VEHICLE INSURANCE DATABASE

UNDER THE GUIDANCE OF

Dr.Uma Sheshadri

Dr. Pramod Yelmewad

Group-13 Members:

Malem Vishnu Teja Reddy – 20bcs084

Vishnu Kumar P – 20bcs138

Challapalle Venkata Sainath Reddy – 20bcs035

Koukuntla Pranav – 20bcs074

M. Madhu Sudhan – 20bcs080

Adepu Tharun – 20bcs004

AIM:

To understand real world projects and get a thorough understanding on DBMS and also, to learn how to write complex queries and to learn how to work in teams to achieve desired output.

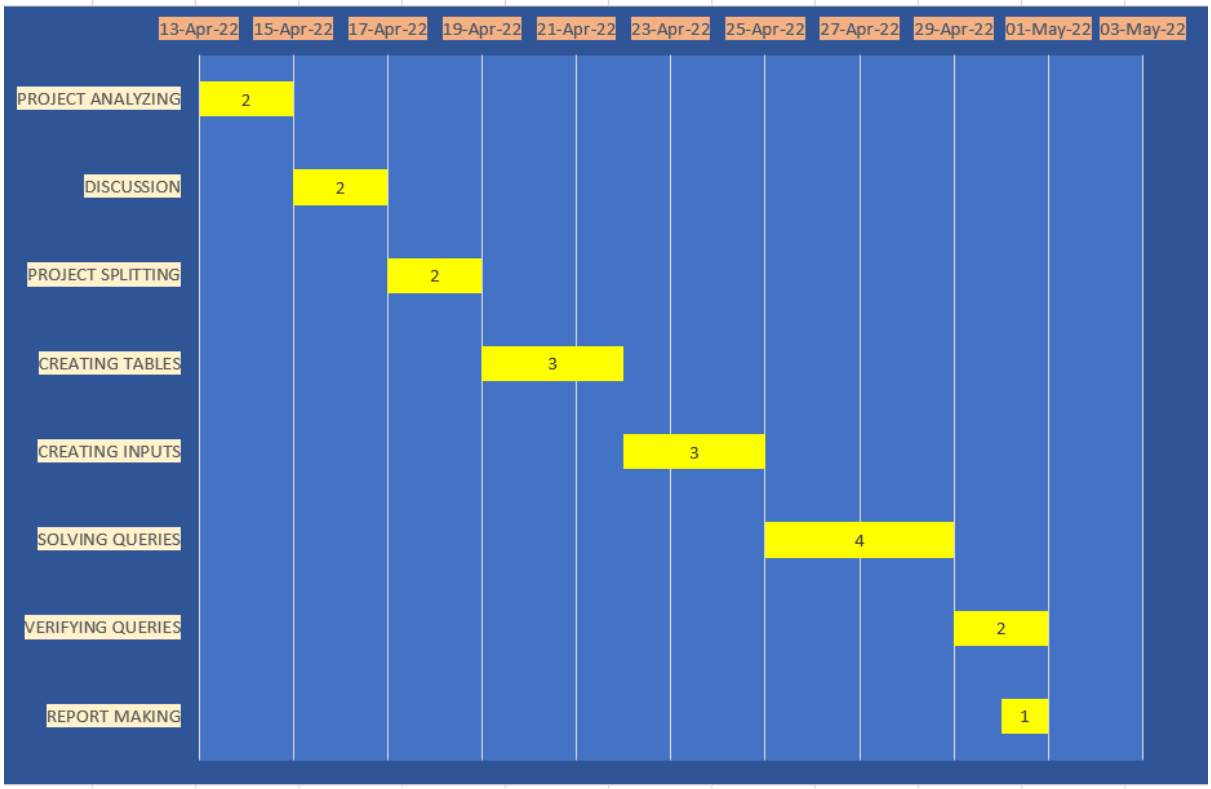
APPROACH:

Went through the given documents and had a thorough understanding on databases and their relationships and then we drew the er diagram and through that we created tables and relationships and after data entry we wrote queries and then created presentation and after that made the report.

