INFO 5707 - DATA MODELING

INSURANCE DATABASE

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1. Project overview, objectives and scope

Overview:

This database is built to serve a collection of Insurance policy and the insured details. This collection consists of about data of 1000 insureds, there plans, coverages, billing and premium details. The policies are available for different commercial line purpose: Automobiles, Property and Workers compensation. This database system can help Insured and agents to search for their policy information. Insured/Agents can also know their upcoming billing information for the policy. This database helps the organization to store the data and keep track of size of collection, Insureds and agent details. For agents it is important to make entry of the details of the insureds to understand their policy interest. This database helps agents and underwriters to make these entries into the system.

Objectives:

Important objectives of this database system to help the insureds, agents and underwriters to store, track the information of the policies and the organization to collect and store the complete policy information along with the insured and agent/under writer's details.

Scope:

The size of the collection is 1000 policies of different insureds and agent's information.

2. User requirements:

User needs to search of their policy information help of policy number, to know the billing information, claims and coverages. Agents/under writers will entry the information of policy of an insured.
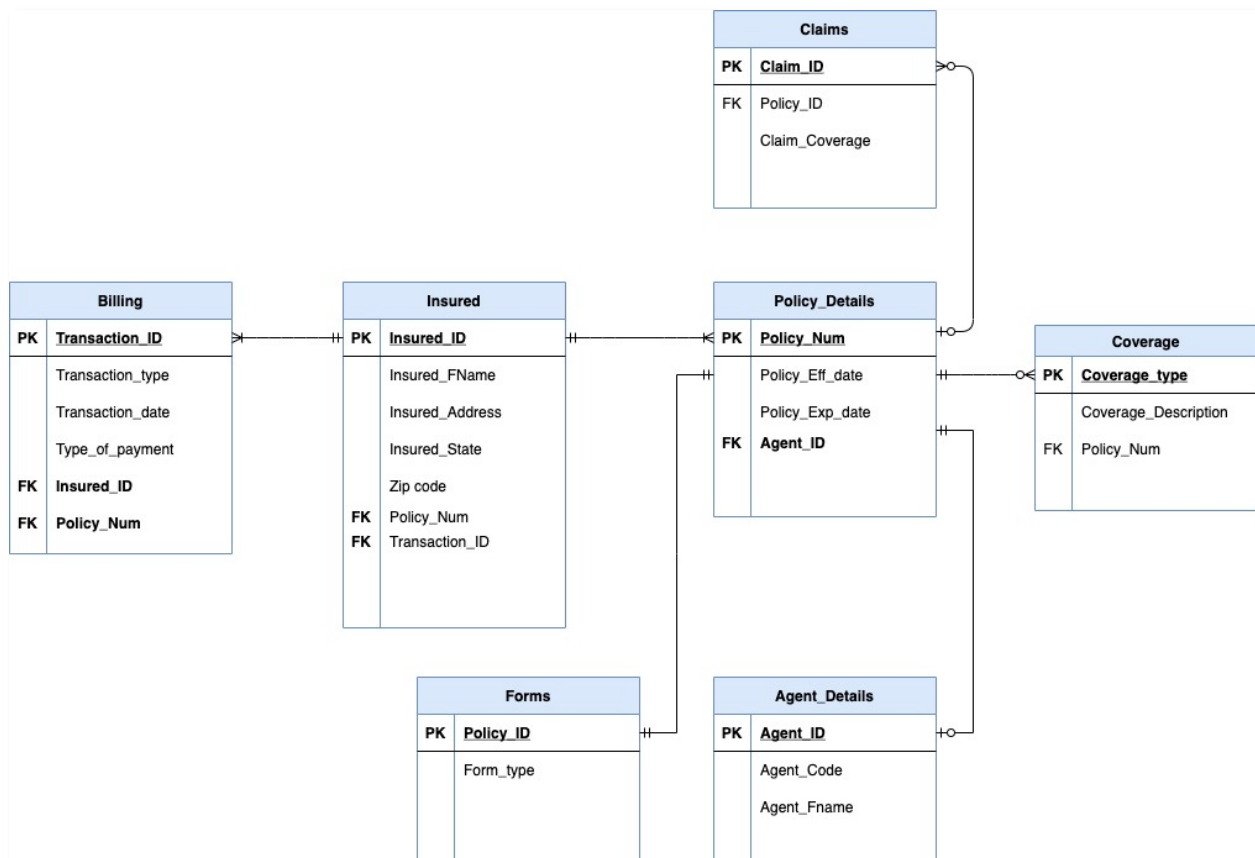
User/Agents/UW needs to enter their policy number to fetch the complete history of the policy. This database helps the administrators of the organization to enter all details of User, Agents and UW salary details, track their agent codes as well.

