

Group work

phase 1

phase 2

phase 3

Difficulty

GYM REGISTRATION DATABASE REPORT

supervisor:

Dr.Aisha Al-siyami

Section:7

Ghadi Jameel Alkehily

441004352

Lina Khalid Alrefi

442016671

Hanan Mohammed Ali Alhaj

442017234

Ameera Fahad Alfadli

442000607

Rola Ibrahim Almogati

442006324

Rafaa Ismail Alowaybidi

442001914

Group work report

WORK	Ghadi	Lina	Hanan	Ameera	Rola	Rafaa
Bussniss Rule			✓			
chen's notation	✓	✓				
UML notation	✓			✓		
Presentation					✓	✓
Report	✓	✓	✓	✓		



Group work report

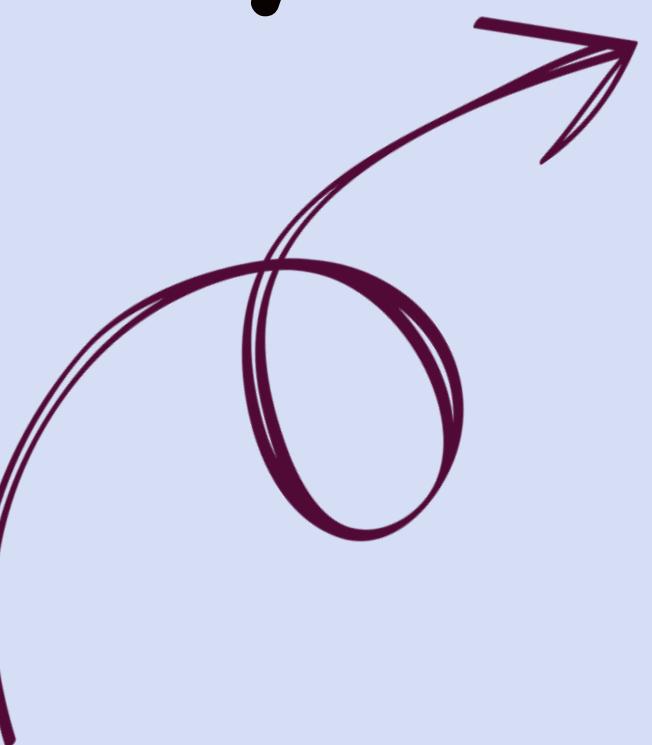
PHASE
2

WORK	Ghadi	Lina	Hanan	Ameera	Rola	Rafaa
Mapping			✓		✓	✓
Normalization	✓			✓		✓
Presentation	✓			✓		✓
Report	✓			✓		

Group work report

WORK	Ghadi	Lina	Hanan	Ameera	Rola	Rafaa
CREATE TABLE and insert	✓	✓	✓	✓	✓	✓
Update and delete	✓	✓	✓			
SELECT	✓	✓	✓	✓	✓	✓
REVIEW ALL THE WORK	✓	✓	✓			
Presentation		✓		✓		

phase 1





Business rules

In our gym, we offer PACKAGEs, and WORKOUT_PLANs.

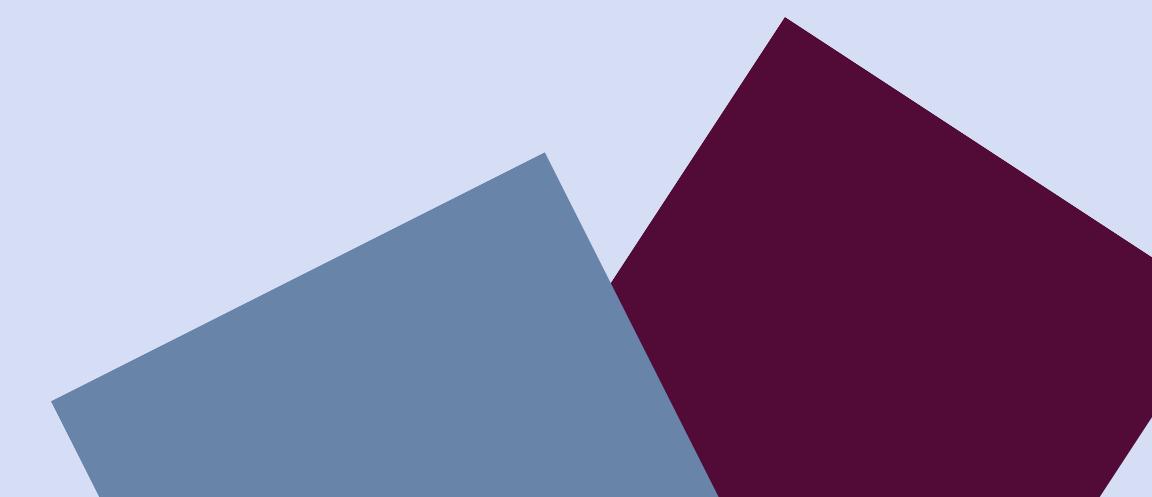
The MEMBER should register in a package.

Each member has a name (First Name and Last name), membership ID, ID number, 1-3 Phone numbers and age.

The package has a package ID, package name, period, cost, and description.

When the member registers in the package, we should store the registration date.

Also, the member can participate in a specific workout plan, which includes COACHes and CLASSEs.





Business rules

Each workout plan is assigned a plan ID, start date, end date, price and description.

Each coach has a coach ID, ID number, name (First Name and Last name), address (country, city, and street), 1-3 phone numbers and salary.

Each class has a class ID, class name and class date (Date and Time).

The gym has several BRANCHes and the member should choose one of them.

Each branch has a branch ID, offers, and address (country, city, and street).

In our gyms, there will be a place to taking care of the DEPENDENTs, who are the accompanying children of our members.

