**mysql> #DATE AND TIME FUNTIONS**

mysql> desc employee;

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

| Field | Type | Null | Key | Default | Extra |

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

| ZooId | int | YES | MUL | NULL | |

| EmpID | int | NO | PRI | NULL | |

| Name | varchar(50) | YES | | NULL | |

| Designation | varchar(50) | YES | | NULL | |

| Hire\_Date | date | YES | | NULL | |

| Salary | int | YES | | NULL | |

| Status | varchar(40) | YES | | NULL | |

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

7 rows in set (0.00 sec)

mysql> select \* from employee;

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

| ZooId | EmpID | Name | Designation | Hire\_Date | Salary | Status |

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

| 1 | 1001 | Alex | Veterinarian | 2020-04-01 | 85000 | On Duty |

| 2 | 3242 | Aiden | Zookeeper | 2011-10-13 | 25000 | On Duty |

| 2 | 3435 | Rick | Development Director | 2015-09-01 | 95431 | On Duty |

| 1 | 4533 | Ray | Zookeeper | 2019-05-07 | 25000 | On Duty |

| 1 | 4643 | Josefine | Chief Operating Officer | 2004-06-04 | 35000 | On Duty |

| 1 | 4862 | Norine | Curator of Exhibits | 2010-08-12 | NULL | On Duty |

| 1 | 5446 | Stella | Conservation Biologist | 2016-03-09 | 250000 | Off Duty |

| 1 | 5642 | Bianca | Aquarist | 2018-11-15 | 125000 | Off Duty |

| 1 | 6432 | Val | Finance Manager | 2011-10-13 | NULL | On Duty |

| 2 | 6512 | Mitchel | Veterinarian | 2009-10-27 | 85000 | On Duty |

| 2 | 7956 | Sarah | Cheif Operating Officer | 2009-01-12 | 30000 | On Duty |

| 2 | 8932 | Frank | Conservation Biologist | 2020-12-09 | 100000 | Off Duty |

| 2 | 8945 | Rex | Finance Manager | 2008-02-01 | 30000 | On Duty |

| 1 | 8975 | Samual | Curator of Horticulture | 2010-07-01 | NULL | On Duty |

| 2 | 8979 | Anna | Aquarist | 2010-03-08 | 45000 | On Duty |

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

15 rows in set (0.04 sec)

**mysql> INSERT INTO EMPLOYEE**

**-> VALUES(3,5465,'Rebecca','Curator of Exhibits',CURDATE(),45000,'On Duty');**

**Query OK, 1 row affected (0.05 sec)**

mysql> select \* from employee;

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

| ZooId | EmpID | Name | Designation | Hire\_Date | Salary | Status |

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

| 1 | 1001 | Alex | Veterinarian | 2020-04-01 | 85000 | On Duty |

| 2 | 3242 | Aiden | Zookeeper | 2011-10-13 | 25000 | On Duty |

| 2 | 3435 | Rick | Development Director | 2015-09-01 | 95431 | On Duty |

| 1 | 4533 | Ray | Zookeeper | 2019-05-07 | 25000 | On Duty |

| 1 | 4643 | Josefine | Chief Operating Officer | 2004-06-04 | 35000 | On Duty |

| 1 | 4862 | Norine | Curator of Exhibits | 2010-08-12 | NULL | On Duty |

| 1 | 5446 | Stella | Conservation Biologist | 2016-03-09 | 250000 | Off Duty |

| 3 | 5465 | Rebecca | Curator of Exhibits | 2021-09-07 | 45000 | On Duty |

| 1 | 5642 | Bianca | Aquarist | 2018-11-15 | 125000 | Off Duty |

| 1 | 6432 | Val | Finance Manager | 2011-10-13 | NULL | On Duty |

| 2 | 6512 | Mitchel | Veterinarian | 2009-10-27 | 85000 | On Duty |

| 2 | 7956 | Sarah | Cheif Operating Officer | 2009-01-12 | 30000 | On Duty |

| 2 | 8932 | Frank | Conservation Biologist | 2020-12-09 | 100000 | Off Duty |

| 2 | 8945 | Rex | Finance Manager | 2008-02-01 | 30000 | On Duty |

| 1 | 8975 | Samual | Curator of Horticulture | 2010-07-01 | NULL | On Duty |

| 2 | 8979 | Anna | Aquarist | 2010-03-08 | 45000 | On Duty |

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

16 rows in set (0.00 sec)

**mysql> INSERT INTO EMPLOYEE**

**-> VALUES(3,3243,'Dan','Zookeeper',CURRENT\_DATE(),30000,'On Duty'),**

**-> (3,4387,'Ron','Aquarist',MAKEDATE(2010,287),130000,'On Duty'),**

**-> (3,9743,'Maddison','Veterinarian',MAKEDATE(2012,143),90000,'On Duty');**

**Query OK, 3 rows affected (0.04 sec)**

**Records: 3 Duplicates: 0 Warnings: 0**

mysql> select \* from employee;

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

| ZooId | EmpID | Name | Designation | Hire\_Date | Salary | Status |

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

| 1 | 1001 | Alex | Veterinarian | 2020-04-01 | 85000 | On Duty |

| 2 | 3242 | Aiden | Zookeeper | 2011-10-13 | 25000 | On Duty |

| 3 | 3243 | Dan | Zookeeper | 2021-09-07 | 30000 | On Duty |

| 2 | 3435 | Rick | Development Director | 2015-09-01 | 95431 | On Duty |

| 3 | 4387 | Ron | Aquarist | 2010-10-14 | 130000 | On Duty |

| 1 | 4533 | Ray | Zookeeper | 2019-05-07 | 25000 | On Duty |

| 1 | 4643 | Josefine | Chief Operating Officer | 2004-06-04 | 35000 | On Duty |

| 1 | 4862 | Norine | Curator of Exhibits | 2010-08-12 | NULL | On Duty |

| 1 | 5446 | Stella | Conservation Biologist | 2016-03-09 | 250000 | Off Duty |

| 3 | 5465 | Rebecca | Curator of Exhibits | 2021-09-07 | 45000 | On Duty |

| 1 | 5642 | Bianca | Aquarist | 2018-11-15 | 125000 | Off Duty |

| 1 | 6432 | Val | Finance Manager | 2011-10-13 | NULL | On Duty |

| 2 | 6512 | Mitchel | Veterinarian | 2009-10-27 | 85000 | On Duty |

| 2 | 7956 | Sarah | Cheif Operating Officer | 2009-01-12 | 30000 | On Duty |

| 2 | 8932 | Frank | Conservation Biologist | 2020-12-09 | 100000 | Off Duty |

| 2 | 8945 | Rex | Finance Manager | 2008-02-01 | 30000 | On Duty |

| 1 | 8975 | Samual | Curator of Horticulture | 2010-07-01 | NULL | On Duty |

| 2 | 8979 | Anna | Aquarist | 2010-03-08 | 45000 | On Duty |

| 3 | 9743 | Maddison | Veterinarian | 2012-05-22 | 90000 | On Duty |

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

19 rows in set (0.00 sec)

mysql> ALTER TABLE EMPLOYEE ADD DaysWorked int,ADD MonthsWorked int;

Query OK, 0 rows affected (0.09 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc employee;

