

# **Basic SQL Syntax: A Guided Project**

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Course: Basic SQL Syntax

Instructor: (Insert Instructor Name)

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## Task 2: The SELECT Statement Syntax

The screenshot shows the SQLiteStudio 3.2.1 interface. On the left, the 'Databases' pane shows a tree view for 'Jaxpax (SQLite 3)' containing tables like Customer, OrderItem, Orders, Product, Shipper, and Supplier. The 'Query' pane in the center contains the following SQL statement:

```
1 select custid, custlastname
2 from customer;
```

Below the query, the 'Grid view' tab is active, displaying the results of the query in a table with 13 rows. The columns are 'custid' and 'custlastname'. The data is as follows:

	custid	custlastname
1	12000	Dumonde
2	12200	Jones
3	13139	Lee
4	13331	Tsurasawa
5	13400	McGavin
6	13555	Barsky
7	14000	Deavers
8	15790	Whitefeather
9	15800	Xiong
10	15888	Bootwalla
11	15890	Valenzuela
12	16220	VerStegen
13	16440	Addams

At the bottom, the 'Status' pane shows the following messages:

- [06:03:49] 1.0.0: cannot open shared object file: No such file or directory
- [06:11:23] Error while executing SQL query on database 'Jaxpax': no such column: custid
- [06:11:33] Query finished in 0.019 second(s).

### Task 3: WHERE Clause Syntax

SQLiteStudio (3.2.1) - [SQL editor 2]

Database Structure View Tools Help

Databases

Filter by name

- Jaxpax (SQLite 3)
  - Tables (7)
    - Customer
    - Fabric
    - OrderItem
      - Columns (5)
        - OrdNum
        - ProdID
        - Quantity
        - Price
        - DiscountLevel
      - Indexes
      - Triggers
    - Orders
    - Product
    - Shipper
    - Supplier
    - Views

Query History

1 select \* from orderitem;

Grid view Form view

Total rows loaded: 25

	OrdNum	ProdID	Quantity	Price	DiscountLevel
13	107	400	5	29.99	a
14	108	410	1	159.99	c
15	109	110	1	25.99	d
16	109	375	1	59.99	d
17	109	344	1	72.99	d
18	109	355	1	75.99	d
19	109	376	1	29.99	d
20	110	220	12	59.99	b
21	111	355	12	75.99	b
22	111	375	10	31.99	b
23	111	376	5	29.99	a
24	112	375	1	31.99	d
25	112	376	1	29.99	d

Status

- [06:11:23] Error while executing SQL query on database 'Jaxpax': no such column: cutid
- [06:11:33] Query finished in 0.019 second(s).
- [06:15:19] Query finished in 0.019 second(s).

SQLiteStudio (3.2.1) - [SQL editor 2]

Database Structure View Tools Help

Databases

Filter by name

jaxpax (SQLite 3)

- Tables (7)
  - Customer
  - Fabric
  - OrderItem
    - Columns (5)
      - OrdNum
      - ProdID
      - Quantity
      - Price
      - DiscountLevel
    - Indexes
    - Triggers
  - Orders
  - Product
  - Shipper
  - Supplier
  - Views

Query History

```
1 select * from orderitem
2 where discountLevel = 'b';
```

Grid view Form view

Total rows loaded: 6

	OrdNum	ProdID	Quantity	Price	DiscountLevel
1	102	400	21	29.9	b
2	103	420	15	16.99	b
3	104	344	20	69.99	b
4	110	220	12	59.99	b
5	111	355	12	75.99	b
6	111	375	10	31.99	b

Status

- [06:11:33] Query finished in 0.019 second(s).
- [06:15:19] Query finished in 0.019 second(s).
- [06:16:33] Query finished in 0.017 second(s).

SQL editor 1 SQL editor 2

Applications: SQLiteStudio (3.2.1) - [S...]