DBMS: Relational database (MySQL).

3. Business Rules:

a) BILLING belongs to one particular INSURED
b) INSURED can have many BILLING
c) INSURED can have many POLICY_DETAILS
d) POLICY_DETAILS belong to one particular INSURED
e) POLICY_DETAILS can have one or many COVERAGE
f) COVERAGE belong to one POLICY_DETAILS
g) POLICY_DETAIL contains one FORMS
h) FORMS belong to one particular POLICY_DETAIL
i) POLICY_DETAIL can have zero or one AGENT_DETAIL
j) AGENT_DETAIL belongs to only one POLICY_DETAIL
k) CLAIMS can have zero or one POLICY_DETAIL
l) POLICY_DETAIL has optional or many CLAIMS

4. Entity-Relationship Diagram:

5. Data Dictionary:

	Table Name	Attributes Name	Contents	Type	Format	Range	Required	PK or FK	FK Reffered Table
1									
2				Data Dictonary					
3	Table Name	Attributes Name	Contents	Type	Format	Range	Required	PK or FK	FK Reffered Table
4	Policy_Details	Policy_Num	Policy Number	VARCHAR(10)	XXXXXXXXXXX		Y	PK	
5		Policy_Eff_Date	Policy Effective date	Date	YYYYMMDD		Y		
6		Policy_Exp_Date	Policy expiration date	Date	YYYYMMDD		Y		
7		Agent_ID	Agent ID	VARCHAR(6)	XXXXXX			FK	Agent_Details
8	Insured	Insured_ID	Insured ID	VARCHAR(10)	XXXXXXXXXXX		Y	PK	
9		Insured_Fname	First name of insured	VARCHAR(15)	XXXXXXXX		Y		
10		Insured_Address	Mailing address of insured	VARCHAR(30)	XXXXXXXX		Y		
11		Insured_State	State of the insured	VARCHAR(10)	XXXXXXXX		Y		
12		Zipcode	Zipcode	VARCHAR(5)	99999		Y		
13		Policy_Num	Policy Number	VARCHAR(10)	XXXXXXXXXXX			FK	
14		Transaction_ID	Transaction ID	VARCHAR(10)	XXXXXXXXXXX		Y	FK	
15	Coverage	Coverage_type	Type of coverage	VARCHAR(10)	XXXXXXXXXXX		Y	PK	
16		Coverage_description	Description of coverage	VARCHAR(30)	XXXXXXXXXXX		Y		
17		Policy_Num	Policy number	VARCHAR(10)	XXXXXXXXXXX		Y	FK	Policy_Details
18	Agent_details	Agent_ID	Agent ID	VARCHAR(6)	XXXXXX		Y	PK	
19		Agent_code	agent code	VARCHAR(6)	XXXXXX		Y		
20		Agent_Fname	First name of agent	VARCHAR(15)	XXXXXXXXXXX		Y		
21	Forms	Policy_ID	Policy Number	VARCHAR(10)	XXXXXXXXXXX		Y	PK	
22		Form_type	Deliver method of form	CHAR(5)	XXXXXX		Y		
23	Billing	Transaction_ID	Transaction ID	VARCHAR(10)	XXXXXXXXXXX		Y	PK	
24		Transaction type	type of transaction	CHAR(5)	XXXXXX		Y		
25		Transaction_date	Transaction date	Date	YYYYMMDD		Y		
26		Type_of_payment	type of payment	CHAR(5)	XXXXXX		Y		
27		Insured_ID	Insured ID	VARCHAR(10)	XXXXXXXXXXX		Y	FK	Insured
28		Policy_Num	Policy Number	VARCHAR(10)	XXXXXXXXXXX		Y	FK	Policy_Details
29									
30		PK	Primary key						
31		FK	Forigen Key						
32		CHAR	Fixed Character length data(1 - 255)						
33		VARCHAR	Variable character length data(1 - 2000)						
34									

