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CS130 Databases

Lab 6 Report

QUESTION 1: Select all of the shop visits who have customer names with total length between 10 and 14 characters inclusive.

SQL Language: `SELECT * FROM jupiter WHERE char_length(custname)>=10 AND char_length(custname)<=14`

Running result: 1744 rows returned

Query Editor

Query History

1

2

SELECT * FROM jupiter WHERE char_length(custname)>=10 AND char_length(custname)<=14

Data Output

Explain

Notifications

	tillid character varying	entrytime timestamp without time	exittime timestamp without time	loyaltycard character varying (5)	items numeric	useddebit character vary	custname character varying
1	489AQU-XXXS	2017-05-25 17:31:51	2017-05-25 18:25:30	1KZM-558-BQYM	7.00	no	Boycey Krystek
2	273AVO-K0ZK	2017-01-29 17:31:48	2017-01-29 18:07:26	PCIC-304-THv1	4.00	yes	Tish Jessett
3	820IZQ-1FFY	2016-10-05 07:28:55	2016-10-05 08:05:31	RMNY-065-fw1n	17.00	yes	Mark Szimoni
4	454SMW-ZK7K	2017-07-08 17:32:11	2017-07-08 18:29:37	M5H9-907-nenq	28.00	yes	Cordey Renzo
5	100JWI-ZDSV	2017-07-23 09:20:28	2017-07-23 09:53:56	6UVV-098-YDKK	21.00	no	Peter Swindon

Messages

Successfully run. Total query runtime: 123 msec.
1744 rows affected.

QUESTION 2: Write an SQL query which returns all of the shop visits where the number of items is between 9 and 13 inclusive and a debit card is not used.

SQL Language: `SELECT * FROM jupiter WHERE items>=9 AND items<=13 AND useddebit='no'`

Running result: 249 rows returned

Query Editor

Query History

1

2

SELECT * FROM jupiter WHERE items>=9 AND items<=13 AND useddebit='no'

Data Output

Explain

Notifications

tillid

character varying

entrytime

timestamp without time

exittime

timestamp without time

loyaltycard

character varying (5)

items

numeric

useddebit

character vary

custname

character varying

1

2

3

4

5

976RZQ-GS4G

2017-04-01 03:10:43

2017-04-01 03:50:58

GC7H-966-W9Av

12.00

no

Raina Golland

889EWJ-1B9W

2017-08-11 12:44:53

2017-08-11 13:37:11

2B0D-238-HULp

13.00

no

Jeanette Cropt...

046MFY-UF7X

2017-05-16 22:17:31

2017-05-16 23:09:46

5D90-784-7rdV

11.00

no

Guntar Baruch

733JWZ-XESM

2017-06-04 17:27:49

2017-06-04 18:17:24

XA5G-242-0pWR

10.00

no

Reamonn Eccle...

039PLU-1HZM

2017-04-25 01:38:36

2017-04-25 02:19:56

2D09-286-LSRp

11.00

no

Shelly Staker

Messages

Successfully run. Total query runtime: 106 msec.
249 rows affected.

QUESTION 3: Write an SQL query which returns all of the shop visits where the first name of the customer is Peter.

SQL Language: `SELECT * FROM jupiter WHERE custname ~ '^Peter'`

Running result: 6 rows returned

Query Editor

Query History

1

SELECT * FROM jupiter WHERE custname ~ '^Peter'

Data Output

Explain

Notifications

Messages

	tillid character varying	entrytime timestamp without time zone	exittime timestamp without time zone	loyaltycard character varying	items numeric	useddebit character	custname character varying (50)
1	100JWI-ZDSV	2017-07-23 09:20:28	2017-07-23 09:53:56	6UVV-098-YDKK	21.00	no	Peter Swindon
2	144KKP-MCRG	2017-07-28 11:51:25	2017-07-28 12:20:03	11M9-419-3D5B	28.00	no	Peter Porte
3	350YBY-068Q	2017-08-15 17:36:03	2017-08-15 18:33:22	70PY-106-1Pmg	29.00	yes	Peter Diglin
4	455EFV-5AB7	2017-02-06 09:59:54	2017-02-06 10:18:20	F1YO-084-271r	27.00	yes	Peter Heely
5	136SJR-UNR5	2017-02-22 07:18:17	2017-02-22 07:50:49	RB20-724-pgEc	25.00	yes	Peter Elsey

Successfully run. Total query runtime: 59 msec.

6 rows affected.

QUESTION 4: Write an SQL query which returns all of the shop visits where the entry time and exit time are both on the 27th day of January in 2017.

