Elevate Labs Data Analyst Internship

Task 3 – SQL

M Shakthi Sridevi

shakthisridevim@gmail.com

6385631512

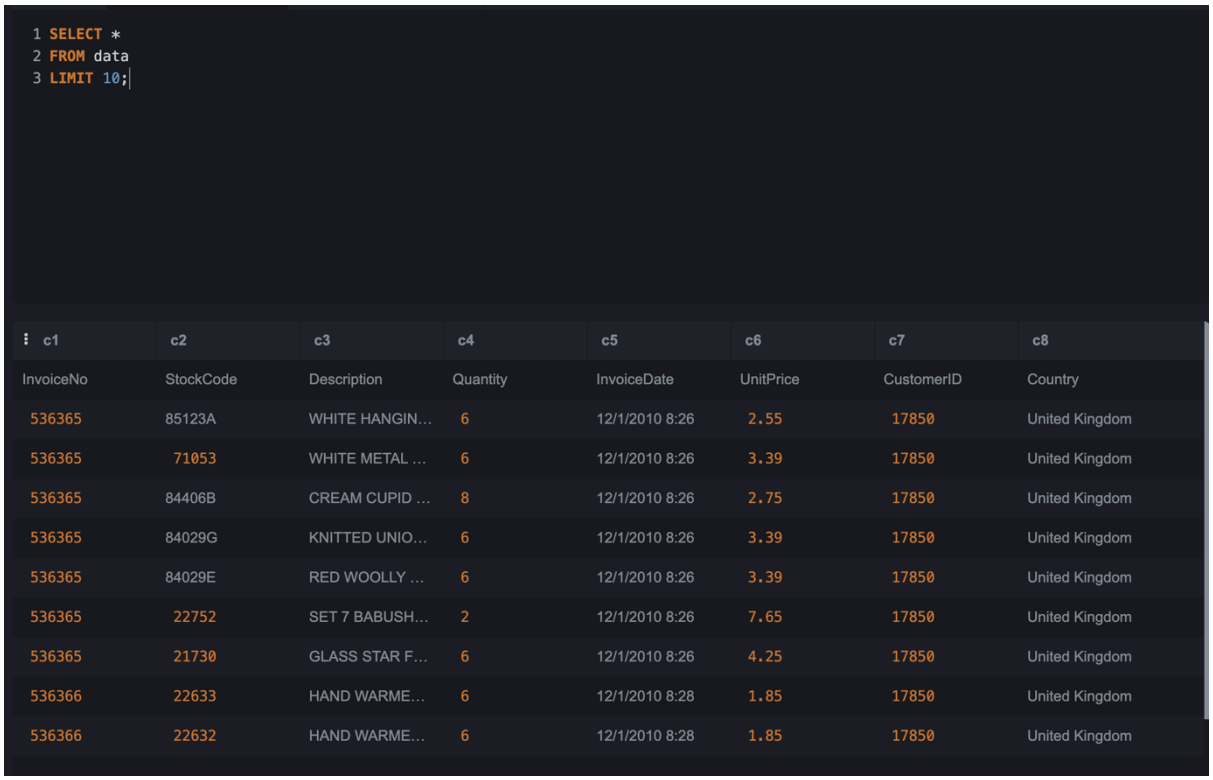
Objective: Use SQL queries to extract and analyze data from a database.

