INSURANCE MANAGEMENT SYSTEM

Introduction

Insurance Management System is developed for managing Insurance Policy details, Client details, Claimant details, Agent details and Company details. Insurance Management System is like a contract, represented by a policy, in which an individual or entity receives financial protection or reimbursement against losses from an insurance company.

Objectives

- To give assurance to the clients about data security and privacy.
- To reduce data redundancy.
- To reduce the risks of data looses.
- To save time, energy and cost.
- To lessen the difficult job.

ERD

Entity Relationship Diagram Of Insurance Management System

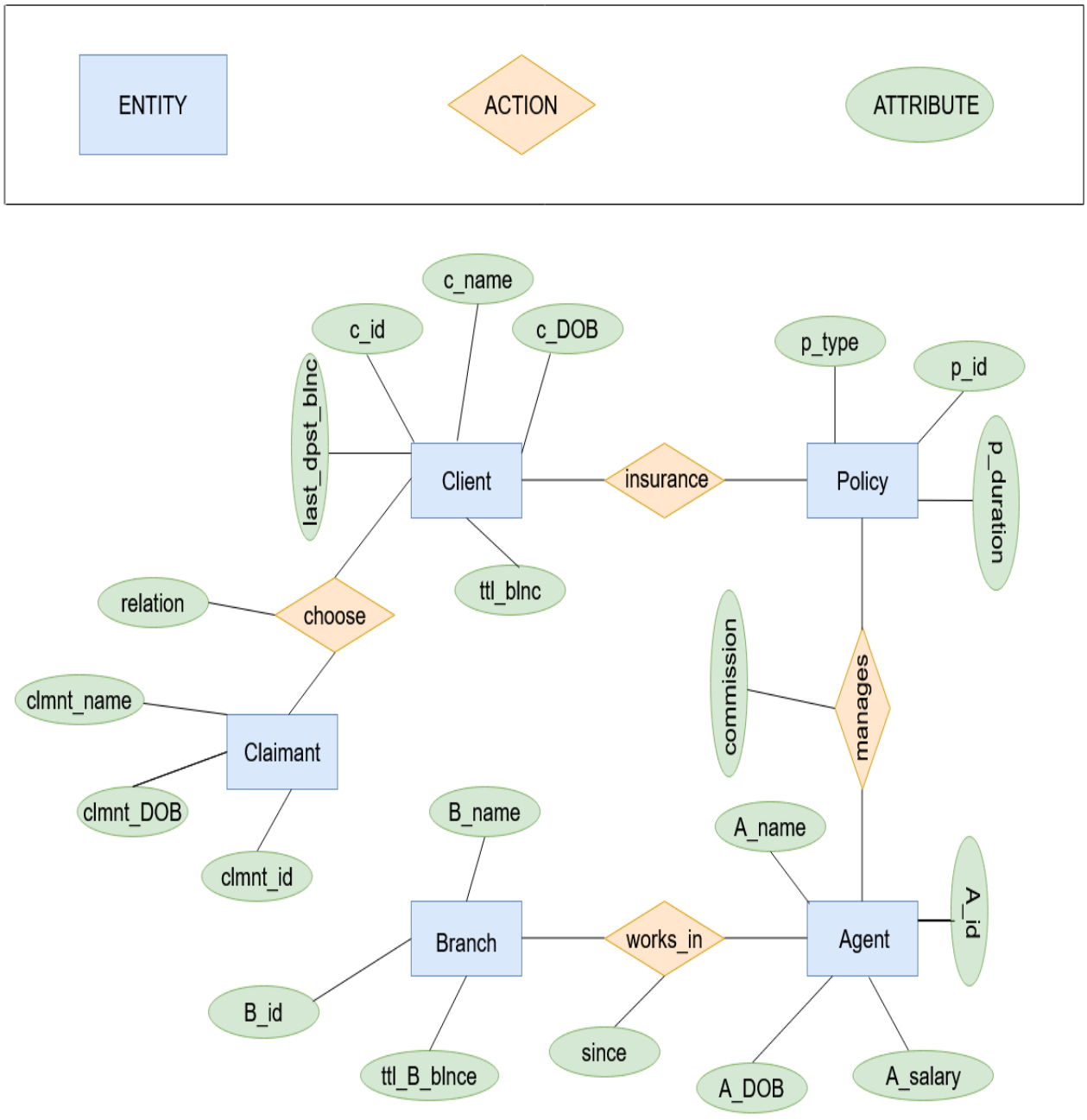

TABLE : AGENT

SQL :

```
CREATE TABLE  "AGENT"
    (   "A_ID" VARCHAR2(20),
        "A_NAME" VARCHAR2(50),
        "A_DOB" VARCHAR2(30),
        "A_SALARY" NUMBER,
        CONSTRAINT "AGENT_PK"
PRIMARY KEY ("A_ID") ENABLE
    )
```

DATA :

A_ID	A_NAME	A_DOB	A_SALARY
A279048	Karim	03-MAY-1993	33000
A312784	Kamal	29-JUNE-2000	25000
A312795	Mizan	15-APRIL-1995	35000
A279070	Rahim	21-JULY-1990	30000
A279075	Abdul	17-MARCH-1986	35000

TABLE : CLIENT

SQL :

```
CREATE TABLE  "CLIENT"
    (   "C_NAME" VARCHAR2(50),
        "C_ID" VARCHAR2(20),
        "C_DOB" VARCHAR2(30),
        "LAST_DPST_BLNC" NUMBER,
        "TTL_BLNC" NUMBER,
