

**Forbes**

# The World's Most Powerful Women

## SQL Analysis



*Presented by*  
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# PROJECT OVERVIEW

The project aims to analyze a dataset called "PowerfulWomen" containing information about influential women from various categories such as Business, Philanthropy, and more. The dataset includes details like name, age, location, and category.



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TABLE USED

POWERFUL WOMEN

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# 1)LIST ALL PEOPLE FROM THE UNITED STATES ?

```
SELECT * FROM PowerfulWomen  
WHERE location = "United States" ;
```

# OUTPUT

Rank	Name	Age	Location	Category
3	Kamala Harris	59	United States	Politics & Policy
5	Taylor Swift	33	United States	Media & Entertainment
6	Karen Lynch	59	United States	Business
7	Jane Fraser	56	United States	Finance
8	Abigail Johnson	61	United States	Finance
9	Mary Barra	61	United States	Business
10	Melinda French Gates	59	United States	Philanthropy
11	Julie Sweet	56	United States	Business
12	Kristalina Georgieva	70	United States	Politics & Policy
13	MacKenzie Scott	53	United States	Philanthropy
14	Gail Boudreaux	63	United States	Business
16	Ruth Porat	66	United States	Technology
17	Safra Catz	62	United States	Technology
19	Carol Tomé	66	United States	Business
21	Kathryn McLav	49	United States	Business

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## 2) RETRIEVE THE NAMES AND AGES OF PEOPLE IN THE “PHILANTHROPY“ CATEGORY ?

```
SELECT name , age FROM PowerfulWomen  
WHERE category = "Philanthropy" ;
```

# OUTPUT

Name	Age
Melinda French Gates	59
MacKenzie Scott	53
Laurene Powell Jobs & family	60

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# 3) COUNT THE NUMBER OF PEOPLE IN EACH CATEGORY ?

```
SELECT category,COUNT(*) AS number_of_people  
FROM PowerfulWomen  
GROUP BY category;
```

# OUTPUT

Category	number_of_people
Business	16
Finance	10
Media & Entertainment	5
Philanthropy	3
Politics & Policy	10
Technology	6

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# 4) FIND THE AVERAGE AGE OF PEOPLE IN THE “BUSINESS“ CATEGORY?

```
SELECT category ,AVG(age) AS Average_age  
FROM PowerfulWomen  
WHERE category = "Business" ;
```

# OUTPUT

Category	Average_age
Business	57.0625

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# 5) RETRIEVE THE NAMES OF PEOPLE AGED 60 OR OLDER ?

```
SELECT name, age  
FROM PowerfulWomen  
WHERE age >= 60;
```

# OUTPUT

Name	Age
Ursula von der Leyen	65
Christine Lagarde	67
Abigail Johnson	61
Mary Barra	61
Kristalina Georgieva	70
Gail Boudreaux	63
Ruth Porat	66
Safra Catz	62
Ana Patricia Botín	63
Carol Tomé	66
Laurene Powell Jobs & family	60
Janet Yellen	77
Gwynne Shotwell	60
Phebe Novakovic	66
Tsai Ing-wen	67

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## 6) FIND THE PERSON(S) WITH THE HIGHEST AGE IN EACH LOCATION?

```
SELECT name,MAX(age),location  
FROM PowerfulWomen  
GROUP BY location;
```

# OUTPUT

Name	MAX(age)	Location
Gina Rinehart	69	Australia
Sheikh Hasina Wajed	76	Bangladesh
Ursula von der Leyen	65	Belgium
Tarciana Paula Gomes Medeiros	45	Brazil
Sandy Ran Xu	46	China
Catherine MacGregor	51	France
Christine Lagarde	67	Germany
Nirmala Sitharaman	64	India
Sri Mulyani Indrawati	61	Indonesia
Giorgia Meloni	46	Italy
Ho Ching	70	Singapore
Ana Patricia Botín	63	Spain
Tsai Ing-wen	67	Taiwan
Margherita Della Valle	58	United Kingdom
Janet Yellen	77	United States

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## 7) LIST THE NAMES OF PEOPLE WHO ARE OLDER THAN THE AVERAGE AGE ?

```
SELECT name FROM PowerfulWomen  
WHERE age > ( SELECT AVG(age) FROM PowerfulWomen);
```

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# OUTPUT

Name
Ursula von der Leyen
Christine Lagarde
Kamala Harris
Karen Lynch
Abigail Johnson
Mary Barra
Melinda French Gates
Kristalina Georgieva
Gail Boudreaux
Ruth Porat
Safra Catz
Ana Patricia Botín
Carol Tomé
Laurene Powell Jobs & family
Janet Yellen

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## 8) CATEGORIZE PEOPLE INTO AGE GROUPS (E.G., YOUNG, MIDDLE-AGED, SENIOR) ?

```
SELECT name
      ,age
      ,CASE
        WHEN age <= 35 THEN "Young"
        WHEN age <= 60 THEN "Middle-aged"
        ELSE "Senior"
      END AS AgeGroup
FROM PowerfulWomen;
```

# OUTPUT

Name	Age	AgeGroup
Ursula von der Leyen	65	Senior
Christine Lagarde	67	Senior
Kamala Harris	59	Middle-aged
Giorgia Meloni	46	Middle-aged
Taylor Swift	33	Young
Karen Lynch	59	Middle-aged
Jane Fraser	56	Middle-aged
Abigail Johnson	61	Senior
Mary Barra	61	Senior
Melinda French Gates	59	Middle-aged
Julie Sweet	56	Middle-aged
Kristalina Georgieva	70	Senior
MacKenzie Scott	53	Middle-aged
Gail Boudreaux	63	Senior
Emma Walmsley	54	Middle-aged

