

DAY-2 Assignment  
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### 1.Create Database command.

```
-- creating data base
create database insdb;
use insdb;
```

### 2.Create table commands for all the tables with constraints, relationships etc.

```
-- agents table
create table agents(
agentID INT,
AgentName varchar(30),
phone varchar(12),
city varchar(20)
primary key(agentID)
)
-- customer table
create table customers(
customerID int primary key,
firstname varchar(30),
lastname varchar(30),
dob date,
phone varchar(10),
email varchar(30)
)
-- policies table
create table policies(
policyId int primary key,
policyName varchar(30),
policyType varchar(30),
PremiumAmount money,
durationyears int
)

-- claims table
create table claims(
claimId int primary key,
AssignemntId INT,
cliamdate date,
cliamAmount money,
claimStatus varchar(30)
)
-- policyAssignments table
create table PolicyAssignments(
assignmentId int primary key,
customerid int,
policyid int,
agentid int,
startdate date,
enddate date
foreign key(customerid) references customers(customerID),
foreign key(policyid) references policies(policyID),
foreign key(agentid) references agents(agentID)
)
```

```
-- forgot to add the constraint foreign key in the claims table so i have
added it using alter
ALTER TABLE claims
ADD CONSTRAINT FK_Claims_Assignment
FOREIGN KEY (assignmentId)
REFERENCES PolicyAssignments(assignmentId);
```

### 3. Insert commands for all tables.

```
-- inserting values into tables
```

```
insert into customers values(101,'amit','sharma','1990-05-
10','7659831938','amit@gmail.com'),
(102,'shiva','kumar','2005-10-19','9999999999','shiva@gmail.com');
```

```
INSERT INTO agents
VALUES
(1, 'Ramesh Kumar', '9876543210', 'Hyderabad'),
(2, 'Suresh Rao', '9123456789', 'Bangalore'),
(3, 'Anita Singh', '9012345678', 'Mumbai');
```

```
INSERT INTO customers
VALUES
```

```
(103, 'Neha', 'Verma', '1998-03-22', '7766554433', 'neha@gmail.com');
```

```
INSERT INTO policies
VALUES
```

```
(201, 'Life Secure', 'Life', 25000.00, 20),
(202, 'Health Plus', 'Health', 15000.00, 10),
(203, 'Car Protect', 'Vehicle', 12000.00, 5);
```

```
Insert Into policies values (204, 'Bike Protect','Vehicle',12000,1);
```

```
INSERT INTO PolicyAssignments
```

```
VALUES
(301, 101, 201, 1, '2022-01-01', '2042-01-01'),
(302, 102, 202, 2, '2023-06-01', '2033-06-01'),
(303, 103, 203, 3, '2024-03-15', '2029-03-15');
```

```
INSERT INTO claims
```

```
VALUES
(401, 301, '2023-08-10', 50000.00, 'Approved'),
(402, 302, '2024-01-05', 20000.00, 'Pending'),
(403, 303, '2024-06-20', 15000.00, 'Rejected');
```

```
SELECT * FROM agents;
SELECT * FROM customers;
SELECT * FROM policies;
SELECT * FROM PolicyAssignments;
SELECT * FROM claims;
```

```
-- dml commands practice crud ops insert/update/delete/select
```

```

select 'shiva'; -- select: what exactly you want to see

-- from source(S) from which you want to display data
-- where condition column or some value
--order by columnname sort criteria
-- group by grouping criteria aggregation of records
-- having clause is to apply condition over a group by statement

```

```

select * from claims;
create table dummytb(
claimId int primary key,
AssignmentId INT,
claimdate date,
claimAmount money,
claimStatus varchar(30)
)

```

```

insert into dummytb select * from claims;

```

```

-- offset and fetch are used in sql server to limit skip and retrieve
required rows
SELECT *
FROM customers
ORDER BY customerID
OFFSET 1 ROWS
FETCH NEXT 2 ROWS ONLY;

```

#### 4. Select commands

```

--4 select commands as per assignment

```

```

--1
select * from customers;

```

	customerID	firstname	lastname	dob	phone	email
1	101	amit	sharma	1990-05-10	7659831938	amit@gmail.com
2	102	shiva	kumar	2005-10-19	9999999999	shiva@gmail.com
3	103	Neha	Verma	1998-03-22	7766554433	neha@gmail.com

```

--2
select customerid,policyid,startdate,enddate from PolicyAssignments;