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

| Field | Type | Null | Key | Default | Extra |

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

| ZooId | int | YES | MUL | NULL | |

| EmpID | int | NO | PRI | NULL | |

| Name | varchar(50) | YES | | NULL | |

| Designation | varchar(50) | YES | | NULL | |

| Hire\_Date | date | YES | | NULL | |

| Salary | int | YES | | NULL | |

| Status | varchar(40) | YES | | NULL | |

| DaysWorked | int | YES | | NULL | |

| MonthsWorked | int | YES | | NULL | |

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

9 rows in set (0.04 sec)

mysql> SELECT \* FROM Employee;

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

| ZooId | EmpID | Name | Designation | Hire\_Date | Salary | Status | DaysWorked | MonthsWorked |

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

| 1 | 1001 | Alex | Veterinarian | 2020-04-01 | 85000 | On Duty | NULL | NULL |

| 2 | 3242 | Aiden | Zookeeper | 2011-10-13 | 25000 | On Duty | NULL | NULL |

| 3 | 3243 | Dan | Zookeeper | 2021-09-07 | 30000 | On Duty | NULL | NULL |

| 2 | 3435 | Rick | Development Director | 2015-09-01 | 95431 | On Duty | NULL | NULL |

| 3 | 4387 | Ron | Aquarist | 2010-10-14 | 130000 | On Duty | NULL | NULL |

| 1 | 4533 | Ray | Zookeeper | 2019-05-07 | 25000 | On Duty | NULL | NULL |

| 1 | 4643 | Josefine | Chief Operating Officer | 2004-06-04 | 35000 | On Duty | NULL | NULL |

| 1 | 4862 | Norine | Curator of Exhibits | 2010-08-12 | NULL | On Duty | NULL | NULL |

| 1 | 5446 | Stella | Conservation Biologist | 2016-03-09 | 250000 | Off Duty | NULL | NULL |

| 3 | 5465 | Rebecca | Curator of Exhibits | 2021-09-07 | 45000 | On Duty | NULL | NULL |

| 1 | 5642 | Bianca | Aquarist | 2018-11-15 | 125000 | Off Duty | NULL | NULL |

| 1 | 6432 | Val | Finance Manager | 2011-10-13 | NULL | On Duty | NULL | NULL |

| 2 | 6512 | Mitchel | Veterinarian | 2009-10-27 | 85000 | On Duty | NULL | NULL |

| 2 | 7956 | Sarah | Cheif Operating Officer | 2009-01-12 | 30000 | On Duty | NULL | NULL |

| 2 | 8932 | Frank | Conservation Biologist | 2020-12-09 | 100000 | Off Duty | NULL | NULL |

| 2 | 8945 | Rex | Finance Manager | 2008-02-01 | 30000 | On Duty | NULL | NULL |

| 1 | 8975 | Samual | Curator of Horticulture | 2010-07-01 | NULL | On Duty | NULL | NULL |

| 2 | 8979 | Anna | Aquarist | 2010-03-08 | 45000 | On Duty | NULL | NULL |

| 3 | 9743 | Maddison | Veterinarian | 2012-05-22 | 90000 | On Duty | NULL | NULL |

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

19 rows in set (0.03 sec)

**mysql> UPDATE Employee SET DaysWorked=DATEDIFF("2021-09-07","2020-04-01") WHERE Name='Alex';**

**Query OK, 1 row affected (0.05 sec)**

**Rows matched: 1 Changed: 1 Warnings: 0**

**mysql> UPDATE EMployee SET DaysWorked=DATEDIFF(CURDATE(), Hire\_Date);**

**Query OK, 18 rows affected (0.05 sec)**

**Rows matched: 19 Changed: 18 Warnings: 0**

mysql> SELECT \* FROM EMPLOYEE;

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

| ZooId | EmpID | Name | Designation | Hire\_Date | Salary | Status | DaysWorked | MonthsWorked |

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

| 1 | 1001 | Alex | Veterinarian | 2020-04-01 | 85000 | On Duty | 524 | NULL |

| 2 | 3242 | Aiden | Zookeeper | 2011-10-13 | 25000 | On Duty | 3617 | NULL |

| 3 | 3243 | Dan | Zookeeper | 2021-09-07 | 30000 | On Duty | 0 | NULL |

| 2 | 3435 | Rick | Development Director | 2015-09-01 | 95431 | On Duty | 2198 | NULL |

| 3 | 4387 | Ron | Aquarist | 2010-10-14 | 130000 | On Duty | 3981 | NULL |

| 1 | 4533 | Ray | Zookeeper | 2019-05-07 | 25000 | On Duty | 854 | NULL |

| 1 | 4643 | Josefine | Chief Operating Officer | 2004-06-04 | 35000 | On Duty | 6304 | NULL |

| 1 | 4862 | Norine | Curator of Exhibits | 2010-08-12 | NULL | On Duty | 4044 | NULL |

| 1 | 5446 | Stella | Conservation Biologist | 2016-03-09 | 250000 | Off Duty | 2008 | NULL |

| 3 | 5465 | Rebecca | Curator of Exhibits | 2021-09-07 | 45000 | On Duty | 0 | NULL |

| 1 | 5642 | Bianca | Aquarist | 2018-11-15 | 125000 | Off Duty | 1027 | NULL |

| 1 | 6432 | Val | Finance Manager | 2011-10-13 | NULL | On Duty | 3617 | NULL |

| 2 | 6512 | Mitchel | Veterinarian | 2009-10-27 | 85000 | On Duty | 4333 | NULL |

| 2 | 7956 | Sarah | Cheif Operating Officer | 2009-01-12 | 30000 | On Duty | 4621 | NULL |

| 2 | 8932 | Frank | Conservation Biologist | 2020-12-09 | 100000 | Off Duty | 272 | NULL |

| 2 | 8945 | Rex | Finance Manager | 2008-02-01 | 30000 | On Duty | 4967 | NULL |

| 1 | 8975 | Samual | Curator of Horticulture | 2010-07-01 | NULL | On Duty | 4086 | NULL |

| 2 | 8979 | Anna | Aquarist | 2010-03-08 | 45000 | On Duty | 4201 | NULL |

| 3 | 9743 | Maddison | Veterinarian | 2012-05-22 | 90000 | On Duty | 3395 | NULL |

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

19 rows in set (0.00 sec)

**mysql> UPDATE EMployee SET MonthsWorked=PERIOD\_DIFF(CURDATE(), Hire\_Date);**

ERROR 1210 (HY000): Incorrect arguments to period\_diff

**mysql> UPDATE EMployee SET MonthsWorked=PERIOD\_DIFF(202109,202004) WHERE Name='Alex';**

**Query OK, 1 row affected (0.04 sec)**

**Rows matched: 1 Changed: 1 Warnings: 0**

**mysql> UPDATE EMployee SET MonthsWorked=PERIOD\_DIFF(202109,201110) WHERE Name='Aiden';**

**Query OK, 1 row affected (0.01 sec)**

**Rows matched: 1 Changed: 1 Warnings: 0**

**mysql> UPDATE EMployee SET MonthsWorked=PERIOD\_DIFF(202109,202109) WHERE Name='Dan';**

**Query OK, 1 row affected (0.04 sec)**

**Rows matched: 1 Changed: 1 Warnings: 0**

mysql> SELECT \* FROM EMPLOYEE LIMIT 3;

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

| ZooId | EmpID | Name | Designation | Hire\_Date | Salary | Status | DaysWorked | MonthsWorked |

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

| 1 | 1001 | Alex | Veterinarian | 2020-04-01 | 85000 | On Duty | 524 | 17 |

| 2 | 3242 | Aiden | Zookeeper | 2011-10-13 | 25000 | On Duty | 3617 | 119 |

| 3 | 3243 | Dan | Zookeeper | 2021-09-07 | 30000 | On Duty | 0 | 0 |

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

3 rows in set (0.00 sec)

mysql> Desc Visitor;