        CONSTRAINT "CLIENT_PK"
PRIMARY KEY ("C_ID") ENABLE
    )
```

DATA :

C_NAME	C_ID	C_DOB	LAST_DPST_BLNC	TTL_BLNC
Akash	C252983	30-MARCH-1990	500	10000
Jamal	C272915	19-APRIL-1994	1000	8000
Jahid	C282930	11-MAY-1998	1000	15000
Abrar	C272959	20-JULY-2001	500	4000
Hasib	C282937	01-JUNE-2000	500	7000

TABLE : CLAIMANT

SQL :

```
CREATE TABLE  "CLAIMANT"
    (   "CLMNT_ID" VARCHAR2(20),
        "CLMNT_NAME" VARCHAR2(50),
        "CLMNT_DOB" VARCHAR2(30),
        CONSTRAINT "CLAIMANT_PK"
PRIMARY KEY ("CLMNT_ID") ENABLE
    )
```

DATA :

CLMNT_ID	CLMNT_NAME	CLMNT_DOB
CM55483	Rabbi	29-AUGUST-1993
CM55391	Rahul	21-FEBRUARY-1995
CM56394	Ornim	05-JANUARY-2000
CM55497	Mamun	03-NOVEMBER-2001
CM56396	Mehedi	17-OCTOBER-1990

TABLE : POLICY

SQL :

```
CREATE TABLE  "POLICY"
   (   "P_ID" VARCHAR2(20),
       "P_TYPE" VARCHAR2(50),
       "P_DURATION(YR)"
VARCHAR2(10),
       CONSTRAINT "POLICY_PK"
PRIMARY KEY ("P_ID") ENABLE
   )
```

DATA :

P_ID	P_TYPE	P_DURATION(YR)
P125654	Life Insurance	25
P125894	Life Insurance	30
P239485	Car Insurance	5
P979321	Health Insurance	15
P979382	Health Insurance	10

TABLE : BRANCH

SQL :

```
CREATE TABLE  "BRANCH"
    (   "B_ID" VARCHAR2(20),
        "B_NAME" VARCHAR2(50),
        "TTL_B_BLNCE" NUMBER,
        CONSTRAINT "BRANCH_PK"
PRIMARY KEY ("B_ID") ENABLE
    )
```

