DBMS PROJECT - 1

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Gym Management System Database Design

Problem Statement :-

The project entitled gym management system is a web based system that manages the member records that includes the personal information, payment history and schedule of workout and exercises.

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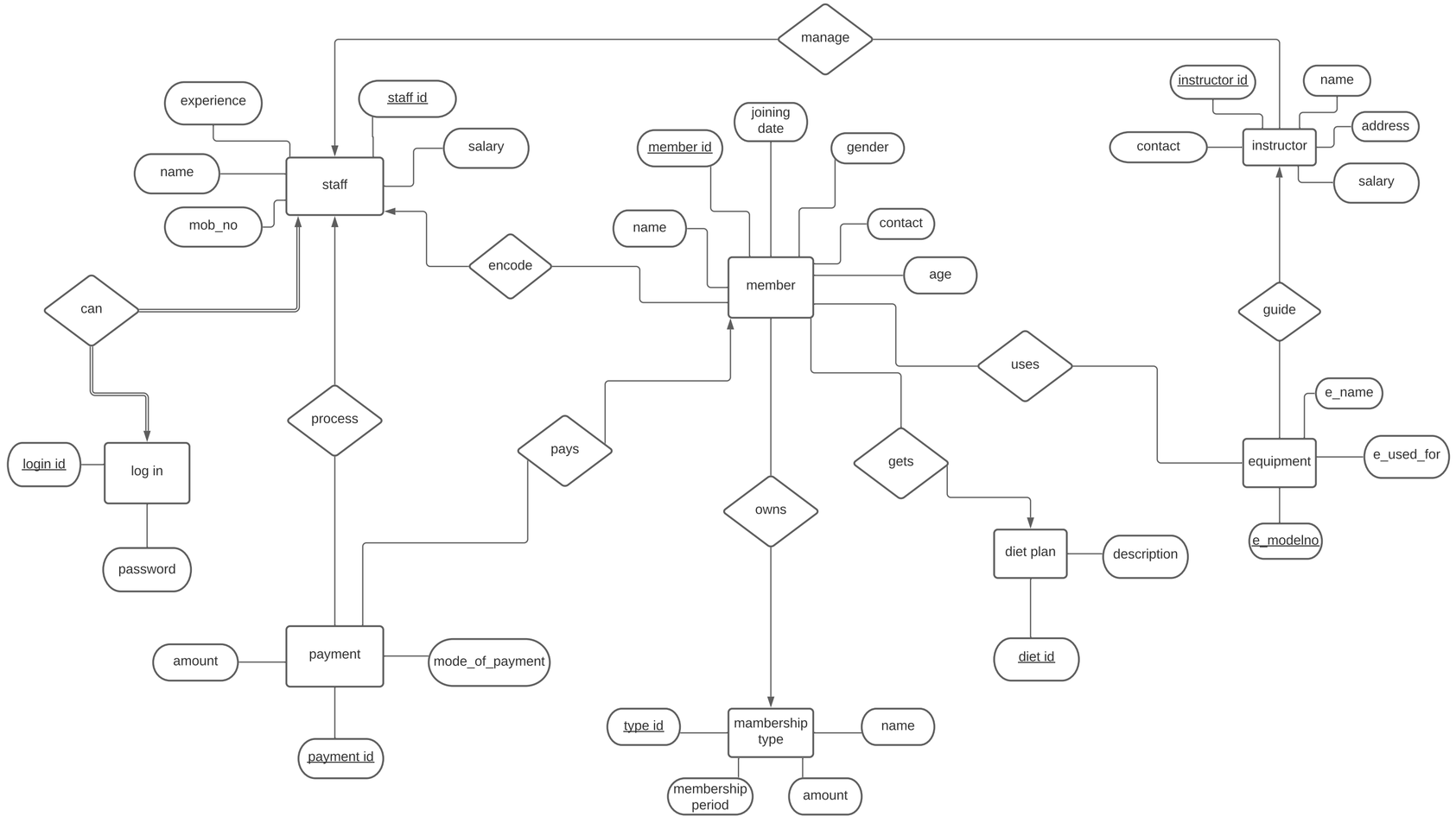
ER Diagram :-


