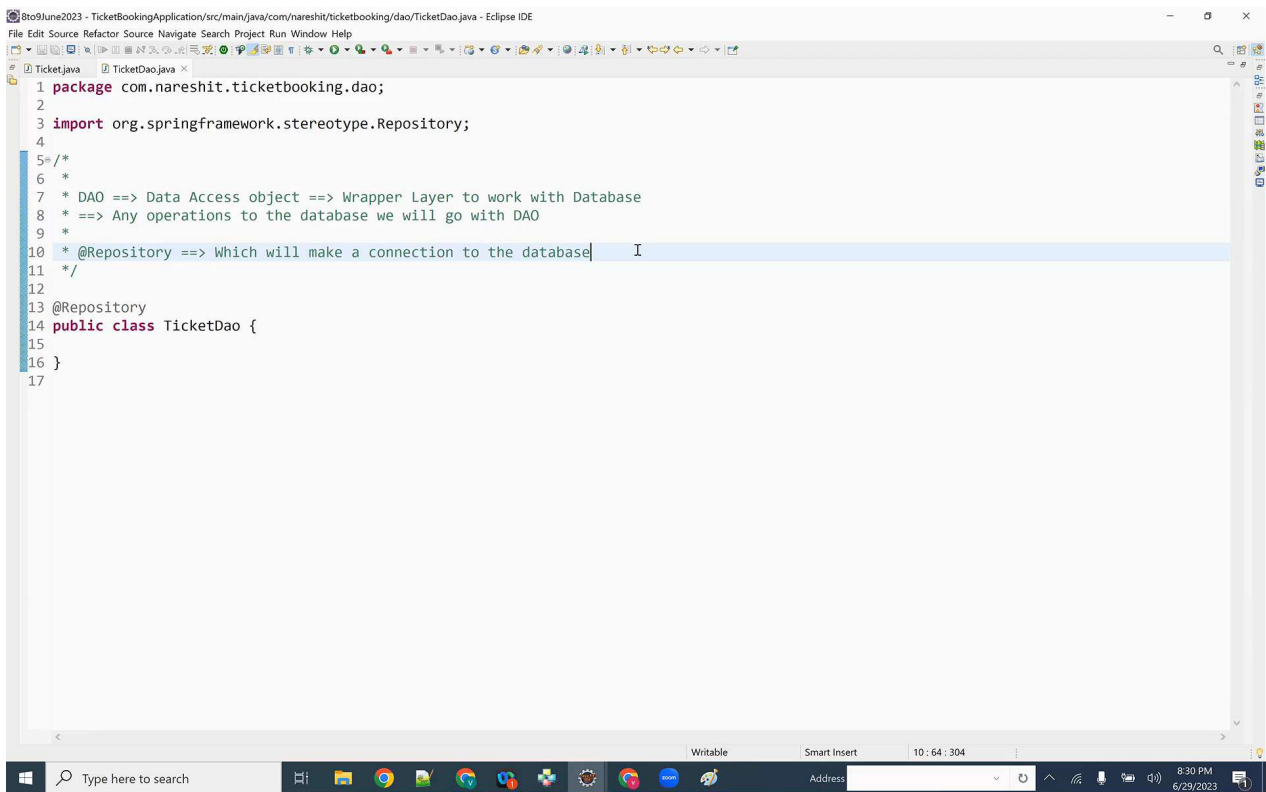
- This annotation, which will make a connection to the database
- CRUD Operations
 - o CrudRepository --> it is created to perform crud operations, where developer no need to write any sql code.
 - there are 2 inputs for the CrudRepository
 - ClassName
 - Datatype of the Primary Key