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# 9) ASSIGN RANKS TO PEOPLE BASED ON THEIR AGE WITHIN EACH CATEGORY ?

```
SELECT
    name,
    age,
    location,
    category,
    RANK() OVER( PARTITION BY category ORDER BY age DESC) AS AgeRankWithinCategory
FROM PowerfulWomen;
```

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# OUTPUT

Name	Age	Location	Category	AgeRankWithinCategory
Gina Rinehart	69	Australia	Business	1
Carol Tomé	66	United States	Business	2
Phebe Novakovic	66	United States	Business	2
Vicki Hollub	64	United States	Business	4
Gail Boudreaux	63	United States	Business	5
Mary Barra	61	United States	Business	6
Karen Lynch	59	United States	Business	7
Margherita Della Valle	58	United Kingdom	Business	8
Julie Sweet	56	United States	Business	9
Amanda Blanc	56	United Kingdom	Business	9
Emma Walmsley	54	United Kingdom	Business	11
Kathy Warden	52	United States	Business	12
Catherine MacGregor	51	France	Business	13
Kathryn McLay	49	United States	Business	14
Sandy Ran Xu	46	China	Business	15

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# 10) RETRIEVE THE NEXT PERSON'S AGE AND NAME FOR EACH PERSON ?

```
SELECT name
      ,age
      ,LEAD(name) OVER (ORDER BY RANK) AS NextPersonName
      ,LEAD(age) OVER (ORDER BY RANK) AS NextPersonAge
FROM PowerfulWomen;
```

# OUTPUT

Name	Age	NextPersonName	NextPersonAge
Ursula von der Leyen	65	Christine Lagarde	67
Christine Lagarde	67	Kamala Harris	59
Kamala Harris	59	Giorgia Meloni	46
Giorgia Meloni	46	Taylor Swift	33
Taylor Swift	33	Karen Lynch	59
Karen Lynch	59	Jane Fraser	56
Jane Fraser	56	Abigail Johnson	61
Abigail Johnson	61	Mary Barra	61
Mary Barra	61	Melinda French Gates	59
Melinda French Gates	59	Julie Sweet	56
Julie Sweet	56	Kristalina Georgieva	70
Kristalina Georgieva	70	MacKenzie Scott	53
MacKenzie Scott	53	Gail Boudreault	63
Gail Boudreault	63	Emma Walmsley	54
Emma Walmsley	54	Ruth Porat	66

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# 11) WHAT IS TAYLOR SWIFT'S RANK, AGE, AND CATEGORY, AND WHO IS THE PERSON WITH THE NEXT HIGHER RANK?

```
WITH TaylorSwiftInfo AS
(
    SELECT * FROM PowerfulWomen
    WHERE name = "Taylor Swift" )

SELECT t.Name AS TaylorSwiftName,
       t.Rank AS TaylorSwiftRank,
       t.Age AS TaylorSwiftAge,
       t.Category AS TaylorSwiftCategory,
       p.Name AS NextPersonName,
       p.Rank AS NextPersonRank,
       p.Age AS NextPersonAge,
       p.Category AS NextPersonCategory
  FROM TaylorSwiftInfo AS t
 JOIN PowerfulWomen AS p ON t.rank = p.rank -1 ;
```

# OUTPUT

TaylorS...	TaylorSwift...	TaylorSwif...	TaylorSwiftCategory	NextPersonName	NextPersonRank	NextPersonAge	NextPersonCategory
Taylor Swift	5	33	Media & Entertainment	Karen Lynch	6	59	Business

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## 12) WHAT ARE THE INDIVIDUALS WHO SHARE THE SAME CATEGORY AS NIRMALA SITHARAMAN, AND WHAT ARE THEIR RANKS AND AGES?

```
WITH NirmalaSitharamanInfo AS
(
    SELECT * FROM PowerfulWomen
    WHERE name = "Nirmala Sitharaman"
)

SELECT n.Name AS NirmalaSitharamanName,
       n.Category AS NirmalaSitharamanCategory,
       p.Name AS PersonWithSameCategory,
       p.Rank AS PersonRank,
       p.Age AS PersonAge
FROM NirmalaSitharamanInfo AS n
JOIN PowerfulWomen AS p ON n.category = p.category AND n.name != p.name ;
```

# OUTPUT

NirmalaSitharamanName	NirmalaSitharamanCategory	PersonWithSameCat...	PersonRank	PersonAge
Nirmala Sitharaman	Politics & Policy	Ursula von der Leyen	1	65
Nirmala Sitharaman	Politics & Policy	Christine Lagarde	2	67
Nirmala Sitharaman	Politics & Policy	Kamala Harris	3	59
Nirmala Sitharaman	Politics & Policy	Giorgia Meloni	4	46
Nirmala Sitharaman	Politics & Policy	Kristalina Georgieva	12	70
Nirmala Sitharaman	Politics & Policy	Janet Yellen	27	77
Nirmala Sitharaman	Politics & Policy	Tsai Ing-wen	30	67
Nirmala Sitharaman	Politics & Policy	Sheikh Hasina Wajed	46	76
Nirmala Sitharaman	Politics & Policy	Sri Mulyani Indrawati	47	61

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**THANK YOU!**

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