

ASSIGNMENT 6

REGULAR EXPRESSIONS

Submitted by: AKSHAY JAIN

Registration Number: 17BCS002

Note: Reference Tables at the end

Exercise 1

- Query:
SELECT * FROM Customer, Policy WHERE last_name REGEXP "C"

- View:

sql6.1.sql

sql6.2.sql

sql6.3.sql

sql6.4.sql

sql6.12.sql

sql6.5.sql

sql6.6.sql

1

SELECT * FROM Customer, Policy WHERE last_name REGEXP "C"

	customer_id	first_name	last_name	aadhar_number	date_of_birth	driving_license_number	contact_details	pincode	agent_id
3	2	Dheeraj	Chaudhary	85124697	1999-01-05	L30012	9752147632	460001	2
4	2	Dheeraj	Chaudhary	85124697	1999-01-05	L30012	9752147632	460001	2
5	2	Dheeraj	Chaudhary	85124697	1999-01-05	L30012	9752147632	460001	2
6	6	Aditi	Chaurasia	87945123	1975-05-11	L10111	7007894025	452001	1
7	6	Aditi	Chaurasia	87945123	1975-05-11	L10111	7007894025	452001	1
8	6	Aditi	Chaurasia	87945123	1975-05-11	L10111	7007894025	452001	1

Result: 10 rows returned in 23ms

At line 1:

SELECT * FROM Customer, Policy WHERE last_name REGEXP "C"

Exercise 2

- Query:
SELECT * FROM Insurance WHERE insurance_type REGEXP "^[ABCD]"
- View:

```
1 SELECT * FROM Insurance WHERE insurance_type REGEXP "^[ABCD]"
```

	insurance_id	insurance_type
1 2		Car Insurance

Result: 1 rows returned in 10ms

At line 1:

```
SELECT * FROM Insurance WHERE insurance_type REGEXP "^[ABCD]"
```

Exercise 3

- Query:
SELECT * FROM Insurance WHERE insurance_type REGEXP "^[^ABCD]"
- View:

```
1 SELECT * FROM Insurance WHERE insurance_type REGEXP "^[^ABCD]"
```

	insurance_id	insurance_type
1	1	Life Insurance
2	3	Home Insurance
3	4	Travel Insurance
4	5	Medical Insurance

Result: 4 rows returned in 9ms

At line 1:

```
SELECT * FROM Insurance WHERE insurance_type REGEXP "^[^ABCD]"
```

Exercise 4

- Query:
SELECT * FROM Customer WHERE last_name REGEXP "Ch"
- View:

1

SELECT * FROM Customer WHERE last_name REGEXP "Ch"

	customer_id	first_name	last_name	aadhar_number	date_of_birth	driving_license_number	contact_details	pincode	agent_id	po
1	2	Dheeraj	Chaudhary	85124697	1999-01-05	L30012	9752147632	460001	2	2
2	6	Aditi	Chaurasia	87945123	1975-05-11	L10111	7007894025	452001	1	3

<

>

Result: 2 rows returned in 15ms
At line 1:
SELECT * FROM Customer WHERE last_name REGEXP "Ch"

Exercise 5

- Query:
SELECT * FROM Agent WHERE pincode REGEXP "4+"
- View:

1	SELECT * FROM Agent WHERE pincode REGEXP "4+"							
	agent_id	first_name	last_name	user_name	date_of_birth	aadhar_number	contact_details	pincode
1	1	Pavan	Kumar	username_01	1967-04-19	24593456	7771244451	452001
2	2	Ramesh	Yadav	username_02	1972-06-24	21457782	8887779994	460001
3	3	Vinay	Gaur	username_03	1978-04-25	21444576	7878454512	540012

Result: 3 rows returned in 11ms

At line 1:

```
SELECT * FROM Agent WHERE pincode REGEXP "4+"
```

Exercise 6

- Query:
SELECT * FROM Policy WHERE term_cost REGEXP "8?"
- View:

```
1 SELECT * FROM Policy WHERE term_cost REGEXP "8?"
```

	policy_number	issue_date	term_cost	amount_coverage	policy_type	insurance_id
1	1	01-04-2019	2400.0	100000.0	12 months	2
2	2	01-04-2019	800.0	400000.0	48 months	3
3	3	01-04-2019	399.0	1000000.0	120 months	5
4	4	01-04-2019	800.0	200000.0	30 months	1
5	5	01-04-2019	1200.0	1000000.0	144 months	1

Result: 5 rows returned in 16ms

At line 1:

```
SELECT * FROM Policy WHERE term_cost REGEXP "8?"
```

Exercise 7

- Query:
SELECT * FROM Policy WHERE term_cost REGEXP "1."
- View:

sql6.12.sql ✕ sql6.7.sql ✕ sql6.8.sql ✕ sql6.9.sql ✕ sql6.10.sql ✕

1 SELECT * FROM Policy WHERE term_cost REGEXP "1."

	policy_number	issue_date	term_cost	amount_coverage	policy_type	insurance_id
1	5	01-04-2019	1200.0	1000000.0	144 months	1

Result: 1 rows returned in 46ms
At line 1:
SELECT * FROM Policy WHERE term_cost REGEXP "1."

