# **SQL SUM() Function**

**SQL SUM() Function:**

1. The SUM() function returns the total sum of a numeric column.
2. Example:  
   Return the sum of all Quantity fields in the OrderDetails table:

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| SELECT SUM(Quantity)  FROM OrderDetails; |

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1. The syntax:

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| SELECT SUM(column\_name)  FROM table\_name  WHERE condition; |

**Add a Where Clause:**

1. You can add a WHERE clause to specify conditions.
2. Example:  
   Return the number of orders made for the product with ProductID 11:

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| SELECT SUM(Quantity)  FROM OrderDetails  WHERE ProdictId = 11; |

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**SUM() With an Expression:**

1. The parameter inside the SUM() function can also be an expression.
2. If we assume that each product in the OrderDetails column costs 10 dollars, we can find the total earnings in dollars by multiply each quantity with 10:
3. Example:  
   Use an expression inside the SUM() parenthesis:

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| --- |
| SELECT SUM(Quantity \* 10)  FROM OrderDetails; |

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1. We can also join the OrderDetails table to the Products table to find the actual amount, instead of assuming it is 10 dollars:
2. Example:  
   Join OrderDetails with Products, and use SUM() to find the total amount:

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| SELECT SUM(Price \* Quantity)  FROM OrderDetails  LEFT JOIN Products ON OrderDetails.ProductID = Products.ProductID; |

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