DATA :

B_ID	B_NAME	TTL_B_BLNCE
B867689	Gabtoli	50000000000000
B890456	Azimpur	65000000000000
B883472	Bondor	49000000000000
B897547	Mirpur	54000000000000
B890498	Agrabad	70000000000000

TABLE : AGENT_MANAGES_POLICY

SQL :

```
CREATE TABLE
"AGENT_MANAGES_POLICY"
   (   "A_ID" VARCHAR2(20),
       "P_ID" VARCHAR2(20),
       "COMMISSION" NUMBER,
       CONSTRAINT
"AGENT_MANAGES_POLICY_FK" FOREIGN
KEY ("A_ID")
       REFERENCES  "AGENT" ("A_ID")
ENABLE,
       CONSTRAINT
"AGENT_MANAGES_POLICY_FK2" FOREIGN
KEY ("P_ID")
       REFERENCES  "POLICY"
("P_ID") ENABLE
   )
```

DATA :

A_ID	P_ID	COMMISSION
A279075	P125654	120
A312784	P979382	100
A279070	P239485	80
A312795	P979321	100
A279075	P979382	100

TABLE : AGENT_WORKS_BRANCH

SQL :

```
CREATE TABLE  "AGENT_WORKS_BRANCH"
   (   "A_ID" VARCHAR2(20),
       "B_ID" VARCHAR2(20),
       "SINCE" VARCHAR2(30),
       CONSTRAINT
"AGENT_WORKS_BRANCH_FK" FOREIGN KEY
("A_ID")
       REFERENCES  "AGENT" ("A_ID")
ENABLE,
       CONSTRAINT
"AGENT_WORKS_BRANCH_FK2" FOREIGN
KEY ("B_ID")
       REFERENCES  "BRANCH"
("B_ID") ENABLE
   )
```

DATA :

A_ID	B_ID	SINCE
A312784	B867689	18-MAY-2015
A312795	B890456	01-JUNE-2010
A279048	B883472	05-MARCH-2011
A279075	B897547	03-APRIL-2013
A279070	B890498	02-JUNE-2012

TABLE : CLIENT_CHOOSE_CLAIMANT

SQL :

```
CREATE TABLE
"CLIENT_CHOOSE_CLAIMANT"
   (   "C_ID" VARCHAR2(20),
       "CLMNT_ID" VARCHAR2(20),
       "RELATION" VARCHAR2(50),
       CONSTRAINT
"CLIENT_CHOOSE_CLAIMANT_FK" FOREIGN
KEY ("C_ID")
       REFERENCES  "CLIENT"
("C_ID") ENABLE,
       CONSTRAINT
"CLIENT_CHOOSE_CLAIMANT_FK2"
FOREIGN KEY ("CLMNT_ID")
       REFERENCES  "CLAIMANT"
("CLMNT_ID") ENABLE
   )
```

DATA :

C_ID	CLMNT_ID	RELATION
C272915	CM55483	FATHER
C252983	CM55391	FATHER
C282930	CM56394	SON
C272959	CM55497	FATHER
C282937	CM56396	SON

TABLE : CLIENT_INSURANCE_POLICY

SQL :

```
CREATE TABLE
"CLIENT_INSURANCE_POLICY"
   (   "C_ID" VARCHAR2(20),
       "P_ID" VARCHAR2(20),
       "INSURANCED_AMOUNT" NUMBER,
       "SERVICE_TAX" NUMBER,
       CONSTRAINT
"CLIENT_INSURANCE_POLICY_FK"
FOREIGN KEY ("C_ID")
       REFERENCES  "CLIENT"
("C_ID") ENABLE,
       CONSTRAINT
"CLIENT_INSURANCE_POLICY_FK2"
FOREIGN KEY ("P_ID")
       REFERENCES  "POLICY"
("P_ID") ENABLE
   )
```

DATA :

