Note : To solve below queries use “hr” database

1. Display first name and last name after converting the first letter of each name to upper case and the rest to lower case.

mysql> SELECT CONCAT(upper(left(first_name,1)),lower(substring(first_name,2))," ",upper(left(last_name,1)),lower(substring(last_name,2))) as `FULL NAME` FROM employees;

```
+--------------------+
| FULL NAME          |
+--------------------+
| Ellen Abel         |
| Sundar Ande        |
| Mozhe Atkinson     |
| David Austin       |
| Hermann Baer       |
| Shelli Baida       |
| Amit Banda         |
| Elizabeth Bates    |
| Sarah Bell         |
| David Bernstein    |
| Laura Bissot       |
| Harrison Bloom     |
| Alexis Bull        |
| Anthony Cabrio     |
| Gerald Cambrault   |
| Nanette Cambrault  |
| John Chen          |
| Kelly Chung        |
| Karen Colmenares   |
| Curtis Davies      |
| Lex De haan        |
| Julia Dellinger    |
| Jennifer Dilly     |
| Louise Doran       |
| Bruce Ernst        |
| Alberto Errazuriz  |
| Britney Everett    |
| Daniel Faviet      |
| Pat Fay            |
| Kevin Feeney       |
| Jean Fleaur        |
| Tayler Fox         |
| Adam Fripp         |
| Timothy Gates      |
| Ki Gee             |
| Girard Geoni       |
| William Gietz      |
| Douglas Grant      |
| Kimberely Grant    |
| Nancy Greenberg    |
| Danielle Greene    |
| Peter Hall         |
| Michael Hartstein  |
| Shelley Higgins    |
| Guy Himuro         |
| Alexander Hunold   |
| Alyssa Hutton      |
| Charles Johnson    |
| Vance Jones        |
| Payam Kaufling     |
| Alexander Khoo     |
| Janette King       |
| Steven King        |
| Neena Kochhar      |
```

| Sundita Kumar |
| Renske Ladwig |
| James Landry |
| David Lee |
| Jack Livingston |
| Diana Lorentz |
| Jason Mallin |
| Steven Markle |
| James Marlow |
| Mattea Marvins |
| Randall Matos |
| Susan Mavris |
| Samuel Mccain |
| Allan Mcewen |
| Irene Mikkilineni |
| Kevin Mourgos |
| Julia Nayer |
| Donald Oconnell |
| Christopher Olsen |
| Tj Olson |
| Lisa Ozer |
| Karen Partners |
| Valli Pataballa |
| Joshua Patel |
| Randall Perkins |
| Hazel Philtanker |
| Luis Popp |
| Trenna Rajs |
| Den Raphaely |
| Michael Rogers |
| John Russell |
| Nandita Sarchand |
| Ismael Sciarra |
| John Seo |
| Sarath Sewall |
| Lindsey Smith |
| William Smith |
| Stephen Stiles |
| Martha Sullivan |
| Patrick Sully |
| Jonathon Taylor |
| Winston Taylor |
| Sigal Tobias |
| Peter Tucker |
| Oliver Tuvault |
| Jose manuel Urman |
| Peter Vargas |
| Clara Vishney |
| Shanta Vollman |
| Alana Walsh |
| Matthew Weiss |
| Jennifer Whalen |
| Eleni Zlotkey |
+--------------------+

2. Display the first word in job title.

mysql> select left(job_title,1) from jobs;

+--------------------+
| left(job_title,1) |
+--------------------+
| P |
| A |
| A |
| F |
| A |
| A |

| P |
| S |
| S |
| P |
| P |
| S |
| S |
| S |
| P |
| M |
| M |
| H |
| P |
+-------------------+

3. Display the length of first name for employees where last name contain character ‘b’ after 3rd position.

mysql> SELECT first_name, length(first_name) FROM employees WHERE last_name LIKE '__b%';

+------------+--------------------+
| first_name | length(first_name) |
+------------+--------------------+
| Anthony | 7 |
| Sigal | 5 |
+------------+--------------------+