```

	customerid	policyid	startdate	enddate
1	101	201	2022-01-01	2042-01-01
2	102	202	2023-06-01	2033-06-01
3	103	203	2024-03-15	2029-03-15

```

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

```

	policyId	policyName	policyType	PremiumAmount	durationyears
1	202	Health Plus	Health	18150.00	10

--4

```
select * from policies where PremiumAmount>10000 and durationyears=1;
```

	policyId	policyName	policyType	PremiumAmount	durationyears
1	204	Bike Protect	Vehicle	12000.00	1

--5

```
select distinct(city) from agents;
```

	city
1	Bangalore
2	Hyderabad
3	Mumbai

--6

```
select policyid,policyName from policies where policyType='Health' or policyType='Life' or policyType='Vehicle';
```

	policyid	policyName
1	201	Life Secure
2	202	Health Plus
3	203	Car Protect
4	204	Bike Protect

--7

```
select policyid,policyName from policies where policyType in ('Health','Life','Vehicle');
```

	policyid	policyName
1	201	Life Secure
2	202	Health Plus
3	203	Car Protect
4	204	Bike Protect

```
select * from customers;
```

--8

```
select * from customers where dob>='2001-01-1' and dob<='2020-12-31';
```

	customerID	firstname	lastname	dob	phone	email
1	102	shiva	kumar	2005-10-19	9999999999	shiva@gmail.com

--9

```
select * from customers where dob between '2001-01-1' and '2020-12-31';
```

	customerID	firstname	lastname	dob	phone	email
1	102	shiva	kumar	2005-10-19	9999999999	shiva@gmail.com

--10

```
select * from claims where claimStatus='Rejected';
```

	claimId	AssignemntId	claimdate	claimAmount	claimStatus
1	403	303	2024-06-20	15000.00	Rejected

--11

```
select * from agents where city like '_a%';
```

	agentID	AgentName	phone	city
1	2	Suresh Rao	9123456789	Bangalore

--12

```
select max(cliamAmount) as maxamt,min(cliamAmount) as minamt from claims;
```

	maxamt	minamt
1	50000.00	15000.00

--13

```
SELECT TOP 1 *
FROM Claims
ORDER BY cliamdate DESC;
```

	claimId	AssignemntId	cliamdate	cliamAmount	claimStatus
1	403	303	2024-06-20	15000.00	Rejected

--14

```
UPDATE Policies
SET PremiumAmount = PremiumAmount * 1.10
WHERE PolicyType = 'Health';
select * from Policies;
```

	policyId	policyName	policyType	PremiumAmount	durationyears
1	201	Life Secure	Life	25000.00	20
2	202	Health Plus	Health	19965.00	10
3	203	Car Protect	Vehicle	12000.00	5
4	204	Bike Protect	Vehicle	12000.00	1

--15

```
select * from PolicyAssignments;
DELETE FROM PolicyAssignments
WHERE EndDate < GETDATE();
```

	assignmentId	customerid	policyid	agentid	startdate	enddate
1	301	101	201	1	2022-01-01	2042-01-01
2	302	102	202	2	2023-06-01	2033-06-01
3	303	103	203	3	2024-03-15	2029-03-15

--16

```
SELECT COUNT(*) AS RejectedClaimsCount
FROM Claims
WHERE ClaimStatus = 'Rejected';
```

	RejectedClaimsCount
1	1

--17

```
SELECT PolicyId,
       PolicyName,
       PremiumAmount,
       PremiumAmount * 0.06 AS LocalTaxes,
       PremiumAmount * 1.06 AS PremiumAmountWithTax,
       (PremiumAmount * 1.06) / 12 AS MonthlyPremiumAmount
FROM Policies;
```

	PolicyId	PolicyName	PremiumAmount	LocalTaxes	PremiumAmountWithTax	MonthlyPremiumAmount
1	201	Life Secure	25000.00	1500.000000	26500.000000	2208.333333333
2	202	Health Plus	19965.00	1197.900000	21162.900000	1763.575000000
3	203	Car Protect	12000.00	720.000000	12720.000000	1060.000000000
4	204	Bike Protect	12000.00	720.000000	12720.000000	1060.000000000

--18

```
ALTER TABLE Customers
ADD Address VARCHAR(50),
City VARCHAR(20);
```

Commands completed successfully.

Completion time: 2025-12-29T21:06:24.1020223+05:30

--19

```
ALTER TABLE Agents
ADD DevOfId INT;
```

Commands completed successfully.