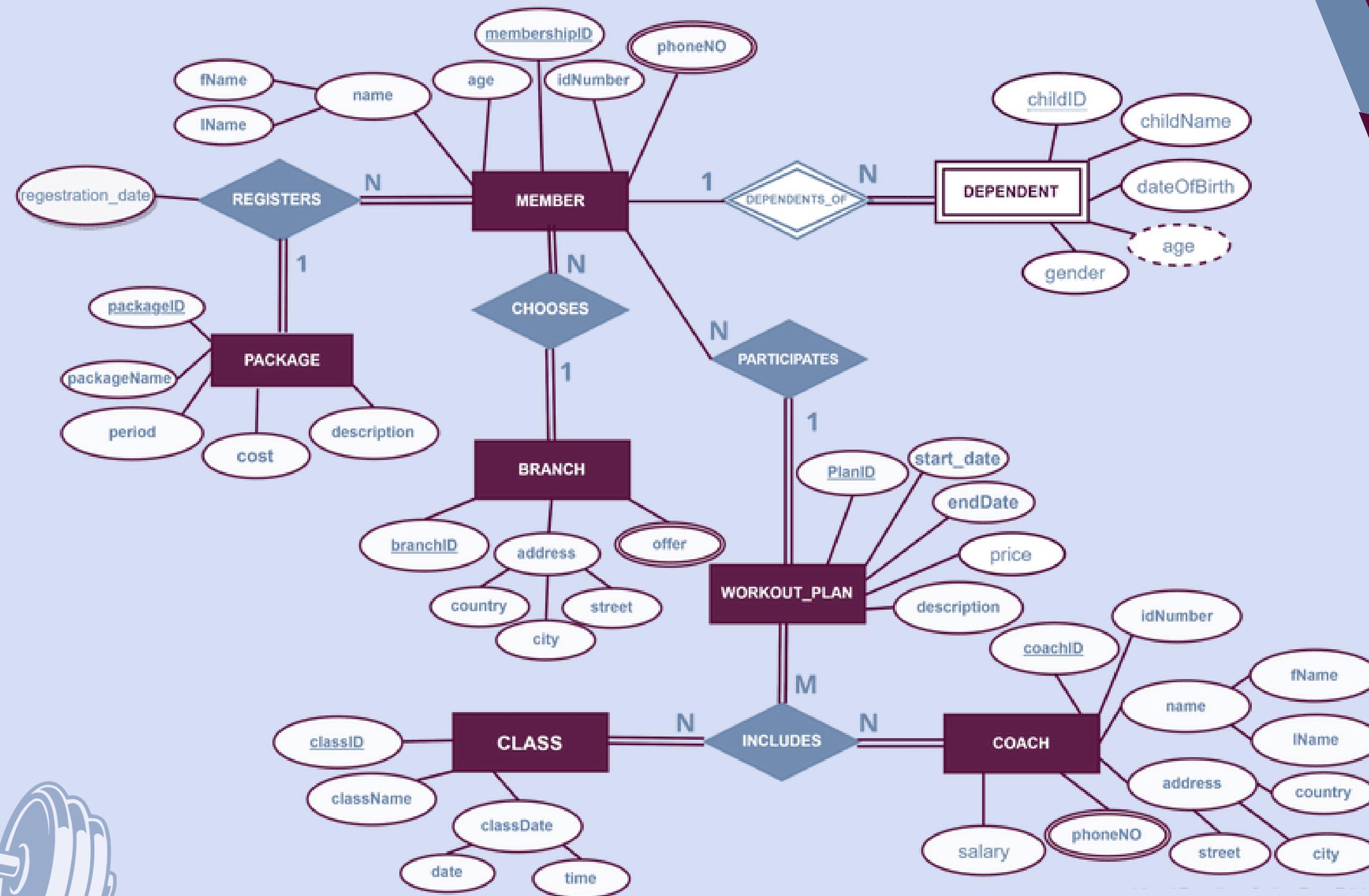
Every member may have many dependents.

