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=> 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);

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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);

}

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=> 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);

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-> 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=?

HQL queries

**SQL**

**Dialect Class**

**Database**

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