4. Display first name in upper case and email address in lower case for employees where the first name and email address are same irrespective of the case.

mysql> SELECT UPPER(first_name),Lower(email) FROM employees WHERE first_name=email limit 5;
Empty set (0.00 sec)

5. Display first name, salary, and round the salary to thousands.

mysql> SELECT first_name, salary,ROUND(salary,-3) FROM employees;

+-------------+----------+------------------+
| first_name | salary | ROUND(salary,-3) |
+-------------+----------+------------------+
Steven	24000.00	24000
Neena	17000.00	17000
Lex	17000.00	17000
Alexander	9000.00	9000
Bruce	6000.00	6000
David	4800.00	5000
Valli	4800.00	5000
Diana	4200.00	4000
Nancy	12000.00	12000
Daniel	9000.00	9000
John	8200.00	8000
Ismael	7700.00	8000
Jose Manuel	7800.00	8000
Luis	6900.00	7000
Den	11000.00	11000
Alexander	3100.00	3000
Shelli	2900.00	3000
Sigal	2800.00	3000
Guy	2600.00	3000

Karen	2500.00	3000
Matthew	8000.00	8000
Adam	8200.00	8000
Payam	7900.00	8000
Shanta	6500.00	7000
Kevin	5800.00	6000
Julia	3200.00	3000
Irene	2700.00	3000
James	2400.00	2000
Steven	2200.00	2000
Laura	3300.00	3000
Mozhe	2800.00	3000
James	2500.00	3000
TJ	2100.00	2000
Jason	3300.00	3000
Michael	2900.00	3000
Ki	2400.00	2000
Hazel	2200.00	2000
Renske	3600.00	4000
Stephen	3200.00	3000
John	2700.00	3000
Joshua	2500.00	3000
Trenna	3500.00	4000
Curtis	3100.00	3000
Randall	2600.00	3000
Peter	2500.00	3000
John	14000.00	14000
Karen	13500.00	14000
Alberto	12000.00	12000
Gerald	11000.00	11000
Eleni	10500.00	11000
Peter	10000.00	10000
David	9500.00	10000
Peter	9000.00	9000
Christopher	8000.00	8000
Nanette	7500.00	8000
Oliver	7000.00	7000
Janette	10000.00	10000
Patrick	9500.00	10000
Allan	9000.00	9000
Lindsey	8000.00	8000
Louise	7500.00	8000
Sarath	7000.00	7000
Clara	10500.00	11000
Danielle	9500.00	10000
Mattea	7200.00	7000
David	6800.00	7000
Sundar	6400.00	6000
Amit	6200.00	6000
Lisa	11500.00	12000
Harrison	10000.00	10000
Tayler	9600.00	10000
William	7400.00	7000
Elizabeth	7300.00	7000
Sundita	6100.00	6000
Ellen	11000.00	11000
Alyssa	8800.00	9000
Jonathon	8600.00	9000
Jack	8400.00	8000
Kimberely	7000.00	7000
Charles	6200.00	6000
Winston	3200.00	3000
Jean	3100.00	3000
Martha	2500.00	3000
Girard	2800.00	3000
Nandita	4200.00	4000
Alexis	4100.00	4000
Julia	3400.00	3000
Anthony	3000.00	3000
Kelly	3800.00	4000

Jennifer	3600.00	4000
Timothy	2900.00	3000
Randall	2500.00	3000
Sarah	4000.00	4000
Britney	3900.00	4000
Samuel	3200.00	3000
Vance	2800.00	3000
Alana	3100.00	3000
Kevin	3000.00	3000
Donald	2600.00	3000
Douglas	2600.00	3000
Jennifer	4400.00	4000
Michael	13000.00	13000
Pat	6000.00	6000
Susan	6500.00	7000
Hermann	10000.00	10000
Shelley	12000.00	12000
William	8300.00	8000

