

DBMS Lab Assignment

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TOPIC ASSIGNED: INSURANCE COMPANY

Important Functions of Insurance Company:

1. An Insurance company have multiple types of insurances like Life Insurance, Car Insurance, etc.
2. An (1) Insurance company have multiple (i.e. N) policies.
3. A (1) policy has (1) reimbursement payment (Insurance Company Pays).
4. A (1) policy can have multiple (N) Policy Holders.
5. A (1) customer can have multiple (N) Policies registered in their name.
6. A (1) customer have an (1) Agent.
7. An (1) agent have multiple (N) customers.
8. A (1) customer lives at a (1) particular address.
9. A (1) customer meets with (N) accidents.
10. An (1) agent works at a (1) particular location.

Entities and its Attributes:

- Insurance: Insurance Type, Insurance ID
- Policy: Policy Number, Issue Date, Term Cost, Amount Coverage, Policy Type, (Insurance ID)
- Payment: Transaction ID, Date of Payment, (Report ID)
- Customer: Customer ID, First Name, Last Name, Aadhar Number, Date of Birth, Driving License Number, Contact Details, (Pincode), (Agent ID), (Policy Number)
- Address: State, City, Pincode
- Agent: Agent ID, First Name, Last Name, User Name, Date of Birth, Aadhar Number, Contact Details, (Pincode)
- Accident: Date, Report ID, Police Report Document, Damage Cost, Fault, (Customer ID)

Note: Attributes inside Parantheses are Foreign Keys

Relational Database Schema:

- **INSURANCE:** (Insurance_Type: *STRING, NOT NULL, FOREIGN KEY*;
Insurance_ID: *INTEGER, PRIMARY KEY, AUTO INCREMENT*)

▪ **POLICY:** (Policy_Number: *INTEGER, PRIMARY KEY, AUTO INCREMENT*;
Issue_Date: *DATE, NOT NULL*; Term_Cost: *FLOAT, NOT NULL*; Amount_Coverage:
FLOAT, NOT NULL; Policy_Type: *STRING, NOT NULL*; Insurance_ID: *INTEGER,*
FOREIGN KEY)

▪ **PAYMENT:** (Transaction_ID: *INTEGER, PRIMARY KEY*; Date_of_Payment:
DATE, NOT NULL; Payment_Amount: *FLOAT, NOT NULL*; Report_ID: *INTEGER,*
FOREIGN KEY)

▪ **CUSTOMER:** (Customer_ID: *INTEGER, PRIMARY KEY, AUTO INCREMENT*;
First_Name: *STRING, NOT NULL*; Last_Name: *STRING, NOT NULL*;
Aadhar_Number: *STRING, UNIQUE, NOT NULL*; Date_of_Birth: *DATE, NOT NULL*;
Driving_License_Number: *STRING, NOT NULL*; Contact_Details: *STRING,*
MULTIPLE VALUES, NOT NULL; Pincode: *INTEGER, FOREIGN KEY*; Agent_ID:
INTEGER, FOREIGN KEY; Policy_Number: *INTEGER, FOREIGN KEY*)

