STEPS


```
# USING COUNTRY TABLE AND PERSON TABLE

SELECT * FROM Country;
SELECT * FROM Persons;
```

Id	Country_name	Population	Area
1	USA	331000000	California
2	India	1380000000	Maharashtra
3	Canada	38000000	Ontario
4	Australia	25600000	New South Wales
5	UK	67000000	London
6	Germany	83000000	Bavaria

Country 1

Output — Action Output

#	Time	Action	Message	Duration / Fetch
1	19:23:40	SELECT * FROM Country LIMIT 0, 1000	12 row(s) returned	0.000 sec / 0.000


```
# USING COUNTRY TABLE AND PERSON TABLE

SELECT * FROM Country;
SELECT * FROM Persons;
```

Id	Fname	Lname	Population	Rating	Country_Id	Country_name
1	John	Doe	1000000	4.5	1	USA
2	Jane	Smith	2000000	4.8	2	India
3	Michael	Brown	1500000	4.2	3	Canada
4	Emily	Davis	2500000	3.9	4	Australia
5	James	Wilson	1800000	4	5	UK
6	Anna	Moore	1300000	4.6	6	Germany

Persons 2

Output — Action Output

#	Time	Action	Message
1	19:23:40	SELECT * FROM Country LIMIT 0, 1000	12 row(s) returned
2	19:24:35	SELECT * FROM Persons LIMIT 0, 1000	12 row(s) returned


```
# 1. Add a new column called DOB in Persons table with data type as Date.

ALTER TABLE Persons
ADD DOB DATE;

UPDATE Persons
SET DOB = CASE
            WHEN Id = 1 THEN '1990-05-15'
            WHEN Id = 2 THEN '1985-12-22'
            WHEN Id = 3 THEN '2000-03-10'
            WHEN Id = 4 THEN '1992-07-25'
            WHEN Id = 5 THEN '1988-11-30'
            WHEN Id = 6 THEN '1975-06-18'
```

Output — Action Output

#	Time	Action	Message
1	19:23:40	SELECT * FROM Country LIMIT 0, 1000	12 row(s) returned
2	19:24:35	SELECT * FROM Persons LIMIT 0, 1000	12 row(s) returned
3	19:24:53	ALTER TABLE Persons ADD DOB DATE	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

```sql
14              WHEN Id = 2  THEN '1985-12-22'
15              WHEN Id = 3  THEN '2000-03-10'
16              WHEN Id = 4  THEN '1992-07-25'
17              WHEN Id = 5  THEN '1988-11-30'
18              WHEN Id = 6  THEN '1975-06-18'
19              WHEN Id = 7  THEN '1999-09-14'
20              WHEN Id = 8  THEN '2001-01-01'
21              WHEN Id = 9  THEN '1993-04-12'
22              WHEN Id = 10 THEN '1980-08-20'
23              WHEN Id = 11 THEN '2005-03-21'
24              WHEN Id = 12 THEN '1996-02-29'
25          END
26      WHERE Id IN (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12);
27
```

Output

#	Time	Action	Message
1	19:23:40	SELECT * FROM Country LIMIT 0, 1000	12 row(s) returned
2	19:24:35	SELECT * FROM Persons LIMIT 0, 1000	12 row(s) returned
3	19:24:53	ALTER TABLE Persons ADD DOB DATE	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
4	19:25:21	UPDATE Persons SET DOB = CASE WHEN Id = 1 THEN '1990-05-15' ...	12 row(s) affected Rows matched: 12 Changed: 12 Warnings: 0

```sql
24              WHEN Id = 12 THEN '1996-02-29'
25          END
26      WHERE Id IN (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12);
27
28      # 2. Write a user-defined function to calculate age using DOB.
29
30      DELIMITER $$
31      CREATE FUNCTION Calculate_age (DOB DATE)
32      RETURNS INT
33      DETERMINISTIC
34      BEGIN
35          RETURN TIMESTAMPDIFF(YEAR, DOB, CURDATE());
36      END $$
37      DELIMITER ;
```

Output

#	Time	Action	Message
1	19:23:40	SELECT * FROM Country LIMIT 0, 1000	12 row(s) returned
2	19:24:35	SELECT * FROM Persons LIMIT 0, 1000	12 row(s) returned
3	19:24:53	ALTER TABLE Persons ADD DOB DATE	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
4	19:25:21	UPDATE Persons SET DOB = CASE WHEN Id = 1 THEN '1990-05-15' ...	12 row(s) affected Rows matched: 12 Changed: 12 Warnings: 0
5	19:26:01	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTIC ...	0 row(s) affected

SQL Additions

```
37    DELIMITER ;
38
39 •  # 3. Write a select query to fetch the Age of all persons using the function that has been created.
40
41    SELECT Id,Fname,Lname, Calculate_age(DOB) AS Age FROM Persons;
```

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Result Grid | Filter Rows: | Export: | Wrap Cell Content: $\overline{IA}$

Id	Fname	Lname	Age
1	John	Doe	34
2	Jane	Smith	38
3	Michael	Brown	24
4	Emily	Davis	32
5	James	Wilson	35
6	Anna	Moore	49

