

CS34800: Project1

Due Date: 11:59PM, Friday, September 15, 2017

Given the following entities, provide the SQL queries corresponding to the questions below:

Note: The schema definition of these tables and sample data are provided in **tables.sql** and **data.sql**, respectively. **Do not use PL/SQL for this homework, just a single SQL select statement per question.**

You should use your Purdue Oracle account to create and test the queries. Submit your answers via Blackboard.

Company(CompId, CompName, Address)

Recruiter(RecId, RecName)

Student(StudentId, StudentName, SchoolId, BirthDate, Grade)

Job(JobId, CompId, JobNum, JobTitle, Salary, OfferYear)

School(SchoolId, SchoolName, Address)

Internship(StudentId, CompId, RecId, OfferYear)

JobApplication(JobId, StudentId, ApplicationDate)

1. For each school, display its name and the average grade of its students (consider only individual student grades of 60% and up).

Output columns: *SchoolName*, *AverageGrade*

Sort by: *AverageGrade* in descending order

Note: The average grade should be displayed in the following format xx.xx (e.g., 80.37) and all the schools should be shown.

<i>SchoolName</i>	<i>AverageGrade</i>
School1	90
School2	79.50
School3	75.00

2. For the oldest student(s) in the database, display his/her/their name(s) as well as the number of internships they had (might be zero).

Output columns: *StudentId*, *StudentName*, *NumOfInternships*

Sort by *StudentName*

<i>StudentId</i>	<i>StudentName</i>	<i>NumOfInternships</i>
Id1	Student1	0
Id2	Student2	1

3. For each student, find the number of companies she/he filed job applications to.

Output columns: *StudentId, StudentName, NumberOfCompanies*

Sort by: *StudentName*

<i>StudentId</i>	<i>StudentName</i>	<i>NumOfCompanies</i>
Id1	Student1	0
Id2	Student2	1

4. Find the company (or companies) with the highest number of job offerings in the years (2014,2015,2016).

Output columns: *CompName, NumberOfJobs*

Sort by: *CompName*

<i>CompName</i>	<i>NumberOfJobs</i>
Comp1	20
Comp2	20

5. Find the companies with the three highest number of job offerings in the years (2014,2015,2016).

Output columns: *CompName, NumberOfJobs*

Sort by: *CompName*

<i>CompName</i>	<i>NumberOfJobs</i>
Comp1	20
Comp2	15
Comp3	13

6. For each company, display its name, the number of jobs, and the number of internships at that company.

Output columns: *CompName, NumOfJobs, NumOfInternships*

Sort by: *NumOfJobs*

<i>CompName</i>	<i>NumOfJobs</i>	<i>NumOfInternships</i>
Comp2	100	4
Comp1	70	3
Comp3	60	2

7. For each student at Purdue (i.e., *SchoolName* = 'Purdue'), retrieve his/her name, age (in years), and the number of internships s/he took.

Output columns: *StudentId*, *StudentName*, *Age*, *NumOfInternships*

Sort by: *StudentName*

Note: If a student's age is 20.5 years, just display 20. Also, if a student did not take any internships, make sure to display a record for him/her with '0' in the *NumOfInternships* field.

<i>StudentId</i>	<i>StudentName</i>	<i>Age</i>	<i>NumOfInternships</i>
Id1	Student1	25	3
Id2	Student2	24	0
Id3	Student3	26	1

8. For each recruiter who hired interns for at least two companies, display the recruiter's name as well as the number of companies she/he has recruited interns at.

Output columns: *RecId*, *RecName*, *NumOfCompanies*

Sort by: *RecName*

<i>RecId</i>	<i>RecName</i>	<i>NumOfCompanies</i>
Id1	Rec1	2
Id2	Rec2	3
Id3	Rec2	5

9. For each job offered in 2017, list the job number, the job title, the job salary of, the company offering the job, and the number of students applying for that job.

Output columns: *JobNum*, *JobTitle*, *Salary*, *CompName*, *NumOfStudents*

Sort by: *JobNum*, *JobTitle*

<i>JobNum</i>	<i>JobTitle</i>	<i>Salary</i>	<i>CompName</i>	<i>NumOfStudents</i>
JobNum1	Title1	150000	Comp1	20
JobNum2	Title2	130000	Comp2	15

10. Knowing that the passing grade is 60% and higher, for each school find the number of students failing at that school

Output columns: *SchoolName*, *FailedCount*

Sort by: *SchoolName*

<i>SchoolName</i>	<i>FailedCount</i>
School1	20
School2	10

Submission instructions:

Please submit via Blackboard the following:

1. Your SQL script containing the 10 SQL queries. Name it **project1_YourEmailAlias.sql**; you should put a comment before each query in the following format:
-----Query1
Select.....
-----Query2
Select.....

....
-----Query10
Select....
2. A README file containing your first name, last name, and your Purdue email address.