1. Data entry and update:

Creating the database:INSURANCE_2020

```
mysql> create database Insurance_2020;
Query OK, 1 row affected (0.02 sec)
```

Creating table Insured:

```
mysql> create table Insured(
    -> Insured_id varchar(15), insured_Fname varchar(20), insured_Address varchar(20), insured_state varchar(10), zipcode varchar(10), policy_num varchar(10),
on_id varchar(10));
Query OK, 0 rows affected (0.24 sec)
```

Creating table Agent_details:

```
mysql> create table agent_details(
    -> agent_id varchar(10), agent_code varchar(10), agent_fname varchar(20));
Query OK, 0 rows affected (0.08 sec)
```

Creating table policy_details:

```
mysql> create table policy_details(
    -> policy_num varchar(20), policy_eff_date date, policy_exp_date date, agent_id varchar(20));
Query OK, 0 rows affected (0.06 sec)
```

Creating table coverage:

```
mysql> create table coverage(
    -> coverage_type varchar(10), coverage_description varchar(20), policy_num varchar(20));
Query OK, 0 rows affected (0.06 sec)
```

Creating table Forms:

```
mysql> create table forms(
    -> policy_id varchar(20), form_type varchar(20));
Query OK, 0 rows affected (0.06 sec)
```

Creating table billing:

```
mysql> create table billing(
    -> transaction_id varchar(20), transaction_type varchar(20), transaction_date date, type_of_payment varchar(20),insured_id varchar(20), policy_num varchar(20));
Query OK, 0 rows affected (0.08 sec)
```

Creating table Claims:

```
mysql> create table claims
    -> (
    -> claim_id varchar(10), policy_id varchar(10), claim_coverage varchar(10));
Query OK, 0 rows affected (0.06 sec)
```

Inserting values into Insured table:

```
mysql> insert into insured values('IN25581', 'Jack', 'Hickory Street', 'AZ', '76201','12020209', 'TRS2200');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN25591', 'Jane', 'Melbourne Street', 'FL', '76201','13020209', 'TRS2202');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN26591', 'luke', 'lewisville', 'TX', '76201','14020209', 'TRS2204');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN27591', 'Melissa', 'lemon street', 'NY', '74201','15020209', 'TRS2206');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN28591', 'Mayur', 'james street', 'NY', '74221','16020209', 'TRS2208');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN29591', 'Robby', 'stella street', 'TX', '74220','16120209', 'TRS2210');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN39561', 'James', 'West highland street', 'CA', '75220','17120209', 'TRS2212');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN49561', 'Brennon', 'Denver', 'CH', '72220','17920209', 'TRS2232');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN94561', 'Steven', 'Uruguay', 'AZ', '77220','17420209', 'TRS22311');
Query OK, 1 row affected (0.01 sec)

mysql> insert into insured values('IN96561', 'Smith', 'Bernard', 'IN', '74220','17820209', 'TRS24311');
Query OK, 1 row affected (0.01 sec)
```

Select query for insured table:

```
mysql> select * from insured;
+------------+--------------+----------------------+--------------+---------+------------+----------------+
| Insured_id | insured_Fname | insured_Address     | insured_state | zipcode | policy_num | transaction_id |
+------------+--------------+----------------------+--------------+---------+------------+----------------+
| IN25581    | Jack         | Hickory Street       | AZ           | 76201   | 12020209   | TRS2200        |
| IN25591    | Jane         | Melbourne Street     | FL           | 76201   | 13020209   | TRS2202        |
| IN26591    | luke         | lewisville           | TX           | 76201   | 14020209   | TRS2204        |
| IN27591    | Melissa      | lemon street         | NY           | 74201   | 15020209   | TRS2206        |
| IN28591    | Mayur        | james street         | NY           | 74221   | 16020209   | TRS2208        |
| IN29591    | Robby        | stella street        | TX           | 74220   | 16120209   | TRS2210        |
| IN39561    | James        | West highland street | CA           | 75220   | 17120209   | TRS2212        |
| IN49561    | Brennon      | Denver               | CH           | 72220   | 17920209   | TRS2232        |
| IN94561    | Steven       | Uruguay              | AZ           | 77220   | 17420209   | TRS22311       |
| IN96561    | Smith        | Bernard              | IN           | 74220   | 17820209   | TRS24311       |
+------------+--------------+----------------------+--------------+---------+------------+----------------+
10 rows in set (0.00 sec)
```