Result 3 ×

Read Only | Context Help | Snippets

Output

Action Output

	#	Time	Action	Message	Duration
✓	2	19:24:35	SELECT * FROM Persons LIMIT 0, 1000	12 row(s) returned	0.000 se
✓	3	19:24:53	ALTER TABLE Persons ADD DOB DATE	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.031 se
✓	4	19:25:21	UPDATE Persons SET DOB = CASE WHEN Id = 1 THEN '1990-05-15' ...	12 row(s) affected Rows matched: 12 Changed: 12 Warnings: 0	0.000 se
✓	5	19:26:01	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTI...	0 row(s) affected	0.063 se
✗	6	19:26:19	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTI...	Error Code: 1304. FUNCTION Calculate_age already exists	0.016 se
✓	7	19:26:39	SELECT Id,Fname,Lname, Calculate_age(DOB) AS Age FROM Persons LIMIT 0, 1...	12 row(s) returned	0.016 se

---

SQL Additions

```
41    SELECT Id,Fname,Lname, Calculate_age(DOB) AS Age FROM Persons;
42
43    # 4. Find the length of each country name in the Country table.
44
45 •  SELECT Id, Country_name,length(Country_name) AS Namelength FROM Country;
```

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Result Grid | Filter Rows: | Export: | Wrap Cell Content: $\overline{IA}$

Id	Country_name	Namelength
1	USA	3
2	India	5
3	Canada	6
4	Australia	9
5	UK	2
6	Germany	7

Result 4 ×

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Output

Action Output

	#	Time	Action	Message	Duration
✓	3	19:24:53	ALTER TABLE Persons ADD DOB DATE	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.031
✓	4	19:25:21	UPDATE Persons SET DOB = CASE WHEN Id = 1 THEN '1990-05-15' ...	12 row(s) affected Rows matched: 12 Changed: 12 Warnings: 0	0.000
✓	5	19:26:01	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTI...	0 row(s) affected	0.063
✗	6	19:26:19	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTI...	Error Code: 1304. FUNCTION Calculate_age already exists	0.016
✓	7	19:26:39	SELECT Id,Fname,Lname, Calculate_age(DOB) AS Age FROM Persons LIMIT 0, 1...	12 row(s) returned	0.016
✓	8	19:27:12	SELECT Id, Country_name,length(Country_name) AS Namelength FROM Country L...	12 row(s) returned	0.000

```
45 •  SELECT Id, Country_name,length(Country_name) AS Namelength FROM Country;
46
47    # 5. Extract the first three characters of each country's name in the Country table.
48
49 •  SELECT SUBSTRING(Country_name,1,3) AS First_Three_Characters FROM Country;
```

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Result Grid | Filter Rows: | Export: | Wrap Cell Content: $\overline{IA}$

First_Three_Characters
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UK
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Result 5 ×

Read Only | Context Help | Snippets

Output

Action Output

	#	Time	Action	Message	Dur
✓	4	19:25:21	UPDATE Persons SET DOB = CASE WHEN Id = 1 THEN '1990-05-15' ...	12 row(s) affected Rows matched: 12 Changed: 12 Warnings: 0	0.0
✓	5	19:26:01	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTI...	0 row(s) affected	0.06
✗	6	19:26:19	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTI...	Error Code: 1304. FUNCTION Calculate_age already exists	0.0
✓	7	19:26:39	SELECT Id,Fname,Lname, Calculate_age(DOB) AS Age FROM Persons LIMIT 0, 1...	12 row(s) returned	0.0
✓	8	19:27:12	SELECT Id, Country_name,length(Country_name) AS Namelength FROM Country L...	12 row(s) returned	0.0
✓	9	19:27:32	SELECT SUBSTRING(Country_name,1,3) AS First_Three_Characters FROM Count...	12 row(s) returned	0.0

Query 1 | SORTING AND GROUPING DA... | JOINS AND UNION | FUNCTIONS ×

Limit to 1000 rows

```
54
55 ●  SELECT Id, Country_name,
56     ucase(Country_name) AS UppercaseName,
57     lcase(Country_name) AS LowercaseName
58     FROM Country;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

Id	Country_name	UppercaseName	LowercaseName
1	USA	USA	usa
2	India	INDIA	india
3	Canada	CANADA	canada
4	Australia	AUSTRALIA	australia
5	UK	UK	uk
6	Germany	GERMANY	germany

Result 7 ×

● Read Only

Output

Action Output

#	Time	Action	Message
❌ 6	19:26:19	CREATE FUNCTION Calculate_age (DOB DATE) RETURNS INT DETERMINISTI...	Error Code: 1304. FUNCTION Calculate_age already exists
✅ 7	19:26:39	SELECT Id,Fname,Lname, Calculate_age(DOB) AS Age FROM Persons LIMIT 0, 1...	12 row(s) returned
✅ 8	19:27:12	SELECT Id, Country_name,length(Country_name) AS Namelength FROM Country L...	12 row(s) returned
✅ 9	19:27:32	SELECT SUBSTRING(Country_name,1,3) AS First_Three_Characters FROM Count...	12 row(s) returned
✅ 10	19:28:08	SELECT SUBSTRING(Country_name,1,3) AS First_Three_Characters FROM Count...	12 row(s) returned
✅ 11	19:28:33	SELECT Id, Country_name, ucase(Country_name) AS UppercaseName, lcase(Co...	12 row(s) returned