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

| Field | Type | Null | Key | Default | Extra |

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

| ZooId | int | NO | PRI | NULL | |

| TicketNo | int | NO | UNI | NULL | auto\_increment |

| Name | varchar(50) | YES | | NULL | |

| VisitDate | date | YES | | NULL | |

| EntryTime | time | YES | | 09:00:00 | |

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

5 rows in set (0.01 sec)

mysql> SELECT \* FROM VISITOR;

Empty set (0.01 sec)

mysql> ALTER TABLE VISITOR ADD ExitTime time DEFAULT '06:00:00';

Query OK, 0 rows affected (0.24 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE VISITOR ADD TimeSpent Time;

Query OK, 0 rows affected (0.09 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> Desc Visitor;

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

| Field | Type | Null | Key | Default | Extra |

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

| ZooId | int | NO | PRI | NULL | |

| TicketNo | int | NO | UNI | NULL | auto\_increment |

| Name | varchar(50) | YES | | NULL | |

| VisitDate | date | YES | | NULL | |

| EntryTime | time | YES | | 09:00:00 | |

| ExitTime | time | YES | | 06:00:00 | |

| TimeSpent | time | YES | | NULL | |

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

7 rows in set (0.00 sec)

mysql> INSERT INTO VISITOR(ZooId,TicketNo,Name,VisitDate,EntryTime,ExitTime) Values

-> (1,1001,'Chris','2006-06-03','9:30','3:30');

Query OK, 1 row affected (0.05 sec)

mysql> select \* from visitor

-> ;

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

| ZooId | TicketNo | Name | VisitDate | EntryTime | ExitTime | TimeSpent |

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

| 1 | 1001 | Chris | 2006-06-03 | 09:30:00 | 03:30:00 | NULL |

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

1 row in set (0.02 sec)

**mysql> INSERT INTO VISITOR(ZooId,Name,VisitDate,EntryTime,ExitTime) Values**

**-> (2,'Cami','2006-08-16','9:40','2:45'),**

**-> (3,'Janet',CURDATE(),CURTIME(),'4:45'),**

**-> (4,'Zayn',CURDATE(),MAKETIME(9,23,0),MAKETIME(5,43,46));**

**Query OK, 3 rows affected (0.05 sec)**

**Records: 3 Duplicates: 0 Warnings: 0**

mysql> select \* from visitor;

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

| ZooId | TicketNo | Name | VisitDate | EntryTime | ExitTime | TimeSpent |

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

| 1 | 1001 | Chris | 2006-06-03 | 09:30:00 | 03:30:00 | NULL |

| 2 | 1005 | Cami | 2006-08-16 | 09:40:00 | 02:45:00 | NULL |

| 3 | 1006 | Janet | 2021-09-08 | 02:11:33 | 04:45:00 | NULL |

| 4 | 1007 | Zayn | 2021-09-08 | 09:23:00 | 05:43:46 | NULL |

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

4 rows in set (0.00 sec)

**mysql> UPDATE VISITOR SET VisitDate=ADDDATE(VisitDate,+15);**

**Query OK, 4 rows affected (0.01 sec)**

**Rows matched: 4 Changed: 4 Warnings: 0**

mysql> select \* from visitor;

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

| ZooId | TicketNo | Name | VisitDate | EntryTime | ExitTime | TimeSpent |

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

| 1 | 1001 | Chris | 2006-06-18 | 09:30:00 | 03:30:00 | NULL |

| 2 | 1005 | Cami | 2006-08-31 | 09:40:00 | 02:45:00 | NULL |

| 3 | 1006 | Janet | 2021-09-23 | 02:11:33 | 04:45:00 | NULL |

| 4 | 1007 | Zayn | 2021-09-23 | 09:23:00 | 05:43:46 | NULL |

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

4 rows in set (0.03 sec)

**mysql> UPDATE VISITOR SET VisitDate=ADDDATE(VisitDate,+1);**

**Query OK, 4 rows affected (0.06 sec)**

**Rows matched: 4 Changed: 4 Warnings: 0**

mysql> select \* from visitor;

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

| ZooId | TicketNo | Name | VisitDate | EntryTime | ExitTime | TimeSpent |

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

| 1 | 1001 | Chris | 2006-06-19 | 09:30:00 | 03:30:00 | NULL |

| 2 | 1005 | Cami | 2006-09-01 | 09:40:00 | 02:45:00 | NULL |

| 3 | 1006 | Janet | 2021-09-24 | 02:11:33 | 04:45:00 | NULL |

| 4 | 1007 | Zayn | 2021-09-24 | 09:23:00 | 05:43:46 | NULL |

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

4 rows in set (0.00 sec)

**mysql> UPDATE VISITOR SET VisitDate=SUBDATE(VisitDate,40);**

**Query OK, 4 rows affected (0.03 sec)**

**Rows matched: 4 Changed: 4 Warnings: 0**

mysql> select \* from visitor;

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

| ZooId | TicketNo | Name | VisitDate | EntryTime | ExitTime | TimeSpent |

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

| 1 | 1001 | Chris | 2006-05-10 | 10:00:17 | 03:30:00 | NULL |

| 2 | 1005 | Cami | 2006-07-23 | 10:10:17 | 02:45:00 | NULL |

| 3 | 1006 | Janet | 2021-08-15 | 02:41:50 | 04:45:00 | NULL |

| 4 | 1007 | Zayn | 2021-08-15 | 09:53:17 | 05:43:46 | NULL |

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

4 rows in set (0.00 sec)

**mysql> UPDATE VISITOR SET Entrytime=SUBTIME(Entrytime,'12:00:00');**

**Query OK, 4 rows affected (0.03 sec)**

**Rows matched: 4 Changed: 4 Warnings: 0**

**mysql> UPDATE VISITOR SET exitTime=ADDTIME(ExitTime,'12:00:00');**

**Query OK, 4 rows affected (0.04 sec)**

**Rows matched: 4 Changed: 4 Warnings: 0**

mysql> select \* from visitor;

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

| ZooId | TicketNo | Name | VisitDate | EntryTime | ExitTime | TimeSpent |

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

| 1 | 1001 | Chris | 2006-05-10 | 10:00:17 | 15:14:43 | NULL |

| 2 | 1005 | Cami | 2006-07-23 | 10:10:17 | 14:29:43 | NULL |

| 3 | 1006 | Janet | 2021-08-15 | 02:41:50 | 16:29:43 | NULL |

| 4 | 1007 | Zayn | 2021-08-15 | 09:53:17 | 17:28:29 | NULL |

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

4 rows in set (0.00 sec)

**mysql> UPDATE VISITOR SET TimeSpent=TIMEDIFF(EXITTIME,ENTRYTIME);**

**Query OK, 4 rows affected (0.03 sec)**

**Rows matched: 4 Changed: 4 Warnings: 0**

mysql> select \* from visitor;

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

| ZooId | TicketNo | Name | VisitDate | EntryTime | ExitTime | TimeSpent |

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

| 1 | 1001 | Chris | 2006-05-10 | 10:00:17 | 15:14:43 | 05:14:26 |

| 2 | 1005 | Cami | 2006-07-23 | 10:10:17 | 14:29:43 | 04:19:26 |

| 3 | 1006 | Janet | 2021-08-15 | 02:41:50 | 16:29:43 | 13:47:53 |

| 4 | 1007 | Zayn | 2021-08-15 | 09:53:17 | 17:28:29 | 07:35:12 |

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

4 rows in set (0.00 sec)