Each dependent has a child ID, child name, age, date of birth and gender

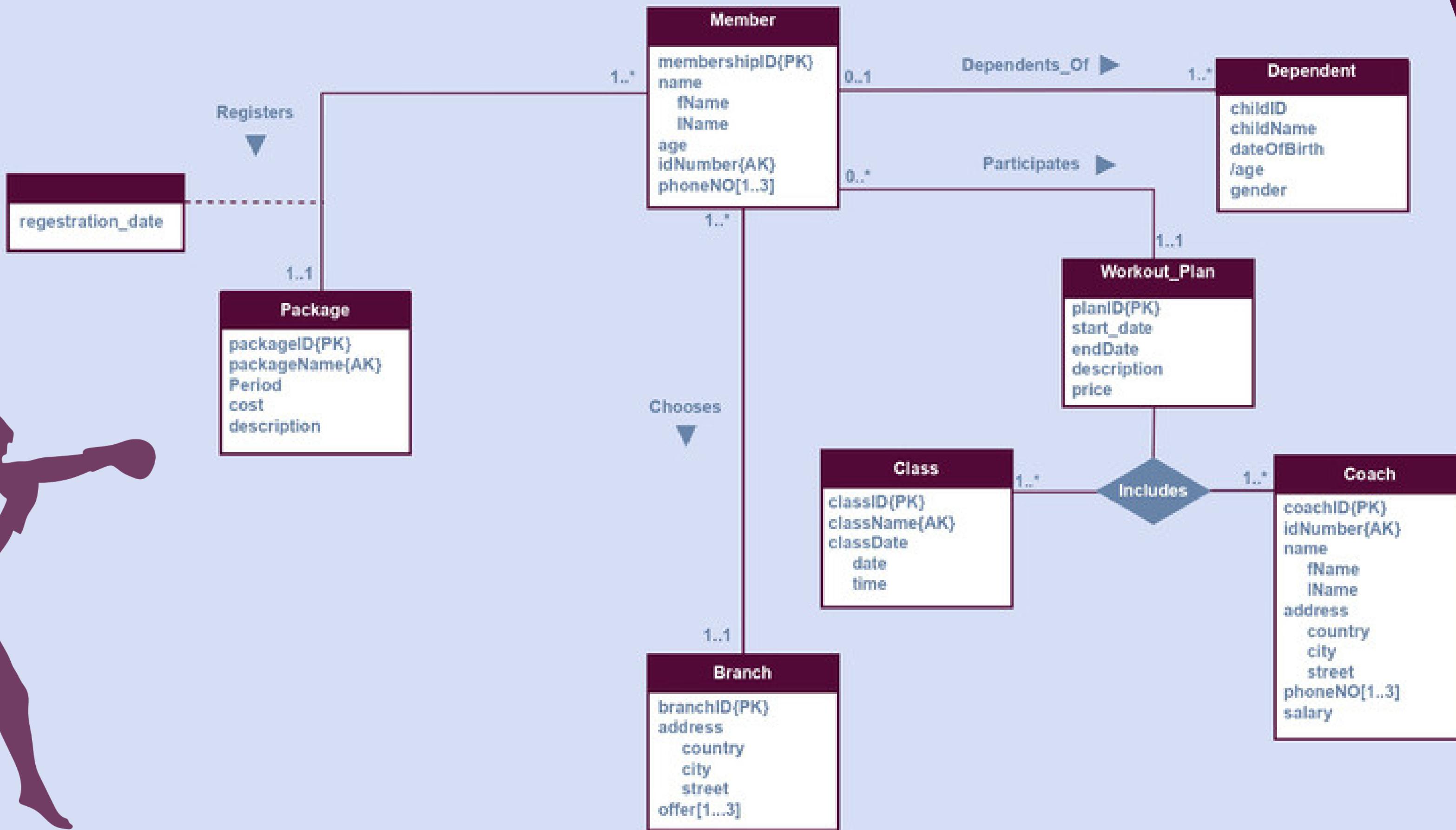
Diagrams



Chen's Notation



UML Diagram



phase 2

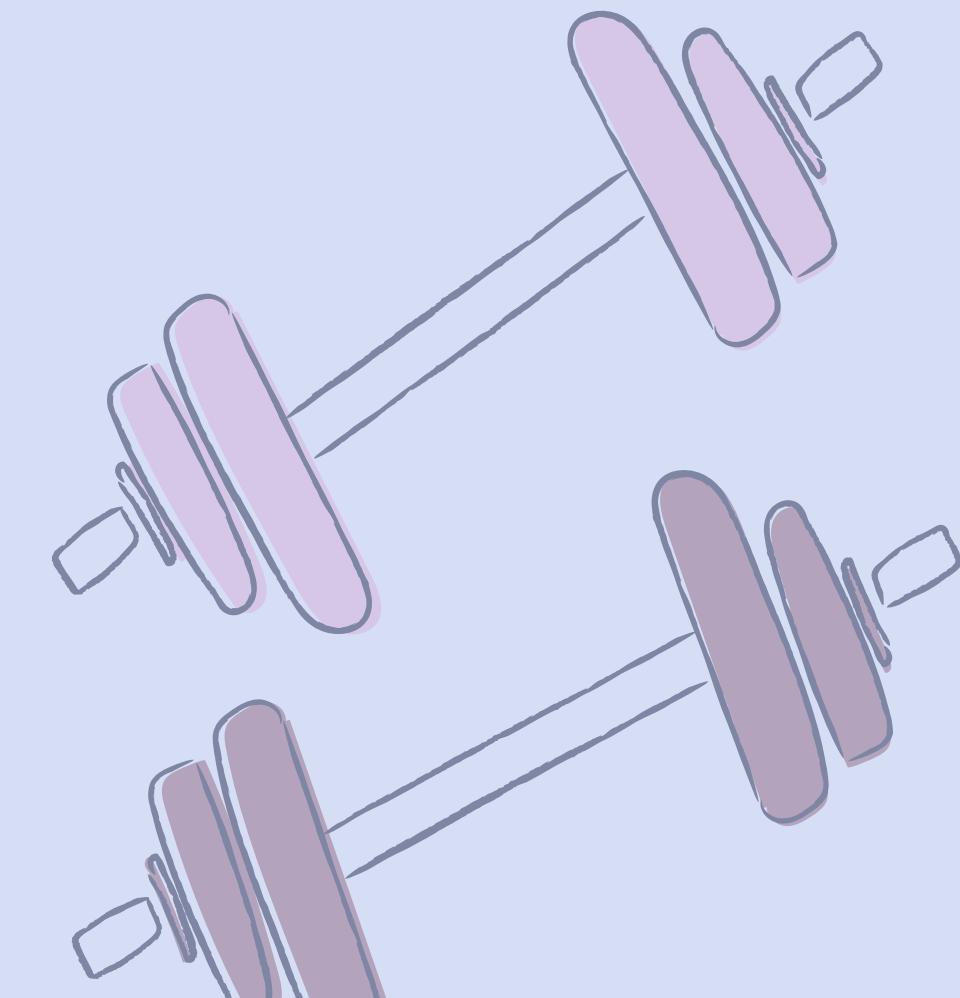


mapping





*Mapping step by
step*



Step1: Mapping of Regular Entity types

MEMBER

<u>membershipID</u>	<u>idNumber</u>	<u>fName</u>	<u>IName</u>	<u>age</u>
---------------------	-----------------	--------------	--------------	------------

PACKAGE

<u>packageID</u>	<u>packageName</u>	<u>period</u>	<u>cost</u>	<u>description</u>
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BRANCH

<u>branchID</u>	<u>country</u>	<u>city</u>	<u>street</u>
-----------------	----------------	-------------	---------------

WORKOUT_PLAN

<u>planID</u>	<u>description</u>	<u>startDate</u>	<u>endDate</u>	<u>price</u>
---------------	--------------------	------------------	----------------	--------------

COACH

<u>coachID</u>	<u>idNumber</u>	<u>fName</u>	<u>IName</u>	<u>country</u>	<u>city</u>	<u>street</u>	<u>salary</u>
----------------	-----------------	--------------	--------------	----------------	-------------	---------------	---------------

CLASS

<u>classID</u>	<u>className</u>	<u>date</u>	<u>time</u>
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Step2 : Mapping of Week Entity Types

DEPENDENT

<u>childID</u>	childName	dateOfBirth	gender	<u>membershipID</u>
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Step3 : Mapping of 1:1 Relationship Types

None.

Step4 : Mapping of Binary 1:N

MEMBER

<u>membershipID</u>	<u>idNumber</u>	fName	lName	age	packageID	registrationDate
---------------------	-----------------	-------	-------	-----	-----------	------------------

MEMBER

<u>membershipID</u>	<u>idNumber</u>	fName	lName	age	packageID	registrationDate	branchID
---------------------	-----------------	-------	-------	-----	-----------	------------------	----------

MEMBER

<u>membershipID</u>	<u>idNumber</u>	fName	lName	age	packageID	registrationDate	branchID	planID
---------------------	-----------------	-------	-------	-----	-----------	------------------	----------	--------



Step 5: Mapping of Binary M:N Relationship Types **None.**

Step 6: Mapping of Multivalued Attributes

member_phoneNO

<u>membershipID</u>	<u>phoneNO</u>
---------------------	----------------

branch_offer

<u>branchID</u>	<u>offer</u>
-----------------	--------------

coach_phoneNo

<u>coachID</u>	<u>phoneNO</u>
----------------	----------------

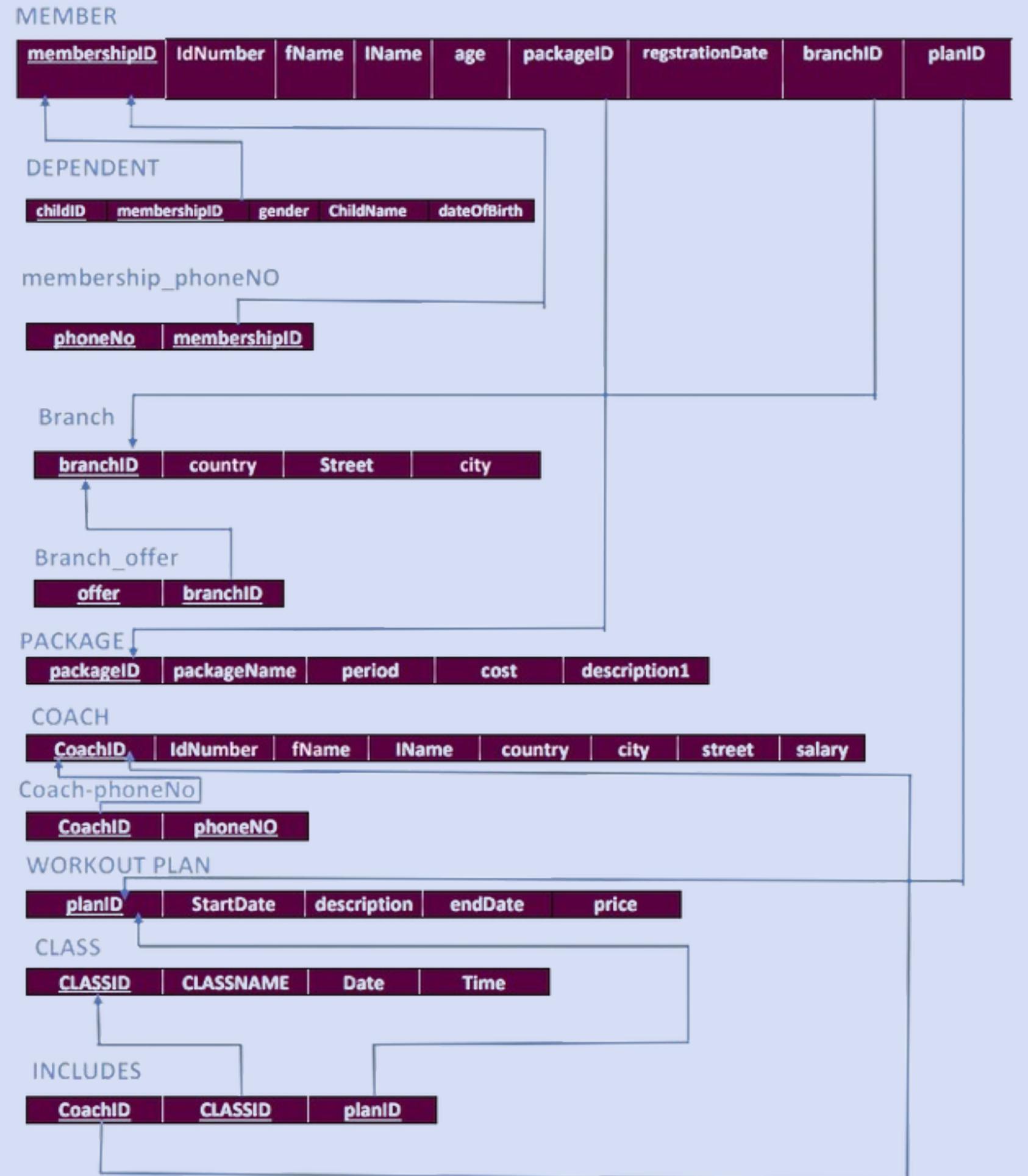
Step 7: Mapping of Nary Relationship Types