Exercise 8

- Query:
SELECT * FROM Agent WHERE first_name REGEXP "[A-Z]"
- View:

sql6.12.sql ✕ sql6.7.sql ✕ sql6.8.sql ✕ sql6.9.sql ✕ sql6.10.sql ✕

1 SELECT * FROM Agent WHERE first_name REGEXP "[A-Z]"

	agent_id	first_name	last_name	user_name	date_of_birth	aadhar_number	contact_details	pincode
1	1	Pavan	Kumar	username_01	1967-04-19	24593456	7771244451	452001
2	2	Ramesh	Yadav	username_02	1972-06-24	21457782	8887779994	460001
3	3	Vinay	Gaur	username_03	1978-04-25	21444576	7878454512	540012
4	4	Vanishka	Srivastava	username_04	1999-11-15	24555177	9695472201	530001
5	5	Priya	Tiru	username_05	1998-05-21	10000247	8711245778	320001

Result: 5 rows returned in 17ms
At line 1:
SELECT * FROM Agent WHERE first_name REGEXP "[A-Z]"

Exercise 9

- Query:

SELECT * FROM Customer WHERE driving_license_number REGEXP "[0-9]"

- View:

sql6.12.sql ✕ sql6.7.sql ✕ sql6.8.sql ✕ sql6.9.sql ✕ sql6.10.sql ✕

1 SELECT * FROM Customer WHERE driving_license_number REGEXP "[0-9]"

	customer_id	first_name	last_name	aadhar_number	date_of_birth	driving_license_number	contact_details	pincode	agent_id	
1	1	Kapil	Jhade	82961456	1998-08-18	L10001	9456712034	452001	2	4
2	2	Dheeraj	Chaudhary	85124697	1999-01-05	L30012	9752147632	460001	2	2
3	3	Ankit	Dimri	78420167	1998-11-21	L12885	7521493015	320001	1	2
4	4	Somyadeep	Shrivastava	85214678	1998-12-02	L45721	7555812349	460001	4	1
5	5	Sujeet	Maurya	87210156	1998-07-26	L12221	8852666712	530001	5	5
6	6	Aditi	Chaurasia	87945123	1975-05-11	L10111	7007894025	452001	1	3

< >

Result: 6 rows returned in 23ms
At line 1:
SELECT * FROM Customer WHERE driving_license_number REGEXP "[0-9]"

Exercise 10

- Query:
SELECT * FROM Address WHERE city REGEXP "^[AB]|^[IJ]"
- View:

sql6.12.sql ✕ sql6.7.sql ✕ sql6.8.sql ✕ sql6.9.sql ✕ sql6.10.sql ✕

1 SELECT * FROM Address WHERE city REGEXP "^[AB]|^[IJ]"

	state	city	pincode
1	Rajasthan	Jaipur	320001
2	Madhya Pradesh	Indore	452001
3	Madhya Pradesh	Bhopal	460001

Result: 3 rows returned in 9ms
At line 1:
SELECT * FROM Address WHERE city REGEXP "^[AB]|^[IJ]"

Exercise 11

- Query:

SELECT * FROM Agent WHERE first_name REGEXP "\bV"

(In SQLite the Regular Expression [[:<:]] does not work, instead we have to use "\b" which signifies the beginning of the word.)

- View:

sql6.12.sql ✕ sql6.7.sql ✕ sql6.8.sql ✕ sql6.9.sql ✕ sql6.10.sql ✕ sql6.11.sql ✕

1 SELECT * FROM Agent WHERE first_name REGEXP "\bV"

	agent_id	first_name	last_name	user_name	date_of_birth	aadhar_number	contact_details	pincode
1	3	Vinay	Gaur	username_03	1978-04-25	21444576	7878454512	540012
2	4	Vanishka	Srivastava	username_04	1999-11-15	24555177	9695472201	530001

Result: 2 rows returned in 10ms
At line 1:
SELECT * FROM Agent WHERE first_name REGEXP "\bV"