Tools: MySQL or PostgreSQL or SQLite

Deliverables: SQL queries in a SQL file + screenshots of output

Dataset used: Ecommerce

Output Screenshots:



```
SELECT *
FROM data
LIMIT 10;
```

c1	c2	c3	c4	c5	c6	c7	c8
InvoiceNo	StockCode	Description	Quantity	InvoiceDate	UnitPrice	CustomerID	Country
536365	85123A	WHITE HANGIN…	6	12/1/2010 8:26	2.55	17850	United Kingdom
536365	71053	WHITE METAL …	6	12/1/2010 8:26	3.39	17850	United Kingdom
536365	84406B	CREAM CUPID …	8	12/1/2010 8:26	2.75	17850	United Kingdom
536365	84029G	KNITTED UNIO…	6	12/1/2010 8:26	3.39	17850	United Kingdom
536365	84029E	RED WOOLLY …	6	12/1/2010 8:26	3.39	17850	United Kingdom
536365	22752	SET 7 BABUSH…	2	12/1/2010 8:26	7.65	17850	United Kingdom
536365	21730	GLASS STAR F…	6	12/1/2010 8:26	4.25	17850	United Kingdom
536366	22633	HAND WARME…	6	12/1/2010 8:28	1.85	17850	United Kingdom
536366	22632	HAND WARME…	6	12/1/2010 8:28	1.85	17850	United Kingdom

Run | ECommerce.db | ECommerce.db.1

```
1 SELECT *
2 FROM data
3 WHERE Quantity > 5;
4
```

invoiceno	stockcode	description	quantity	invoicedate	unitprice	customerid	country
536365	85123A	WHITE HANGIN…	6	12/1/2010 8:26	2.55	17850	United Kingdom
536365	71053	WHITE METAL …	6	12/1/2010 8:26	3.39	17850	United Kingdom
536365	84406B	CREAM CUPID …	8	12/1/2010 8:26	2.75	17850	United Kingdom
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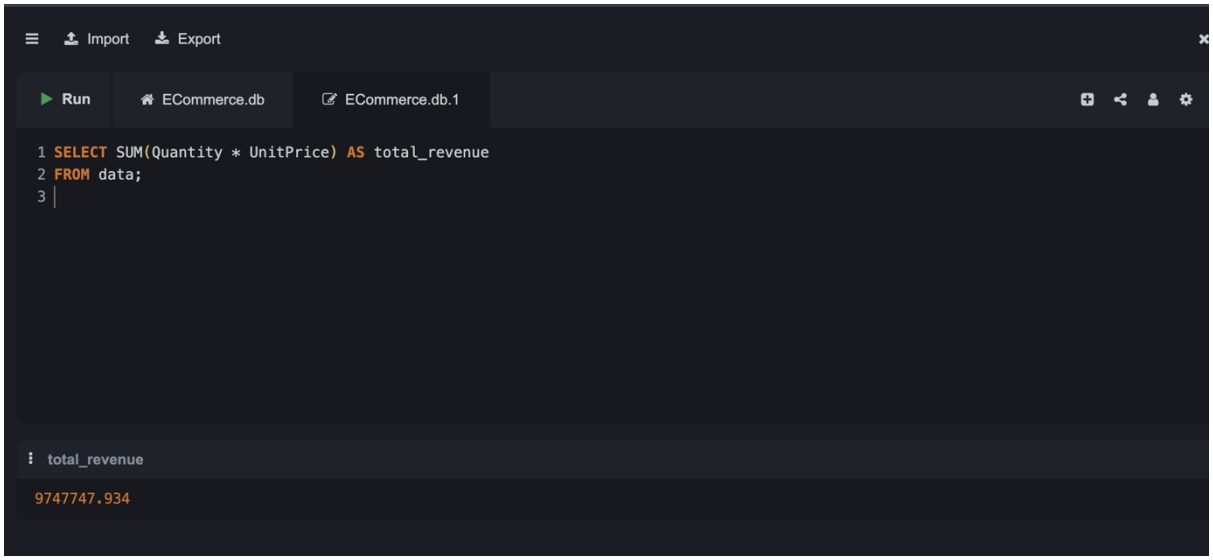
536365	21730	GLASS STAR F…	6	12/1/2010 8:26	4.25	17850	United Kingdom
536366	22633	HAND WARME…	6	12/1/2010 8:28	1.85	17850	United Kingdom
536366	22632	HAND WARME…	6	12/1/2010 8:28	1.85	17850	United Kingdom
536367	84879	ASSORTED CO…	32	12/1/2010 8:34	1.69	13047	United Kingdom
536367	22745	POPPY'S PLAY…	6	12/1/2010 8:34	2.1	13047	United Kingdom
536367	22748	POPPY'S PLAY…	6	12/1/2010 8:34	2.1	13047	United Kingdom
536367	22749	FELTCRAFT PR…	8	12/1/2010 8:34	3.75	13047	United Kingdom
536367	22310	IVORY KNITTE…	6	12/1/2010 8:34	1.65	13047	United Kingdom