INCLUDES

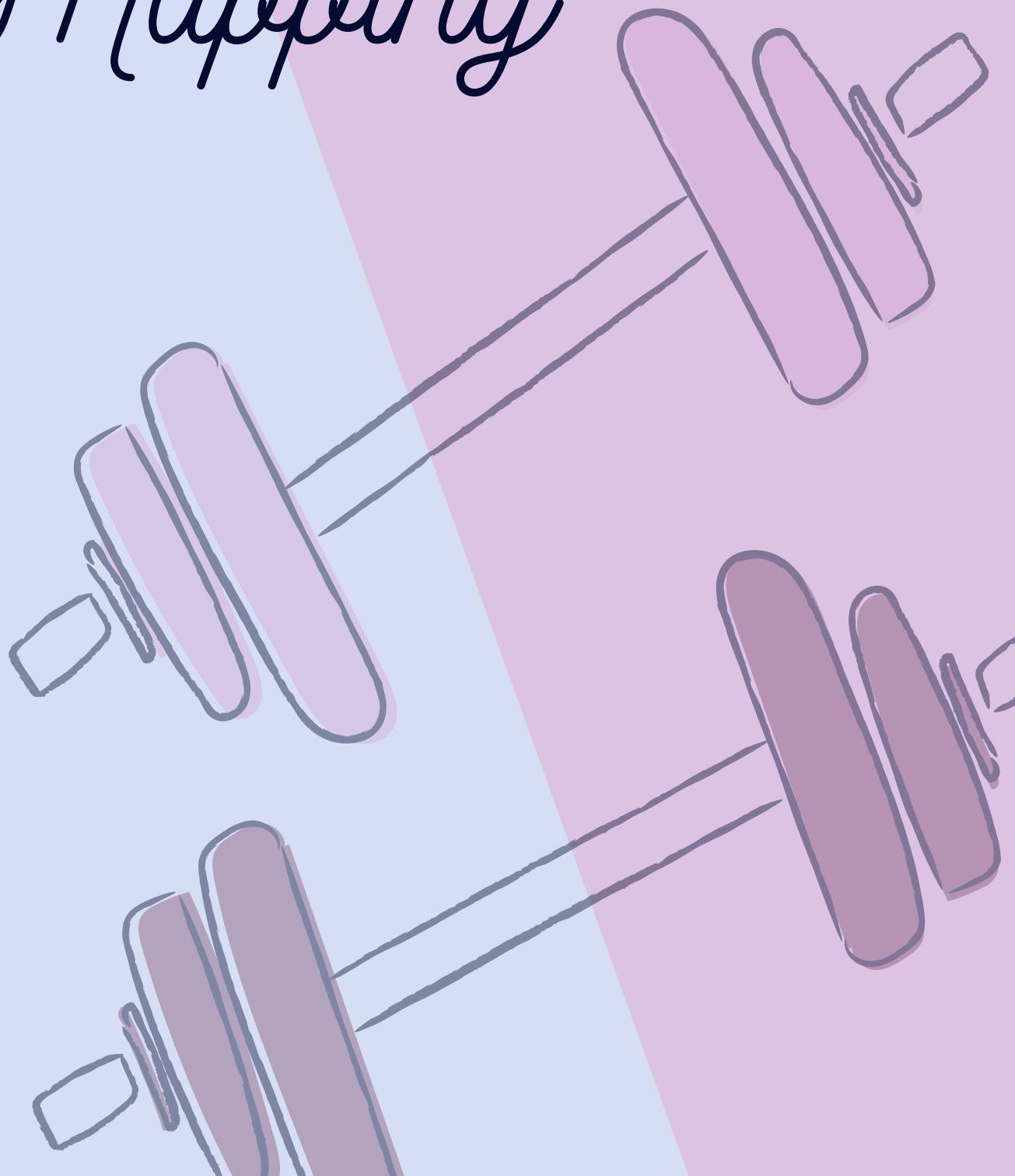
<u>planID</u>	<u>coachID</u>	<u>classID</u>
---------------	----------------	----------------



Final Mapping



Final Mapping



Normalization



MEMBER

<u>membershipID</u>	idNumber	fName	IName	age	packageID	registrationDate	branchID	planID

No multivalued attribute was found therefor the table in 1NF

There is no partial dependency therefor the table in 2NF

There is no transitive dependency therefor the table in 3NF

DEPENDENT

<u>childID</u>	childName	dateOfBirth	gender	<u>membershipID</u>

No multivalued attributes was found therefore the table in the 1NF

There is no partial dependency therefore the table in the 2NF

There is no transitive dependency therefor the table in the 3NF

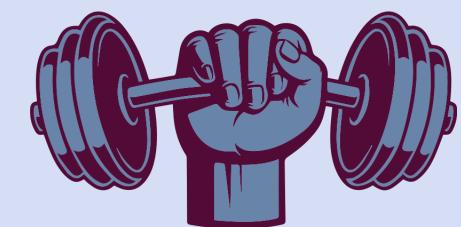
PACKAGE

packageID	packageName	period	cost	description

No multivalued attribute was found therefor the table in 1NF

There is no partial dependency therefor the table in 2NF

There is no transitive dependency therefor the table in 3NF



BRANCH

<u>branchID</u>	country	city	street
-----------------	---------	------	--------

No multivalued attribute was found therefor the table in 1NF

There is no partial dependency therefor the table in 2NF

There is no transitive dependency therefor the table in 3NF

WORKOUT_PLAN

<u>planID</u>	StartDate	endDate	description	price
---------------	-----------	---------	-------------	-------

No multivalued attribute was found therefor the table in 1NF

There is no partial dependency therefor the table in 2NF

There is no transitive dependency therefor the table in 3NF

COACH

<u>coachID</u>	idNumber	fName	lName	country	city	street	salary
----------------	----------	-------	-------	---------	------	--------	--------