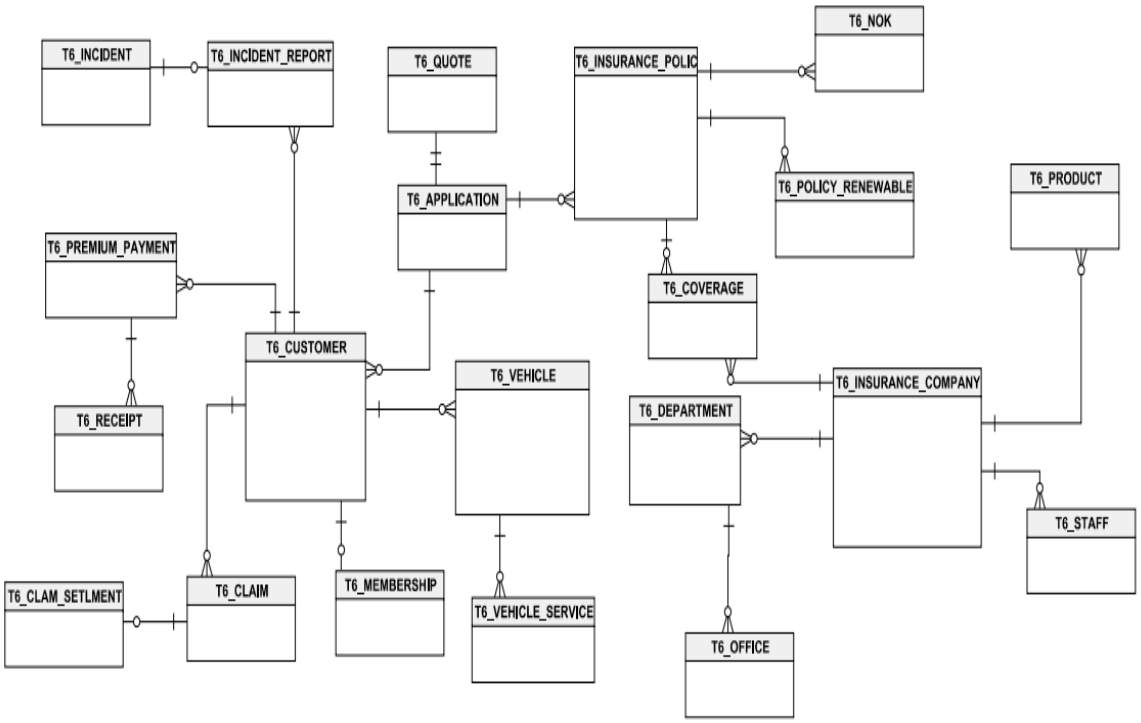
Procedure:

We created tables using create statement and then inserted data into it using insert into statements and then in the middle if we had to change the tables we used alter statements , and then to update statements we used update statement to update the values , and then after creating the tables and inserting , we had to alter most of the table's data as according to the queries and then we wrote queries mainly using joins , subqueries , group by , order and many other statements .