**mysql> select Name,DATE\_FORMAT(visitdate, "%d %b %y"),TIME\_FORMAT(EntryTime,"%h:%i %p"),TIME\_FORMAT(ExitTime,"%h:%i %p") from visitor;**

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

| Name | DATE\_FORMAT(visitdate, "%d %b %y") | TIME\_FORMAT(EntryTime,"%h:%i %p") | TIME\_FORMAT(ExitTime,"%h:%i %p") |

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

| Chris | 10 May 06 | 10:00 AM | 03:14 PM |

| Cami | 23 Jul 06 | 10:10 AM | 02:29 PM |

| Janet | 15 Aug 21 | 02:41 AM | 04:29 PM |

| Zayn | 15 Aug 21 | 09:53 AM | 05:28 PM |

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

4 rows in set (0.04 sec)

**mysql> #NUMERIC FUNCTIONS**

mysql> DESC ZOO;

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

| Field | Type | Null | Key | Default | Extra |

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

| ZooId | int | NO | PRI | NULL | auto\_increment |

| Name | varchar(50) | NO | UNI | NULL | |

| State | varchar(50) | YES | | NULL | |

| City | varchar(50) | YES | | NULL | |

| Contact\_No | bigint | YES | | NULL | |

| Animal\_Population | int | YES | | NULL | |

| Visitors\_per\_Year | int | YES | | NULL | |

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

7 rows in set (0.02 sec)

mysql> SELECT \* FROM Zoo;

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

| ZooId | Name | State | City | Contact\_No | Animal\_Population | Visitors\_per\_Year |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 1266 | 3000000 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 174 | 131619 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 2644 | 2040000 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 895 | 450000 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 1300 | 1616130 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 1450 | 800000 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 3213 | 100000 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 345 | 25000 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 1432 | 125000 |

| 11 | Chennai Snake Park Trust | Tamil Nadu | Chennai | NULL | NULL | NULL |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | Haryana | Bahal | NULL | NULL | NULL |

| 13 | Crocodile Breeding Centre, Kurukshetra | Haryana | Bhaur Saidan | NULL | NULL | NULL |

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

12 rows in set (0.04 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,MOD(Animal\_Population,MIN(Animal\_Population)),MOD(Visitors\_per\_Year,MIN(Visitors\_per\_Year)) FROM ZOo;**

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

| ZooId | Name | State | City | Contact\_No | MOD(Animal\_Population, MIN(Animal\_Population)) | MOD(Visitors\_per\_Year,MIN(Visitors\_per\_Year)) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 48 | 0 |

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

1 row in set (0.03 sec)

**mysql> select MIN(Animal\_Population) from zoo;**

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

| MIN(Animal\_Population) |

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

| 174 |

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

1 row in set (0.00 sec)

**mysql> select MIN(Visitors\_per\_Year) from zoo;**

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

| MIN(Visitors\_per\_Year) |

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

| 25000 |

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

1 row in set (0.00 sec)

mysql> **SELECT ZooId,Name,State,City,Contact\_No, MOD(Animal\_Population, 174),MOD(Visitors\_per\_Year,25000) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | MOD(Animal\_Population, 174) | MOD(Visitors\_per\_Year,25000) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 48 | 0 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 0 | 6619 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 34 | 15000 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 25 | 0 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 82 | 16130 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 58 | 0 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 81 | 0 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 171 | 0 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 40 | 0 |

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

9 rows in set (0.00 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No, Animal\_Population/174,Visitors\_per\_Year/25000 FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | Animal\_Population/174 | Visitors\_per\_Year/25000 |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 7.2759 | 120.0000 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 1.0000 | 5.2648 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 15.1954 | 81.6000 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 5.1437 | 18.0000 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 7.4713 | 64.6452 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 8.3333 | 32.0000 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 18.4655 | 4.0000 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 1.9828 | 1.0000 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 8.2299 | 5.0000 |

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

9 rows in set (0.04 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,ROUND( Animal\_Population/174),ROUND(Visitors\_per\_Year/25000) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | ROUND( Animal\_Population/174) | ROUND(Visitors\_per\_Year/25000) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 7 | 120 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 1 | 5 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 15 | 82 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 5 | 18 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 7 | 65 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 8 | 32 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 18 | 4 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 2 | 1 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 8 | 5 |

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

9 rows in set (0.04 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,FORMAT( Animal\_Population/174,2),FORMAT(Visitors\_per\_Year/25000,2) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | FORMAT( Animal\_Population/174,2) | FORMAT(Visitors\_per\_Year/25000,2) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 7.28 | 120.00 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 1.00 | 5.26 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 15.20 | 81.60 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 5.14 | 18.00 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 7.47 | 64.65 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 8.33 | 32.00 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 18.47 | 4.00 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 1.98 | 1.00 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 8.23 | 5.00 |

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

9 rows in set (0.02 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,TRUNCATE( Animal\_Population/174,2),TRUNCATE(Visitors\_per\_Year/25000,2) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | TRUNCATE( Animal\_Population/174,2) | TRUNCATE(Visitors\_per\_Year/25000,2) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 7.27 | 120.00 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 1.00 | 5.26 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 15.19 | 81.60 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 5.14 | 18.00 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 7.47 | 64.64 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 8.33 | 32.00 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 18.46 | 4.00 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 1.98 | 1.00 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 8.22 | 5.00 |

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

9 rows in set (0.00 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,GREATEST( Animal\_Population,Visitors\_per\_Year) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | GREATEST( Animal\_Population,Visitors\_per\_Year) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 3000000 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 131619 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 2040000 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 450000 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 1616130 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 800000 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 100000 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 25000 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 125000 |

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

9 rows in set (0.03 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,LEAST( Animal\_Population,Visitors\_per\_Year) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | LEAST( Animal\_Population,Visitors\_per\_Year) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 1266 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 174 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 2644 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 895 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 1300 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 1450 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 3213 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 345 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 1432 |

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

9 rows in set (0.00 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,FLOOR( Animal\_Population/174),FLOOR(Visitors\_per\_Year/25000) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | FLOOR( Animal\_Population/174) | FLOOR(Visitors\_per\_Year/25000) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 7 | 120 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 1 | 5 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 15 | 81 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 5 | 18 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 7 | 64 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 8 | 32 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 18 | 4 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 1 | 1 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 8 | 5 |

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

9 rows in set (0.05 sec)

**mysql> SELECT ZooId,Name,State,City,Contact\_No,CEILING( Animal\_Population/174),CEIL(Visitors\_per\_Year/25000) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| ZooId | Name | State | City | Contact\_No | CEILING( Animal\_Population/174) | CEIL(Visitors\_per\_Year/25000) |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 8 | 120 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 1 | 6 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 16 | 82 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 6 | 18 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 8 | 65 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 9 | 32 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 19 | 4 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 2 | 1 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 9 | 5 |

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

9 rows in set (0.00 sec)

**mysql> SELECT STD( Animal\_Population),STD(Visitors\_per\_Year) FROM ZOO WHERE Contact\_No IS NOT NULL;**

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

| STD( Animal\_Population) | STD(Visitors\_per\_Year) |

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

| 927.0944789176053 | 1001536.8693591754 |

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

1 row in set (0.00 sec)

**mysql> SELECT STD( Animal\_Population),STD(Visitors\_per\_Year) FROM ZOo;**

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

| STD( Animal\_Population) | STD(Visitors\_per\_Year) |

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

| 927.0944789176053 | 1001536.8693591754 |

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

1 row in set (0.00 sec)

