

Q1

```
--1. Display the average salary for each job, but only for jobs where the average salary is greater than $10000  
select job_id, avg(salary) as avg_salary from employees group by job_id having avg(salary) > 10000;
```

Query Result x
All Rows Fetched: 7 in 0.005 seconds

| JOB_ID | AVG_SALARY |
|-----------|------------|
| 1 AC_MGR | 12008 |
| 2 PU_MAN | 11000 |
| 3 AD_VP | 17000 |
| 4 FI_MGR | 12008 |
| 5 SA_MAN | 12200 |
| 6 MK_MAN | 13000 |
| 7 AD_PRES | 24000 |

Q2

```
--2. For each department that has more than 2 employees, retrieve the department number and the number of its employees  
SELECT department_id, count(employee_id) as employee_count from employees where salary > 10000 group by department_id having count(employee_id) > 2;
```

Query Result x
All Rows Fetched: 2 in 0.025 seconds

| DEPARTMENT_ID | EMPLOYEE_COUNT |
|---------------|----------------|
| 1 | 3 |
| 2 | 8 |

Q3

```
--3.===== Display the name of the department that has the most recent job start date  
SELECT department_name FROM ( SELECT department_name, start_date FROM departments ORDER BY start_date DESC ) WHERE ROWNUM = 1;  
--4.===== Create indexes on employee_id in both employees and job_history tables  
CREATE INDEX idx_employee_id_employees ON employees(employee_id);  
CREATE INDEX idx_employee_id_job_history ON job_history(employee_id);
```

Script Output x Query Result x Query Result 1 x
Executing: SELECT department_name FROM (SELECT department_name, start_date FROM departments ORDER BY start_date DESC) WHERE ROWNUM = 1 in 0 seconds

ORA-00904: "START_DATE": invalid identifier
00904. 00000 - "%s: invalid identifier"
*Cause:
*Action:
Error at Line: 15 Column: 55

Q4

```
--4. Create indexes on employee id in both employees and job_history tables. List employees who do not have any records
CREATE INDEX idx_employee_id_employees ON employees(employee_id);
CREATE INDEX idx_employee_id_job_history ON job_history(employee_id);
SELECT employee_id, first_name, last_name FROM employees WHERE employee_id NOT IN (SELECT employee_id FROM job_history);
```

Script Output x Query Result x

SQL | Fetched 100 rows in 0.009 seconds

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME |
|-------------|-----------------|-----------|
| 46 | 149 Eleni | Zlotkey |
| 47 | 150 Peter | Tucker |
| 48 | 151 David | Bernstein |
| 49 | 152 Peter | Hall |
| 50 | 153 Christopher | Olsen |
| 51 | 154 Nanette | Cambrault |
| 52 | 155 Oliver | Tuvault |
| 53 | 156 Janette | King |
| 54 | 157 Patrick | Sully |
| 55 | 158 Allan | McEwen |
| 56 | 159 Lindsey | Smith |
| 57 | 160 Louise | Doran |
| 58 | 161 Sarath | Sewall |
| 59 | 162 Clara | Vishney |
| 60 | 163 Danielle | Greene |
| 61 | 164 Mattea | Marvins |
| 62 | 165 David | Lee |
| 63 | 166 Sundar | Ande |
| 64 | 167 Amit | Banda |

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Q5

```
--5. Display the department number and the salary of the highest-paid employee in that department. Excluding department
select department_id, MAX(salary) as max_salary from employees group by department_id having max(salary) >=2000 order b
```

Script Output x Query Result x

SQL | All Rows Fetched: 12 in 0.004 seconds

| DEPARTMENT_ID | MAX_SALARY |
|---------------|-------------|
| 1 | 90 24000 |
| 2 | 80 14000 |
| 3 | 20 13000 |
| 4 | 100 12008 |
| 5 | 110 12008 |
| 6 | 30 11000 |
| 7 | 70 10000 |
| 8 | 60 9000 |
| 9 | 50 8200 |
| 10 | (null) 7000 |
| 11 | 40 6500 |
| 12 | 10 4400 |

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q15

```
--15.===== Create a replica of employees table and increase the salary of
CREATE TABLE employees_copy AS SELECT * FROM employees;
UPDATE employees_copy SET salary = salary * 1.12 WHERE salary BETWEEN 5000 AND 10000;
--displaying values
SELECT employee_id, first_name, last_name, salary FROM employees_copy WHERE salary BETWEEN 5600 AND 11200;
```

Script Output x Query Result x

SQL | All Rows Fetched: 48 in 0.003 seconds

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | SALARY |
|-------------|-----------------|-----------|----------|
| 1 | 103 Alexander | Hunold | 10080 |
| 2 | 104 Bruce | Ernst | 8429.57 |
| 3 | 109 Daniel | Faviet | 10080 |
| 4 | 110 John | Chen | 10286.08 |
| 5 | 111 Ismael | Sciarra | 10817.95 |
| 6 | 112 Jose Manuel | Urman | 10958.44 |
| 7 | 113 Luis | Popp | 9694 |
| 8 | 114 Den | Raphaely | 11000 |
| 9 | 120 Matthew | Weiss | 10035.2 |
| 10 | 121 Adam | Fripp | 10286.08 |
| 11 | 122 Payam | Kaufling | 11098.93 |
| 12 | 123 Shanta | Vollman | 9132.03 |
| 13 | 124 Kevin | Murphy | 8148.58 |

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