**MySQL Queries**

1. Write a SQL statement to create a simple table countries including columns country\_id,country\_name and region\_id.
2. Write a SQL statement to create a simple table countries including columns country\_id,country\_name and region\_id which is already exists.
3. Write a SQL statement to create the structure of a table dup\_countries similar to countries.
4. Write a SQL statement to create a duplicate copy of countries table including structure and data by name dup\_countries.
5. Write a SQL statement to create a duplicate copy of countries table including structure and data by name dup\_countries.
6. Write a SQL statement to create a table named jobs including columns job\_id, job\_title, min\_salary, max\_salary and check whether the max\_salary amount exceeding the upper limit 25000.
7. Write a SQL statement to create a table named countries including columns country\_id, country\_name and region\_id and make sure that no countries except Italy, India and China will be entered in the table.
8. Write a SQL statement to rename the table countries to country\_new.
9. Create a table **locations** with the following columns – location\_id, street\_address, postal\_code, city, state\_province, country\_id.
10. Write a SQL statement to add a column region\_id to the table locations.
11. Write a SQL statement to add a columns ID as the first column of the table locations.
12. Write a SQL statement to add a column region\_id after state\_province to the table locations.
13. Write a SQL statement change the data type of the column country\_id to integer in the table locations.
14. Write a SQL statement to drop the column city from the table locations.
15. Write a SQL statement to change the name of the column state\_province to state, keeping the data type and size same.
16. Write a SQL statement to add a primary key for the columns location\_id in the locations table.
17. Write a SQL statement to add a primary key for a combination of columns location\_id and country\_id.
18. Write a SQL statement to drop the existing primary from the table locations on a combination of columns location\_id and country\_id.
19. Write a SQL statement to add a foreign key on job\_id column of job\_history table referencing to the primary key job\_id of jobs table.
20. Write a SQL statement to add a foreign key constraint named fk\_job\_id on job\_id column of job\_history table referencing to the primary key job\_id of jobs table.
21. Write a SQL statement to drop the existing foreign key fk\_job\_id from job\_history table on job\_id column which is referencing to the job\_id of jobs table.
22. Write a SQL statement to add an index named indx\_job\_id on job\_id column in the table job\_history.
23. Write a SQL statement to drop the index indx\_job\_id from job\_history table.

Assume the employees table as below to solve the following queries.

+-------------+-------------+-------------+----------+--------------------+------------+------------+----------+----------------+------------+---------------+

| EMPLOYEE\_ID | FIRST\_NAME | LAST\_NAME | EMAIL | PHONE\_NUMBER | HIRE\_DATE | JOB\_ID | SALARY | COMMISSION\_PCT | MANAGER\_ID | DEPARTMENT\_ID |

+-------------+-------------+-------------+----------+--------------------+------------+------------+----------+----------------+------------+---------------+

| 100 | Steven | King | SKING | 515.123.4567 | 1987-06-17 | AD\_PRES | 24000.00 | 0.00 | 0 | 90 |

| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 1987-06-18 | AD\_VP | 17000.00 | 0.00 | 100 | 90 |

| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 1987-06-19 | AD\_VP | 17000.00 | 0.00 | 100 | 90 |

| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 1987-06-20 | IT\_PROG | 9000.00 | 0.00 | 102 | 60 |

| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 1987-06-21 | IT\_PROG | 6000.00 | 0.00 | 103 | 60 |

| 105 | David | Austin | DAUSTIN | 590.423.4569 | 1987-06-22 | IT\_PROG | 4800.00 | 0.00 | 103 | 60 |

| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 1987-06-23 | IT\_PROG | 4800.00 | 0.00 | 103 | 60 |

| 107 | Diana | Lorentz | DLORENTZ | 590.423.5567 | 1987-06-24 | IT\_PROG | 4200.00 | 0.00 | 103 | 60 |

| 108 | Nancy | Greenberg | NGREENBE | 515.124.4569 | 1987-06-25 | FI\_MGR | 12000.00 | 0.00 | 101 | 100 |