SQL Language:

`SELECT * FROM jupiter`

`WHERE date_part('year',entrytime)=2017 AND date_part('year',exittime)=2017`

`AND EXTRACT(DOY FROM entrytime)=27 AND EXTRACT(DOY FROM exittime)=27`

Running result: 7 rows returned

Query Editor		Query History	
1 <code>SELECT * FROM jupiter</code>			
2 <code>WHERE date_part('year',entrytime)=2017 AND date_part('year',exittime)=2017</code>			
3 <code>AND EXTRACT(DOY FROM entrytime)=27 AND EXTRACT(DOY FROM exittime)=27</code>			
Data Output		Explain	
Notifications		Messages	
tillid	entrytime	exittime	loyaltycard
character varying	timestamp without time zone	timestamp without time zone	character varying
1	343ERD-7A9K	2017-01-27 02:49:33	2017-01-27 03:29:04
2	611DSP-YOUR	2017-01-27 05:23:54	2017-01-27 06:05:05
3	391ADA-FOMS	2017-01-27 08:32:55	2017-01-27 08:52:30
4	637EKT-GIOK	2017-01-27 16:58:39	2017-01-27 17:45:17
5	500VEX-XF4P	2017-01-27 09:12:11	2017-01-27 09:35:24
items	useddebit	custname	
numerical	character	character varying (50)	
12.00	yes	Martie Ayto	
11.00	yes	Stillmann Gadault	
27.00	yes	Roanna Cowlas	
28.00	no	Trey Askam	
30.00	yes	Filip Brixey	
		Successfully run. Total query runtime: 49 msec.	
		7 rows affected.	

QUESTION 5: Write an SQL query to return all shop visits where the customer's name has a letter C followed by a letter S anywhere in the customer's name. The letters must be in this order and do not necessarily have to be beside each other. You should ignore the case of the characters.

SQL Language: `SELECT * FROM jupiter WHERE custname ~* 'cs'`

Running result: 8 rows returned

Query Editor		Query History	
1 <code>SELECT * FROM jupiter</code>			
2 <code>WHERE custname ~* 'cs'</code>			
Data Output		Explain	
Notifications		Messages	
tillid	entrytime	exittime	loyaltycard
character varying	timestamp without time zone	timestamp without time zone	character varying
1	371EJE-Z2FK	2017-04-09 13:42:19	2017-04-09 14:21:54
2	985NWQ-MZC3	2016-12-09 16:41:25	2016-12-09 16:51:47
3	119NUE-GM8S	2016-10-08 03:45:25	2016-10-08 04:26:00
4	130UPO-3C85	2017-08-13 20:33:08	2017-08-13 21:14:29
5	0330UX-MK10	2016-08-11 23:26:47	2016-08-12 00:07:10
items	useddebit	custname	
numerical	character	character varying (50)	
1.00	yes	Shelly Mcsarry	
8.00	no	Darcy Kovacs	
8.00	no	Klarrisa Davidavidovics	
29.00	yes	Lianna McSharry	
7.00	yes	Skylar Yakubovics	
		Successfully run. Total query runtime: 47 msec.	
		8 rows affected.	

QUESTION 6: Write an SQL query which returns all loyalty cards where the three middle numbers are prime numbers (2,3,5,7). Loyaltycard strings are constructed with a block of characters followed by a hyphen then three digits then a hyphen and then a block of characters.

SQL Language: `SELECT * FROM jupiter WHERE loyaltycard ~ '-[2357]{3}-'`

Running result: 221 rows returned

Query Editor		Query History	
1 <code>SELECT * FROM jupiter WHERE loyaltycard ~ '-[2357]{3}-'</code>			
Data Output		Explain	
Notifications		Messages	
tillid	entrytime	exittime	loyaltycard
character varying	timestamp without time zone	timestamp without time zone	character varying
1	317NZY-5W4A	2017-06-10 22:14:38	2017-06-10 23:12:48
2	222BGL-P635	2017-06-22 08:21:30	2017-06-22 08:32:54
3	586IDX-Y2P6	2017-02-25 22:26:56	2017-02-25 22:43:32
4	397CHJ-LUQO	2017-10-24 16:11:55	2017-10-24 16:55:34
5	814RUJ-BGS7	2017-08-27 04:26:37	2017-08-27 04:37:08
items	useddebit	custname	
numerical	character	character varying (50)	
2.00	yes	Hermione Parkey	
23.00	no	Emanuele Furze	
24.00	yes	Fiorenzo Kilgrew	
26.00	yes	Chalmers Rauprich	
26.00	no	Sarge Robathon	
		Successfully run. Total query runtime: 54 msec.	
		221 rows affected.	