save --> insert the data or update the data

findById --> Retrieve the data

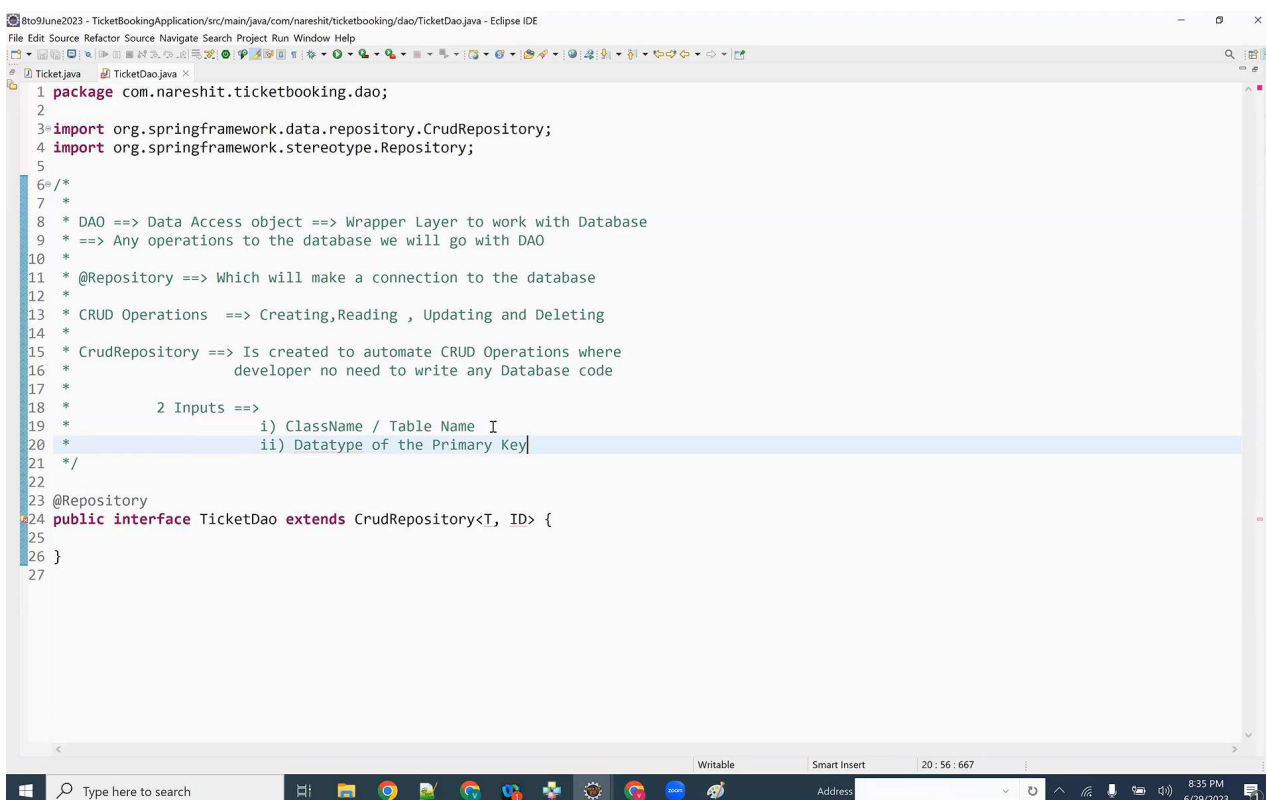
findAll --> Retrieve all the data

deleteById --> delete the record based on Id



The screenshot shows the Eclipse IDE with the file `TicketDao.java` open. The code defines a package `com.nareshit.ticketbooking.dao` and imports `org.springframework.stereotype.Repository`. It includes a Javadoc comment explaining the DAO pattern and the role of the `@Repository` annotation. The class `TicketDao` is declared as a public class.

```
1 package com.nareshit.ticketbooking.dao;
2
3 import org.springframework.stereotype.Repository;
4
5 /*
6  *
7  * DAO ==> Data Access object ==> Wrapper Layer to work with Database
8  * ==> Any operations to the database we will go with DAO
9  *
10 * @Repository ==> Which will make a connection to the database I
11 */
12
13 @Repository
14 public class TicketDao {
15
16 }
17
```