Exercise 12

- Query:
SELECT * FROM Customer WHERE last_name REGEXP "[:alpha:]"
- View:

```
sql6.12.sql x sql6.7.sql x sql6.8.sql x sql6.9.sql x sql6.10.sql x sql6.11.sql x
```

```
1 SELECT * FROM Customer WHERE last_name REGEXP "[:alpha:]"
```

	customer_id	first_name	last_name	aadhar_number	date_of_birth	driving_license_number	contact_details	pincode	agent_id	po
1	1	Kapil	Jhade	82961456	1998-08-18	L10001	9456712034	452001	2	4
2	2	Dheeraj	Chaudhary	85124697	1999-01-05	L30012	9752147632	460001	2	2
3	4	Somyadeep	Shrivastava	85214678	1998-12-02	L45721	7555812349	460001	4	1
4	5	Sujeet	Maurya	87210156	1998-07-26	L12221	8852666712	530001	5	5
5	6	Aditi	Chaurasia	87945123	1975-05-11	L10111	7007894025	452001	1	3

< >

```
Result: 5 rows returned in 16ms
At line 1:
SELECT * FROM Customer WHERE last_name REGEXP "[:alpha:]"
```

REFERENCE TABLES

Accident:

	date	report_id	police_report_doc	damage_cost	fault	customer_id
	Filter	Filter	Filter	Filter	Filter	Filter
1	2015-05-12	1	report_acc_car.jpg	100000.0	0	9
2	2015-05-13	2	report_acc_life.jpg	0.0	1	6
3	2015-05-13	3	report_acc_carind.jpg	0.0	0	3
4	2015-05-14	4	report_acc_med12.jpg	100000.0	0	2
5	2015-05-15	5	report_acc_home10.jpg	500000.0	1	7
6	2015-05-16	6	report_acc_life20.jpg	40000.0	1	5
7	2015-05-16	7	report_acc_car20.jpg	100000.0	0	8
8	2015-05-16	8	report_acc_carfiat.jpg	748000.0	1	9
9	2015-05-16	9	report_acc_homesch.jpg	350000.0	1	8
10	2015-05-16	10	report_acc_medstu.jpg	15000.0	1	5

Address:

	state	city	pincode
	Filter	Filter	Filter
1	Rajasthan	Jaipur	320001
2	Madhya Prade...	Indore	452001
3	Madhya Prade...	Bhopal	460001
4	Maharashtra	Pune	530001
5	Maharashtra	Mumbai	540012

Agent:

	agent_id	first_name	last_name	user_name	date_of_birth	aadhar_number	contact_details	pincode
	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	Pavan	Kumar	username_01	1967-04-19	24593456	7771244451	452001
2	2	Ramesh	Yadav	username_02	1972-06-24	21457782	8887779994	460001
3	3	Vinay	Gaur	username_03	1978-04-25	21444576	7878454512	540012
4	4	Vanishka	Srivastava	username_04	1999-11-15	24555177	9695472201	530001
5	5	Priya	Tiru	username_05	1998-05-21	10000247	8711245778	320001

Customer:

customer_id	first_name	last_name	aadhar_number	date_of_birth	driving_license_number	contact_details	pincode	agent_id	policy_id
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	Kapil	Jhade	82961456	1998-08-18	L10001	9456712034	452001	2	4
2	Dheeraj	Chaudhary	85124697	1999-01-05	L30012	9752147632	460001	2	2
3	Ankit	Dimri	78420167	1998-11-21	L12885	7521493015	320001	1	2
4	Somyadeep	Shrivastava	85214678	1998-12-02	L45721	7555812349	460001	4	1
5	Sujeet	Maurya	87210156	1998-07-26	L12221	8852666712	530001	5	5
6	Aditi	Chaurasia	87945123	1975-05-11	L10111	7007894025	452001	1	3

Insurance:

insurance_id	insurance_type
Filter	Filter
1	Life Insurance
2	Car Insurance
3	Home Insurance
4	Travel Insurance
5	Medical Insurance

Payment:

	transaction_id	date_of_payment	payment_amount	report_id
	Filter	Filter	Filter	Filter
1	10000001	2019-04-04	12000.0	2
2	10000002	2019-04-05	20000.0	1
3	10000003	2019-04-05	15000.0	5
4	10000004	2019-04-05	156660.0	4
5	10000005	2019-04-06	40000.0	9

Policy:

	policy_number	issue_date	term_cost	amount_coverage	policy_type	insurance_id
	Filter	Filter	Filter	Filter	Filter	Filter
1	1	01-04-2019	2400.0	100000.0	12 months	2
2	2	01-04-2019	800.0	400000.0	48 months	3
3	3	01-04-2019	399.0	1000000.0	120 months	5
4	4	01-04-2019	800.0	200000.0	30 months	1
5	5	01-04-2019	1200.0	1000000.0	144 months	1