6. Display employee ID and the date on which he ended his previous job.

mysql> SELECT EMPLOYEE_ID, END_DATE FROM job_history;

EMPLOYEE_ID	END_DATE
102	1998-07-24
101	1993-10-27
101	1997-03-15
201	1999-12-19
114	1999-12-31
122	1999-12-31
200	1993-06-17
176	1998-12-31
176	1999-12-31
200	1998-12-31
0	0000-00-00

7. Display first name and date of first salary of the employees. (Consider 1st day of month as salary day) HINT: LAST_DAY.

mysql> SELECT FIRST_NAME, (HIRE_DATE),DATE_ADD(HIRE_DATE,INTERVAL 1 MONTH) FROM employeeS LIMIT 15;

FIRST_NAME	HIRE_DATE	DATE_ADD(HIRE_DATE,INTERVAL 1 MONTH)
Steven	1987-06-17	1987-07-17
Neena	1987-06-18	1987-07-18
Lex	1987-06-19	1987-07-19
Alexander	1987-06-20	1987-07-20
Bruce	1987-06-21	1987-07-21
David	1987-06-22	1987-07-22
Valli	1987-06-23	1987-07-23
Diana	1987-06-24	1987-07-24
Nancy	1987-06-25	1987-07-25
Daniel	1987-06-26	1987-07-26
John	1987-06-27	1987-07-27
Ismael	1987-06-28	1987-07-28
Jose Manuel	1987-06-29	1987-07-29
Luis	1987-06-30	1987-07-30
Den	1987-07-01	1987-08-01

SEE

8. Display first name and experience of the employees.

mysql> SELECT first_name, TIMESTAMPDIFF(year,HIRE_DATE,NOW()) as YEAR, TIMESTAMPDIFF(month,HIRE_DATE,NOW())%12 as month FROM employees;

```
+-------------+------+-------+
| first_name  | YEAR | month |
+-------------+------+-------+
| Steven      |   36 |     4 |
| Neena       |   36 |     4 |
| Lex         |   36 |     4 |
| Alexander   |   36 |     4 |
| Bruce       |   36 |     4 |
| David       |   36 |     4 |
| Valli       |   36 |     4 |
| Diana       |   36 |     4 |
| Nancy       |   36 |     4 |
| Daniel      |   36 |     4 |
| John        |   36 |     4 |
| Ismael      |   36 |     3 |
| Jose Manuel |   36 |     3 |
| Luis        |   36 |     3 |
| Den         |   36 |     3 |
| Alexander   |   36 |     3 |
| Shelli      |   36 |     3 |
| Sigal       |   36 |     3 |
| Guy         |   36 |     3 |
| Karen       |   36 |     3 |
| Matthew     |   36 |     3 |
| Adam        |   36 |     3 |
| Payam       |   36 |     3 |
| Shanta      |   36 |     3 |
| Kevin       |   36 |     3 |
| Julia       |   36 |     3 |
| Irene       |   36 |     3 |
| James       |   36 |     3 |
| Steven      |   36 |     3 |
| Laura       |   36 |     3 |
| Mozhe       |   36 |     3 |
| James       |   36 |     3 |
| TJ          |   36 |     3 |
| Jason       |   36 |     3 |
| Michael     |   36 |     3 |
| Ki          |   36 |     3 |
| Hazel       |   36 |     3 |
| Renske      |   36 |     3 |
| Stephen     |   36 |     3 |
| John        |   36 |     3 |
| Joshua      |   36 |     3 |
| Trenna      |   36 |     2 |
| Curtis      |   36 |     2 |
| Randall     |   36 |     2 |
| Peter       |   36 |     2 |
| John        |   36 |     2 |
| Karen       |   36 |     2 |
| Alberto     |   36 |     2 |
| Gerald      |   36 |     2 |
| Eleni       |   36 |     2 |
| Peter       |   36 |     2 |
| David       |   36 |     2 |
| Peter       |   36 |     2 |
| Christopher |   36 |     2 |
| Nanette     |   36 |     2 |
| Oliver      |   36 |     2 |
| Janette     |   36 |     2 |
| Patrick     |   36 |     2 |
| Allan       |   36 |     2 |
| Lindsey     |   36 |     2 |
| Louise      |   36 |     2 |
```