No multivalued attributes was found therefore the table in the 1NF

There is no partial dependency therefore the table in the 2NF

There is no transitive dependency therefor the table in the 3NF



CLASS

<u>classID</u>	className	date	time

No multivalued attributes was found therefore the table in the 1NF

There is no partial dependency therefore the table in the 2NF

There is no transitive dependency therefor the table in the 3NF

INCLUDES

<u>CoachID</u>	<u>classID</u>	planID

No multivalued attribute was found therefor the table in 1NF

There is no partial dependency therefor the table in 2NF

There is no transitive dependency therefor the table in 3NF

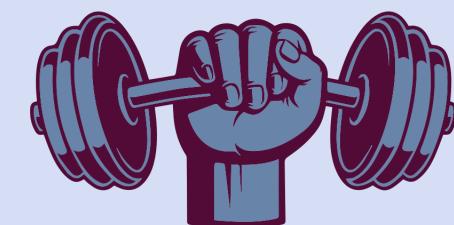
member_phoneNO

<u>membershipID</u>	phoneNO

No multivalued attributes was found therefore the table in the 1NF

There is no partial dependency therefore the table in the 2NF

There is no transitive dependency therefor the table in the 3NF



branch_offer

<u>branchID</u>	<u>offer</u>

No multivalued attributes was found therefore the table in the 1NF

There is no partial dependency therefore the table in the 2NF

There is no transitive dependency therefor the table in the 3NF

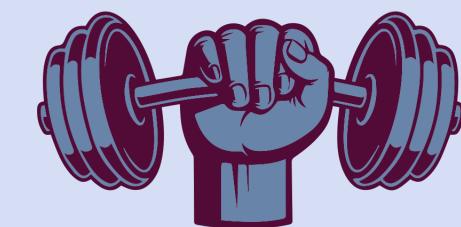
coach_phoneNO

<u>coachID</u>	<u>phoneNO</u>

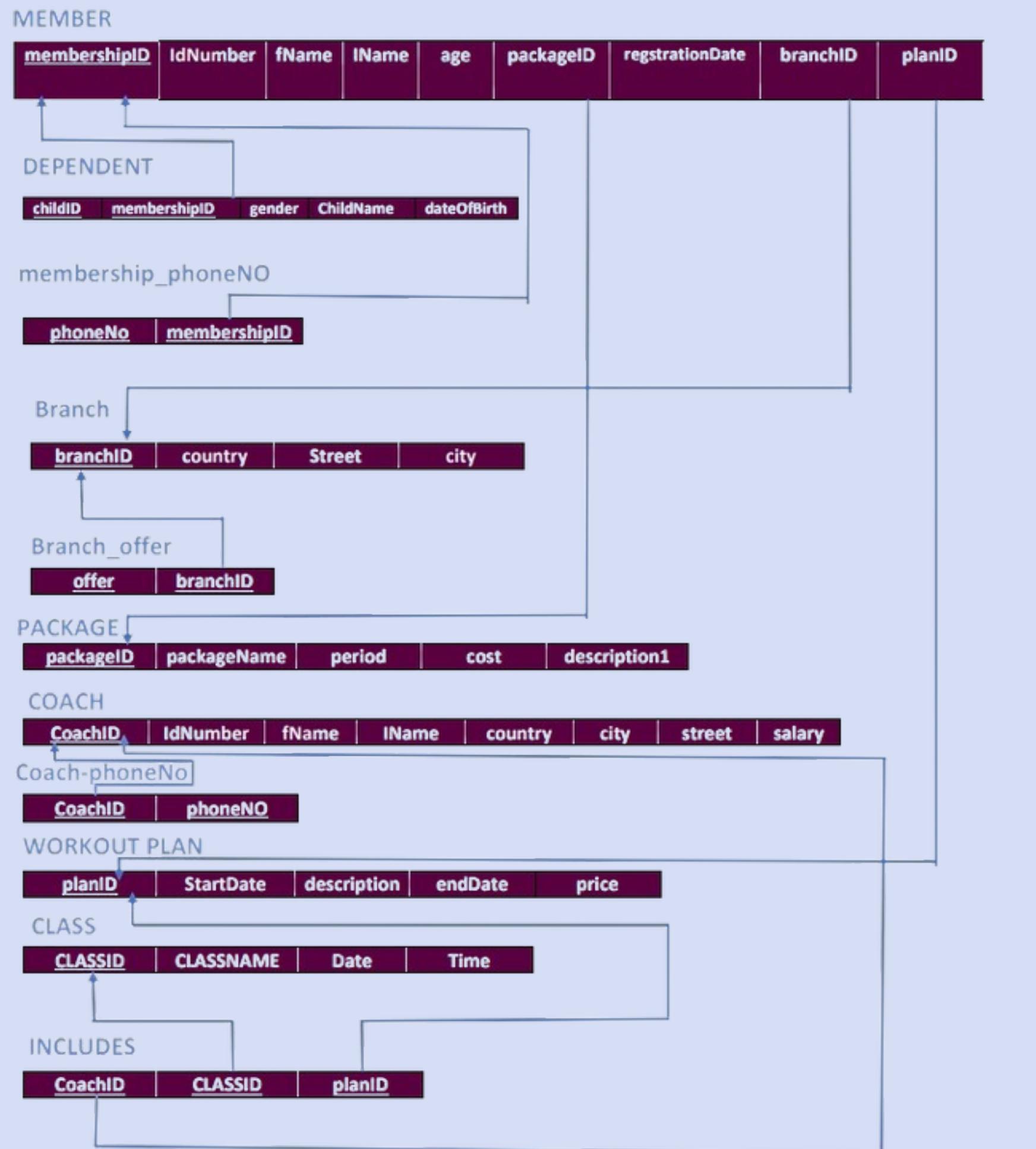
No multivalued attributes was found therefore the table in the 1NF