manage
experience
staff id
salary
name
staff
mob_no
encode
can
process
login id
log in
password
pays
payment
amount
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joining date
member id
gender
name
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member
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owns
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diet plan
description
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instructor id
name
address
contact
instructor
salary
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TABLES , INSERTING VALUES AND NORMALISATION

```
CREATE TABLE STAFF
(
NAMES VARCHAR(20),
MOB_NO INT,
SALARY INT,
STAFF_ID INT PRIMARY KEY,
EXPERIENCE INT,
LOGIN_ID INT,
PASSWORDS VARCHAR(20)
)
```

```
INSERT INTO STAFF VALUES('Yash',     8824921492, 21000, 101, 2, 101,
'gym@yash');
INSERT INTO STAFF VALUES('Harshit',  8826374833, 31000, 102, 3, 102,
'gym@harshit');
INSERT INTO STAFF VALUES('Apurv',    9374894683, 10000, 103, 2, 103,
'gym@apurv');
INSERT INTO STAFF VALUES('Rahul',    8467242842, 32000, 104, 3, 104,
'gym@rahul');
INSERT INTO STAFF VALUES('Yashpaal', 9726374834, 43000, 105, 2, 105,
'gym@rajput');
```

Script Output | Query Result

SQL | All Rows Fetched: 5 in 0.006 seconds

	NAMES	MOB_NO	SALARY	STAFF_ID	EXPERIENCE	LOGIN_ID	PASSWORDS
1	Yash	8824921492	21000	101	2	101	gym@yash
2	Harshit	8826374833	31000	102	3	102	gym@harshit
3	Apurv	9374894683	10000	103	2	103	gym@apurv
4	Rahul	8467242842	32000	104	3	104	gym@rahul
5	Yashpaal	9726374834	43000	105	2	105	gym@rajput

```
CREATE TABLE DIET_PLAN
(
DIET_ID INT PRIMARY KEY,
DESCRIPTIONS VARCHAR(20)
)

INSERT INTO DIET_PLAN VALUES (202, 'CARBOHYDRATES RICH');
INSERT INTO DIET_PLAN VALUES (201, 'PROTEINS RICH');
INSERT INTO DIET_PLAN VALUES (204, 'FATS RICH');
INSERT INTO DIET_PLAN VALUES (205, 'PROTEINS RICH');
INSERT INTO DIET_PLAN VALUES (203, 'FIBRE RICH');
```

Script Output | Query Result

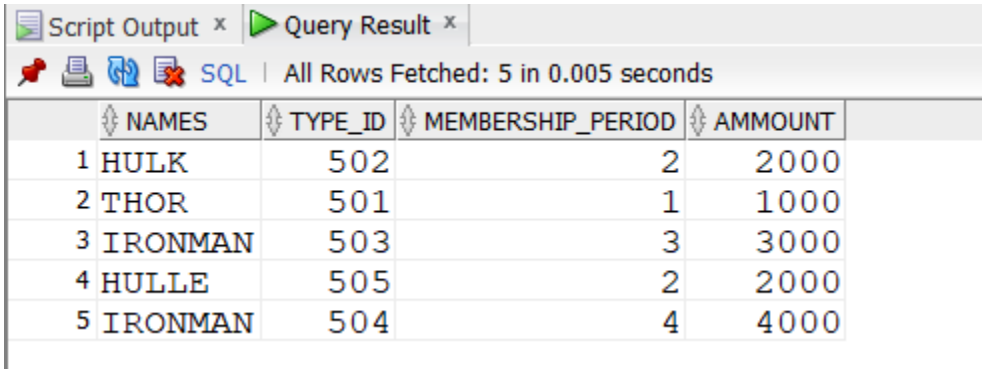
SQL | All Rows Fetched: 5 in 0.007 seconc

	DIET_ID	DESCRIPTIONS
1	202	CARBOHYDRATES RICH
2	201	PROTEINS RICH
3	204	FATS RICH
4	205	PROTEINS RICH
5	203	FIBRE RICH

```
CREATE TABLE MEMBERSHIP_TYPE
(
```

```
NAMES VARCHAR(20),
TYPE_ID INT PRIMARY KEY,
MEMBERSHIP_PERIOD INT,
AMMOUNT INT
)

INSERT INTO MEMBERSHIP_TYPE VALUES ('HULK',   502, 2, 2000);
INSERT INTO MEMBERSHIP_TYPE VALUES ('THOR',   501, 1, 1000);
INSERT INTO MEMBERSHIP_TYPE VALUES ('IRONMAN',503, 3, 3000);
INSERT INTO MEMBERSHIP_TYPE VALUES ('HULLE',  505, 2, 2000);
INSERT INTO MEMBERSHIP_TYPE VALUES ('IRONMAN',504, 4, 4000);
```