| 109 | Daniel | Faviet | DFAVIET | 515.124.4169 | 1987-06-26 | FI\_ACCOUNT | 9000.00 | 0.00 | 108 | 100 |

| 110 | John | Chen | JCHEN | 515.124.4269 | 1987-06-27 | FI\_ACCOUNT | 8200.00 | 0.00 | 108 | 100 |

| 111 | Ismael | Sciarra | ISCIARRA | 515.124.4369 | 1987-06-28 | FI\_ACCOUNT | 7700.00 | 0.00 | 108 | 100 |

| 112 | Jose Manuel | Urman | JMURMAN | 515.124.4469 | 1987-06-29 | FI\_ACCOUNT | 7800.00 | 0.00 | 108 | 100 |

| 113 | Luis | Popp | LPOPP | 515.124.4567 | 1987-06-30 | FI\_ACCOUNT | 6900.00 | 0.00 | 108 | 100 |

| 114 | Den | Raphaely | DRAPHEAL | 515.127.4561 | 1987-07-01 | PU\_MAN | 11000.00 | 0.00 | 100 | 30 |

| 115 | Alexander | Khoo | AKHOO | 515.127.4562 | 1987-07-02 | PU\_CLERK | 3100.00 | 0.00 | 114 | 30 |

| 116 | Shelli | Baida | SBAIDA | 515.127.4563 | 1987-07-03 | PU\_CLERK | 2900.00 | 0.00 | 114 | 30 |

| 117 | Sigal | Tobias | STOBIAS | 515.127.4564 | 1987-07-04 | PU\_CLERK | 2800.00 | 0.00 | 114 | 30 |

| 118 | Guy | Himuro | GHIMURO | 515.127.4565 | 1987-07-05 | PU\_CLERK | 2600.00 | 0.00 | 114 | 30 |

| 119 | Karen | Colmenares | KCOLMENA | 515.127.4566 | 1987-07-06 | PU\_CLERK | 2500.00 | 0.00 | 114 | 30 |

| 120 | Matthew | Weiss | MWEISS | 650.123.1234 | 1987-07-07 | ST\_MAN | 8000.00 | 0.00 | 100 | 50 |

| 121 | Adam | Fripp | AFRIPP | 650.123.2234 | 1987-07-08 | ST\_MAN | 8200.00 | 0.00 | 100 | 50 |

| 122 | Payam | Kaufling | PKAUFLIN | 650.123.3234 | 1987-07-09 | ST\_MAN | 7900.00 | 0.00 | 100 | 50 |

| 123 | Shanta | Vollman | SVOLLMAN | 650.123.4234 | 1987-07-10 | ST\_MAN | 6500.00 | 0.00 | 100 | 50 |

| 124 | Kevin | Mourgos | KMOURGOS | 650.123.5234 | 1987-07-11 | ST\_MAN | 5800.00 | 0.00 | 100 | 50 |

| 125 | Julia | Nayer | JNAYER | 650.124.1214 | 1987-07-12 | ST\_CLERK | 3200.00 | 0.00 | 120 | 50 |

| 126 | Irene | Mikkilineni | IMIKKILI | 650.124.1224 | 1987-07-13 | ST\_CLERK | 2700.00 | 0.00 | 120 | 50 |

| 127 | James | Landry | JLANDRY | 650.124.1334 | 1987-07-14 | ST\_CLERK | 2400.00 | 0.00 | 120 | 50 |

| 128 | Steven | Markle | SMARKLE | 650.124.1434 | 1987-07-15 | ST\_CLERK | 2200.00 | 0.00 | 120 | 50 |

| 129 | Laura | Bissot | LBISSOT | 650.124.5234 | 1987-07-16 | ST\_CLERK | 3300.00 | 0.00 | 121 | 50 |

| 130 | Mozhe | Atkinson | MATKINSO | 650.124.6234 | 1987-07-17 | ST\_CLERK | 2800.00 | 0.00 | 121 | 50 |

