1. **select all employees in department 10 whose salary is greater than 3000.**

select \* from employee where salary>3000 and deptno=10;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 800 | George | Clooney | 10 | 10000.00 |

**2. The grading of students based on the marks they have obtained is done as follows**

**40 to 50 -> Third Class**

**50 to 60 -> Second Class**

**60 to 80 -> First Class**

**80 to 100 -> Distinctions**

select name,id,marks,'distinction' as grade from students where marks between 80 and 100;

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  | | --- | --- | --- | --- | | Britney | 11 | 95.00 | distinction | | Christene | 14 | 88.00 | distinction | | Samantha | 19 | 87.00 | distinction | | Julia | 21 | 96.00 | distinction | | Scarlet | 31 | 80.00 | distinction | | Kristeen | 32 | 100.00 | distinction | | Salma | 41 | 81.00 | distinction | | Heraldo | 61 | 94.00 | distinction | | Stuart | 71 | 99.00 | distinction | | Amina | 76 | 89.00 | distinction | | Vivek | 91 | 84.00 | distinction |   select name,id,marks,'firstclass' as grade from students where marks between 60 and 80;   |  |  |  |  | | --- | --- | --- | --- | | Jenny | 13 | 66.00 | firstclass | | Priya | 16 | 76.00 | firstclass | | Priyanka | 17 | 77.00 | firstclass | | Paige | 18 | 74.00 | firstclass | | Evil | 27 | 79.00 | firstclass | | Jane | 29 | 64.00 | firstclass | | Scarlet | 31 | 80.00 | firstclass | | Fanny | 34 | 75.00 | firstclass | | Belvet | 37 | 78.00 | firstclass | | Danny | 38 | 75.00 | firstclass | | Aamina | 81 | 77.00 | firstclass | | Devil | 96 | 76.00 | firstclass |   select name,id,marks,'secondclass' as grade from students where marks between 50 and 60;   |  |  |  |  | | --- | --- | --- | --- | | Dyana | 12 | 55.00 | secondclass |   select name,id,marks,'thirdclass' as grade from students where marks between 40 and 50;  **a. How many students have graduated with first class?**  select count(\*),'firstclass' as grade from students where marks between 60 and 80;   |  |  | | --- | --- | | 12 | firstclass |   **b. How many students have obtained distinction?**  select count(\*),'Distinction' as grade from students where marks between 80 and 100;   |  |  | | --- | --- | | 11 | Distinction |   **3. Get a list of city names from station with even ID numbers only. Exclude duplicates from your answer.**  select city from station where id%2=0;    **4. Find the difference between the total number of city entries in the table and the number of distinct city entries in the table. In other words, if N is the number of city entries in station, and N1 is the number of distinct city names in station, write a query to find the value of N-N1 from station.**  select count(city)-count(distinct city) from station;  count(city)-count(distinct city)  30  **5. a. Query the list of CITY names starting with vowels (i.e., a, e, i, o, or u) from STATION. Your result cannot contain duplicates. [Hint: Use RIGHT() / LEFT() methods ]**  select distinct city from station where left(city,1) in ('a','e','i','o','u');  **city**   |  |  | | --- | --- | |  | Acme | |  | Addison | |  | Agency | |  | Aguanga | |  | Alanson | |  | Alba | |  | Albany | |  | Albion | |  | Algonac | |  | Aliso | |  | Allerton | |  | Alpine | |  | Alton | |  | Amazonia | |  | Amo | |  | Andersonville | |  | Andover | |  | Anthony | |  | Archie | |  | Arispe | |  | Arkadelphia | |  | Arlington | |  | Arrowsmith | |  | Athens | |  | Atlantic | |  | Auburn | |  | East | |  | Eastlake | |  | Edgewater | |  | Effingham | |  | Eleele | |  | Elkton | |  | Elm | |  | Emmett | |  | Equality | |  | Eriline | |  | Ermine | |  | Eros | |  | Eskridge | |  | Esmond | |  | Eufaula | |  | Eureka | |  | Eustis | |  | Everton | |  | Irvington | |  | Oakfield | |  | Oconee | |  | Odin | |  | Ojai | |  | Olmitz | |  | Onaway | |  | Orange | |  | Osage City | |  | Osborne | |  | Oshtemo | |  | Ottertail | |  | Ozona | |  | Udall | |  | Ukiah | |  | Union | |  | Upperco | |  | Urbana |     **b. Query the list of CITY names from STATION which have vowels (i.e., a, e, i, o, and u) as both their first and last characters. Your result cannot contain duplicates.