**mysql> #STRING FUNCTIONS**

**mysql> SELECT NAME,CHAR\_LENGTH(Name)FROM Zoo;**

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

| NAME | CHAR\_LENGTH(Name) |

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

| Alipore Zoological Gardens | 26 |

| Amirthi Zoological Park | 23 |

| Arignar Anna Zoological Park | 28 |

| Assam State Zoo-cum-Botanical Garden | 36 |

| Bannerghatta National Park | 26 |

| Birsa Deer Park | 16 |

| Bondla Wildlife Sanctuary | 25 |

| Chennai Snake Park Trust | 24 |

| Chhatbir Zoo | 12 |

| Chinkara Breeding Centre Kairu, Bhiwani | 39 |

| Crocodile Breeding Centre, Kurukshetra | 38 |

| Pipli Mini Zoo | 14 |

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

12 rows in set (0.04 sec)

**mysql> SELECT ZOOID,NAME,CONCAT\_WS(', ',City,State) as PLACE FROM Zoo;**

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

| ZOOID | NAME | PLACE |

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

| 1 | Alipore Zoological Gardens | Kolkata, West Bengal |

| 2 | Amirthi Zoological Park | Vellore, Tamil Nadu |

| 3 | Arignar Anna Zoological Park | Chennai, Tamil Nadu |

| 4 | Assam State Zoo-cum-Botanical Garden | Guwahati, Assam |

| 5 | Bannerghatta National Park | Bengaluru, Karnataka |

| 7 | Birsa Deer Park | Ranchi, Jharkhand |

| 8 | Bondla Wildlife Sanctuary | Ponda, Goa |

| 9 | Pipli Mini Zoo | Pipli, Haryana |

| 10 | Chhatbir Zoo | Zirakpur, Punjab |

| 11 | Chennai Snake Park Trust | Chennai, Tamil Nadu |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | Bahal, Haryana |

| 13 | Crocodile Breeding Centre, Kurukshetra | Bhaur Saidan, Haryana |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,NAME,FIELD('Tamil Nadu',City,State) as PLACE FROM Zoo;**

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

| ZOOID | NAME | PLACE |

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

| 1 | Alipore Zoological Gardens | 0 |

| 2 | Amirthi Zoological Park | 2 |

| 3 | Arignar Anna Zoological Park | 2 |

| 4 | Assam State Zoo-cum-Botanical Garden | 0 |

| 5 | Bannerghatta National Park | 0 |

| 7 | Birsa Deer Park | 0 |

| 8 | Bondla Wildlife Sanctuary | 0 |

| 9 | Pipli Mini Zoo | 0 |

| 10 | Chhatbir Zoo | 0 |

| 11 | Chennai Snake Park Trust | 2 |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | 0 |

| 13 | Crocodile Breeding Centre, Kurukshetra | 0 |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,NAME,FIND\_IN\_SET('Tamil Nadu',State) as PLACE FROM Zoo;**

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

| ZOOID | NAME | PLACE |

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

| 1 | Alipore Zoological Gardens | 0 |

| 2 | Amirthi Zoological Park | 1 |

| 3 | Arignar Anna Zoological Park | 1 |

| 4 | Assam State Zoo-cum-Botanical Garden | 0 |

| 5 | Bannerghatta National Park | 0 |

| 7 | Birsa Deer Park | 0 |

| 8 | Bondla Wildlife Sanctuary | 0 |

| 9 | Pipli Mini Zoo | 0 |

| 10 | Chhatbir Zoo | 0 |

| 11 | Chennai Snake Park Trust | 1 |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | 0 |

| 13 | Crocodile Breeding Centre, Kurukshetra | 0 |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,NAME,City,LOCATE('a',City) AS 'A Positition in City' FROM Zoo;**

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

| ZOOID | NAME | City | A Positition in City |

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

| 1 | Alipore Zoological Gardens | Kolkata | 5 |

| 2 | Amirthi Zoological Park | Vellore | 0 |

| 3 | Arignar Anna Zoological Park | Chennai | 6 |

| 4 | Assam State Zoo-cum-Botanical Garden | Guwahati | 4 |

| 5 | Bannerghatta National Park | Bengaluru | 5 |

| 7 | Birsa Deer Park | Ranchi | 2 |

| 8 | Bondla Wildlife Sanctuary | Ponda | 5 |

| 9 | Pipli Mini Zoo | Pipli | 0 |

| 10 | Chhatbir Zoo | Zirakpur | 4 |

| 11 | Chennai Snake Park Trust | Chennai | 6 |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | Bahal | 2 |

| 13 | Crocodile Breeding Centre, Kurukshetra | Bhaur Saidan | 3 |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,NAME,INSERT(City,2,3,"Z") AS 'Place' FROM Zoo;**

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

| ZOOID | NAME | Place |

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

| 1 | Alipore Zoological Gardens | KZata |

| 2 | Amirthi Zoological Park | VZore |

| 3 | Arignar Anna Zoological Park | CZnai |

| 4 | Assam State Zoo-cum-Botanical Garden | GZhati |

| 5 | Bannerghatta National Park | BZaluru |

| 7 | Birsa Deer Park | RZhi |

| 8 | Bondla Wildlife Sanctuary | PZa |

| 9 | Pipli Mini Zoo | PZi |

| 10 | Chhatbir Zoo | ZZkpur |

| 11 | Chennai Snake Park Trust | CZnai |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | BZl |

| 13 | Crocodile Breeding Centre, Kurukshetra | BZr Saidan |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,NAME,INSERT(City,1,0,"CITY : ") AS 'Place' FROM Zoo;**

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

| ZOOID | NAME | Place |

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

| 1 | Alipore Zoological Gardens | CITY : Kolkata |

| 2 | Amirthi Zoological Park | CITY : Vellore |

| 3 | Arignar Anna Zoological Park | CITY : Chennai |

| 4 | Assam State Zoo-cum-Botanical Garden | CITY : Guwahati |

| 5 | Bannerghatta National Park | CITY : Bengaluru |

| 7 | Birsa Deer Park | CITY : Ranchi |

| 8 | Bondla Wildlife Sanctuary | CITY : Ponda |

| 9 | Pipli Mini Zoo | CITY : Pipli |

| 10 | Chhatbir Zoo | CITY : Zirakpur |

| 11 | Chennai Snake Park Trust | CITY : Chennai |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | CITY : Bahal |

| 13 | Crocodile Breeding Centre, Kurukshetra | CITY : Bhaur Saidan |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,LCASE(NAME) FROM Zoo;**

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

| ZOOID | LCASE(NAME) |

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

| 1 | alipore zoological gardens |

| 2 | amirthi zoological park |

| 3 | arignar anna zoological park |

| 4 | assam state zoo-cum-botanical garden |

| 5 | bannerghatta national park |

| 7 | birsa deer park |

| 8 | bondla wildlife sanctuary |

| 11 | chennai snake park trust |

| 10 | chhatbir zoo |

| 12 | chinkara breeding centre kairu, bhiwani |

| 13 | crocodile breeding centre, kurukshetra |

| 9 | pipli mini zoo |

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

12 rows in set (0.04 sec)

**mysql> SELECT ZOOID,LOWER(NAME) FROM Zoo;**

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

| ZOOID | LOWER(NAME) |

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

| 1 | alipore zoological gardens |

| 2 | amirthi zoological park |

| 3 | arignar anna zoological park |

| 4 | assam state zoo-cum-botanical garden |

| 5 | bannerghatta national park |

| 7 | birsa deer park |

| 8 | bondla wildlife sanctuary |

| 11 | chennai snake park trust |

| 10 | chhatbir zoo |

| 12 | chinkara breeding centre kairu, bhiwani |

| 13 | crocodile breeding centre, kurukshetra |

| 9 | pipli mini zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,UPPER(NAME) FROM Zoo;**