| 131 | James | Marlow | JAMRLOW | 650.124.7234 | 1987-07-18 | ST\_CLERK | 2500.00 | 0.00 | 121 | 50 |

| 132 | TJ | Olson | TJOLSON | 650.124.8234 | 1987-07-19 | ST\_CLERK | 2100.00 | 0.00 | 121 | 50 |

| 133 | Jason | Mallin | JMALLIN | 650.127.1934 | 1987-07-20 | ST\_CLERK | 3300.00 | 0.00 | 122 | 50 |

| 134 | Michael | Rogers | MROGERS | 650.127.1834 | 1987-07-21 | ST\_CLERK | 2900.00 | 0.00 | 122 | 50 |

| 135 | Ki | Gee | KGEE | 650.127.1734 | 1987-07-22 | ST\_CLERK | 2400.00 | 0.00 | 122 | 50 |

| 136 | Hazel | Philtanker | HPHILTAN | 650.127.1634 | 1987-07-23 | ST\_CLERK | 2200.00 | 0.00 | 122 | 50 |

| 137 | Renske | Ladwig | RLADWIG | 650.121.1234 | 1987-07-24 | ST\_CLERK | 3600.00 | 0.00 | 123 | 50 |

| 138 | Stephen | Stiles | SSTILES | 650.121.2034 | 1987-07-25 | ST\_CLERK | 3200.00 | 0.00 | 123 | 50 |

| 139 | John | Seo | JSEO | 650.121.2019 | 1987-07-26 | ST\_CLERK | 2700.00 | 0.00 | 123 | 50 |

| 140 | Joshua | Patel | JPATEL | 650.121.1834 | 1987-07-27 | ST\_CLERK | 2500.00 | 0.00 | 123 | 50 |

| 141 | Trenna | Rajs | TRAJS | 650.121.8009 | 1987-07-28 | ST\_CLERK | 3500.00 | 0.00 | 124 | 50 |

| 142 | Curtis | Davies | CDAVIES | 650.121.2994 | 1987-07-29 | ST\_CLERK | 3100.00 | 0.00 | 124 | 50 |

| 143 | Randall | Matos | RMATOS | 650.121.2874 | 1987-07-30 | ST\_CLERK | 2600.00 | 0.00 | 124 | 50 |

| 144 | Peter | Vargas | PVARGAS | 650.121.2004 | 1987-07-31 | ST\_CLERK | 2500.00 | 0.00 | 124 | 50 |

| 145 | John | Russell | JRUSSEL | 011.44.1344.429268 | 1987-08-01 | SA\_MAN | 14000.00 | 0.40 | 100 | 80 |

| 146 | Karen | Partners | KPARTNER | 011.44.1344.467268 | 1987-08-02 | SA\_MAN | 13500.00 | 0.30 | 100 | 80 |

| 147 | Alberto | Errazuriz | AERRAZUR | 011.44.1344.429278 | 1987-08-03 | SA\_MAN | 12000.00 | 0.30 | 100 | 80 |

| 148 | Gerald | Cambrault | GCAMBRAU | 011.44.1344.619268 | 1987-08-04 | SA\_MAN | 11000.00 | 0.30 | 100 | 80 |

| 149 | Eleni | Zlotkey | EZLOTKEY | 011.44.1344.429018 | 1987-08-05 | SA\_MAN | 10500.00 | 0.20 | 100 | 80 |

| 150 | Peter | Tucker | PTUCKER | 011.44.1344.129268 | 1987-08-06 | SA\_REP | 10000.00 | 0.30 | 145 | 80 |

| 151 | David | Bernstein | DBERNSTE | 011.44.1344.345268 | 1987-08-07 | SA\_REP | 9500.00 | 0.25 | 145 | 80 |

| 152 | Peter | Hall | PHALL | 011.44.1344.478968 | 1987-08-08 | SA\_REP | 9000.00 | 0.25 | 145 | 80 |

| 153 | Christopher | Olsen | COLSEN | 011.44.1344.498718 | 1987-08-09 | SA\_REP | 8000.00 | 0.20 | 145 | 80 |