Inserting values into Agent_details table:

```
mysql> insert into agent_details values('AG1234','IA224','Michael');
Query OK, 1 row affected (0.01 sec)

mysql> insert into agent_details values('AG1235','IA324','Rozy');
Query OK, 1 row affected (0.01 sec)

mysql> insert into agent_details values('AG1245','IA335','Russel');
Query OK, 1 row affected (0.01 sec)

mysql> insert into agent_details values('AG1256','IA365','Meredith');
Query OK, 1 row affected (0.01 sec)

mysql> insert into agent_details values('AG1296','IA446','Margarate');
Query OK, 1 row affected (0.01 sec)
```

Select query for Agent_details table:

```
mysql> select * from agent_details
    -> ;
+----------+------------+-------------+
| agent_id | agent_code | agent_fname |
+----------+------------+-------------+
| AG1234   | IA224      | Michael     |
| AG1235   | IA324      | Rozy        |
| AG1245   | IA335      | Russel      |
| AG1256   | IA365      | Meredith    |
| AG1296   | IA446      | Margarate   |
+----------+------------+-------------+
5 rows in set (0.00 sec)
```

Inserting values into Policy_details:

```
mysql> insert into policy_details values('12020209','2021-01-21','2022-01-20','AG1234');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('14020209','2021-05-18','2022-01-19','AG1235');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('15020209','2021-05-18','2022-08-19','AG1235');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('16020209','2021-05-18','2023-08-19','AG1235');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('16120209','2021-05-18','2023-08-19','AG1245');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('17120209','2021-05-02','2022-08-01','AG1245');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('','2021-05-02','2022-08-01','AG1296');
Query OK, 1 row affected (0.01 sec)

mysql> delete from policy_details where agent_id='AG1296';
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('17920209','2021-05-02','2022-08-01','AG1296');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('17420209','2021-05-07','2022-08-08','AG1256');
Query OK, 1 row affected (0.01 sec)

mysql> insert into policy_details values('17820209','2021-05-07','2022-08-08','AG1256');
Query OK, 1 row affected (0.01 sec)
```

Select query for Policy_details:

```
mysql> select * from policy_details;
+------------+-----------------+-----------------+----------+
| policy_num | policy_eff_date | policy_exp_date | agent_id |
+------------+-----------------+-----------------+----------+
|  13020209  |   2021-01-21    |   2022-01-20    |  AG1234  |
|  12020209  |   2021-01-21    |   2022-01-20    |  AG1234  |
|  14020209  |   2021-05-18    |   2022-01-19    |  AG1235  |
|  15020209  |   2021-05-18    |   2022-08-19    |  AG1235  |
|  16020209  |   2021-05-18    |   2023-08-19    |  AG1235  |
|  16120209  |   2021-05-18    |   2023-08-19    |  AG1245  |
|  17120209  |   2021-05-02    |   2022-08-01    |  AG1245  |
|  17920209  |   2021-05-02    |   2022-08-01    |  AG1296  |
|  17420209  |   2021-05-07    |   2022-08-08    |  AG1256  |
|  17820209  |   2021-05-07    |   2022-08-08    |  AG1256  |
+------------+-----------------+-----------------+----------+
10 rows in set (0.00 sec)
```

Inserting values for Coverage table:

```
mysql> insert into coverage values('Car','vehicle insurance','13020209');
Query OK, 1 row affected (0.02 sec)

mysql> insert into coverage values('Car','vehicle insurance','12020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into coverage values('health','health insurance','14020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into coverage values('bike','vehicle insurance','14020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into coverage values('bike','vehicle insurance','15020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into coverage values('building','property insurance','16020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into coverage values('home lease','rental insurance','16120209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into coverage values('home lease','rental insurance','17120209');
Query OK, 1 row affected (0.01 sec)
```

