**Hands on 1**

**Introduction to HQL and JPQL**

HQL (Hibernate Query Language) and JPQL (Java Persistence Query Language) are object-oriented query languages that work with Java entity objects rather than directly with database tables. This makes it easier to write cleaner, portable, and database-agnostic code. JPQL is part of the JPA (Java Persistence API) standard, while HQL is specific to Hibernate and extends JPQL with additional features like the INSERT operation. Both allow querying with SELECT, UPDATE, and DELETE, using class and field names instead of SQL table and column names.

**Example:**

* **Select Query (JPQL/HQL):**

@Query("SELECT e FROM Employee e WHERE e.salary > 50000")

List<Employee> findHighSalaryEmployees();

* **Update Query (JPQL/HQL):**

@Modifying

@Query("UPDATE Employee e SET e.salary = e.salary + 1000 WHERE e.salary < 40000")

void increaseLowSalaries();

* **Delete Query (JPQL/HQL):**

@Modifying

@Query("DELETE FROM Employee e WHERE e.salary < 20000")

void deleteLowSalaryEmployees();

* **HQL INSERT (HQL only, not JPQL):**

INSERT INTO Employee (id, name, salary, department)

SELECT e.id, e.name, e.salary, e.department FROM TempEmployee e