| 154 | Nanette | Cambrault | NCAMBRAU | 011.44.1344.987668 | 1987-08-10 | SA\_REP | 7500.00 | 0.20 | 145 | 80 |

| 155 | Oliver | Tuvault | OTUVAULT | 011.44.1344.486508 | 1987-08-11 | SA\_REP | 7000.00 | 0.15 | 145 | 80 |

| 156 | Janette | King | JKING | 011.44.1345.429268 | 1987-08-12 | SA\_REP | 10000.00 | 0.35 | 146 | 80 |

| 157 | Patrick | Sully | PSULLY | 011.44.1345.929268 | 1987-08-13 | SA\_REP | 9500.00 | 0.35 | 146 | 80 |

| 158 | Allan | McEwen | AMCEWEN | 011.44.1345.829268 | 1987-08-14 | SA\_REP | 9000.00 | 0.35 | 146 | 80 |

| 159 | Lindsey | Smith | LSMITH | 011.44.1345.729268 | 1987-08-15 | SA\_REP | 8000.00 | 0.30 | 146 | 80 |

| 160 | Louise | Doran | LDORAN | 011.44.1345.629268 | 1987-08-16 | SA\_REP | 7500.00 | 0.30 | 146 | 80 |

| 161 | Sarath | Sewall | SSEWALL | 011.44.1345.529268 | 1987-08-17 | SA\_REP | 7000.00 | 0.25 | 146 | 80 |

| 162 | Clara | Vishney | CVISHNEY | 011.44.1346.129268 | 1987-08-18 | SA\_REP | 10500.00 | 0.25 | 147 | 80 |

| 163 | Danielle | Greene | DGREENE | 011.44.1346.229268 | 1987-08-19 | SA\_REP | 9500.00 | 0.15 | 147 | 80 |

| 164 | Mattea | Marvins | MMARVINS | 011.44.1346.329268 | 1987-08-20 | SA\_REP | 7200.00 | 0.10 | 147 | 80 |

| 165 | David | Lee | DLEE | 011.44.1346.529268 | 1987-08-21 | SA\_REP | 6800.00 | 0.10 | 147 | 80 |

| 166 | Sundar | Ande | SANDE | 011.44.1346.629268 | 1987-08-22 | SA\_REP | 6400.00 | 0.10 | 147 | 80 |

| 167 | Amit | Banda | ABANDA | 011.44.1346.729268 | 1987-08-23 | SA\_REP | 6200.00 | 0.10 | 147 | 80 |

| 168 | Lisa | Ozer | LOZER | 011.44.1343.929268 | 1987-08-24 | SA\_REP | 11500.00 | 0.25 | 148 | 80 |

| 169 | Harrison | Bloom | HBLOOM | 011.44.1343.829268 | 1987-08-25 | SA\_REP | 10000.00 | 0.20 | 148 | 80 |

| 170 | Tayler | Fox | TFOX | 011.44.1343.729268 | 1987-08-26 | SA\_REP | 9600.00 | 0.20 | 148 | 80 |

| 171 | William | Smith | WSMITH | 011.44.1343.629268 | 1987-08-27 | SA\_REP | 7400.00 | 0.15 | 148 | 80 |

| 172 | Elizabeth | Bates | EBATES | 011.44.1343.529268 | 1987-08-28 | SA\_REP | 7300.00 | 0.15 | 148 | 80 |

| 173 | Sundita | Kumar | SKUMAR | 011.44.1343.329268 | 1987-08-29 | SA\_REP | 6100.00 | 0.10 | 148 | 80 |

| 174 | Ellen | Abel | EABEL | 011.44.1644.429267 | 1987-08-30 | SA\_REP | 11000.00 | 0.30 | 149 | 80 |

| 175 | Alyssa | Hutton | AHUTTON | 011.44.1644.429266 | 1987-08-31 | SA\_REP | 8800.00 | 0.25 | 149 | 80 |