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

| ZOOID | UPPER(NAME) |

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

| 1 | ALIPORE ZOOLOGICAL GARDENS |

| 2 | AMIRTHI ZOOLOGICAL PARK |

| 3 | ARIGNAR ANNA ZOOLOGICAL PARK |

| 4 | ASSAM STATE ZOO-CUM-BOTANICAL GARDEN |

| 5 | BANNERGHATTA NATIONAL PARK |

| 7 | BIRSA DEER PARK |

| 8 | BONDLA WILDLIFE SANCTUARY |

| 11 | CHENNAI SNAKE PARK TRUST |

| 10 | CHHATBIR ZOO |

| 12 | CHINKARA BREEDING CENTRE KAIRU, BHIWANI |

| 13 | CROCODILE BREEDING CENTRE, KURUKSHETRA |

| 9 | PIPLI MINI ZOO |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,UCASE(NAME) FROM Zoo;**

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

| ZOOID | UCASE(NAME) |

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

| 1 | ALIPORE ZOOLOGICAL GARDENS |

| 2 | AMIRTHI ZOOLOGICAL PARK |

| 3 | ARIGNAR ANNA ZOOLOGICAL PARK |

| 4 | ASSAM STATE ZOO-CUM-BOTANICAL GARDEN |

| 5 | BANNERGHATTA NATIONAL PARK |

| 7 | BIRSA DEER PARK |

| 8 | BONDLA WILDLIFE SANCTUARY |

| 11 | CHENNAI SNAKE PARK TRUST |

| 10 | CHHATBIR ZOO |

| 12 | CHINKARA BREEDING CENTRE KAIRU, BHIWANI |

| 13 | CROCODILE BREEDING CENTRE, KURUKSHETRA |

| 9 | PIPLI MINI ZOO |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,LEFT(NAME,6) FROM Zoo;**

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

| ZOOID | LEFT(NAME,6) |

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

| 1 | Alipor |

| 2 | Amirth |

| 3 | Arigna |

| 4 | Assam |

| 5 | Banner |

| 7 | Birsa |

| 8 | Bondla |

| 11 | Chenna |

| 10 | Chhatb |

| 12 | Chinka |

| 13 | Crocod |

| 9 | Pipli |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,RIGHT(NAME,6) FROM Zoo;**

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

| ZOOID | RIGHT(NAME,6) |

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

| 1 | ardens |

| 2 | l Park |

| 3 | l Park |

| 4 | Garden |

| 5 | l Park |

| 7 | Park |

| 8 | ctuary |

| 11 | Trust |

| 10 | ir Zoo |

| 12 | hiwani |

| 13 | shetra |

| 9 | ni Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,LPAD(NAME,40,':') FROM Zoo;**

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

| ZOOID | LPAD(NAME,40,':') |

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

| 1 | ::::::::::::::Alipore Zoological Gardens |

| 2 | :::::::::::::::::Amirthi Zoological Park |

| 3 | ::::::::::::Arignar Anna Zoological Park |

| 4 | ::::Assam State Zoo-cum-Botanical Garden |

| 5 | ::::::::::::::Bannerghatta National Park |

| 7 | ::::::::::::::::::::::::Birsa Deer Park |

| 8 | :::::::::::::::Bondla Wildlife Sanctuary |

| 11 | ::::::::::::::::Chennai Snake Park Trust |

| 10 | ::::::::::::::::::::::::::::Chhatbir Zoo |

| 12 | :Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | ::Crocodile Breeding Centre, Kurukshetra |

| 9 | ::::::::::::::::::::::::::Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,RPAD(NAME,40,':') FROM Zoo;**

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

| ZOOID | RPAD(NAME,40,':') |

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

| 1 | Alipore Zoological Gardens:::::::::::::: |

| 2 | Amirthi Zoological Park::::::::::::::::: |

| 3 | Arignar Anna Zoological Park:::::::::::: |

| 4 | Assam State Zoo-cum-Botanical Garden:::: |

| 5 | Bannerghatta National Park:::::::::::::: |

| 7 | Birsa Deer Park :::::::::::::::::::::::: |

| 8 | Bondla Wildlife Sanctuary::::::::::::::: |

| 11 | Chennai Snake Park Trust:::::::::::::::: |

| 10 | Chhatbir Zoo:::::::::::::::::::::::::::: |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani: |

| 13 | Crocodile Breeding Centre, Kurukshetra:: |

| 9 | Pipli Mini Zoo:::::::::::::::::::::::::: |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,LPAD(NAME,40,' ') FROM Zoo;**

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

| ZOOID | LPAD(NAME,40,' ') |

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

| 1 | Alipore Zoological Gardens |

| 2 | Amirthi Zoological Park |

| 3 | Arignar Anna Zoological Park |

| 4 | Assam State Zoo-cum-Botanical Garden |

| 5 | Bannerghatta National Park |

| 7 | Birsa Deer Park |

| 8 | Bondla Wildlife Sanctuary |

| 11 | Chennai Snake Park Trust |

| 10 | Chhatbir Zoo |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | Crocodile Breeding Centre, Kurukshetra |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,LTRIM(LPAD(NAME,40,' ')) FROM Zoo**

**-> ;**

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

| ZOOID | LTRIM(LPAD(NAME,40,' ')) |

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

| 1 | Alipore Zoological Gardens |

| 2 | Amirthi Zoological Park |

| 3 | Arignar Anna Zoological Park |

| 4 | Assam State Zoo-cum-Botanical Garden |

| 5 | Bannerghatta National Park |

| 7 | Birsa Deer Park |

| 8 | Bondla Wildlife Sanctuary |

| 11 | Chennai Snake Park Trust |

| 10 | Chhatbir Zoo |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | Crocodile Breeding Centre, Kurukshetra |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,RPAD(NAME,60,' ') FROM Zoo;**

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

| ZOOID | RPAD(NAME,60,' ') |

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

| 1 | Alipore Zoological Gardens |

| 2 | Amirthi Zoological Park |

| 3 | Arignar Anna Zoological Park |

| 4 | Assam State Zoo-cum-Botanical Garden |

| 5 | Bannerghatta National Park |

| 7 | Birsa Deer Park |

| 8 | Bondla Wildlife Sanctuary |

| 11 | Chennai Snake Park Trust |

| 10 | Chhatbir Zoo |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | Crocodile Breeding Centre, Kurukshetra |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,RTRIM(RPAD(NAME,60,' ')) FROM Zoo;**

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

| ZOOID | RTRIM(RPAD(NAME,60,' ')) |

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

| 1 | Alipore Zoological Gardens |

| 2 | Amirthi Zoological Park |

| 3 | Arignar Anna Zoological Park |

| 4 | Assam State Zoo-cum-Botanical Garden |

| 5 | Bannerghatta National Park |

| 7 | Birsa Deer Park |

| 8 | Bondla Wildlife Sanctuary |

| 11 | Chennai Snake Park Trust |

| 10 | Chhatbir Zoo |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | Crocodile Breeding Centre, Kurukshetra |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,MID(NAME,10,5) FROM Zoo;**