C_ID	P_ID	INSURANCED_AMOUNT	SERVICE_TAX
C252983	P125654	2500000	1250
C272915	P239485	500000	250
C282930	P125894	3000000	1500
C272959	P979321	2000000	1000
C282937	P979382	1500000	750

DML STATEMENTS :

A. Searching Data From Individual Tables :

Query - 01 :

Display all the Client Name from Client table

SQL :

```
SELECT C_NAME
FROM CLIENT;
```

DATA :

C_NAME
Akash
Jamal
Jahid
Abrar
Hasib

Query - 02 :

Display all the Agent Name and Agent DOB from Agent table.

SQL :

```
SELECT A_NAME, A_DOB
FROM AGENT;
```

DATA :

A_NAME	A_DOB
Karim	03-MAY-1993
Kamal	29-JUNE-2000
Mizan	15-APRIL-1995
Rahim	21-JULY-1990
Abdul	17-MARCH-1986

Query - 03 :

Display the Claimant Information from Claimant table Whose Claimant Id = “CM55497”.

SQL :

```
SELECT *
FROM CLAIMANT
WHERE CLMNT_ID = 'CM55497';
```

DATA :

CLMNT_ID	CLMNT_NAME	CLMNT_DOB
CM55497	Mamun	03-NOVEMBER-2001

Query - 04 :

Display the Branch Information from Branch table Whose Branch Name = “Mirpur”.

SQL :

```
SELECT *
FROM BRANCH
WHERE B_NAME = 'Mirpur';
```

DATA :

B_ID	B_NAME	TTL_B_BLNCE
B897547	Mirpur	5400000000000

Query - 05 :

Display Agent Id, Agent Salary, Agent DOB from Agent table Whose DOB = “21-JULY-1990”.

SQL :

```
SELECT A_ID, A_SALARY, A_DOB
FROM AGENT
WHERE A_DOB = '21-JULY-1990';
```

DATA :

A_ID	A_SALARY	A_DOB
A279070	30000	21-JULY-1990

Query - 06 :

Display the Policy Information from Policy table Whose Policy Id = 'P125654' OR Policy Id = 'P979321' .

SQL :

```
SELECT *

FROM POLICY

WHERE P_ID = 'P125654' OR P_ID = 'P979321';
```

DATA :

P_ID	P_TYPE	P_DURATION(YR)
P125654	Life Insurance	25
P979321	Health Insurance	15

Query - 07 :

Display Client Name, Client ID, Last Deposit Balance from Client table Whose Last Deposit Balance = 1000.

SQL :

```
SELECT C_NAME,C_ID,LAST_DPST_BLNC
FROM CLIENT
WHERE LAST_DPST_BLNC = 1000;
```

DATA :

C_NAME	C_ID	LAST_DPST_BLNC
Jamal	C272915	1000
Jahid	C282930	1000

Query - 08 :

Display the branch information from Branch table Whose Total Balance is greater than 50000000000000.

SQL :

```
SELECT *

FROM BRANCH

WHERE TTL_B_BLNCE > 50000000000000;
```

DATA :

B_ID	B_NAME	TTL_B_BLNCE
B890456	Azimpur	65000000000000
B897547	Mirpur	54000000000000
B890498	Agrabad	70000000000000

Query - 09 :

Display the Policy Information from Policy table Whose Policy Type = 'Life Insurance' order by Policy Id with descending order.

SQL :

```
SELECT *
FROM POLICY
WHERE P_TYPE = 'Life Insurance'
ORDER BY P_ID DESC;
```

DATA :

P_ID	P_TYPE	P_DURATION(YR)
P125894	Life Insurance	30
P125654	Life Insurance	25

Query - 10 :

Display the Claimant Name, Claimant ID and Claimant DOB from Claimant table Whose Claimant Name start from = ‘R’.