Completion time: 2025-12-29T21:06:24.1020223+05:30

--20

```
alter table agents
add constraint fk_devid foreign key(DevofId) references agents(agentID);
```

Commands completed successfully.

Completion time: 2025-12-29T21:06:24.1020223+05:30

-- part b joins,group by, having etc..

--1

```
SELECT p.*
FROM Policies p
JOIN PolicyAssignments pa ON p.PolicyId = pa.PolicyId
WHERE pa.CustomerId = 5;
```

	policyId	policyName	policyType	PremiumAmount	durationyears
--	----------	------------	------------	---------------	---------------

--2

```
SELECT c.FirstName, p.PolicyName
FROM Customers c
JOIN PolicyAssignments pa ON c.CustomerId = pa.CustomerId
JOIN Policies p ON pa.PolicyId = p.PolicyId;
```

	FirstName	PolicyName
1	amit	Life Secure
2	shiva	Health Plus
3	Neha	Car Protect

--3

```
SELECT c.FirstName, cl.ClaimAmount, cl.ClaimStatus
FROM Claims cl
JOIN PolicyAssignments pa ON cl.AssignmentId = pa.AssignmentId
JOIN Customers c ON pa.CustomerId = c.CustomerId;
```

	FirstName	ClaimAmount	ClaimStatus
1	amit	50000.00	Approved
2	shiva	20000.00	Pending
3	Neha	15000.00	Rejected

--4

```
SELECT c.FirstName, p.PolicyName, a.AgentName, pa.StartDate, pa.EndDate
FROM PolicyAssignments pa
JOIN Customers c 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	amit	Life Secure	Ramesh Kumar	2022-01-01	2042-01-01
2	shiva	Health Plus	Suresh Rao	2023-06-01	2033-06-01
3	Neha	Car Protect	Anita Singh	2024-03-15	2029-03-15

--5

```
SELECT
c.FirstName, p.PolicyName, cl.ClaimAmount, cl.ClaimStatus, cl.ClaimDate
FROM Claims cl
JOIN PolicyAssignments pa ON cl.AssignmentId = pa.AssignmentId
JOIN Customers c ON pa.CustomerId = c.CustomerId
JOIN Policies p ON pa.PolicyId = p.PolicyId;
```

	FirstName	PolicyName	ClaimAmount	ClaimStatus	ClaimDate
1	amit	Life Secure	50000.00	Approved	2023-08-10
2	shiva	Health Plus	20000.00	Pending	2024-01-05
3	Neha	Car Protect	15000.00	Rejected	2024-06-20

--6

```
SELECT c.FirstName, pa.PolicyId
FROM Customers c
LEFT JOIN PolicyAssignments pa
ON c.CustomerId = pa.CustomerId;
```

	FirstName	PolicyId
1	amit	201
2	shiva	202
3	Neha	203

--7

```
SELECT DISTINCT c.FirstName
FROM Customers c
LEFT JOIN PolicyAssignments pa ON c.CustomerId = pa.CustomerId
LEFT JOIN Claims cl ON pa.AssignmentId = cl.AssignmentId
WHERE cl.ClaimId IS NULL;
```

Results	Messages
FirstName	

```
--8
SELECT c.FirstName,SUM(cl.ClaimAmount) AS TotalClaimAmount
FROM Customers c
JOIN PolicyAssignments pa ON c.CustomerId = pa.CustomerId
JOIN Claims cl ON pa.AssignmentId = cl.AssignmentId
GROUP BY c.FirstName;
```

	FirstName	TotalClaimAmount
1	amit	50000.00
2	Neha	15000.00
3	shiva	20000.00

```
--9
SELECT c.FirstName,SUM(cl.ClaimAmount) AS TotalClaimAmount
FROM Customers c
JOIN PolicyAssignments pa ON c.CustomerId = pa.CustomerId
JOIN Claims cl ON pa.AssignmentId = cl.AssignmentId
GROUP BY c.FirstName
HAVING SUM(cl.ClaimAmount) > 50000;
```

FirstName	TotalClaimAmount
-----------	------------------

```
--10
SELECT a.AgentName,COUNT(pa.PolicyId) AS PolicyCount
FROM Agents a
JOIN PolicyAssignments pa ON a.AgentId = pa.AgentId
GROUP BY a.AgentName;
```

	AgentName	PolicyCount
1	Anita Singh	1
2	Ramesh Kumar	1
3	Suresh Rao	1