There is no partial dependency therefore the table in the 2NF

There is no transitive dependency therefor the table in the 3NF

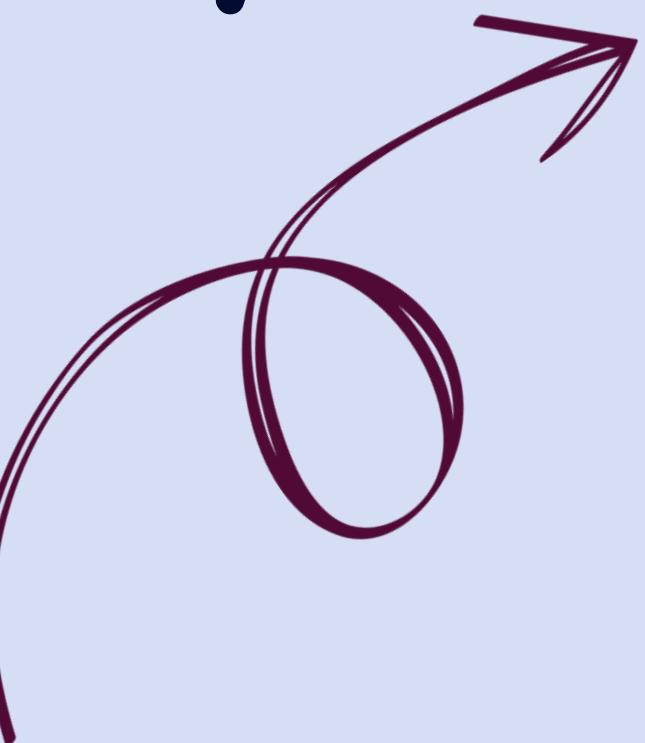


Final Mapping

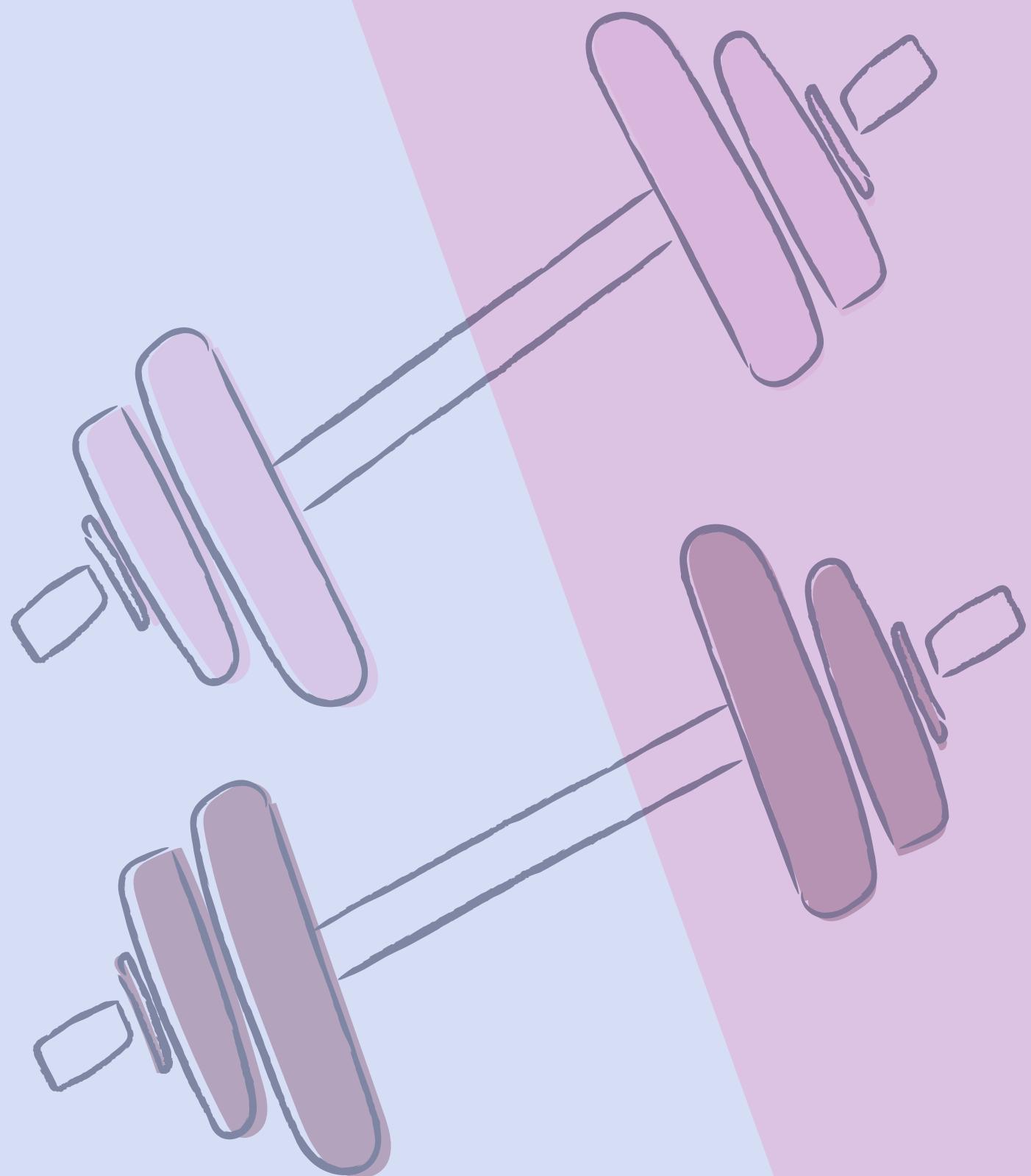


Final Mapping after Normalization

phase 3



In your MySQL Workbench create the project database/schema using **CREATE SCHEMA**, and create the schema tables using **CREATE TABLE**.



In your MySQL Workbench create the project database/schema using **CREATE SCHEMA**, and create the schema tables using **CREATE TABLE**.

Table: includes

Columns:

coachID	varchar(6) PK
planID	varchar(6) PK
classID	varchar(6) PK

Table: member_phoneno

Columns:

membershipID	varchar(6) PK
phoneNO	char(10) PK

Table: member1

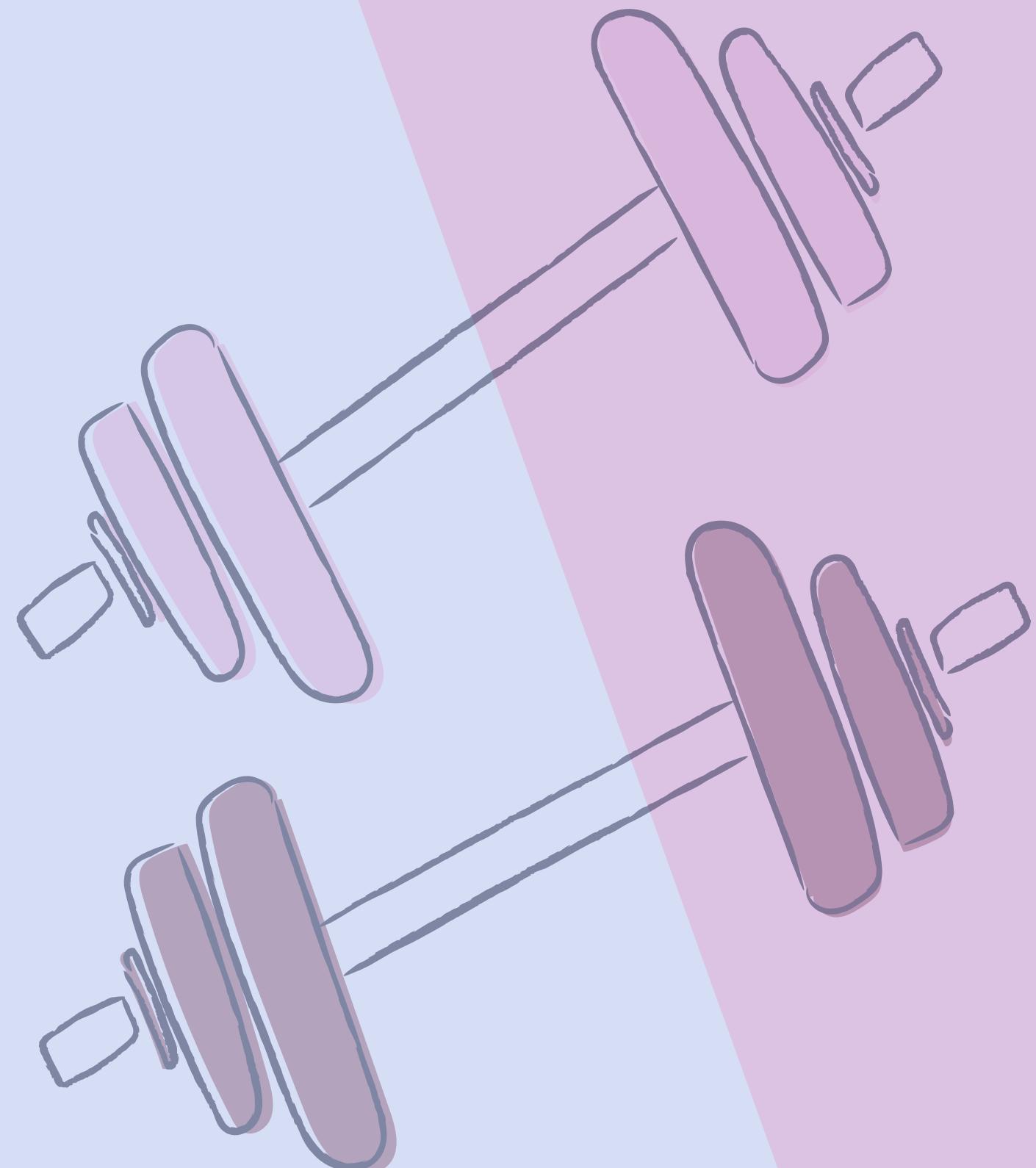
Columns:

membershipID	varchar(6) PK
idNumber	char(10)
fName	varchar(20)
lName	varchar(20)
age	int
registrationDate	date
packageID	char(4)
branchID	char(4)
planID	char(6)