| 176 | Jonathon | Taylor | JTAYLOR | 011.44.1644.429265 | 1987-09-01 | SA\_REP | 8600.00 | 0.20 | 149 | 80 |

| 177 | Jack | Livingston | JLIVINGS | 011.44.1644.429264 | 1987-09-02 | SA\_REP | 8400.00 | 0.20 | 149 | 80 |

| 178 | Kimberely | Grant | KGRANT | 011.44.1644.429263 | 1987-09-03 | SA\_REP | 7000.00 | 0.15 | 149 | 0 |

| 179 | Charles | Johnson | CJOHNSON | 011.44.1644.429262 | 1987-09-04 | SA\_REP | 6200.00 | 0.10 | 149 | 80 |

| 180 | Winston | Taylor | WTAYLOR | 650.507.9876 | 1987-09-05 | SH\_CLERK | 3200.00 | 0.00 | 120 | 50 |

| 181 | Jean | Fleaur | JFLEAUR | 650.507.9877 | 1987-09-06 | SH\_CLERK | 3100.00 | 0.00 | 120 | 50 |

| 182 | Martha | Sullivan | MSULLIVA | 650.507.9878 | 1987-09-07 | SH\_CLERK | 2500.00 | 0.00 | 120 | 50 |

| 183 | Girard | Geoni | GGEONI | 650.507.9879 | 1987-09-08 | SH\_CLERK | 2800.00 | 0.00 | 120 | 50 |

| 184 | Nandita | Sarchand | NSARCHAN | 650.509.1876 | 1987-09-09 | SH\_CLERK | 4200.00 | 0.00 | 121 | 50 |

| 185 | Alexis | Bull | ABULL | 650.509.2876 | 1987-09-10 | SH\_CLERK | 4100.00 | 0.00 | 121 | 50 |

| 186 | Julia | Dellinger | JDELLING | 650.509.3876 | 1987-09-11 | SH\_CLERK | 3400.00 | 0.00 | 121 | 50 |

| 187 | Anthony | Cabrio | ACABRIO | 650.509.4876 | 1987-09-12 | SH\_CLERK | 3000.00 | 0.00 | 121 | 50 |

| 188 | Kelly | Chung | KCHUNG | 650.505.1876 | 1987-09-13 | SH\_CLERK | 3800.00 | 0.00 | 122 | 50 |

| 189 | Jennifer | Dilly | JDILLY | 650.505.2876 | 1987-09-14 | SH\_CLERK | 3600.00 | 0.00 | 122 | 50 |

| 190 | Timothy | Gates | TGATES | 650.505.3876 | 1987-09-15 | SH\_CLERK | 2900.00 | 0.00 | 122 | 50 |

| 191 | Randall | Perkins | RPERKINS | 650.505.4876 | 1987-09-16 | SH\_CLERK | 2500.00 | 0.00 | 122 | 50 |

| 192 | Sarah | Bell | SBELL | 650.501.1876 | 1987-09-17 | SH\_CLERK | 4000.00 | 0.00 | 123 | 50 |

| 193 | Britney | Everett | BEVERETT | 650.501.2876 | 1987-09-18 | SH\_CLERK | 3900.00 | 0.00 | 123 | 50 |

| 194 | Samuel | McCain | SMCCAIN | 650.501.3876 | 1987-09-19 | SH\_CLERK | 3200.00 | 0.00 | 123 | 50 |

| 195 | Vance | Jones | VJONES | 650.501.4876 | 1987-09-20 | SH\_CLERK | 2800.00 | 0.00 | 123 | 50 |

| 196 | Alana | Walsh | AWALSH | 650.507.9811 | 1987-09-21 | SH\_CLERK | 3100.00 | 0.00 | 124 | 50 |

| 197 | Kevin | Feeney | KFEENEY | 650.507.9822 | 1987-09-22 | SH\_CLERK | 3000.00 | 0.00 | 124 | 50 |

| 198 | Donald | OConnell | DOCONNEL | 650.507.9833 | 1987-09-23 | SH\_CLERK | 2600.00 | 0.00 | 124 | 50 |

