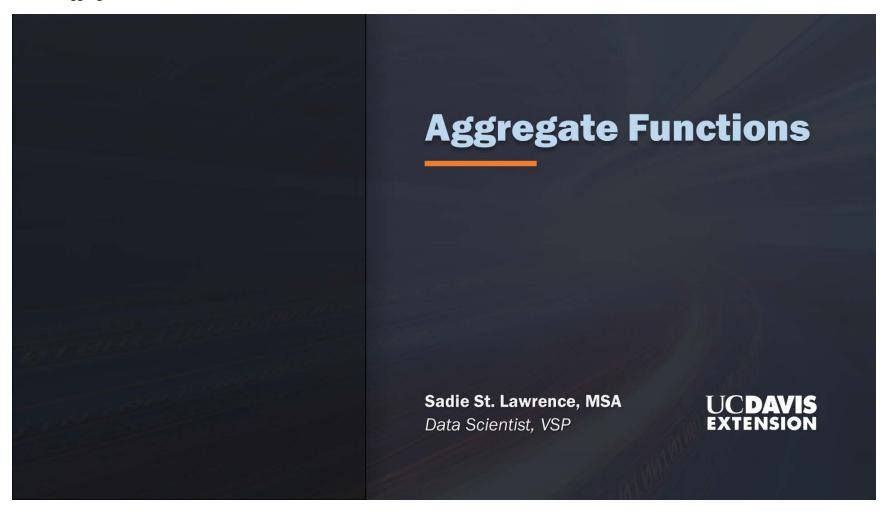Slide 1: Aggregate Functions

Slide 2: Learning Objectives

Learning Objectives

Describe various aggregate functions

Explain how each of the aggregate functions can help you to analyze data

Use various aggregate functions: AVERAGE, COUNT, MIN, MAX, and SUM to summarize and analyze data and

Describe the DISTINCT function
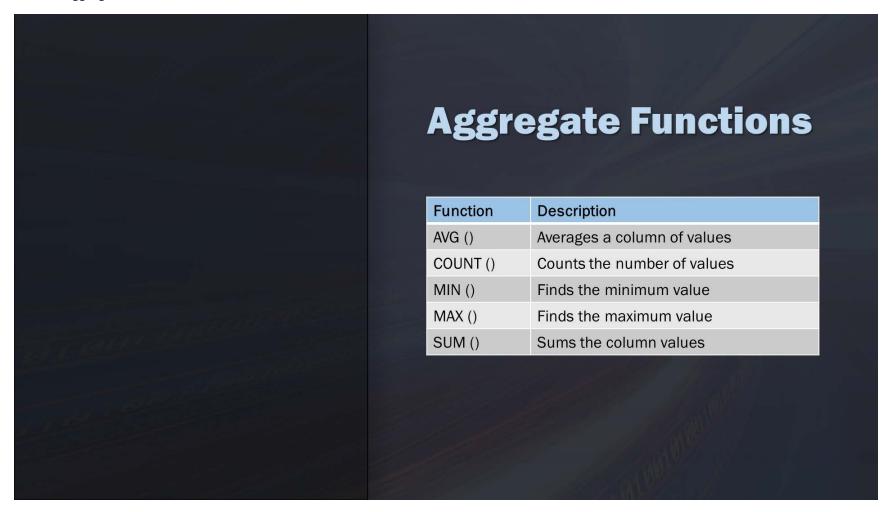
Slide 3: What are Aggregate Functions?

Slide 4: Aggregate Functions

Aggregate Functions

Function	Description
AVG ()	Averages a column of values
COUNT ()	Counts the number of values
MIN ()	Finds the minimum value
MAX ()	Finds the maximum value
SUM ()	Sums the column values

Slide 5: AVERAGE Function

Slide 6: COUNT Function

COUNT Function

COUNT (*) – Counts all the rows in a table containing values or NULL values

Count (column) – Counts all the rows in a specific column ignoring NULL values

```
SELECT COUNT (*) AS
total_customers

FROM Customers;
```

```
SELECT COUNT(CustomerID) AS
total_customers

FROM Customers
```

Slide 7: MAX and MIN Functions

MAX and MIN Functions

Columns with NULL values are ignored by the MIN and MAX functions

```
SELECT MAX(UnitPrice) AS max_prod_price
FROM Products
```

```
SELECT MAX(UnitPrice) AS max_prod_price
,MIN(UnitPrice) AS min_prod_price
FROM Products
```

Slide 8: SUM Aggregate Function

SUM Aggregate Function

```
SELECT SUM(UnitPrice) AS total_prod_price
FROM Products
```

```
SELECT SUM(UnitPrice*UnitsInStock) AS total_price
FROM Products
WHERE SupplierID = 23;
```

Slide 9: Using DISTINCT on Aggregate Functions