// Employee.java

@Entity

@Table(name = "employee")

public class Employee {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

@Column(name = "em\_id")

private int id;

@Column(name = "em\_name")

private String name;

@Column(name = "em\_salary")

private double salary;

@Column(name = "em\_permanent")

private boolean permanent;

@Column(name = "em\_date\_of\_birth")

private Date dateOfBirth;

@ManyToOne

@JoinColumn(name = "em\_dp\_id")

private Department department;

@ManyToMany

@JoinTable(name = "employee\_skill",

joinColumns = @JoinColumn(name = "es\_em\_id"),

inverseJoinColumns = @JoinColumn(name = "es\_sk\_id"))

private Set<Skill> skillList = new HashSet<>();

// Getters, Setters, toString

}

// Department.java

@Entity

@Table(name = "department")

public class Department {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

@Column(name = "dp\_id")

private int id;

@Column(name = "dp\_name")

private String name;

// Getters, Setters, toString

}

// Skill.java

@Entity

@Table(name = "skill")

public class Skill {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

@Column(name = "sk\_id")

private int id;

@Column(name = "sk\_name")

private String name;

@ManyToMany(mappedBy = "skillList")

private Set<Employee> employeeList;

// Getters, Setters, toString

}

// EmployeeRepository.java

@Repository

public interface EmployeeRepository extends JpaRepository<Employee, Integer> {

@Query("SELECT e FROM Employee e LEFT JOIN FETCH e.department LEFT JOIN FETCH e.skillList WHERE e.permanent = true")

List<Employee> getAllPermanentEmployees();

}

// EmployeeService.java

@Service

public class EmployeeService {

@Autowired

private EmployeeRepository employeeRepository;

@Transactional

public List<Employee> getAllPermanentEmployees() {

return employeeRepository.getAllPermanentEmployees();

}

}

// OrmLearnApplication.java

@SpringBootApplication

public class OrmLearnApplication {

private static final Logger LOGGER = LoggerFactory.getLogger(OrmLearnApplication.class);

private static EmployeeService employeeService;

public static void main(String[] args) {

ApplicationContext context = SpringApplication.run(OrmLearnApplication.class, args);

employeeService = context.getBean(EmployeeService.class);

testGetAllPermanentEmployees();

}

private static void testGetAllPermanentEmployees() {

LOGGER.info("Start");

List<Employee> employees = employeeService.getAllPermanentEmployees();

for (Employee e : employees) {

LOGGER.debug("Employee: {}", e);

LOGGER.debug("Department: {}", e.getDepartment());

LOGGER.debug("Skills: {}", e.getSkillList());

}

LOGGER.info("End");

}

}