14 December 2021 21:37

=> In the last session we discussed about JpaRepository and it's features

=> If we use JpaRepository then we can use below concepts

Pagination
Sorting
QBE (Query By Example)

Today's session : working with findByXXX( ) methods

=> findByXXX( ) methods are used to perform retrieval operations

=> When we use findByXXX methods, based on method name JPA will prepare the query and it will execute that

```
Class User{

    private Integer userId;
    private String username;
   private Integer userAge;
   private String  userCountry;

}
```

To get data based on user_id we will use predefined method

```
findById(Integer userId);
```

Get the data based on username

```
findByUsername(String username);
```

Get Users data based on user age

```
findByUserAge(Integer userAge);
```

```
public interface UserRepository extends JpaRepository<User, Integer> {

	// select * from users_tbl where user_age=?
	public List<User> findByUserAge(Integer age);

	// select * from users_tbl where user_country=?
	public List<User> findByuserCountry(String country);

	// select * from users_tbl where user_age=? and user_country=?
	public List<User> findByUserAgeAndUserCountry(Integer age, String country);

	// select * from users_tbl where user_age in (?,?,?)
	public List<User> findByUserAgeIn(List<Integer> ages);

	public List<User> findbyusername(String name);

}
```

=> In Data JPA, we can execute custom query also to retrieve data

=> To execute custom queries we will use @Query annotation

```
@Query(value = "from User where userAge=:age")
public List<User> getByAge(Integer age);
```

-> SQL queries are database dependent queries

-> In SQL queries we will use table name and column names directly

Ex: select * from users_tbl where user_age = 45;

Note: Every database having its own SQL syntaxes. One DB sql may not work with other DB.

-> In our application if we write SQL queries then those queries will work with only one database.

-> In future if we want to change our application from one database to another database we might need to change all queries. This is costly operation.

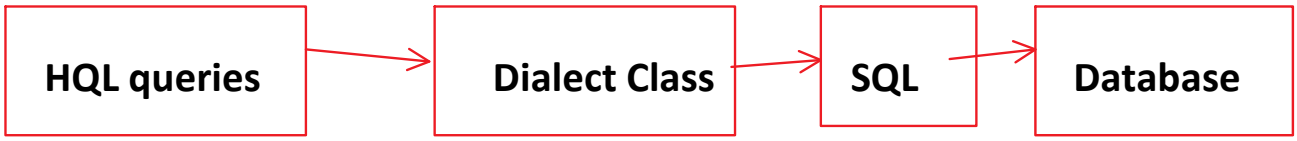
=> To overcome the problems of SQL queries HQL queries came into picuture

-> HQL stands for Hibernate Query Language

=> HQL queries are DB independent queries

-> In HQL queries we will use Entity class name and Entity class variable names

Ex: from User where userAge=?



OracleDialect
MySqlDialect
DB2Dialect
MongoDBDialect
SQLServerDialect

=> Dialect classes are used to convert HQL queries to SQL queries

=> Performance wise SQL is better and Maintenance wise HQL is better