

Part II

1.

USE landmarksdb;

SELECT

l.LandmarkID,

l.LandmarkName,

l.Location,

c.CountryName

FROM

landmarks l

JOIN

countries c ON l.CountryID = c.CountryID

WHERE

c.CountryName IN ('France', 'USA');

	LandmarkID	LandmarkName	Location	CountryName
►	1	Eiffel Tower	Paris	France
	41	Louvre Museum	Paris	France
	42	Notre-Dame Cathedral	Paris	France
	43	Palace of Versailles	Versailles	France
	59	Moulin Rouge	Paris	France
	60	Arc de Triomphe	Paris	France
	4	Statue of Liberty	New York	USA
	47	Brooklyn Bridge	New York	USA
	48	Empire State Building	New York	USA
	49	Central Park	New York	USA

2.

USE landmarksdb;

SELECT

c.CountryName,

COUNT(l.LandmarkID) AS TotalLandmarks

FROM

countries c

LEFT JOIN

landmarks l ON c.CountryID = l.CountryID

GROUP BY

c.CountryName;

	CountryName	TotalLandmarks
►	China	8
	France	6
	USA	5
	United Kingdom	5
	Italy	4
	Japan	4
	Egypt	3
	Ireland	3
	Canada	2
	Brazil	1

3.

USE landmarksdb;

SELECT

l.LandmarkID,

l.LandmarkName,

l.YearEstablished,

l.HeritageStatusID

FROM

landmarks l

WHERE

l.YearEstablished >1900

AND l.HeritageStatusID IS NOT NULL;

	LandmarkID	LandmarkName	YearEstablished	HeritageStatusID
	5	Christ the Redeemer	1931	1
	7	Sydney Opera House	1973	1
	11	CN Tower	1976	1
	48	Empire State Building	1931	1

4.

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USE landmarksdb;

SELECT
    c.CountryName,
    c.Continent,
    COUNT(l.LandmarkID) AS TotalLandmarks,
    SUM(vg.ApproximateGroupSize) AS TotalVisitors
FROM
    countries c
JOIN
    landmarks l ON c.CountryID = l.CountryID
LEFT JOIN
    landmark_group_visits lgv ON l.LandmarkID = lgv.LandmarkID
LEFT JOIN
    visitor_groups vg ON lgv.GroupID = vg.GroupID
GROUP BY
    c.CountryName, c.Continent
HAVING
    TotalVisitors > 0
ORDER BY
    TotalVisitors DESC;
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	CountryName	Continent	TotalLandmarks	TotalVisitors
►	India	Asia	1	100
	United Kingdom	Europe	5	60
	France	Europe	6	50
	Mexico	North America	1	50
	USA	North America	5	40
	South Africa	Africa	1	35
	Italy	Europe	5	34
	China	Asia	8	30
	Argentina	South America	1	30
	Australia	Australia	1	25

5.

USE landmarksdb;

SELECT

l1.LandmarkID AS Landmark1ID,

l2.LandmarkID AS Landmark2ID,

l1.Location

FROM

landmarks l1

JOIN

landmarks l2 ON l1.CountryID = l2.CountryID

AND l1.Location = l2.Location

AND l1.LandmarkID < l2.LandmarkID;

	Landmark1ID	Landmark2ID	Location
▶	1	41	Paris
	1	42	Paris
	1	59	Paris
	1	60	Paris
	2	44	Beijing
	2	45	Beijing
	2	46	Beijing
	4	47	New York
	4	48	New York
	4	49	New York

	Landmark1ID	Landmark2ID	Location
▶	6	50	Rome
	6	51	Rome
	6	52	Rome
	50	51	Rome
	50	52	Rome
	51	52	Rome

6.

USE landmarksdb;

SELECT Continent, Season, TotalVisitors

FROM (

SELECT c.Continent,

CASE

WHEN MONTH(lgv.VisitDate) IN (12, 1, 2) THEN 'Winter'

WHEN MONTH(lgv.VisitDate) IN (3, 4, 5) THEN 'Spring'

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        WHEN MONTH(lgv.VisitDate) IN (6, 7, 8) THEN 'Summer'
        WHEN MONTH(lgv.VisitDate) IN (9, 10, 11) THEN 'Fall'
    END AS Season,
    SUM(v.ApproximateGroupSize) AS TotalVisitors
FROM countries c
JOIN visitor_groups v ON c.CountryID = v.CountryID
JOIN landmark_group_visits lgv ON v.GroupID = lgv.GroupID
GROUP BY c.Continent, Season
) AS SeasonalVisits
WHERE (Continent, TotalVisitors) IN (
    SELECT Continent, MAX(TotalVisitors)
    FROM (
        SELECT c.Continent,
            CASE
                WHEN MONTH(lgv.VisitDate) IN (12, 1, 2) THEN 'Winter'
                WHEN MONTH(lgv.VisitDate) IN (3, 4, 5) THEN 'Spring'
                WHEN MONTH(lgv.VisitDate) IN (6, 7, 8) THEN 'Summer'
                WHEN MONTH(lgv.VisitDate) IN (9, 10, 11) THEN 'Fall'
            END AS Season,
            SUM(v.ApproximateGroupSize) AS TotalVisitors
        FROM countries c
        JOIN visitor_groups v ON c.CountryID = v.CountryID
        JOIN landmark_group_visits lgv ON v.GroupID = lgv.GroupID
        GROUP BY c.Continent, Season
    ) AS SeasonalData
    GROUP BY Continent
);

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	Continent	Season	TotalVisitors
►	North America	Summer	52
	Europe/Asia	Summer	22
	Asia/Europe	Summer	35
	Africa	Fall	52
	Europe	Fall	115
	Australia	Fall	100
	Asia	Fall	85
	South America	Fall	18

7.

USE landmarksdb;

SELECT

c.CountryID,

c.CountryName,

IFNULL(SUM(CASE

WHEN l.Description LIKE '%citadel%' OR l.Description LIKE '%fort%' OR l.Description LIKE '%castle%

THEN vg.ApproximateGroupSize

ELSE 0

END), 0) AS Specific_Landmark_Visitors,

IFNULL(SUM(vg.ApproximateGroupSize), 0) AS Total_Visitors,

IFNULL(ROUND(

(SUM(CASE

WHEN l.Description LIKE '%citadel%' OR l.Description LIKE '%fort%' OR l.Description LIKE '%castle%'

THEN vg.ApproximateGroupSize

ELSE 0

END) / SUM(vg.ApproximateGroupSize)) * 100, 2), 0) AS Percentage_Visits

FROM

countries c

LEFT JOIN

landmarks l ON c.CountryID = l.CountryID

LEFT JOIN

visitor_groups vg ON c.CountryID = vg.CountryID

GROUP BY

c.CountryID, c.CountryName;

	CountryID	CountryName	Specific_Landmark_Visitors	Total_Visitors	Percentage_Visits
►	4	Egypt	80	120	66.67
	19	United Kingdom	56	70	80.00
	3	China	40	80	50.00
	2	USA	30	150	20.00
	12	Canada	10	20	50.00
	1	France	0	300	0.00
	5	Brazil	0	15	0.00
	6	Italy	0	100	0.00
	7	Australia	0	100	0.00
	8	India	0	20	0.00