

# Advanced SQL ONLINE - B1

**Time: 35 minutes**

As the newly appointed database expert (going to be) in the company with an Oracle database system, your CEO assigned you to a crucial task. You were asked to extract specific information from the UNIVERSITY schema. Sample outputs have been provided. Observe carefully, your column names are expected to be matched with the provided output's column names.

1. Combine the list of courses that have been taken by students in either the "Comp. Sci." or "Math" departments, along with the list of courses that have not been taken by any student in the "Elec. Eng." department. Order the output according to course title. **You cannot use any join operations.**

	ABC COURSE_TITLE
1	Accounting
2	Aerodynamics
3	African History
4	Animal Behavior
5	Antidisestablishmentarianism in Modern America
6	Aquatic Chemistry
7	Arabic
8	Assembly Language Programming
9	Astronautics
10	Astronomy
11	Automobile Mechanics
12	Bacteriology
13	Banking and Finance
14	Bankruptcy
15	Bioinformatics
16	Biostatistics
17	C Programming

2. Find the students who are advised by an instructor who teaches at least one course that the student has taken. **You cannot use any GROUP functions.** Order the output according to student name.

	ABC STUDENT_NAME
1	Abdul-Rahman
2	Abeggl
3	Agraz
4	Ahmad
5	Ahmadian
6	Akroy
7	Al-Tahat
8	Albuquerque
9	Allen
10	Almeida
11	Anderson
12	Andert

3. Find the names, departments and total credits of students who have completed all the prerequisites for **'Image Processing'** course of **'Finance'** department. Order the output according to student name. You cannot use join in the main query. You must use **SUB-QUERY** in **where** clause. You can use join in the sub-queries.

	ABC STUDENT_NAME	ABC DEPT_NAME	123 TOTAL_CREDIT
1	Abraham	Psychology	109
2	Adam	Cybernetics	15
3	Advani	Athletics	112
4	Afim	Accounting	100
5	Ahmadian	Psychology	101
6	Ahso	Pol. Sci.	22
7	Albuquerque	Comp. Sci.	100
8	Alexandri	Finance	80
9	Alfaro	Math	126
10	Allard	Physics	27
11	Almeida	Finance	106
12	Andert	Physics	98
13	Andrews	Psychology	7

4. Find the instructors who have taught courses at least in 5 semesters. **You cannot use any join operations.**

	ABC ID	ABC INSTRUCTOR_NAME
1	22591	DAgostino
2	99052	Dale
3	77346	Mahmoud
4	6569	Mingoz
5	36897	Morris
6	79081	Ullman

5. Find the instructors who have taught the same course in consecutive years. You must use **EXISTS** clause.

	ABC INSTRUCTOR_NAME	ABC COURSE_TITLE	123 YEAR
1	Mingoz	Embedded Systems	2,005
2	DAgostino	Graph Theory	2,006
3	Dale	Surfing	2,008