Date-29.12.2025
Day 2 -Querying and Modifying Data

2.Select Commands

1. select * from customers;

	customerId	firstName	lastName	dateOfBirth	phone	email
1	10	Thanmai	Danda	2005-06-01	6281332238	thanmai@gmail.com
2	13	Pranay	Danda	2007-11-05	6489209384	pranay@yahoo.com
3	16	Triveni	sripati	2005-04-03	7463829209	triveni@gmail.com
4	19	Murali	Koppa	2006-12-05	8393029337	mur@gmail.com

2.
select c.customerId,p.policyId,pol.startDate,pol.endDate from policyAssignments pol,policies p,customers c where pol.policyId=p.policyId and pol.customerId=c.customerId;

	customerId	policyId	startDate	endDate
1	10	101	2010-01-01	2020-01-01
2	10	102	2007-02-01	2007-05-01
3	13	101	2008-03-01	2009-01-01

3.
select * from policies where policyType='Health';

	policyId	policyName	policyType	premiumAmount	durationYears
1	103	Bhima	Health	20000.00	3

4.
select * from policies where premiumAmount>10000 and durationYears=1;

	policyId	policyName	policyType	premiumAmount	durationYears
1	104	Life	casuality	15000.00	1

5.

select city from agents group by city;

	city
1	bng
2	hyd

6.

select * from policies where policyType='casuality' or policyType='health';

	policyId	policyName	policyType	premiumAmount	durationYears
1	101	Aman	casuality	35000.00	4
2	103	Bhima	Health	20000.00	3
3	104	Life	casuality	15000.00	1

7.

select * from policies where policyType in ('casuality','health');

	policyId	policyName	policyType	premiumAmount	durationYears
1	101	Aman	casuality	35000.00	4
2	103	Bhima	Health	20000.00	3
3	104	Life	casuality	15000.00	1

8.

select * from customers where dateOfBirth>='2001-01-01' and dateOfBirth<='2006-01-01';

	customerId	firstName	lastName	dateOfBirth	phone	email
1	10	Thanmai	Danda	2005-06-01	6281332238	thanmai@gmail.com
2	16	Triveni	sripati	2005-04-03	7463829209	triveni@gmail.com

9.
select * from customers where dateOfBirth between'2001-01-01'and'2006-01-01';

	customerId	firstName	lastName	dateOfBirth	phone	email
1	10	Thanmai	Danda	2005-06-01	6281332238	thanmai@gmail.com
2	16	Triveni	sripati	2005-04-03	7463829209	triveni@gmail.com

10.
select * from claims where claimStatus='no';

	claimId	assignmentId	claimDate	claimAmount	claimStatus
1	153	2	2015-05-03	25000.00	no

11.
select * from agents where city like '_n%';

	agentId	agentName	phone	city
1	201	amit	9441124719	bng
2	202	ram	9441132609	bng

12.
select max(claimAmount) as highest,min(claimAmount) as lowest from claims;

	highest	lowest
1	25000.00	15000.00

13.
select top 1 * from claims order by ClaimDate desc;

	claimId	assignmentId	claimDate	claimAmount	claimStatus
1	152	1	2016-06-05	20000.00	yes

14.
update policies set premiumAmount=premiumAmount*1.10 where policyType='Health';
select * from policies where policyType='Health';

	policyId	policyName	policyType	premiumAmount	durationYears
1	103	Bhima	Health	22000.00	3

15.
Delete from policyAssignments where endDate<getdate();
*This query gets error because we have tried to delete PolicyAssignments rows that are still being referenced in the Claims table
This problem can be rectified if we use on delete cascade while referencing in policyAssignments.

16.
select count(*) from claims where claimStatus='no';

	(No column name)
1	2

17.
select policyId,policyName,premiumAmount,premiumAmount*1.06 as premiumAmountWithTax,premiumAmount/12 as MonthlyPremiumAmount from policies;

	policyId	policyName	premiumAmount	premiumAmountWithTax	MonthlyPremiumAmount
1	101	Aman	35000.00	37100.0000	2916.666666
2	102	LIC	25000.00	26500.0000	2083.333333
3	103	Bhima	22000.00	23320.0000	1833.333333
4	104	Life	15000.00	15900.0000	1250.000000

18.
alter table customers add address varchar(50),city varchar(20);
select * from customers;

	customerId	firstName	lastName	dateOfBirth	phone	email	address	city
1	10	Thanmai	Danda	2005-06-01	6281332238	thanmai@gmail.com	NULL	NULL
2	13	Pranay	Danda	2007-11-05	6489209384	pranay@yahoo.com	NULL	NULL
3	16	Triveni	sripati	2005-04-03	7463829209	triveni@gmail.com	NULL	NULL
4	19	Murali	Koppa	2006-12-05	8393029337	mur@gmail.com	NULL	NULL