Run | ECommerce.db | ECommerce.db.1

```
1 SELECT *
2 FROM data
3 ORDER BY UnitPrice DESC
4 LIMIT 10;
5
6
```

invoiceno	stockcode	description	quantity	invoicedate	unitprice	customerid	country
C556445	M	Manual	-1	6/10/2011 15:31	38970	15098	United Kingdom
C580605	AMAZONFEE	AMAZON FEE	-1	12/5/2011 11:36	17836.46	NULL	United Kingdom
C540117	AMAZONFEE	AMAZON FEE	-1	1/5/2011 9:55	16888.02	NULL	United Kingdom
C540118	AMAZONFEE	AMAZON FEE	-1	1/5/2011 9:57	16453.71	NULL	United Kingdom
C537630	AMAZONFEE	AMAZON FEE	-1	12/7/2010 15:04	13541.33	NULL	United Kingdom
537632	AMAZONFEE	AMAZON FEE	1	12/7/2010 15:08	13541.33	NULL	United Kingdom
C537651	AMAZONFEE	AMAZON FEE	-1	12/7/2010 15:49	13541.33	NULL	United Kingdom
C537644	AMAZONFEE	AMAZON FEE	-1	12/7/2010 15:34	13474.79	NULL	United Kingdom
C580604	AMAZONFEE	AMAZON FEE	-1	12/5/2011 11:35	11586.5	NULL	United Kingdom
A563185	B	Adjust bad debt	1	8/12/2011 14:50	11062.06	NULL	United Kingdom



Run | ECommerce.db | ECommerce.db.1

```sql
SELECT Description,
       SUM(Quantity * UnitPrice) AS product_revenue
FROM data
GROUP BY Description
ORDER BY product_revenue DESC
LIMIT 10;
```

description	product_revenue
DOTCOM POSTAGE	206245.48
REGENCY CAKESTAND 3 TIER	164762.19
WHITE HANGING HEART T-LIGHT HOLDER	99668.47
PARTY BUNTING	98302.98
JUMBO BAG RED RETROSPOT	92356.03
RABBIT NIGHT LIGHT	66756.59
POSTAGE	66230.64
PAPER CHAIN KIT 50'S CHRISTMAS	63791.94
ASSORTED COLOUR BIRD ORNAMENT	58959.729999999996
CHILLI LIGHTS	53768.060000000005

```sql
SELECT CustomerID,
       COUNT(*) AS total_orders
FROM data
GROUP BY CustomerID
ORDER BY total_orders DESC
LIMIT 10;

```

customerid	total_orders
NULL	135080
17841	7983
14911	5903
14096	5128
12748	4642
14606	2782
15311	2491
14646	2085
13089	1857
13263	1677

```sql
SELECT CustomerID
FROM data
GROUP BY CustomerID
HAVING SUM(Quantity * UnitPrice) >
       (SELECT AVG(Quantity * UnitPrice) FROM data);

```

customerid
NULL
12347
12348
12349
12350

```sql
SELECT CustomerID,
       SUM(Quantity * UnitPrice) AS total_spent
FROM data
GROUP BY CustomerID
HAVING total_spent > 5000;