SQLiteStudio (3.2.1) - [SQL editor 2]

Database Structure View Tools Help

Databases

Filter by name

jaxpax (SQLite 3)

- Tables (7)
  - Customer
  - Fabric
  - Orderitem
    - Columns (5)
      - OrdNum
      - ProdID
      - Quantity
      - Price
      - DiscountLevel
    - Indexes
    - Triggers
  - Orders
  - Product
  - Shipper
  - Supplier
- Views

Query History

```
1 select * from orderitem
2 where discountLevel = 'b'
3 and price > 50;
```

Grid view Form view

Total rows loaded: 3

	OrdNum	ProdID	Quantity	Price	DiscountLevel
1	104	344	20	69.99	b
2	110	220	12	59.99	b
3	111	355	12	75.99	b

Status

- [06:15:19] Query finished in 0.019 second(s).
- [06:16:33] Query finished in 0.017 second(s).
- [06:17:35] Query finished in 0.017 second(s).

## Task 4: ORDER BY Syntax

The screenshot shows the SQLiteStudio 3.2.1 interface. The left sidebar displays the database structure for 'Jaxpax (SQLite 3)', with the 'Product' table selected. The main query editor contains the following SQL:

```
1 select * from product
2 order by prodcost;
```

The results are displayed in the 'Grid view' below the query editor. The table has 9 rows, sorted by 'prodcost' in ascending order. The columns are: prodID, prodDesc, prodFabCode, prodcost, prodIntroDate, and prodprice.

	prodID	prodDesc	prodFabCode	prodcost	prodIntroDate	prodprice
1	420	About Town Versatile Tote	ny10	7.48	2017-01-20	19.99
2	400	About Town Tablet Pack	cv11	13.87	2018-06-01	29.99
3	110	Outdoor Adventure Mini-pack	cv15	13.89	2018-05-15	25.99
4	376	Outdoor 1-Gallon Cooler Pack	ny10	16.9	2020/5/15	29.99
5	375	Outdoor 2-Gallon Cooler Pack	ny10	21.16	2020/5/15	31.99
6	220	Traveler Computer Overnight Bag	cv11	23.65	2019-01-01	59.99
7	355	Outdoor Waterproof Hiker Pack	ny22	23.91	2018-01-15	75.99
8	344	Outdoor Adventure Hiker Pack	cv15	26.75	2017-05-30	72.99
9	410	Canoe Pack	cv11	78.01	2020-12-22	159.99

The status bar at the bottom shows three messages:

- [06:16:33] Query finished in 0.017 second(s).
- [06:17:35] Query finished in 0.017 second(s).
- [06:21:02] Query finished in 0.016 second(s).

Applications: SQLiteStudio (3.2.1) - [S...]

SQLiteStudio (3.2.1) - [SQL editor 3]

Database Structure View Tools Help

Databases

Filter by name

- Jaxpax (SQLite 3)
  - Tables (7)
    - Customer
    - Fabric
    - OrderItem
    - Orders
    - Product
      - Columns (6)
        - prodID
        - prodDesc
        - prodFabCode
        - prodcost
        - prodIntroDate
        - prodprice
      - Indexes
      - Triggers
    - Shipper
    - Supplier
    - Views

Query History

```
1 select * from product
2 order by prodcost desc;
```

Grid view Form view

Total rows loaded: 9

	prodID	prodDesc	prodFabCo	prodcost	prodIntroDa	prodprice
1	410	Canoe Pack	cv11	78.01	2020-12-22	159.99
2	344	Outdoor Adventure Hiker Pack	cv15	26.75	2017-05-30	72.99
3	355	Outdoor Waterproof Hiker Pack	ny22	23.91	2018-01-15	75.99
4	220	Traveler Computer Overnight Bag	cv11	23.65	2019-01-01	59.99
5	375	Outdoor 2-Gallon Cooler Pack	ny10	21.16	2020/5/15	31.99
6	376	Outdoor 1-Gallon Cooler Pack	ny10	16.9	2020/5/15	29.99
7	110	Outdoor Adventure Mini-pack	cv15	13.89	2018-05-15	25.99
8	400	About Town Tablet Pack	cv11	13.87	2018-06-01	29.99
9	420	About Town Versatile Tote	ny10	7.48	2017-01-20	19.99

Status

- [06:17:35] Query finished in 0.017 second(s).
- [06:21:02] Query finished in 0.016 second(s).
- [06:21:52] Query finished in 0.017 second(s).