The screenshot shows the Eclipse IDE with the file `TicketDao.java` open. The code now imports `org.springframework.data.repository.CrudRepository` in addition to `org.springframework.stereotype.Repository`. The Javadoc comment is expanded to include details about CRUD operations and the inputs required for the `CrudRepository` interface. The `TicketDao` is now declared as a public interface that extends `CrudRepository<T, ID>`.

```
1 package com.nareshit.ticketbooking.dao;
2
3 import org.springframework.data.repository.CrudRepository;
4 import org.springframework.stereotype.Repository;
5
6 /*
7  *
8  * DAO ==> Data Access object ==> Wrapper Layer to work with Database
9  * ==> Any operations to the database we will go with DAO
10 *
11 * @Repository ==> Which will make a connection to the database
12 *
13 * CRUD Operations ==> Creating, Reading , Updating and Deleting
14 *
15 * CrudRepository ==> Is created to automate CRUD Operations where
16 * developer no need to write any Database code
17 *
18 * 2 Inputs ==>
19 *      i) ClassName / Table Name I
20 *      ii) Datatype of the Primary Key
21 */
22
23 @Repository
24 public interface TicketDao extends CrudRepository<T, ID> {
25
26 }
27
```

=====

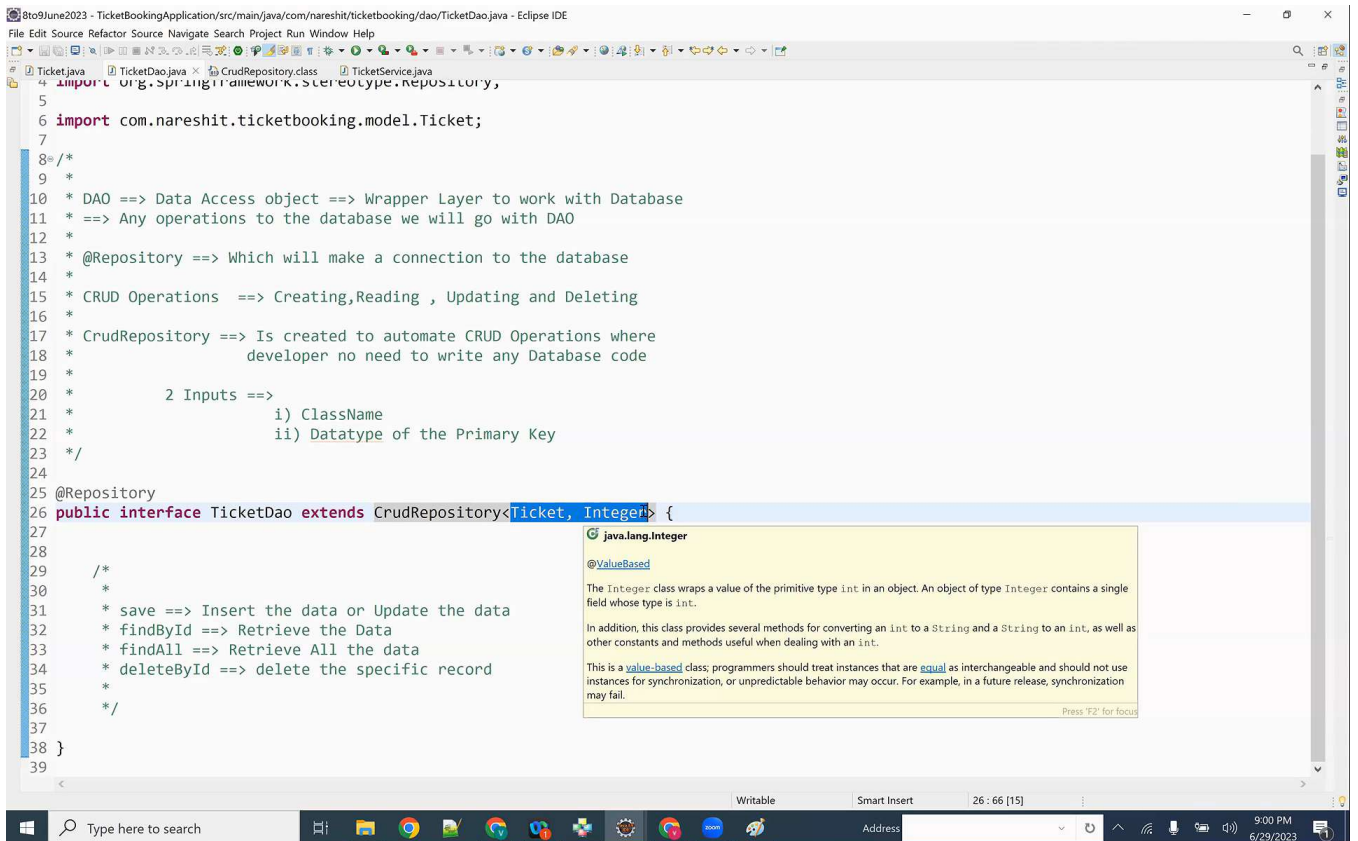
@Service

- This annotation is used, to write our business logic
- it has implemented transaction management capability
- this service layer interact with dao layer