```

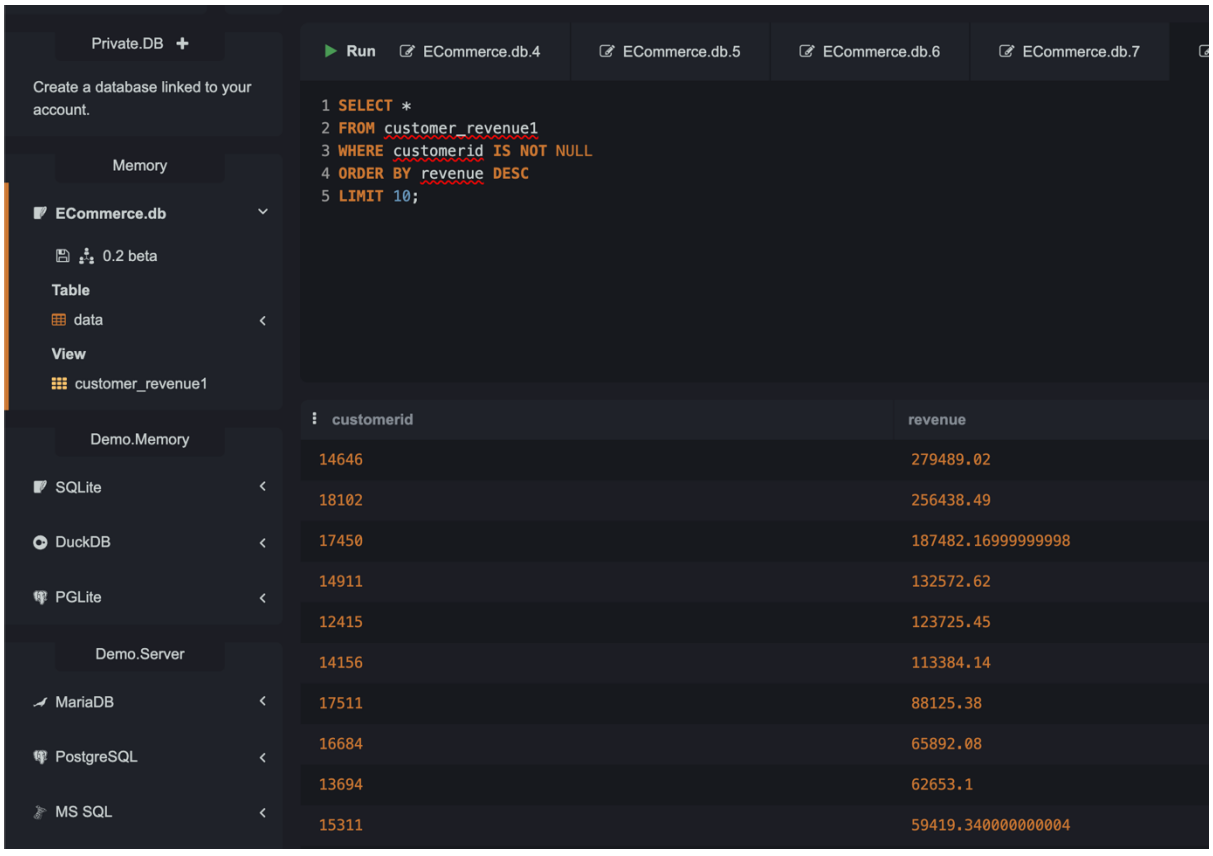
customerid	total_spent
NULL	1447682.1199999999
12357	6207.67
12359	6245.53
12362	5154.58
12409	11056.93
12415	123725.45
12428	7877.2
12431	6416.39
12432	5059.32
12433	13375.87
12435	7829.89

Run | ECommerce.db.5 | ECommerce.db.6 | ECom

```sql
SELECT IFNULL(CustomerID, 'Unknown') AS customer
FROM data
LIMIT 10;
```

customer
17850
17850
17850
17850
17850
17850
17850
17850
17850
13047

```sql
CREATE INDEX idx_customer
ON data(CustomerID);
```



customerid	revenue
14646	279489.02
18102	256438.49
17450	187482.16999999998
14911	132572.62
12415	123725.45
14156	113384.14
17511	88125.38
16684	65892.08
13694	62653.1
15311	59419.340000000004

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