Table: dependent

Columns:

childID	varchar(6) PK
membershipID	varchar(6) PK
childName	varchar(30)
dateOfBirth	date
gender	char(1)



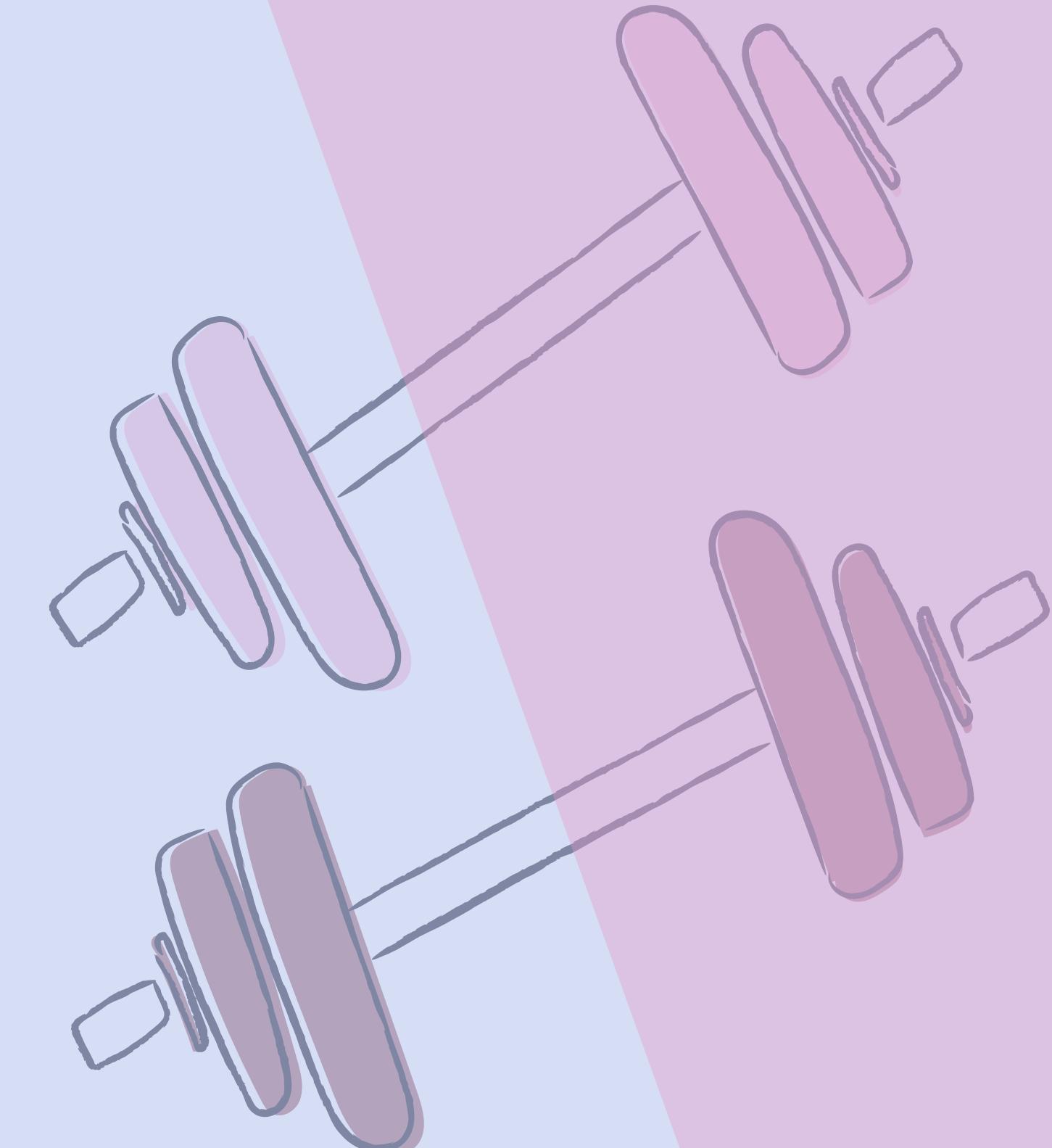
CREATE SCHEMA

```
CREATE SCHEMA gym;
```

CREATE TABLE

```
3 • CREATE TABLE branch (
4   branchID CHAR(4) NOT NULL,
5   country  VARCHAR(30),
6   city     VARCHAR(30),
7   street    VARCHAR(30),
8   CONSTRAINT branch_PK PRIMARY KEY (branchID));
9
10
11 • CREATE TABLE branch_offer (
12   branchID CHAR(4) NOT NULL,
13   offer     VARCHAR(200) NOT NULL,
14   CONSTRAINT branch_offer_PK PRIMARY KEY (branchID,offer),
15   CONSTRAINT branch_offer_FK FOREIGN KEY (branchID) REFERENCES branch(branchID) ON DELETE CASCADE ON UPDATE CASCADE );
```