| 199 | Douglas | Grant | DGRANT | 650.507.9844 | 1987-09-24 | SH\_CLERK | 2600.00 | 0.00 | 124 | 50 |

| 200 | Jennifer | Whalen | JWHALEN | 515.123.4444 | 1987-09-25 | AD\_ASST | 4400.00 | 0.00 | 101 | 10 |

| 201 | Michael | Hartstein | MHARTSTE | 515.123.5555 | 1987-09-26 | MK\_MAN | 13000.00 | 0.00 | 100 | 20 |

| 202 | Pat | Fay | PFAY | 603.123.6666 | 1987-09-27 | MK\_REP | 6000.00 | 0.00 | 201 | 20 |

| 203 | Susan | Mavris | SMAVRIS | 515.123.7777 | 1987-09-28 | HR\_REP | 6500.00 | 0.00 | 101 | 40 |

| 204 | Hermann | Baer | HBAER | 515.123.8888 | 1987-09-29 | PR\_REP | 10000.00 | 0.00 | 101 | 70 |

| 205 | Shelley | Higgins | SHIGGINS | 515.123.8080 | 1987-09-30 | AC\_MGR | 12000.00 | 0.00 | 101 | 110 |

| 206 | William | Gietz | WGIETZ | 515.123.8181 | 1987-10-01 | AC\_ACCOUNT | 8300.00 | 0.00 | 205 | 110 |

+-------------+-------------+-------------+----------+--------------------+------------+------------+----------+----------------+------------+---------------+

1. Write a query to display the names (first\_name, last\_name) using alias name “First Name", "Last Name"
2. Write a query to get unique department ID from employee table.
3. Write a query to get all employee details from the employee table order by first name, descending.
4. Write a query to get the names (first\_name, last\_name), salary, PF of all the employees (PF is calculated as 15% of salary)
5. Write a query to get the employee ID, names (first\_name, last\_name), salary in ascending order of salary.
6. Write a query to get the total salaries payable to employees.
7. Write a query to get the maximum and minimum salary from employees table
8. Write a query to get the average salary and number of employees in the employees table.
9. Write a query to get the number of employees working with the company.
10. Write a query to get the number of jobs available in the employees table.
11. Write a query get all first name from employees table in upper case.
12. Write a query to get the first 3 characters of first name from employees table.
13. Write a query to calculate 171\*214+625
14. Write a query to get the names (for example Ellen Abel, Sundar Ande etc.) of all the employees from employees table.
15. Write a query to get first name from employees table after removing white spaces from both side.
16. Write a query to get the length of the employee names (first\_name, last\_name) from employees table.
17. Write a query to check if the first\_name fields of the employees table contains numbers.
18. Write a query to select first 10 records from a table.
19. Write a query to get monthly salary (round 2 decimal places) of each and every employee (Note : Assume the salary field provides the 'annual salary' information.)
20. Write a query to display the name (first\_name, last\_name) and salary for all employees whose salary is not in the range $10,000 through $15,000.
21. Write a query to display the name (first\_name, last\_name) and department ID of all employees in departments 30 or 100 in ascending order.
22. Write a query to display the name (first\_name, last\_name) and salary for all employees whose salary is not in the range $10,000 through $15,000 and are in department 30 or 100.
23. Write a query to display the name (first\_name, last\_name) and hire date for all employees who were hired in 1987.
24. Write a query to display the first\_name of all employees who have both "b" and "c" in their first name.
25. Write a query to display the last name, job, and salary for all employees whose job is that of a Programmer or a Shipping Clerk, and whose salary is not equal to $4,500, $10,000, or $15,000.
26. Write a query to display the last name of employees whose names have exactly 6 characters
27. Write a query to find the addresses (location\_id, street\_address, city, state\_province, country\_name) of all the departments (observe the data should come from two tables – locations and countries
28. Write a query to find the name (first\_name, last\_name), job, department ID and department name of the employees who works in London.