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

| ZOOID | MID(NAME,10,5) |

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

| 1 | oolog |

| 2 | oolog |

| 3 | nna Z |

| 4 | te Zo |

| 5 | tta N |

| 7 | r Par |

| 8 | ldlif |

| 11 | nake |

| 10 | Zoo |

| 12 | Breed |

| 13 | Bree |

| 9 | i Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,SUBSTRING(NAME,10,5) FROM Zoo;**

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

| ZOOID | SUBSTRING(NAME,10,5) |

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

| 1 | oolog |

| 2 | oolog |

| 3 | nna Z |

| 4 | te Zo |

| 5 | tta N |

| 7 | r Par |

| 8 | ldlif |

| 11 | nake |

| 10 | Zoo |

| 12 | Breed |

| 13 | Bree |

| 9 | i Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,SUBSTRING(NAME FROM 10 FOR 5) FROM Zoo;**

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

| ZOOID | SUBSTRING(NAME FROM 10 FOR 5) |

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

| 1 | oolog |

| 2 | oolog |

| 3 | nna Z |

| 4 | te Zo |

| 5 | tta N |

| 7 | r Par |

| 8 | ldlif |

| 11 | nake |

| 10 | Zoo |

| 12 | Breed |

| 13 | Bree |

| 9 | i Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,NAME,POSITION('PARK' in NAME) FROM Zoo;**

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

| ZOOID | NAME | POSITION('PARK' in NAME) |

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

| 1 | Alipore Zoological Gardens | 0 |

| 2 | Amirthi Zoological Park | 20 |

| 3 | Arignar Anna Zoological Park | 25 |

| 4 | Assam State Zoo-cum-Botanical Garden | 0 |

| 5 | Bannerghatta National Park | 23 |

| 7 | Birsa Deer Park | 12 |

| 8 | Bondla Wildlife Sanctuary | 0 |

| 11 | Chennai Snake Park Trust | 15 |

| 10 | Chhatbir Zoo | 0 |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | 0 |

| 13 | Crocodile Breeding Centre, Kurukshetra | 0 |

| 9 | Pipli Mini Zoo | 0 |

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

12 rows in set (0.03 sec)

**mysql> SELECT ZOOID,NAME,POSITION('GARDEN' in NAME) FROM Zoo;**

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

| ZOOID | NAME | POSITION('GARDEN' in NAME) |

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

| 1 | Alipore Zoological Gardens | 20 |

| 2 | Amirthi Zoological Park | 0 |

| 3 | Arignar Anna Zoological Park | 0 |

| 4 | Assam State Zoo-cum-Botanical Garden | 31 |

| 5 | Bannerghatta National Park | 0 |

| 7 | Birsa Deer Park | 0 |

| 8 | Bondla Wildlife Sanctuary | 0 |

| 11 | Chennai Snake Park Trust | 0 |

| 10 | Chhatbir Zoo | 0 |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | 0 |

| 13 | Crocodile Breeding Centre, Kurukshetra | 0 |

| 9 | Pipli Mini Zoo | 0 |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,NAME,REPEAT(CITY,5) FROM Zoo;**

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

| ZOOID | NAME | REPEAT(CITY,5) |

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

| 1 | Alipore Zoological Gardens | KolkataKolkataKolkataKolkataKolkata |

| 2 | Amirthi Zoological Park | VelloreVelloreVelloreVelloreVellore |

| 3 | Arignar Anna Zoological Park | ChennaiChennaiChennaiChennaiChennai |

| 4 | Assam State Zoo-cum-Botanical Garden | GuwahatiGuwahatiGuwahatiGuwahatiGuwahati |

| 5 | Bannerghatta National Park | BengaluruBengaluruBengaluruBengaluruBengaluru |

| 7 | Birsa Deer Park | RanchiRanchiRanchiRanchiRanchi |

| 8 | Bondla Wildlife Sanctuary | PondaPondaPondaPondaPonda |

| 9 | Pipli Mini Zoo | PipliPipliPipliPipliPipli |

| 10 | Chhatbir Zoo | ZirakpurZirakpurZirakpurZirakpurZirakpur |

| 11 | Chennai Snake Park Trust | ChennaiChennaiChennaiChennaiChennai |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | BahalBahalBahalBahalBahal |

| 13 | Crocodile Breeding Centre, Kurukshetra | Bhaur SaidanBhaur SaidanBhaur SaidanBhaur SaidanBhaur Saidan |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,REPLACE(NAME,'A','X') FROM Zoo;**

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

| ZOOID | REPLACE(NAME,'A','X') |

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

| 1 | Xlipore Zoological Gardens |

| 2 | Xmirthi Zoological Park |

| 3 | Xrignar Xnna Zoological Park |

| 4 | Xssam State Zoo-cum-Botanical Garden |

| 5 | Bannerghatta National Park |

| 7 | Birsa Deer Park |

| 8 | Bondla Wildlife Sanctuary |

| 11 | Chennai Snake Park Trust |

| 10 | Chhatbir Zoo |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | Crocodile Breeding Centre, Kurukshetra |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,REPLACE(NAME,'a','X') FROM Zoo;**

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

| ZOOID | REPLACE(NAME,'a','X') |

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

| 1 | Alipore ZoologicXl GXrdens |

| 2 | Amirthi ZoologicXl PXrk |

| 3 | ArignXr AnnX ZoologicXl PXrk |

| 4 | AssXm StXte Zoo-cum-BotXnicXl GXrden |

| 5 | BXnnerghXttX NXtionXl PXrk |

| 7 | BirsX Deer PXrk |

| 8 | BondlX Wildlife SXnctuXry |

| 11 | ChennXi SnXke PXrk Trust |

| 10 | ChhXtbir Zoo |

| 12 | ChinkXrX Breeding Centre KXiru, BhiwXni |

| 13 | Crocodile Breeding Centre, KurukshetrX |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> SELECT ZOOID,REPLACE(NAME,'Garden','Park') FROM Zoo WHERE (FIND\_IN\_SET('Garden',NAME))>0;**

**Empty set (0.00 sec)**

**mysql> SELECT ZOOID,REPLACE(NAME,'Garden','Park') FROM Zoo WHERE (locate('Garden',NAME))>0;**

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

| ZOOID | REPLACE(NAME,'Garden','Park') |

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

| 1 | Alipore Zoological Parks |

| 4 | Assam State Zoo-cum-Botanical Park |

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

2 rows in set (0.00 sec)

**mysql> SELECT ZOOID,REVERSE(NAME) FROM Zoo;**

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

| ZOOID | REVERSE(NAME) |

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

| 1 | snedraG lacigolooZ eropilA |

| 2 | kraP lacigolooZ ihtrimA |

| 3 | kraP lacigolooZ annA rangirA |

| 4 | nedraG lacinatoB-muc-ooZ etatS massA |

| 5 | kraP lanoitaN attahgrennaB |

| 7 | kraP reeD asriB |

| 8 | yrautcnaS efildliW aldnoB |

| 11 | tsurT kraP ekanS iannehC |

| 10 | ooZ ribtahhC |

| 12 | inawihB ,uriaK ertneC gnideerB araknihC |

| 13 | artehskuruK ,ertneC gnideerB elidocorC |

| 9 | ooZ iniM ilpiP |

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

12 rows in set (0.02 sec)

**mysql> SELECT ZOOID,SPACE(7) FROM Zoo;**

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

| ZOOID | SPACE(7) |

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

| 1 | |

| 2 | |

| 3 | |

| 4 | |

| 5 | |

| 7 | |

| 8 | |

| 11 | |

| 10 | |

| 12 | |

| 13 | |

| 9 | |

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

12 rows in set (0.00 sec)

mysql> SELECT \* FROM Zoo;