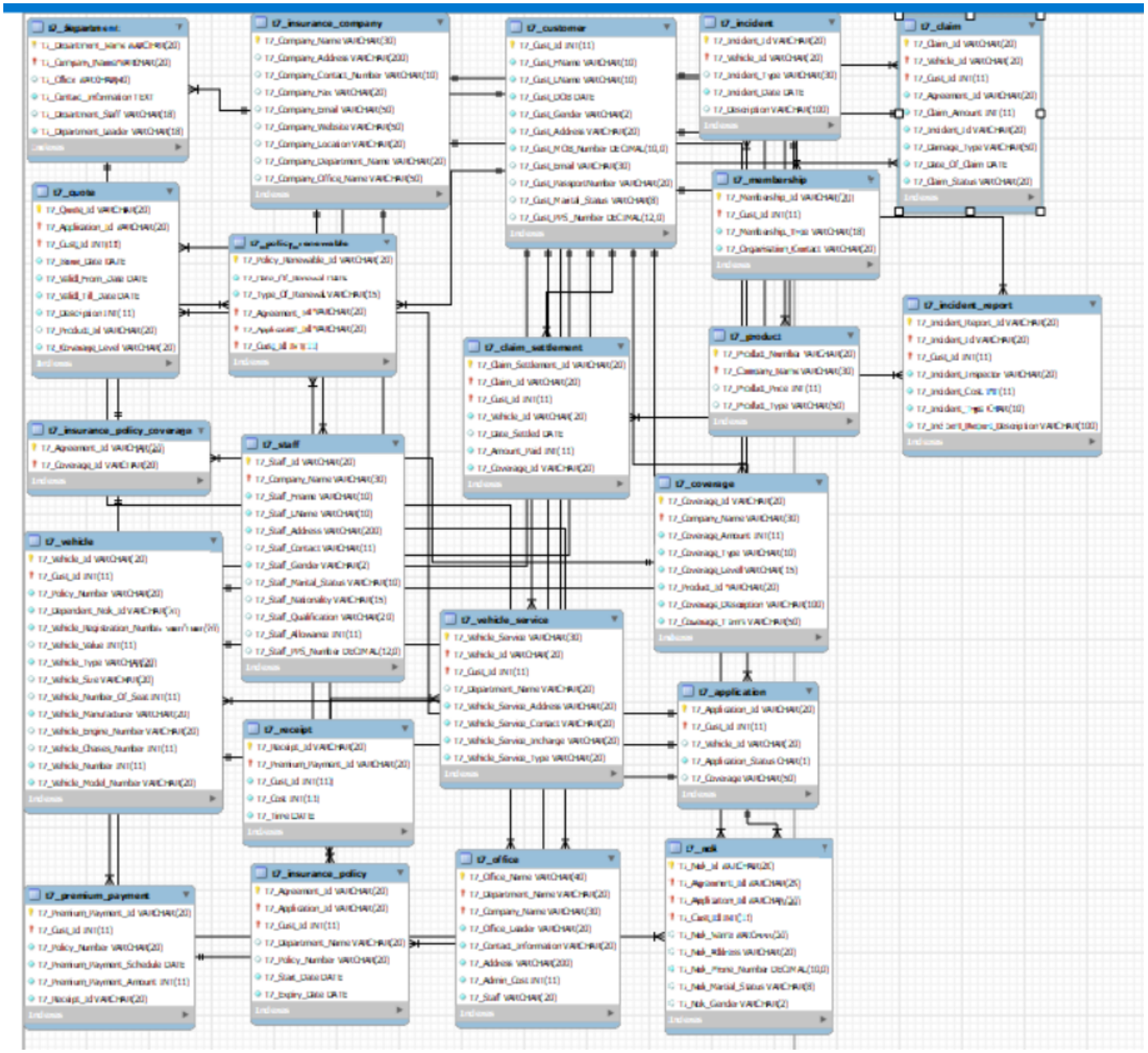
TIMELINE:


13-Apr-22
15-Apr-22
17-Apr-22
19-Apr-22
21-Apr-22
23-Apr-22
25-Apr-22
27-Apr-22
29-Apr-22
01-May-22
03-May-22
PROJECT ANALYZING
2
DISCUSSION
2
PROJECT SPLITTING
2
CREATING TABLES
3
CREATING INPUTS
3
SOLVING QUERIES
4
VERIFYING QUERIES
2
REPORT MAKING
1

CONCEPTUAL DATA MODEL:



E-R DIAGRAM:



QUERIES:

1. Retrieve Customer and Vehicle details who has been involved in an incident and claim status is pending – Customer, vehicle, claim status, incident.

```
683  select c.t_13_cust_id , c.t_13_cust_first_name , c.t_13_cust_last_name , c.t_13_cust_mobile_number , v.t_13_vehicle_id , v.t_13_vehicle_number , v.t_13_policy_id from t_13_customer c inner join t_13_vehicles v
684  on c.t_13_cust_id = v.t_13_cust_id inner join t_13_incident i
685  on i.t_13_cust_id = c.t_13_cust_id inner join t_13_claim cl
686  on cl.t_13_cust_id = c.t_13_cust_id
687  where cl.t_13_claim_status = 'pending' ;
688
689  #2.
690
691  select * from t_13_customer
692  where t_13_cust_id in (select t_13_cust_id from t_13_premium_payments
693  where t_13_pp_amount > (select sum(t_13_cust_id) from t_13_customer)) ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

t_13_cust_id	t_13_cust_first_name	t_13_cust_last_name	t_13_cust_mobile_number	t_13_vehicle_id	t_13_vehicle_number	t_13_policy_id
100	tony	stark	685348	11111	1290	130
100	tony	stark	685348	11111	1290	130
102	captain	america	755348	11117	7686	974
103	dwayne	johnson	885348	11123	15254	150
103	dwayne	johnson	885348	11114	3455	168
105	dhoni	ms	993333	11130	6345	657
105	dhoni	ms	993333	11125	8784	874
105	dhoni	ms	993333	11116	947	840
100	tony	stark	685348	11111	1290	130
100	tony	stark	685348	11111	1290	130
102	captain	america	755348	11117	7686	974
103	dwayne	johnson	885348	11123	15254	150
103	dwayne	johnson	885348	11114	3455	168
105	dhoni	ms	993333	11130	6345	657
105	dhoni	ms	993333	11125	8784	874
105	dhoni	ms	993333	11116	947	840

2. Retrieve customer details who has premium payment amount greater than the sum of all the Customer Ids in the database – premium payment, customer

```
691 •   select * from t_13_customer
692     where t_13_cust_id in (select t_13_cust_id from t_13_premium_payments
693     where t_13_pp_amount > (select sum(t_13_cust_id) from t_13_customer)) ;
694
695     #3.
696
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

t_13_cust_id	t_13_cust_first_name	t_13_cust_last_name	t_13_cust_DOB	t_13_cust_gendor	t_13_cust_marital_status	t_13_cust_mobile_number
101	bruce	banner	1966-06-18	male	married	685376
106	john	cena	1975-12-31	male	unmarried	489690
107	serial	killer	1912-04-04	female	unmarried	748547
109	wanda	girl	1979-07-15	female	unmarried	865348
105	dhoni	ms	1970-03-02	male	married	993333
115	dhoni2	ms	1970-03-01	male	married	123333
116	john2	cena	1975-12-30	male	unmarried	589690
119	wanda2	girl	1979-09-23	female	unmarried	865300
NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. Retrieve Company details whose number of products is greater than departments, where the departments are located in more than one location—company, product, departments, office

```
697 •   select  * from t_13_insurance_company ic
698     inner join t_13_product p
699     on ic.t_13_company_name = p.t_13_company_name
700     group by p.t_13_company_name
701     having count(*)<(select count(ic.t_13_company_name) from t_13_department d
702     inner join t_13_insurance_company ic
703     on ic.t_13_company_name = d.t_13_company_name
704     );
705
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

t_13_company_name	t_13_company_contact	t_13_company_location	t_13_department_name	t_13_office_name	t_13_product_name	t_13_company_name	t_13_product_price	t_13_product_type	t_13_department_name
contact_industries	65859	jaipur	accounts	lkasnc	otm	contact_industries	43672	KTM	manager
happy_industries	567587	vijayawada	coders	hbdsv	etm	happy_industries	43672	KTM	upper_design_service
hogan_industries	567587	vijayawada	coders	hbdsv	rtm	hogan_industries	43672	KTM	decorate_service
stark_industries	84999	ongole	promotors	wjhcjds	ftm	stark_industries	43672	KTM	java
whole_industries	645754	new_york	developers	jvdc	atm	whole_industries	43672	KTM	testing

4. Select Customers who have more than one Vehicle, where the premium for one of the Vehicles is not paid and it is involved in accident

```
select * from t_13_customer
where t_13_cust_id in (select t_13_cust_id from t_13_vehicles v
group by t_13_cust_id
having count(*) > 1 and t_13_cust_id in (select t_13_cust_id from t_13_incident where t_13_incident_type = 'accident')
and t_13_cust_id in (select t_13_cust_id from t_13_premium_payments where t_13_premium_status = 'not_paid'));
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

t_13_cust_id	t_13_cust_first_name	t_13_cust_last_name	t_13_cust_DOB	t_13_cust_gendor	t_13_cust_marital_status	t_13_cust_mobile_number
101	bruce	banner	1966-06-18	male	married	685376
106	john	cena	1975-12-31	male	unmarried	489690
NULL	NULL	NULL	NULL	NULL	NULL	NULL