**  select distinct city from station where left(city,1) in ('a','e','i','o','u') and right(city,1) in ('a','e','i','o','u');  **city**   |  | | --- | | Acme | | Aguanga | | Alba | | Aliso | | Alpine | | Amazonia | | Amo | | Andersonville | | Archie | | Arispe | | Arkadelphia | | Eastlake | | Eleele | | Eriline | | Ermine | | Eskridge | | Eufaula | | Eureka | | Oconee | | Ojai | | Orange | | Osborne | | Oshtemo | | Ozona | | Upperco | | Urbana |   **c. Query the list of CITY names from STATION that do not start with vowels. Your result cannot contain duplicates.**  select distinct city from station where left(city,1) not in ('a','e','i','o','u');  **d. Query the list of CITY names from STATION that either do not start with vowels or do not end with vowels. Your result cannot contain duplicates. [table: station]**  select distinct city from station where left(city,1) not in ('a','e','i','o','u') and right(city,1) not in ('a','e','i','o','u');  **6. Write a query that prints a list of employee names having a salary greater than $2000 per month who have been employed for less than 10 months. Sort your result by ascending emp\_id. [table: emp]**  select emp\_no,first\_name,last\_name,salary,hire\_date from emp where salary>2000 and datediff(sysdate(),hire\_date)<300 order by emp\_no;   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 10001 | Georgi | Facello | 7850.00 | 2020-02-23 | | 10003 | Parto | Bamford | 7850.00 | 2020-02-23 | | 10004 | Chirstian | Koblick | 3475.00 | 2020-04-15 | | 10006 | Anneke | Preusig | 7850.00 | 2020-02-23 | | 10007 | Tzvetan | Zielinski | 7850.00 | 2020-02-23 | | 10009 | Sumant | Peac | 7850.00 | 2020-02-23 | | 10013 | Eberhardt | Terkki | 7850.00 | 2020-02-23 | | 10018 | Kazuhide | Peha | 7850.00 | 2020-02-23 | | 10021 | Ramzi | Erde | 7850.00 | 2020-02-23 | | 10027 | Divier | Reistad | 7850.00 | 2020-02-23 | | 10033 | Arif | Merlo | 7850.00 | 2020-02-23 | | 10034 | Bader | Swan | 7850.00 | 2020-02-23 | | 10039 | Alejandro | Brender | 7850.00 | 2020-02-23 | | 10048 | Florian | Syrotiuk | 3475.00 | 2020-04-15 | | 10052 | Heping | Nitsch | 3475.00 | 2020-04-15 | | 10058 | Berhard | McFarlin | 7850.00 | 2020-02-23 | | 10061 | Tse | Herber | 7850.00 | 2020-02-23 | | 10063 | Gino | Leonhardt | 7850.00 | 2020-02-23 | | 10064 | Udi | Jansch | 3475.00 | 2020-04-15 | | 10066 | Kwee | Schusler | 7850.00 | 2020-02-23 | | 10067 | Claudi | Stavenow | 7850.00 | 2020-02-23 | | 10069 | Margareta | Bierman | 7850.00 | 2020-02-23 | | 10072 | Hironoby | Sidou | 3475.00 | 2020-04-15 | | 10076 | Erez | Ritzmann | 3475.00 | 2020-04-15 | | 10078 | Danel | Mondadori | 7850.00 | 2020-02-23 | | 10079 | Kshitij | Gils | 7850.00 | 2020-02-23 | | 10081 | Zhongwei | Rosen | 7850.00 | 2020-02-23 | | 10087 | Xinglin | Eugenio | 7850.00 | 2020-02-23 | | 10088 | Jungsoon | Syrzycki | 3475.00 | 2020-04-15 | | 10094 | Arumugam | Ossenbruggen | 7850.00 | 2020-02-23 | | 10099 | Valter | Sullins | 7850.00 | 2020-02-23 |   **7. How much money does the company spend every month on salaries for each department? [table: emp]**  select sum(salary),deptno from employee group by deptno;   |  |  | | --- | --- | | 20700.00 | 10 | | 12300.00 | 20 | | 1675.00 | 30 |   **8. . How many cities in the CITY table have a Population larger than 100000**  select count(\*) from city where population>100000;  11  **9. What is the total population of California?**  select sum(population) from city where district='California';  sum(population)  339002  **10.What is the average population of the districts in each country?**  select countrycode,avg(population) from city group by countrycode;   |  |  |  |  | | --- | --- | --- | --- | | NLD | | 593321.0000 | | | USA | | 120225.8750 | | | JPN | | 175839.2000 | | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | |  |  | |  | |  |  | | | | | |  | |  |  |
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