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

| ZooId | Name | State | City | Contact\_No | Animal\_Population | Visitors\_per\_Year |

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

| 1 | Alipore Zoological Gardens | West Bengal | Kolkata | 3324791150 | 1266 | 3000000 |

| 2 | Amirthi Zoological Park | Tamil Nadu | Vellore | 9789323326 | 174 | 131619 |

| 3 | Arignar Anna Zoological Park | Tamil Nadu | Chennai | 4422751089 | 2644 | 2040000 |

| 4 | Assam State Zoo-cum-Botanical Garden | Assam | Guwahati | 7002716702 | 895 | 450000 |

| 5 | Bannerghatta National Park | Karnataka | Bengaluru | 8029776466 | 1300 | 1616130 |

| 7 | Birsa Deer Park | Jharkhand | Ranchi | 6512480948 | 1450 | 800000 |

| 8 | Bondla Wildlife Sanctuary | Goa | Ponda | 8923561278 | 3213 | 100000 |

| 9 | Pipli Mini Zoo | Haryana | Pipli | 4677569871 | 345 | 25000 |

| 10 | Chhatbir Zoo | Punjab | Zirakpur | 5312674284 | 1432 | 125000 |

| 11 | Chennai Snake Park Trust | Tamil Nadu | Chennai | NULL | NULL | NULL |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani | Haryana | Bahal | NULL | NULL | NULL |

| 13 | Crocodile Breeding Centre, Kurukshetra | Haryana | Bhaur Saidan | NULL | NULL | NULL |

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

12 rows in set (0.00 sec)

**mysql> SELECT STRCMP(STATE,STATE) FROM Zoo WHERE ZOOID>11;**

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

| STRCMP(STATE,STATE) |

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

| 0 |

| 0 |

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

2 rows in set (0.04 sec)

**mysql> SELECT STRCMP(STATE,CITY) FROM Zoo WHERE ZOOID>11;**

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

| STRCMP(STATE,CITY) |

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

| 1 |

| 1 |

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

2 rows in set (0.00 sec)

**mysql> SELECT STRCMP(CITY,STATE) FROM Zoo WHERE ZOOID>11;**

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

| STRCMP(CITY,STATE) |

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

| -1 |

| -1 |

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

2 rows in set (0.00 sec)

**mysql> SELECT ZOOID,TRIM(LEADING ' ' FROM LPAD(NAME,40,' ')) FROM Zoo;**

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

| ZOOID | TRIM(LEADING ' ' FROM LPAD(NAME,40,' ')) |

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

| 1 | Alipore Zoological Gardens |

| 2 | Amirthi Zoological Park |

| 3 | Arignar Anna Zoological Park |

| 4 | Assam State Zoo-cum-Botanical Garden |

| 5 | Bannerghatta National Park |

| 7 | Birsa Deer Park |

| 8 | Bondla Wildlife Sanctuary |

| 11 | Chennai Snake Park Trust |

| 10 | Chhatbir Zoo |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | Crocodile Breeding Centre, Kurukshetra |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.03 sec)

**mysql> SELECT ZOOID,TRIM(TRAILING ' ' FROM RPAD(NAME,40,' ')) FROM Zoo;**

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

| ZOOID | TRIM(TRAILING ' ' FROM RPAD(NAME,40,' ')) |

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

| 1 | Alipore Zoological Gardens |

| 2 | Amirthi Zoological Park |

| 3 | Arignar Anna Zoological Park |

| 4 | Assam State Zoo-cum-Botanical Garden |

| 5 | Bannerghatta National Park |

| 7 | Birsa Deer Park |

| 8 | Bondla Wildlife Sanctuary |

| 11 | Chennai Snake Park Trust |

| 10 | Chhatbir Zoo |

| 12 | Chinkara Breeding Centre Kairu, Bhiwani |

| 13 | Crocodile Breeding Centre, Kurukshetra |

| 9 | Pipli Mini Zoo |

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

12 rows in set (0.00 sec)

**mysql> #CONVERSION FUNCTIONS**

mysql> CREATE TABLE DummyCon1(ID int,Name Varchar(50),Date Varchar(20),Time Varchar(20),Num1 Bigint,Num2 Bigint);

Query OK, 0 rows affected (0.09 sec)

mysql> INSERT INTO DummyCon1 VALUES

-> (1,'Ben','20080830','035545',-86,6574),

-> (2,'Zack','20120522','113400',-7,876),

-> (3,'Philip','20020408','061430',3,95342),

-> (4,'Ed','20230309','230623',-31,56);

Query OK, 4 rows affected (0.05 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM DummyCon1;

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

| ID | Name | Date | Time | Num1 | Num2 |

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

| 1 | Ben | 20080830 | 035545 | -86 | 6574 |

| 2 | Zack | 20120522 | 113400 | -7 | 876 |

| 3 | Philip | 20020408 | 061430 | 3 | 95342 |

| 4 | Ed | 20230309 | 230623 | -31 | 56 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CONVERT(Date,DATE) FROM DummyCon1;**

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

| CONVERT(Date,DATE) |

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

| 2008-08-30 |

| 2012-05-22 |

| 2002-04-08 |

| 2023-03-09 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CAST(Date as DATE) FROM DummyCon1;**

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

| CAST(Date as DATE) |

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

| 2008-08-30 |

| 2012-05-22 |

| 2002-04-08 |

| 2023-03-09 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CONVERT(Time,TIME) FROM DummyCon1;**

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

| CONVERT(Time,TIME) |

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

| 03:55:45 |

| 11:34:00 |

| 06:14:30 |

| 23:06:23 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CAST(Time AS TIME) FROM DummyCon1;**

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

| CAST(Time AS TIME) |

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

| 03:55:45 |

| 11:34:00 |

| 06:14:30 |

| 23:06:23 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CONVERT(Num1,UNSIGNED) FROM DummyCon1;**

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

| CONVERT(Num1,UNSIGNED) |

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

| 18446744073709551530 |

| 18446744073709551609 |

| 3 |

| 18446744073709551585 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CAST(Num1 AS UNSIGNED) FROM DummyCon1;**

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

| CAST(Num1 AS UNSIGNED) |

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

| 18446744073709551530 |

| 18446744073709551609 |

| 3 |

| 18446744073709551585 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CONVERT(Num2,DECIMAL(6,1)) FROM DummyCon1;**

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

| CONVERT(Num2,DECIMAL(6,1)) |

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

| 6574.0 |

| 876.0 |

| 95342.0 |

| 56.0 |

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

4 rows in set (0.00 sec)

**mysql> SELECT CAST(Num2 AS DECIMAL(4,1)) FROM DummyCon1;**

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

| CAST(Num2 AS DECIMAL(4,1)) |

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

| 999.9 |

| 876.0 |

| 999.9 |

| 56.0 |

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

4 rows in set, 2 warnings (0.02 sec)

**mysql> SELECT CONVERT(Num2,BINARY) FROM DummyCon1;**

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

| CONVERT(Num2,BINARY) |

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

| |

| |

| |

| |

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

4 rows in set (0.03 sec)

**mysql> SELECT CAST(NAME AS BINARY) FROM DummyCon1;**

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

| CAST(NAME AS BINARY) |

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

| |

| |

| |

| |

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

4 rows in set (0.00 sec)

**mysql> SELECT CONVERT(NAME,BINARY) FROM DummyCon1;**

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

| CONVERT(NAME,BINARY) |

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

| |

| |

| |

| |

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

4 rows in set (0.00 sec)

**mysql> NOTEE;**