SQL :

```
SELECT CLMNT_NAME,CLMNT_ID,CLMNT_DOB
FROM CLAIMANT
WHERE CLMNT_NAME LIKE 'R%';
```

DATA :

CLMNT_NAME	CLMNT_ID	CLMNT_DOB
Rabbi	CM55483	29-AUGUST-1993
Rahul	CM55391	21-FEBRUARY-1995

B. Searching Data From Multiple Tables :

Query - 01 :

Display the Client Name and Agent Name from Client and Agent table Whose Client Name = “Akash” and Agent Name = “Karim”.

SQL :

```
SELECT C.C_NAME, A.A_NAME
FROM CLIENT C JOIN AGENT A
ON C.C_NAME LIKE 'Akash' AND A.A_NAME LIKE 'Karim';
```

DATA :

C_NAME	A_NAME
Akash	Karim

Query - 02 :

Display all the Client Name and Claimant Name from Client and Claimant table in one Column and using Alias = “NAME”.

SQL :

```
SELECT C_NAME "NAME"
FROM CLIENT
UNION
SELECT CLMNT_NAME
FROM CLAIMANT;
```

DATA :

NAME
Abrar
Akash
Hasib
Jahid
Jamal
Mamun
Mehedi
Ornim
Rabbi
Rahul

Query - 03 :

Display Client Name, Client Id and Insurance Amount from Client and Client Insurance Policy table whose Insurance Amount is greater than 2000000.

SQL :

```
SELECT C.C_NAME, C.C_ID,
CP.INSURANCED_AMOUNT

FROM CLIENT C JOIN
CLIENT_INSURANCE_POLICY CP

ON CP.INSURANCED_AMOUNT > 2000000 AND
C.C_ID = CP.C_ID;
```

DATA :

C_NAME	C_ID	INSURANCED_AMOUNT
Akash	C252983	2500000
Jahid	C282930	3000000

Query - 04 :

Display Client Id, Policy Type, Service Tax from Policy and Client Insurance Policy table where Policy Type = “Life Insurance”.

SQL :

```
SELECT CIP.C_ID, P.P_TYPE,
CIP.SERVICE_TAX

FROM POLICY P JOIN
CLIENT_INSURANCE_POLICY CIP

ON P.P_TYPE = 'Life Insurance' AND
P.P_ID = CIP.P_ID;
```

DATA :

C_ID	P_TYPE	SERVICE_TAX
C252983	Life Insurance	1250
C282930	Life Insurance	1500

Query - 05 :

Display Agent Name, Commission and Salary from Agent and Agent Manages Policy table whose Salary is less than 33000

SQL :

```
SELECT A.A_NAME, AMP.COMMISSION,
A.A_SALARY

FROM AGENT A JOIN
AGENT_MANAGES_POLICY AMP

ON A.A_SALARY < 33000 AND A.A_ID =
AMP.A_ID;
```

DATA :

A_NAME	COMMISSION	A_SALARY
Kamal	100	25000
Rahim	80	30000

C. All Types of Sub-Queries :

Query - 01 :

Display the Client Name, Client Id and Client DOB from Client and Client Choose Claimant table Whose Relation with Claimant is “SON”.

SQL :

```
SELECT C_NAME, C_ID, C_DOB
FROM CLIENT
WHERE C_ID IN
      (SELECT C_ID
       FROM CLIENT_CHOOSE_CLAIMANT
       WHERE RELATION='SON');
```

DATA :

C_NAME	C_ID	C_DOB
Jahid	C282930	11-MAY-1998
Hasib	C282937	01-JUNE-2000

Query - 02 :

Display the Agent Id, Agent Name and Salary from Agent and Agent Manages Policy table Whose Commission = 120.

SQL :

```
SELECT A_ID, A_NAME, A_SALARY
FROM AGENT
WHERE A_ID IN
      (SELECT A_ID
       FROM AGENT_MANAGES_POLICY
       WHERE COMMISSION = 120);
```

DATA :

A_ID	A_NAME	A_SALARY
A279075	Abdul	35000

Query - 03 :

Display the Client Information from Client and Client Insurance Policy table Whose Insurance Amount is greater than 2000000.