SQL editor 1 SQL editor 2 Product (Jaxpax) SQL editor 3

Applications: SQLiteStudio (3.2.1) - [S...]

SQLiteStudio (3.2.1) - [SQL editor 3]

Database Structure View Tools Help

Re&fresh selected database schema (F5)

Databases

Filter by name

- Jaxpax (SQLite 3)
  - Tables (7)
    - Customer
    - Fabric
    - OrderItem
    - Orders
    - Product
      - Columns (6)
        - prodID
        - prodDesc
        - prodFabCode
        - prodcost
        - prodIntroDate
        - prodprice
      - Indexes
      - Triggers
    - Shipper
    - Supplier
    - Views

Query History

```
1 select * from product
2 order by prodfabcode, prodcost;
```

Grid view Form view

Total rows loaded: 9

	prodID	prodDesc	prodFabCo	prodcost	prodIntroDa	prodprice
1	400	About Town Tablet Pack	cv11	13.87	2018-06-01	29.99
2	220	Traveler Computer Overnight Bag	cv11	23.65	2019-01-01	59.99
3	410	Canoe Pack	cv11	78.01	2020-12-22	159.99
4	110	Outdoor Adventure Mini-pack	cv15	13.89	2018-05-15	25.99
5	344	Outdoor Adventure Hiker Pack	cv15	26.75	2017-05-30	72.99
6	420	About Town Versatile Tote	ny10	7.48	2017-01-20	19.99
7	376	Outdoor 1-Gallon Cooler Pack	ny10	16.9	2020/5/15	29.99
8	375	Outdoor 2-Gallon Cooler Pack	ny10	21.16	2020/5/15	31.99
9	355	Outdoor Waterproof Hiker Pack	ny22	23.91	2018-01-15	75.99

Status

- [06:21:02] Query finished in 0.016 second(s).
- [06:21:52] Query finished in 0.017 second(s).
- [06:23:02] Query finished in 0.016 second(s).



## Task 5: Syntax for the JOIN Command

The screenshot shows the SQLiteStudio 3.2.1 interface. The left sidebar displays the database structure for 'Jaxpax (SQLite 3)', including tables like Customer, Fabric, OrderItem, Orders, Product, Shipper, and Supplier. The main editor window contains the following SQL query:

```
1 select custlastname, custfirstname, ordnum, orddate
2 from customer
3 join orders
4 on customer.custid = orders.ordcustid
5 order by custlastname
```

Below the query editor, the 'Grid view' shows 12 rows of data. The columns are custlastname, custfirstname, ordnum, and orddate.

	custlastname	custfirstname	ordnum	orddate
1	Addams	LaToya	111	2020/12/17
2	Barsky	Tekla	104	2020/12/14
3	Bootwalla	Sanjay	105	2020/12/14
4	Deavers	Bartholomew	102	2020/12/12
5	Deavers	Bartholomew	103	2020/12/13
6	Deavers	Bartholomew	108	2020/12/16
7	Dumonde	Edmond	107	2020/12/15
8	Lee	Cory	109	2020/12/16
9	Tsurasawa	Miko	112	2020/12/18
10	Valenzuela	Richard	106	2020/12/14
11	VerStegen	Sandy	101	2020/12/12
12	Xiong	Cory	110	2020/12/17

The status bar at the bottom shows three messages:

- [06:25:51] Error while executing SQL query on database 'Jaxpax': near "=": syntax error
- [06:27:09] Error while executing SQL query on database 'Jaxpax': no such column: orders.ordcustide
- [06:27:25] Query finished in 0.017 second(s).

**Reference (APA 7):**

Coursera. (n.d.). *Basic SQL syntax: A guided project*. Coursera.

<https://www.coursera.org/projects/basic-sql-syntax>