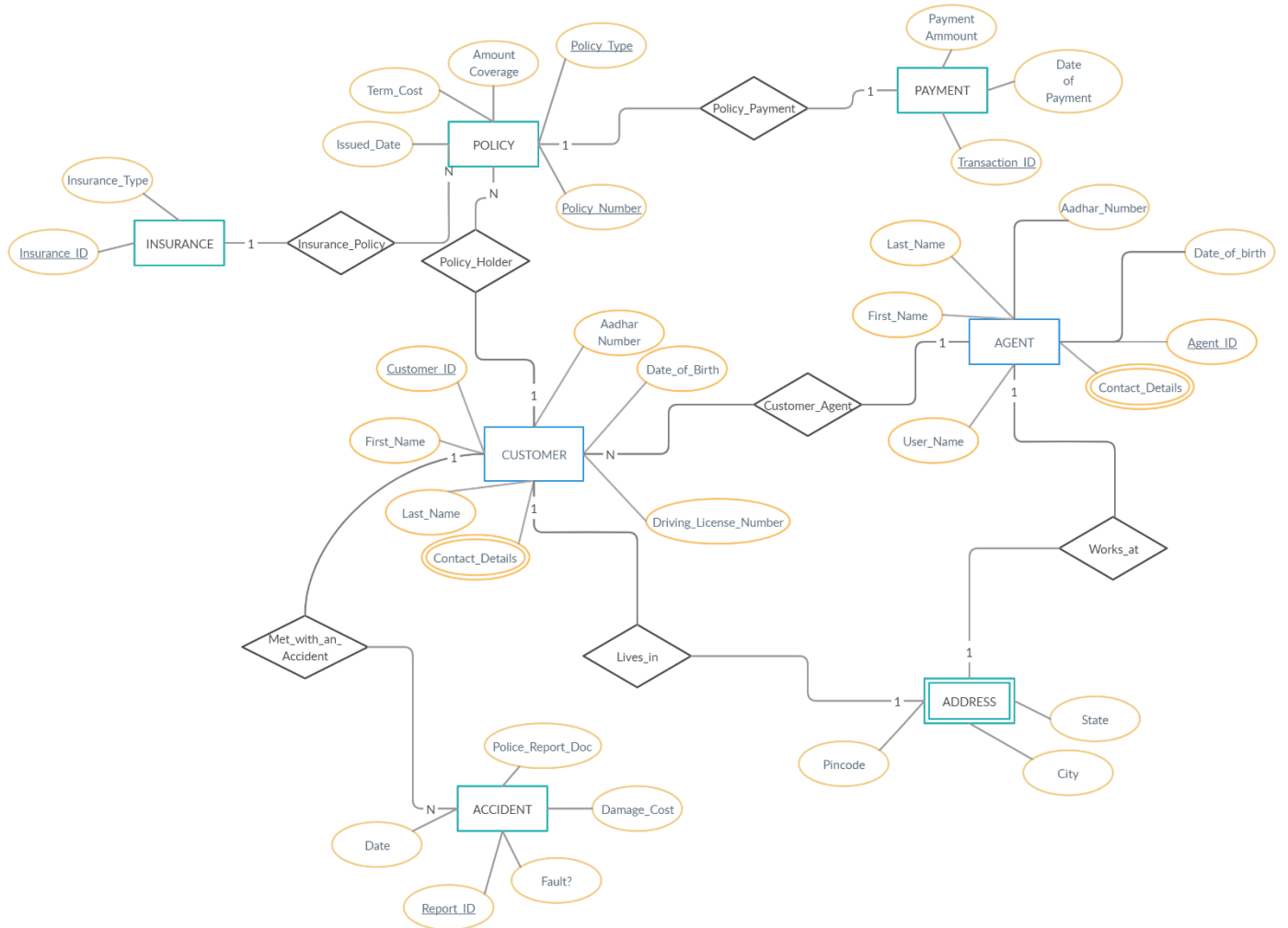
▪ **ADDRESS:** (State: *STRING, NOT NULL*; City: *STRING, NOT NULL*; Pincode:
INTEGER, PRIMARY KEY)

▪ **AGENT:** (Agent_ID: *INTEGER, PRIMARY KEY, AUTO INCREMENT*; First_Name:
STRING, NOT NULL; Last_Name: *STRING, NOT NULL*; User_Name: *STRING, NOT*
NULL, UNIQUE; Aadhar_Number: *STRING, UNIQUE, NOT NULL*; Date_of_Birth:
DATE, NOT NULL; Contact_Details: *STRING, MULTIPLE VALUES, NOT NULL*;
Pincode: *INTEGER, FOREIGN KEY*)

▪ **ACCIDENT:** (Date: *DATE, NOT NULL*; Report_ID: *INTEGER, PRIMARY KEY,*
AUTO_INCREMENT; Police_Report_Doc: *IMAGE, NOT NULL*; Damage_Cost:
FLOAT, NOT NULL; Fault: *BOOLEAN, NOT NULL*; Customer_ID: *INTEGER, FOREIGN*
KEY)

Note: BOOLEAN '0' is for when Policy Holder is at fault in the accident, BOOLEAN '1' is for when Policy Holder can claim insurance and not at fault in accident.

Entity-Relationship Diagram



Link: <https://github.com/akshayjain3450/DBMSProject>