

## Problem A:

Table Name : Employee

EID	Ename	Pid
100	ABC	P189
101	MNP	P789
102	DEF	P567
103	JKL	NULL
104	GHJ	P567
105	UJM	P189
106	UJM	NULL
107	RGJ	P567
108	IJH	NULL
109	NMH	P547
110	SDF	P189
111	TGB	P546
112	HUF	NULL
113	SDF	P789
114	RGJ	P567
115	JKG	P189

Table Name : Project

Pid	Pname
P189	Rest
P546	Spring
P547	Maven
P567	Swift
P789	Angular
P799	Script
P805	Mssql
P855	Perl
P895	Python
P902	Ruby
P928	R

Write a query to :

1. Find all the projects which are not currently taken up by any employee

2. Find all the other employees who are working in the same project with 'ABC'
3. Find all the project names and No of employees working on each project
4. Find all the projects which have 2 or more employees with same name
5. List out the names of both employees and projects in alphabetical order into the single result.

### Problem B:

Please write the queries for the following requirement using the below table

**Table Name : Products** (ProductID is the Primary Key, CategoryID is the foreign Key)

ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	Chais	1	1	200	18
2	Chang	1	1	120	19
3	Aniseed Syrup	1	2	50	10
4	Chef Anton's Cajun Seasoning	2	2	45	22
5	Chef Anton's Gumbo Mix	2	4	65	25
6	Grandma's Boysenberry Spread	3	2	78	25
7	Uncle Bob's Organic Dried Pears	3	3	98	30
8	Northwoods Cranberry Sauce	3	2	150	40
9	Mishi Kobe Niku	4	4	230	97
10	Ikura	4	5	45	31

**Table Name : Categories** (CategoryID is the Primary Key)

CategoryID	CategoryName	Description
1	Beverages	Soft drinks, coffees, teas, beers, and ales
2	Condiments	Sweet and savory sauces, relishes, spreads, and seasonings
3	Confections	Desserts, candies, and sweet breads
4	Dairy Products	Cheeses
5	Grains/Cereals	Breads, crackers, pasta, and cereal

1. Find all records where product name contains 'ch'
2. Find all records where price is greater than the average price of all products
3. Find all products whose category name is 'Condiments'
4. Find No of products of each category
5. The following query is too slow on the products table containing more than 10 lacs records

Select \* from products where Unit > 500;

Write a query that decreases the retrieval time from now

Hint: Create INDEX unit\_index on Products (Unit)