@Autowired

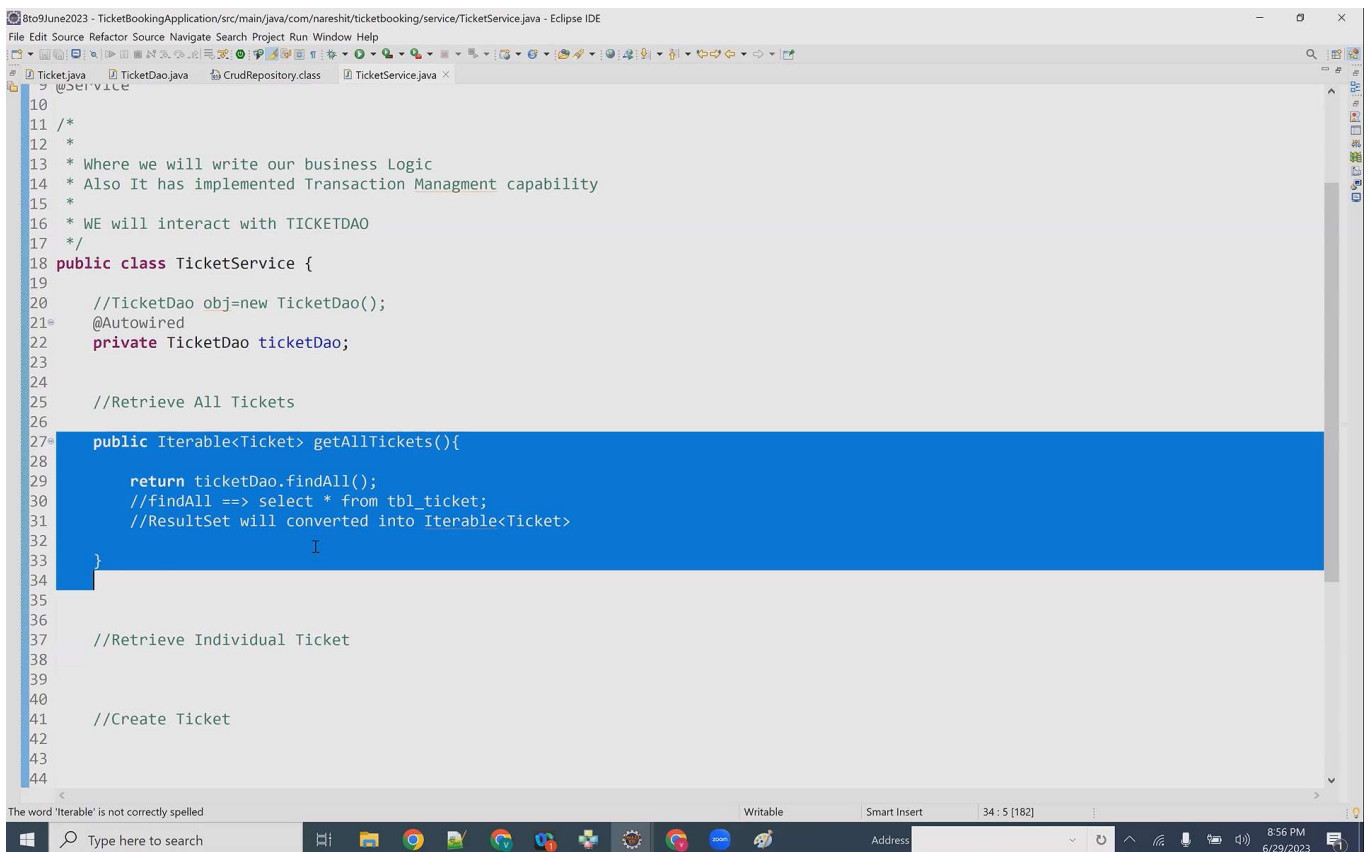
Iterable

A generic datastructure which work with list, set, ..



The screenshot shows the Eclipse IDE with the file `TicketDao.java` open. The code defines a `@Repository` interface `TicketDao` that extends `CrudRepository<Ticket, Integer>`. A tooltip for `java.lang.Integer` is displayed, explaining that it is a `@ValueBased` class that wraps a primitive `int` value. The code includes several Javadoc comments explaining the purpose of the DAO and the operations it supports.

```
4 import org.springframework.stereotype.Repository;
5
6 import com.nareshit.ticketbooking.model.Ticket;
7
8 /**
9  *
10 * DAO ==> Data Access object ==> Wrapper Layer to work with Database
11 * ==> Any operations to the database we will go with DAO
12 *
13 * @Repository ==> Which will make a connection to the database
14 *
15 * CRUD Operations ==> Creating, Reading, Updating and Deleting
16 *
17 * CrudRepository ==> Is created to automate CRUD Operations where
18 * developer no need to write any Database code
19 *
20 * 2 Inputs ==>
21 *             i) ClassName
22 *             ii) Datatype of the Primary Key
23 */
24
25 @Repository
26 public interface TicketDao extends CrudRepository<Ticket, Integer> {
27
28     /**
29      *