Sarath	36	2
Clara	36	2
Danielle	36	2
Mattea	36	2
David	36	2
Sundar	36	2
Amit	36	2
Lisa	36	2
Harrison	36	2
Tayler	36	2
William	36	2
Elizabeth	36	1
Sundita	36	1
Ellen	36	1
Alyssa	36	1
Jonathon	36	1
Jack	36	1
Kimberely	36	1
Charles	36	1
Winston	36	1
Jean	36	1
Martha	36	1
Girard	36	1
Nandita	36	1
Alexis	36	1
Julia	36	1
Anthony	36	1
Kelly	36	1
Jennifer	36	1
Timothy	36	1
Randall	36	1
Sarah	36	1
Britney	36	1
Samuel	36	1
Vance	36	1
Alana	36	1
Kevin	36	1
Donald	36	1
Douglas	36	1
Jennifer	36	1
Michael	36	1
Pat	36	1
Susan	36	0
Hermann	36	0
Shelley	36	0
William	36	0
+-------------+------+-------+

9. Display first name of employees who joined in 2001.

mysql> SELECT first_name FROM employees WHERE YEAR(HIRE_DATE)='2001';
Empty set (0.00 sec)

10. Display employees who joined in the current year.

mysql> SELECT FIRST_NAME FROM employees WHERE YEAR(HIRE_DATE) = YEAR(now());
Empty set (0.00 sec)

11. Display the number of days between system date and 1st January 2011.

mysql> SELECT DATEDIFF('2011-01-01',hire_date) FROM employees;

DATEDIFF('2011-01-01',hire_date)
8599
8598
8597
8596
8595
8594
8593
8592
8591
8590
8589
8588
8587
8586
8585
8584
8583
8582
8581
8580
8579
8578
8577
8576
8575
8574
8573
8572
8571
8570
8569
8568
8567
8566
8565
8564
8563
8562
8561
8560
8559
8558
8557
8556
8555
8554
8553
8552
8551
8550
8549
8548
8547
8546
8545
8544
8543
8542
8541
8540
8539
8538
8537
8536
8535
8534
8533

```
|                      8532 |
|                      8531 |
|                      8530 |
|                      8529 |
|                      8528 |
|                      8527 |
|                      8526 |
|                      8525 |
|                      8524 |
|                      8523 |
|                      8522 |
|                      8521 |
|                      8520 |
|                      8519 |
|                      8518 |
|                      8517 |
|                      8516 |
|                      8515 |
|                      8514 |
|                      8513 |
|                      8512 |
|                      8511 |
|                      8510 |
|                      8509 |
|                      8508 |
|                      8507 |
|                      8506 |
|                      8505 |
|                      8504 |
|                      8503 |
|                      8502 |
|                      8501 |
|                      8500 |
|                      8499 |
|                      8498 |
|                      8497 |
|                      8496 |
|                      8495 |
|                      8494 |
|                      8493 |
+-----------------------------------+
```

12. Display number of employees joined after 15th of the month.

mysql> SELECT count(EMPLOYEE_ID) FROM employees WHERE DAY(HIRE_DATE)>15;

```
+--------------------+
| count(EMPLOYEE_ID) |
+--------------------+
|                 61 |
+--------------------+
```

13. Display third highest salary of employees.

mysql> SELECT * FROM employees ORDER BY salary DESC LIMIT 2,1;

```
+-------------+------------+-----------+---------+--------------+------------+--------+----------+----------------+------------+---------------+
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL   | PHONE_NUMBER | HIRE_DATE  | JOB_ID | SALARY   | COMMISSION_PCT |
MANAGER_ID | DEPARTMENT_ID |
+-------------+------------+-----------+---------+--------------+------------+--------+----------+----------------+------------+---------------+
|         102 | Lex        | De Haan   | LDEHAAN | 515.123.4569 | 1987-06-19 | AD_VP  | 17000.00 |           0.00 |        100 |            90 |
+-------------+------------+-----------+---------+--------------+------------+--------+----------+----------------+------------+---------------+
```