SQL :

```
SELECT  *
FROM CLIENT
WHERE C_ID IN
  (SELECT C_ID
   FROM CLIENT_INSURANCE_POLICY
   WHERE INSURANCED_AMOUNT > 2000000);
```

DATA :

C_NAME	C_ID	C_DOB	LAST_DPST_BLNC	TTL_BLNC
Akash	C252983	30-MARCH-1990	500	10000
Jahid	C282930	11-MAY-1998	1000	15000

Query - 04 :

Display the Branch Information from Branch and Agent Works Branch table Where Since = “18-MAY-2015”.

SQL :

```
SELECT *
FROM BRANCH
WHERE B_ID IN
        (SELECT B_ID
        FROM AGENT_WORKS_BRANCH
        WHERE SINCE = '18-MAY-2015');
```

DATA :

B_ID	B_NAME	TTL_B_BLNCE
B867689	Gabtoli	5000000000000

Query - 05 :

Display the Client Name, Client Id and Client DOB from Client and Client Insurance Policy table Whose Service Tax is greater than 750 and less than 1500.

SQL :

```
SELECT C_NAME, C_ID, C_DOB
FROM CLIENT
WHERE C_ID IN
      (SELECT C_ID
       FROM CLIENT_INSURANCE_POLICY
       WHERE SERVICE_TAX > 750 AND
             SERVICE_TAX < 1500);
```

DATA :

C_NAME	C_ID	C_DOB
Akash	C252983	30-MARCH-1990
Abrar	C272959	20-JULY-2001

D. All Types of Queries :

Query - 01 :

Display the Sum of Last Deposit Balance and Sum of Total Balance from Client table.

SQL :

```
SELECT SUM(LAST_DPST_BLNC),
       SUM(TTL_BLNC)
FROM CLIENT;
```

DATA :

SUM(LAST_DPST_BLNC)	SUM(TTL_BLNC)
3500	44000

Query - 02 :

Display the Agent Salary from Agent table Order By Agent Salary.

SQL :

```
SELECT A_SALARY
FROM AGENT
ORDER BY A_SALARY;
```

DATA :

A_SALARY
25000
30000
33000
35000
35000

Query - 03 :

Display the Maximum Total Branch Balance and Minimum Total Branch Balance from Branch table.

SQL :

```
SELECT MAX(TTL_B_BLNCE),
       MIN(TTL_B_BLNCE)
FROM BRANCH;
```

DATA :

MAX(TTL_B_BLNCE)	MIN(TTL_B_BLNCE)
7000000000000	4900000000000

Query - 04 :

Display Client Id, Policy Type, Service Tax from Policy and Client Insurance Policy table where Policy Type = “Health Insurance”.

SQL :

```
SELECT CIP.C_ID, P.P_TYPE,
CIP.SERVICE_TAX

FROM POLICY P JOIN
CLIENT_INSURANCE_POLICY CIP

ON P.P_TYPE = 'Health Insurance' AND
P.P_ID = CIP.P_ID;
```

DATA :

C_ID	P_TYPE	SERVICE_TAX
C272959	Health Insurance	1000
C282937	Health Insurance	750

Query - 05 :

Display the Agent Id, Agent Name and Salary from Agent and Agent Manages Policy table Whose Commission is greater than 100 OR less than 100.

SQL :

```
SELECT A_ID, A_NAME, A_SALARY
FROM AGENT
WHERE A_ID IN
      (SELECT A_ID
       FROM AGENT_MANAGES_POLICY
       WHERE COMMISSION > 100 OR
       COMMISSION < 100);
```

DATA :

A_ID	A_NAME	A_SALARY
A279070	Rahim	30000
A279075	Abdul	35000