Select query for coverage details:

```
mysql> select * from coverage;
+---------------+----------------------+------------+
| coverage_type | coverage_description | policy_num |
+---------------+----------------------+------------+
| Car           | vehicle insurance    | 13020209   |
| Car           | vehicle insurance    | 12020209   |
| health        | health insurance     | 14020209   |
| bike          | vehicle insurance    | 14020209   |
| bike          | vehicle insurance    | 15020209   |
| building      | property insurance   | 16020209   |
| home lease    | rental insurance     | 16120209   |
| home lease    | rental insurance     | 17120209   |
| allpurpose    | general insurance    | 17920209   |
| allpurpose    | general insurance    | 17420209   |
| health        | health insurance     | 17820209   |
+---------------+----------------------+------------+
11 rows in set (0.00 sec)
```

Inserting values into Billing table:

```
mysql> insert into billing values('TRS2202','renewal policy','2021-01-21','Agent','IN25591','13020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into billing values('TRS2204','endorsement','2021-01-19','Direct','IN26591','14020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into billing values('TRS2206','endorsement','2021-01-19','Direct','IN27591','15020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into billing values('TRS2208','renewal','2022-01-19','agent','IN28591','16020209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into billing values('TRS2210','audit','2023-01-19','agent','IN29591','16120209');
Query OK, 1 row affected (0.01 sec)

mysql> insert into billing values('TRS2212','audit','2023-01-19','agent','IN39591','17120209');
Query OK, 1 row affected (0.01 sec)
```

Select Query for Billing table:

```
mysql> select * from billing;
+----------------+------------------+------------------+-----------------+------------+------------+
| transaction_id | transaction_type | transaction_date | type_of_payment | insured_id | policy_num |
+----------------+------------------+------------------+-----------------+------------+------------+
| TRS2200        | New policy       | 2021-01-21       | Agent           | IN25581    | 12020209   |
| TRS2202        | renewal policy   | 2021-01-21       | Agent           | IN25591    | 13020209   |
| TRS2204        | endorsement      | 2021-01-19       | Direct          | IN26591    | 14020209   |
| TRS2206        | endorsement      | 2021-01-19       | Direct          | IN27591    | 15020209   |
| TRS2208        | renewal          | 2022-01-19       | agent           | IN28591    | 16020209   |
| TRS2210        | audit            | 2023-01-19       | agent           | IN29591    | 16120209   |
| TRS2212        | audit            | 2023-01-19       | agent           | IN39561    | 17120209   |
| TRS2232        | new policy       | 2020-05-20       | agent           | IN49561    | 17920209   |
| TRS22311       | renewalpolicy    | 2021-06-21       | direct          | IN94561    | 17420209   |
| TRS24311       | new policy       | 2021-06-20       | agent           | IN94561    | 17820209   |
+----------------+------------------+------------------+-----------------+------------+------------+
10 rows in set (0.00 sec)
```

Inserting values into Claims table:

```
mysql> insert into claims values('CLM130','16120209','household');
Query OK, 1 row affected (0.01 sec)

mysql> insert into claims values('CLM131','17120209','household');
Query OK, 1 row affected (0.01 sec)

mysql> insert into claims values('CLM132','17920209','general');
Query OK, 1 row affected (0.01 sec)

mysql> insert into claims values('CLM133','17420209','general');
Query OK, 1 row affected (0.01 sec)

mysql> insert into claims values('CLM133','17820209','dental');
Query OK, 1 row affected (0.01 sec)

mysql> update claims set claim_id='CLM134' where claim_coverage='dental';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

Select Query for Claims table:

```
mysql> select * from claims;
+----------+------------+----------------+
| claim_id | policy_num | claim_coverage |
+----------+------------+----------------+
| CLM123   | 13020209   | car            |
| CLM124   | 13020209   | bike           |
| CLM125   | 12020209   | car            |
| CLM126   | 14020209   | surgery        |
| CLM127   | 14020209   | car            |
| CLM128   | 15020209   | bike           |
| CLM129   | 16020209   | buildings      |
| CLM130   | 16120209   | household      |
| CLM131   | 17120209   | household      |
| CLM132   | 17920209   | general        |
| CLM133   | 17420209   | general        |
| CLM134   | 17820209   | dental         |
+----------+------------+----------------+
12 rows in set (0.00 sec)
```

Inserting values into Forms table:

```
mysql> insert into forms values('13020209', 'Electronic');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('12020209', 'paper');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('14020209','paper');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('15020209','electronic');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('16020209','electronic');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('16120209','electronic');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('17120209','electronic');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('17920209','paper');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('17420209','paper');
Query OK, 1 row affected (0.01 sec)

mysql> insert into forms values('17820209','electronic');
Query OK, 1 row affected (0.01 sec)
```

Select query for Forms table:

```
mysql> select * from forms;
+------------+------------+
| policy_num | form_type  |
+------------+------------+
|  13020209  | Electronic |
|  12020209  | paper      |
|  14020209  | paper      |
|  15020209  | electronic |
|  16020209  | electronic |
|  16120209  | electronic |
|  17120209  | electronic |
|  17920209  | paper      |
|  17420209  | paper      |
|  17820209  | electronic |
+------------+------------+
10 rows in set (0.00 sec)
```

How to delete a row in a column: Deleting the particular column value

```
mysql> delete from billing where insured_id ='IN39591';
Query OK, 1 row affected (0.01 sec)
```

Update query: By using update query we can modify any column value

```
mysql> update claims set claim_id='CLM124' where claim_coverage='Bike';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

2. Data Retrieval:

1. Select query to find details of particular insurance holder person with his agent details:

By this query we can able to find the insured person id and the agent details for the insured person.

```
mysql> select insured_id, policy_eff_date, policy_exp_date, agent_code, agent_fname from insured join policy_details on in
sured.policy_num=policy_details.policy_num join agent_details on agent_details.agent_id=policy_details.agent_id;
+------------+-----------------+-----------------+------------+-------------+
| insured_id | policy_eff_date | policy_exp_date | agent_code | agent_fname |
+------------+-----------------+-----------------+------------+-------------+
| IN25581    | 2021-01-21      | 2022-01-20      | IA224      | Michael     |
| IN25591    | 2021-01-21      | 2022-01-20      | IA224      | Michael     |
| IN26591    | 2021-05-18      | 2022-01-19      | IA324      | Rozy        |
| IN27591    | 2021-05-18      | 2022-08-19      | IA324      | Rozy        |
| IN28591    | 2021-05-18      | 2023-08-19      | IA324      | Rozy        |
| IN29591    | 2021-05-18      | 2023-08-19      | IA335      | Russel      |
| IN39561    | 2021-05-02      | 2022-08-01      | IA335      | Russel      |
| IN49561    | 2021-05-02      | 2022-08-01      | IA446      | Margarate   |
| IN94561    | 2021-05-07      | 2022-08-08      | IA365      | Meredith    |
| IN96561    | 2021-05-07      | 2022-08-08      | IA365      | Meredith    |
+------------+-----------------+-----------------+------------+-------------+
10 rows in set (0.00 sec)
```

2.Select query to find details transaction details of insured person:

```
mysql> select insured.policy_num, insured_fname, insured_address, transaction_type, transaction_date, type_of_payment from
 insured join billing on billing.transaction_id=insured.transaction_id;
+------------+---------------+---------------------+------------------+------------------+-----------------+
| policy_num | insured_fname | insured_address     | transaction_type | transaction_date | type_of_payment |
+------------+---------------+---------------------+------------------+------------------+-----------------+
| 12020209   | Jack          | Hickory Street      | New policy       | 2021-01-21       | Agent           |
| 13020209   | Jane          | Melbourne Street    | renewal policy   | 2021-01-21       | Agent           |
| 14020209   | luke          | lewisville          | endorsement      | 2021-01-19       | Direct          |
| 15020209   | Melissa       | lemon street        | endorsement      | 2021-01-19       | Direct          |
| 16020209   | Mayur         | james street        | renewal          | 2022-01-19       | agent           |
| 16120209   | Robby         | stella street       | audit            | 2023-01-19       | agent           |
| 17120209   | James         | West highland street| audit            | 2023-01-19       | agent           |
| 17920209   | Brennon       | Denver              | new policy       | 2020-05-20       | agent           |
| 17420209   | Steven        | Uruguay             | renewalpolicy    | 2021-06-21       | direct          |
| 17820209   | Smith         | Bernard             | new policy       | 2021-06-20       | agent           |
+------------+---------------+---------------------+------------------+------------------+-----------------+
10 rows in set (0.01 sec)
```