19.
alter table agents add DevOfId int;
select * from agents;

	agentId	agentName	phone	city	DevOfId
1	200	suman	9440132609	hyd	NULL
2	201	amit	9441124719	bng	NULL
3	202	ram	9441132609	bng	NULL
4	203	syam	6389202918	hyd	NULL

20.
alter table agents
add constraint FK_DevOfId_agents
foreign key (DevOfId) references agents(agentId);
select * from agents;

	agentId	agentName	phone	city	DevOfId
1	200	suman	9440132609	hyd	NULL
2	201	amit	9441124719	bng	NULL
3	202	ram	9441132609	bng	NULL
4	203	syam	6389202918	hyd	NULL

5.Joins,group by

1.
select p.* from policies p join policyAssignments pol on pol.policyId=p.policyId and
pol.customerId=10;

	policyId	policyName	policyType	premiumAmount	durationYears
1	101	Aman	casuality	35000.00	4
2	102	LIC	personal	25000.00	2
3	103	Bhima	Health	22000.00	3

2.
select c.customerId,p.policyId,p.policyName from customers c join policyAssignments pa on
pa.customerId=c.customerId join policies p on pa.policyId=p.policyId;

	customerId	policyId	policyName
1	10	101	Aman
2	10	102	LIC
3	13	101	Aman
4	10	103	Bhima

3.
select c.claimId,c.claimDate,c.claimAmount,cu.firstName from claims c join policyAssignments pa on c.assignmentId=pa.assignmentId join customers cu on pa.customerId=cu.customerId;

	claimId	claimDate	claimAmount	firstName
1	150	2016-06-01	15000.00	Thanmai
2	152	2016-06-05	20000.00	Thanmai
3	153	2015-05-03	25000.00	Thanmai
4	154	2013-02-01	20000.00	Thanmai

4.
select c.firstName,p.policyName,a.agentName,pa.startDate,pa.endDate from customers c join policyAssignments pa on pa.customerId=c.customerId join policies p on pa.policyId=p.policyId join agents a on pa.agentId=a.agentId;

	firstName	policyName	agentName	startDate	endDate
1	Thanmai	Aman	suman	2010-01-01	2020-01-01
2	Thanmai	LIC	syam	2007-02-01	2007-05-01
3	Pranay	Aman	ram	2008-03-01	2009-01-01
4	Thanmai	Bhima	suman	2010-03-01	2026-02-02

5.
select c.firstName,p.policyName,cl.claimAmount,cl.claimStatus,cl.claimDate
from customers c
join policyAssignments pa on pa.customerId=c.customerId
join policies p on pa.policyId=p.policyId
join claims cl on cl.assignmentId=pa.assignmentId;

	firstName	policyName	claimAmount	claimStatus	claimDate
1	Thanmai	Aman	15000.00	yes	2016-06-01
2	Thanmai	Aman	20000.00	yes	2016-06-05
3	Thanmai	Aman	20000.00	no	2013-02-01
4	Thanmai	LIC	25000.00	no	2015-05-03

6.
select c.firstName,p.policyName,pa.startDate,pa.endDate
from customers c
left join policyAssignments pa on pa.customerId=c.customerId
left join policies p on pa.policyId=p.policyId;

	firstName	policyName	startDate	endDate
1	Thanmai	Aman	2010-01-01	2020-01-01
2	Thanmai	LIC	2007-02-01	2007-05-01
3	Thanmai	Bhima	2010-03-01	2026-02-02
4	Pranay	Aman	2008-03-01	2009-01-01
5	Triveni	NULL	NULL	NULL
6	Murali	NULL	NULL	NULL

7.
select c.firstName
from customers c
where not exists (
    select 1
    from policyAssignments pa
    join claims cl on cl.assignmentId = pa.assignmentId
    where pa.customerId = c.customerId
);

	firstName
1	Pranay
2	Triveni
3	Murali

8.
select c.firstName,
      sum(cl.claimAmount) as totalClaimAmount

from customers c
join policyAssignments pa on pa.customerId=c.customerId
join claims cl on cl.assignmentId=pa.assignmentId
group by c.firstName;

	firstName	totalClaimAmount
1	Thanmai	80000.00

9.
select c.firstName,
     sum(cl.claimAmount) as totalClaimAmount
from customers c
join policyAssignments pa on pa.customerId=c.customerId
join claims cl on cl.assignmentId=pa.assignmentId
group by c.firstName
having sum(cl.claimAmount) > 50000;

	firstName	totalClaimAmount
1	Thanmai	80000.00

10.
select a.agentName,
     count(pa.policyId) as policyCount
from agents a
join policyAssignments pa on pa.agentId=a.agentId
group by a.agentName;

	agentName	policyCount
1	ram	1
2	suman	2
3	syam	1