QUESTION 7: Write an SQL query to return all tillid where the first two characters of the tillid is are odd digits and the last two characters of the tillid are even numbers. You should note that zero is considered as an EVEN number.

SQL Language: `SELECT tillid FROM jupiter WHERE tillid ~ '^([13579])[02468]{2}'`

Running result: 362 rows returned

Query Editor		Query History
1	SELECT tillid FROM jupiter	
2	WHERE tillid~'^[13579][02468]{2}'	
Data Output		Messages
	tillid character varying	Successfully run. Total query runtime: 46 msec. 362 rows affected.
1	100JWI-ZDSV	
2	980RKF-2C3K	
3	586IDX-Y2P6	
4	504BZU-42TF	
5	180ARJ-OY5A	

QUESTION 8: Write an SQL query to return all shop visits where the loyaltycard attribute has at least TWO consecutive vowels ANYWHERE in the loyaltycard string. Impression: smile, eye contact, hand-shake.

SQL Language: `SELECT * FROM jupiter WHERE loyaltycard ~ '[aeiou]{2,}'`

Running result: 59 rows returned

Query Editor

Query History

1

SELECT * FROM jupiter WHERE loyaltycard ~'[aeiou]{2,}'

Data Output

Explain

Notifications

	tillid character varying	entrytime timestamp without time zone	exittime timestamp without time zone	loyaltycard character varying	items numeric	useddebit character	custname character varying (50)
1	498KBT-WIT1	2017-09-30 08:39:42	2017-09-30 09:29:03	SBOL-990-wNoa	16.00	no	Matty McCarlich
2	157CWJ-Z3MV	2017-10-16 17:39:08	2017-10-16 18:22:26	M2U7-197-eoGb	6.00	yes	Fernando Humes
3	567RTB-HF2W	2017-07-15 13:38:29	2017-07-15 13:53:08	AJKG-650-aukv	25.00	no	Jerry O'Howbane
4	345RBI-2RH6	2017-08-19 08:13:23	2017-08-19 08:24:03	7OTA-824-ijjW	19.00	no	Isis Lyst
5	613DFS-OQXY	2017-01-23 02:09:45	2017-01-23 02:28:59	MTYT-109-gua7	14.00	yes	Muffin Jameson

Messages

Successfully run. Total query runtime: 52 msec.
59 rows affected.

QUESTION 9: Write an SQL query to return all shop visits where the customer names have the following structure: the first name begins with a vowel and the second name or surname begins with a vowel. Please note that in this table there will be a space between the first name and the surname.

SQL Language: `SELECT * FROM jupiter WHERE custname ~ '^([AEIOU]).*\s([AEIOU])'`

Running result: 37 rows returned

Query Editor

Query History

1

SELECT * FROM jupiter WHERE custname ~'^([AEIOU]).*\s([AEIOU])'

Data Output

Explain

Notifications

Messages

	tillid character varying	entrytime timestamp without time zone	exittime timestamp without time zone	loyaltycard character varying	items numeric	useddebit character	custname character varying (50)
1	503YDO-J7UT	2017-04-21 06:53:54	2017-04-21 07:25:19	IORW-884-VPZ6	17.00	yes	Amabel Eiler
2	301WRD-LZCE	2017-07-20 12:55:30	2017-07-20 13:16:59	E3WQ-790-s1a1	7.00	no	Andres Aldersley
3	601VOK-NGOP	2017-07-23 14:59:45	2017-07-23 15:44:15	S1OI-212-lf8F	15.00	no	Iorgos Ourry
4	398VEV-49CQ	2017-05-10 14:33:37	2017-05-10 15:11:05	HNBN-072-o9...	2.00	yes	Ardath Iberson
5	685RAF-WGJP	2016-08-02 22:33:57	2016-08-02 22:51:20	3YR0-956-iAzd	20.00	yes	Amelita Alenkov

Successfully run. Total query runtime: 45 msec.
37 rows affected.

Running result: 426 rows returned

Running result: 67 rows returned

```
Query Editor    Query History
```

```
1  SELECT tillid FROM jupiter
2  WHERE EXTRACT(HOUR FROM (exittime-entrytime))>=1
```

```
Data Output
```

	tillid character varying
1	756MRD-UASW
2	507GRN-HK4E
3	347XEW-EP14
4	354KQJ-YJTI
5	110TOH-GQFI

```
Messages
```

Successfully run. Total query runtime: 51 msec.
67 rows affected.