**Instructions:**

- Note that the artifacts that you create in this project will be re-used and refined in subsequent assignments in this course.
- **Note:** You are responsible for reviewing, complete testing, and final submission.

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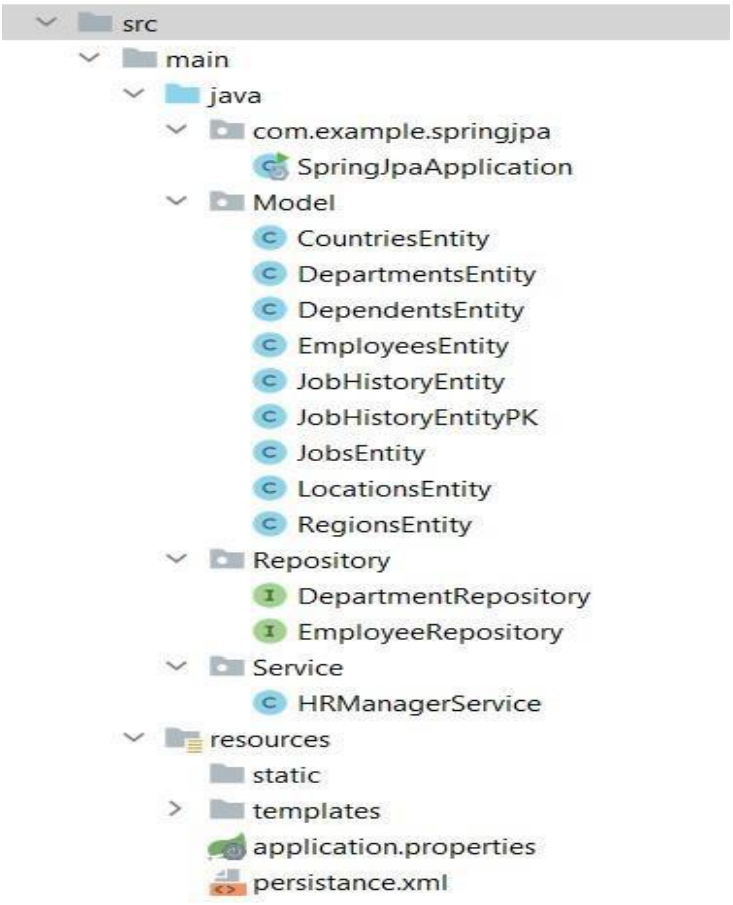
**Background:**

In this project, you will develop a Spring Application with the Spring Data JPA and MySQL Database. You will ensure that your Console application includes all the tables in the HR schema. Same as Group Project 2 you need to create all Entity Classes from the available Data source.

**Questions:**

Configure your persistence to include information about your MySQL Connection parameters with Entity Model.



**Annotations:**

1. main Application File. (Ex: SpringJPAApplication.java)

```
@SpringBootApplication
@ComponentScan(basePackageClasses = {HRManagerService.class})// Service
Class
@EntityScan("Model")// Model Package
@EnableJpaRepositories("Repository") // Repository
Package public class SpringJpaApplication {

   public static void main(String[] args) {
     ApplicationContext ctx =  SpringApplication.run(SpringJpaApplication.class,
     args);

     // test all Services here
   }
}
```

2. Service Class Files. (Ex: EmployeeService.java)

```
@Service("HRService")
public class EmployeeService {

   @Autowired
   private EmployeeRepository emprepository;

   @Autowired
   private DepartmentRepository deptrepository;

   public void test() {
     // demonstrate usage of all Repository classes
   }
}
```

3. Repository Interface Files.

```
@Component
 public interface EmployeeRepository extends
 CrudRepository<EmployeesEntity,int> {

 }
```

**Tasks:**

1. Find all Employees whose salary is in the range 9000,17000.
2. Find all Employees whose first name ends with Letter a.
3. Find all Employees working in Accounting Department.
4. Find all Employees working under Manager Id 108.
5. Find all Departments with Location Id 1700.
6. Count the number of cities each country has. Return country ID and number of cities.
7. Display the department name, city, and state province for each department.
8. Display the last name, job, department number and department name for all employees who work in 'Toronto' city.
9. Display the average of sum of the salaries and group the result with the department id. Order the result with department id.
10. Select the Manager name, department id of manager, the count of employees working under that manager as Total_Employees.

**Add Comments to your code.**

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**Submission:**

1. Be sure to save all changes.
2. Zip the ENTIRE project folder with your solution and upload to the Assignment 1 folder to the eConestoga Portal.

**Note:** You can submit multiple times if you want. Please mention in comments which submission to evaluate. Also note that if you resubmit after the due date, late penalties apply as per your Program Handbook.