3.Select query to find what all claims covered by particular insurer for particular policy number:

```
mysql> select policy_details.policy_num, coverage_type, coverage_description, claim_coverage from policy_details join cove
rage on coverage.policy_num=policy_details.policy_num join claims on claims.policy_num=policy_details.policy_num;
+------------+---------------+----------------------+----------------+
| policy_num | coverage_type | coverage_description | claim_coverage |
+------------+---------------+----------------------+----------------+
|  13020209  | Car           | vehicle insurance    | bike           |
|  13020209  | Car           | vehicle insurance    | car            |
|  12020209  | Car           | vehicle insurance    | car            |
|  15020209  | bike          | vehicle insurance    | bike           |
|  16020209  | building      | property insurance   | buildings      |
|  16120209  | home lease    | rental insurance     | household      |
|  17120209  | home lease    | rental insurance     | household      |
|  17920209  | allpurpose    | general insurance    | general        |
|  17420209  | allpurpose    | general insurance    | general        |
|  17820209  | health        | health insurance     | dental         |
+------------+---------------+----------------------+----------------+
10 rows in set (0.00 sec)
```

4. select query to find what all policies covered for one particular insured holder and what is the policy period:

```
mysql> select insured_fname, insured.policy_num, coverage_type, policy_eff_date, policy_exp_date, claim_coverage from insu
red join policy_details on policy_details.policy_num=insured.policy_num join coverage on coverage.policy_num=insured.polic
y_num join claims on claims.policy_num=insured.policy_num;
+---------------+------------+---------------+-----------------+-----------------+----------------+
| insured_fname | policy_num | coverage_type | policy_eff_date | policy_exp_date | claim_coverage |
+---------------+------------+---------------+-----------------+-----------------+----------------+
| Jane          | 13020209   | Car           | 2021-01-21      | 2022-01-20      | bike           |
| Jane          | 13020209   | Car           | 2021-01-21      | 2022-01-20      | car            |
| Jack          | 12020209   | Car           | 2021-01-21      | 2022-01-20      | car            |
| Melissa       | 15020209   | bike          | 2021-05-18      | 2022-08-19      | bike           |
| Mayur         | 16020209   | building      | 2021-05-18      | 2023-08-19      | buildings      |
| Robby         | 16120209   | home lease    | 2021-05-18      | 2023-08-19      | household      |
| James         | 17120209   | home lease    | 2021-05-02      | 2022-08-01      | household      |
| Brennon       | 17920209   | allpurpose    | 2021-05-02      | 2022-08-01      | general        |
| Steven        | 17420209   | allpurpose    | 2021-05-07      | 2022-08-08      | general        |
| Smith         | 17820209   | health        | 2021-05-07      | 2022-08-08      | dental         |
+---------------+------------+---------------+-----------------+-----------------+----------------+
10 rows in set (0.00 sec)
```

5.Select query for finding the details of insured along with agent details and the form details:

```
mysql> select Insured_fname,agent_fname, insured.policy_num, transaction_date,coverage_type, form_type from insured join f
orms on forms.policy_num=insured.policy_num join billing on billing.policy_num=insured.policy_num join coverage on coverag
e.policy_num=insured.policy_num join policy_details on policy_details.policy_num=insured.policy_num join agent_details on
agent_details.agent_id=policy_details.agent_id;
+---------------+-------------+------------+------------------+---------------+------------+
| Insured_fname | agent_fname | policy_num | transaction_date | coverage_type | form_type  |
+---------------+-------------+------------+------------------+---------------+------------+
| Jane          | Michael     | 13020209   | 2021-01-21       | Car           | Electronic |
| Jack          | Michael     | 12020209   | 2021-01-21       | Car           | paper      |
| luke          | Rozy        | 14020209   | 2021-01-19       | health        | paper      |
| luke          | Rozy        | 14020209   | 2021-01-19       | bike          | paper      |
| Melissa       | Rozy        | 15020209   | 2021-01-19       | bike          | electronic |
| Mayur         | Rozy        | 16020209   | 2022-01-19       | building      | electronic |
| Robby         | Russel      | 16120209   | 2023-01-19       | home lease    | electronic |
| James         | Russel      | 17120209   | 2023-01-19       | home lease    | electronic |
| Brennon       | Margarate   | 17920209   | 2020-05-20       | allpurpose    | paper      |
| Steven        | Meredith    | 17420209   | 2021-06-21       | allpurpose    | paper      |
| Smith         | Meredith    | 17820209   | 2021-06-20       | health        | electronic |
+---------------+-------------+------------+------------------+---------------+------------+
11 rows in set (0.00 sec)
```