Note : To solve below queries use “spj” database

1. Display all the Suppliers, belonging to cities starting with the letter ‘L’.

mysql> SELECT * FROM p WHERE city LIKE 'L%';

```
+----+-------+-------+--------+--------+
| p# | Pname | color | weight | city   |
+----+-------+-------+--------+--------+
| p1 | Nut   | RED   |     12 | london |
| p4 | Screw | RED   |     14 | london |
| p6 | cog   | red   |     19 | london |
+----+-------+-------+--------+--------+
```

2. Display all the Jobs, with the third letter in JNAME as ‘n’.

mysql> SELECT * FROM j WHERE jname like '__n%';

```
+----+---------+--------+
| J# | Jname   | City   |
+----+---------+--------+
| j2 | punch   | rome   |
| j4 | console | athens |
+----+---------+--------+
```

3. Display all the Supplier names with the initial letter capital.

mysql> SELECT CONCAT(UPPER(left(sname,1)),lower(substring(sname,2))) FROM S;

```
+-----------------------------------------------------------+
| CONCAT(UPPER(left(sname,1)),lower(substring(sname,2))) |
+-----------------------------------------------------------+
| Smith                                                     |
| Jones                                                     |
| Blake                                                     |
| Clark                                                     |
| Adams                                                     |
+-----------------------------------------------------------+
```

4. Display all the Supplier names in upper case.

mysql> SELECT UPPER(sname) FROM s;

```
+--------------+
| UPPER(sname) |
+--------------+
| SMITH        |
| JONES        |
| BLAKE        |
| CLARK        |
| ADAMS        |
+--------------+
```

5. Display all the Supplier names in lower case.

mysql> SELECT LOWER(sname) FROM s;

```
+--------------+
| LOWER(sname) |
+--------------+
| smith        |
| jones        |
| blake        |
```

```
| clark       |
| adams       |
+-------------+
```

6. Display the Supplier names and the lengths of the names.

mysql> SELECT sname, LENGTH(sname) FROM s;

```
+-------+---------------+
| sname | LENGTH(sname) |
+-------+---------------+
| Smith |             5 |
| Jones |             5 |
| Blake |             5 |
| Clark |             5 |
| Adams |             5 |
+-------+---------------+
```

7. Display the current day (e.g. Thursday).

mysql> SELECT DAYNAME(NOW()) FROM dual;

```
+----------------+
| DAYNAME(NOW()) |
+----------------+
| Sunday         |
+----------------+
```

8. Display the minimum Status in the Supplier table.

mysql> SELECT MIN(status) FROM S;

```
+-------------+
| MIN(status) |
+-------------+
|          10 |
+-------------+
```

9. Display the maximum Weight in the Parts table.

mysql> SELECT MAX(weight) FROM P;

```
+-------------+
| MAX(weight) |
+-------------+
|          19 |
+-------------+
```

10. Display the average Weight of the Parts.

mysql> SELECT AVG(weight) FROM P;

```
+-------------+
| AVG(weight) |
+-------------+
|     15.1667 |
+-------------+
```

11. Display the total Quantity sold for part ‘P1’.

mysql> SELECT SUM(qty) FROM SP WHERE `P#`='P1';

```
+----------+
| SUM(qty) |
+----------+
|     1000 |
```

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

12. Display all the Supplier names (with ‘la’ replaced by ‘ro’). HINT: REPLACE.

mysql> SELECT Replace(Sname,'la','ro') FROM S;

```
+--------------------------+
| Replace(Sname,'la','ro') |
+--------------------------+
| Smith                    |
| Jones                    |
| Broke                    |
| Crork                    |
| Adams                    |
+--------------------------+
```