Script Output × Query Result ×

SQL | All Rows Fetched: 5 in 0.005 seconds

	NAMES	TYPE_ID	MEMBERSHIP_PERIOD	AMMOUNT
1	HULK	502	2	2000
2	THOR	501	1	1000
3	IRONMAN	503	3	3000
4	HULLE	505	2	2000
5	IRONMAN	504	4	4000

```
CREATE TABLE MEMBER
(
MEMBER_ID INT PRIMARY KEY,
NAMES VARCHAR(20),
AGE INT,
CONTACT INT,
GENDER VARCHAR(1),
JOINING_DATE DATE,
STAFF_ID INT,
DIET_ID INT,
TYPE_ID INT,

FOREIGN KEY(TYPE_ID) REFERENCES MEMBERSHIP_TYPE(TYPE_ID),
FOREIGN KEY(STAFF_ID) REFERENCES STAFF(STAFF_ID),
FOREIGN KEY(DIET_ID) REFERENCES DIET_PLAN(DIET_ID)
)
```

```
INSERT INTO MEMBER VALUES(1 , 'GANESH' , 18 , 4785961582 , 'M' , '1-02-21' , 101
, 201 , 501);
INSERT INTO MEMBER VALUES(2 , 'SURESH' , 19 , 1234567891 , 'F' , '2-02-21' , 102
, 202 , 502);
INSERT INTO MEMBER VALUES(3 , 'RAMESH' , 18 , 4128975634 , 'M' , '1-02-21' ,
103 , 203 , 503);
INSERT INTO MEMBER VALUES(4 , 'PANKAJ' , 17 , 9987456321 , 'F' , '8-02-21' , 104 ,
204 , 504);
INSERT INTO MEMBER VALUES(5 , 'SUFIAN' , 16 , 9875648925 , 'M' , '2-02-21' , 105 ,
205 , 505);
INSERT INTO MEMBER VALUES(6 , 'NARESH' , 17 , 8764587459 , 'F' , '1-02-21' , 101
, 201 , 501);
INSERT INTO MEMBER VALUES(7 , 'RAJESH' , 18 , 4785545491 , 'M' , '4-02-21' , 102
, 202 , 502);
INSERT INTO MEMBER VALUES(8 , 'RITIK' ,  19 , 9589224722 , 'M' , '2-02-21' , 103 ,
203 , 503);
```

Script Output × | Query Result ×

SQL | All Rows Fetched: 8 in 0.011 seconds

	MEMBER_ID	NAMES	AGE	CONTACT	GENDER	JOINING_DATE	STAFF_ID	DIET_ID	TYPE_ID
1	1	GANESH	18	4785961582	M	01-02-21	101	201	501
2	2	SURESH	19	1234567891	F	02-02-21	102	202	502
3	3	RAMESH	18	4128975634	M	01-02-21	103	203	503
4	4	PANKAJ	17	9987456321	F	08-02-21	104	204	504
5	5	SUFIAN	16	9875648925	M	02-02-21	105	205	505
6	6	NARESH	17	8764587459	F	01-02-21	101	201	501
7	7	RAJESH	18	4785545491	M	04-02-21	102	202	502
8	8	RITIK	19	9589224722	M	02-02-21	103	203	503

```
CREATE TABLE PAYMENT
(
AMMOUNT INT,
PAYMENT_ID INT PRIMARY KEY,
MODE_OF_PAYMENT VARCHAR(20),
STAFF_ID INT,
MEMBER_ID INT,
```

```
FOREIGN KEY(STAFF_ID) REFERENCES STAFF(STAFF_ID),
FOREIGN KEY(MEMBER_ID) REFERENCES MEMBER(MEMBER_ID)
)
```

```
INSERT INTO PAYMENT VALUES(4000,23564132, 'DEBIT CARD', 104,1);
INSERT INTO PAYMENT VALUES(2000,23564134, 'PAYTM',      102,3);
INSERT INTO PAYMENT VALUES(3000,23564131, 'GPAY',       105,6);
INSERT INTO PAYMENT VALUES(5000,23564135, 'DEBIT CARD', 103,2);
INSERT INTO PAYMENT VALUES(1000,23564136, 'PHONE PE',   101,7);
```