30      * save ==> Insert the data or Update the data
31      * findById ==> Retrieve the Data
32      * findAll ==> Retrieve All the data
33      * deleteById ==> delete the specific record
34      *
35      */
36 }
37
38 }
39
```



The screenshot shows the Eclipse IDE with the file `TicketService.java` open. The code implements the `TicketService` class, which uses `TicketDao` to perform database operations. A blue highlight is placed over the `Iterable<Ticket>` type in the `getAllTickets()` method. A tooltip at the bottom of the IDE indicates that the word 'Iterable' is not correctly spelled, suggesting a correction.

```
10
11 /**
12 *
13 * Where we will write our business Logic
14 * Also It has implemented Transaction Managment capability
15 *
16 * WE will interact with TICKETDAO
17 */
18 public class TicketService {
19
20     //TicketDao obj=new TicketDao();
21     @Autowired
22     private TicketDao ticketDao;
23
24     //Retrieve All Tickets
25
26
27     public Iterable<Ticket> getAllTickets(){
28
29         return ticketDao.findAll();
30         //findAll ==> select * from tbl_ticket;
31         //ResultSet will converted into Iterable<Ticket>
32
33     }
34
35
36     //Retrieve Individual Ticket
37
38
39
40
41     //Create Ticket
42
43
44

```