5. Select all vehicles which have premium more than its vehicle number.

```
select * from t_13_vehicles inner join t_13_premium_payments
on t_13_vehicles.t_13_cust_id = t_13_premium_payments.t_13_cust_id
where t_13_premium_payments.t_13_pp_amount
> t_13_vehicles.t_13_vehicle_number;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

t_13_vehicle_id	t_13_cust_id	t_13_policy_id	t_13_vehicle_reg_no	t_13_vehicle_value	t_13_vehicle_type	t_13_vehicle_number	t_13_pp_id	t_13_cust_id	t_13_policy_number	t_13_pp_amount	t_13_pp_schedule	t_13_rece
11111	100	130	1010	250000	three_wheeler	1290	500	100	1234	2000	1	1
11112	101	148	1020	656666	four_wheeler	1400	501	101	1235	4000	2	2
11126	106	840	8745	827459	two_wheeler	876	506	106	1240	2500	2	7
11126	106	840	8745	827459	two_wheeler	876	508	106	1242	1800	5	9
11116	105	840	8745	867459	two_wheeler	947	510	105	1234	2300	1	11
11116	105	840	8745	867459	two_wheeler	947	511	105	1235	1800	2	12
11113	112	150	1035	300005	two_wheeler	1234	512	112	1236	1700	4	13
11113	112	150	1035	300005	two_wheeler	1234	514	112	1238	1400	3	15
11116	105	840	8745	867459	two_wheeler	947	517	105	1241	1500	4	8

6. Retrieve Customer details whose Claim Amount is less than Coverage Amount and Claim Amount is greater than Sum of (CLAIM_SETTLEMENT_ID, VEHICLE_ID, CLAIM_ID, CUST_ID)

```
select cr.t_13_cust_id , cr.t_13_cust_first_name , cr.t_13_cust_last_name , cr.t_13_cust_mobile_number , cr.t_13_cust_dob from t_13_customer cr inner join t_13_claim_settlement cs
on cr.t_13_cust_id = cs.t_13_cust_id inner join t_13_vehicles v
on cr.t_13_cust_id = v.t_13_cust_id inner join t_13_claim
on t_13_claim.t_13_cust_id = cr.t_13_cust_id inner join t_13_claim_settlement
on cr.t_13_cust_id = t_13_claim_settlement.t_13_cust_id inner join t_13_coverage
on t_13_coverage.t_13_coverage_id = t_13_claim_settlement.t_13_coverage_id
where t_13_claim_amount > (t_13_claim_settlement.t_13_claim_set_id + v.t_13_vehicle_id + t_13_claim.t_13_claim_id + cr.t_13_cust_id)
and cr.t_13_cust_id in (select t_13_claim.t_13_cust_id  from t_13_claim inner join t_13_claim_settlement
on t_13_claim.t_13_claim_id = t_13_claim_settlement.t_13_claim_id  inner join t_13_coverage cv1
on cv1.t_13_coverage_id = t_13_claim_settlement.t_13_coverage_id
where t_13_claim.t_13_claim_amount < cv1.t_13_coverage_amount);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

t_13_cust_id	t_13_cust_first_name	t_13_cust_last_name	t_13_cust_mobile_number	t_13_cust_dob
111	bruce2	banner2	612776	1976-06-18
118	black2	widow	980946	1980-08-28

DIFFICULTIES FACED:

1. **FOREIGN KEY CONSTRAINT:**
   While writing queries we had to check if the table that is being related by the foreign key has been created or not, if not we had to first create it and then relate it.

2. **ALTERING THE DATABASE:**
   We had to alter some values according to the Queries as the id's weren't Satisfying some of the conditions.

3. **Saving the Query:**

   Once, we forgot to save the query and then it got deleted we had to redo it again.

CONCLUSION:

We have successfully created the database for vehicle insurance company and executed all the given queries.