Script Output × | Query Result ×

SQL | All Rows Fetched: 5 in 0.011 seconds

	AMMOUNT	PAYMENT_ID	MODE_OF_PAYMENT	STAFF_ID	MEMBER_ID
1	4000	23564132	DEBIT CARD	104	1
2	2000	23564134	PAYTM	102	3
3	3000	23564131	GPAY	105	6
4	5000	23564135	DEBIT CARD	103	2
5	1000	23564136	PHONE PE	101	7

```
CREATE TABLE INSTRUCTOR
(
INSTRUCTOR_ID INT PRIMARY KEY,
CONTACT INT,
SALARY INT,
ADDRESS VARCHAR(20),
NAMES VARCHAR(200),
STAFF_ID INT,

FOREIGN KEY(STAFF_ID) REFERENCES STAFF(STAFF_ID)
)
```

```
INSERT INTO INSTRUCTOR VALUES(1001, 9536756324, 10000, 'Warangal',
'Rohit',101);
```

```
INSERT INTO INSTRUCTOR VALUES(1002, 8536756324, 14000, 'Jaipur',
'Vivek',103);
INSERT INTO INSTRUCTOR VALUES(1003, 9787563672, 13000, 'Jaipur',
'Arjun',102);
INSERT INTO INSTRUCTOR VALUES(1004, 9747587438, 20000, 'Nadbai',
'Johny',103);
```

Script Output × Query Result ×

SQL | All Rows Fetched: 4 in 0.006 seconds

	INSTRUCTOR_ID	CONTACT	SALARY	ADDRESS	NAMES	STAFF_ID
1	1001	9536756324	10000	Warangal	Rohit	101
2	1002	8536756324	14000	Jaipur	Vivek	103
3	1003	9787563672	13000	Jaipur	Arjun	102
4	1004	9747587438	20000	Nadbai	Johny	103

```
CREATE TABLE EQUIPMENT
(
E_NAME VARCHAR(20),
E_USED_FOR VARCHAR(20),
E_MODELNO INT PRIMARY KEY,
INSTRUCTOR_ID INT,

FOREIGN KEY(INSTRUCTOR_ID) REFERENCES INSTRUCTOR(INSTRUCTOR_ID)
)
```

```
INSERT INTO EQUIPMENT VALUES('Trademill',    'Legs',    401,1003);
INSERT INTO EQUIPMENT VALUES('ChestPress',   'Chest',   402,1002);
INSERT INTO EQUIPMENT VALUES('LegPress',     'Legs',    403,1001);
INSERT INTO EQUIPMENT VALUES('ShoulderPress','Shoulder',404,1001);
INSERT INTO EQUIPMENT VALUES('Rod',          'Biceps',  405,1003);
```

Script Output | Query Result

SQL | All Rows Fetched: 5 in 0.005 seconds

	E_NAME	E_USED_FOR	E_MODELNO	INSTRUCTOR_ID
1	Trademill	Legs	401	1003
2	ChestPress	Chest	402	1002
3	LegPress	Legs	403	1001
4	ShoulderPress	Shoulder	404	1001
5	Rod	Biceps	405	1003

```
CREATE TABLE USES
(
MEMBER_ID INT,
E_MODELNO INT,

FOREIGN KEY(MEMBER_ID) REFERENCES MEMBER(MEMBER_ID),
FOREIGN KEY(E_MODELNO) REFERENCES EQUIPMENT(E_MODELNO)
)

INSERT INTO USES VALUES(2,404);
INSERT INTO USES VALUES(3,402);
INSERT INTO USES VALUES(1,403);
INSERT INTO USES VALUES(4,405);
INSERT INTO USES VALUES(5,401);
```

Script Output | Query Result

SQL | All Rows Fetched: 5 in 0.005 s

	MEMBER_ID	E_MODELNO
1	2	404
2	3	402
3	1	403
4	4	405
5	5	401

Since no tables contains redundancy , all tables are in normalised form

```
SELECT * FROM STAFF;
SELECT * FROM PAYMENT;
SELECT * FROM MEMBER;
SELECT * FROM MEMBERSHIP_TYPE;
SELECT * FROM DIET_PLAN;
SELECT * FROM INSTRUCTOR;
SELECT * FROM EQUIPMENT;
SELECT * FROM USES;

DROP TABLE STAFF;
DROP TABLE PAYMENT;
DROP TABLE MEMBER;
DROP TABLE MEMBERSHIP_TYPE;
DROP TABLE DIET_PLAN;
DROP TABLE INSTRUCTOR;
DROP TABLE EQUIPMENT;
DROP TABLE USES;
```