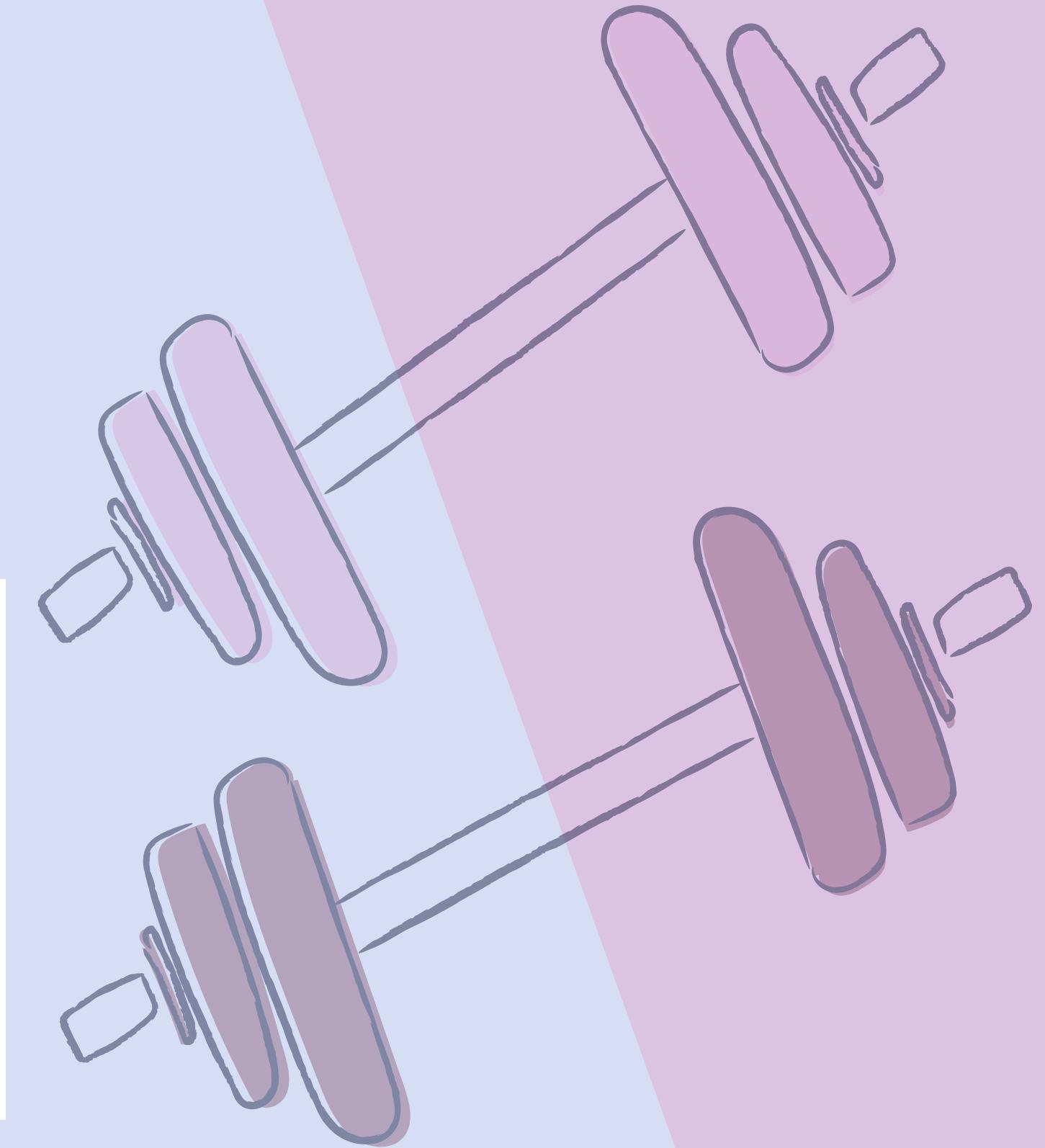
```
18 • CREATE TABLE package (
19   packageID      CHAR(4) NOT NULL ,
20   packageName    VARCHAR(10) UNIQUE,
21   periode        VARCHAR(10),
22   cost           DECIMAL(6,2),
23   description1   VARCHAR(300),
24   CONSTRAINT package_PK PRIMARY KEY(packageID));
25
26 • CREATE TABLE class (
27   classID        VARCHAR(6) NOT NULL,
28   calssName      VARCHAR(30),
29   date1          DATE ,
30   time1          VARCHAR(20),
31   CONSTRAINT class_PK PRIMARY KEY(classID));
```



CREATE TABLE

```
33 • Ⓜ CREATE TABLE workout_plan (
34     planID      VARCHAR(6) NOT NULL,
35     startDate    DATE ,
36     endDate      DATE ,
37     discription  VARCHAR(100),
38     price        DECIMAL(7,2),
39     CONSTRAINT workout_plan_PK PRIMARY KEY(planID));
40
41 • Ⓜ CREATE TABLE coach (
42     coachID     VARCHAR(6) NOT NULL,
43     idNumber    CHAR(10) UNIQUE,
44     fName       VARCHAR(20),
45     lName       VARCHAR(20),
46     country     VARCHAR(20),
47     city        VARCHAR(20),
48     street      VARCHAR(20),
49     salary      DECIMAL (7, 3),
50     CONSTRAINT coach_PK PRIMARY KEY (coachID));
```

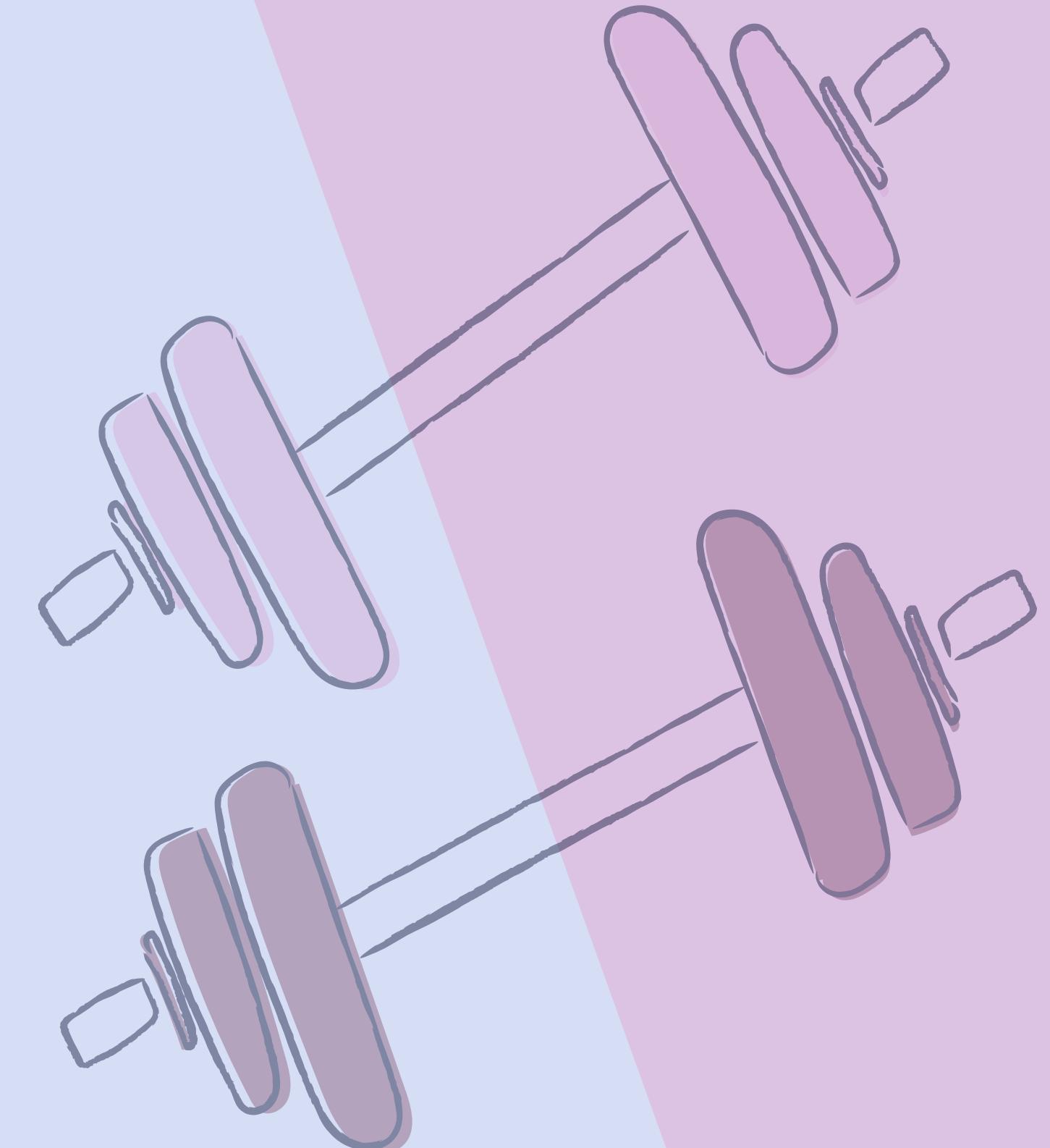
```
52 • Ⓜ CREATE TABLE coach_phoneNO (
53     coachID VARCHAR(6) NOT NULL,
54     phoneNO VARCHAR(10) NOT NULL,
55     CONSTRAINT coach_phoneNO_PK PRIMARY KEY (coachID,phoneNO),
56     CONSTRAINT coach_phoneNO_FK1 FOREIGN KEY (coachID) REFERENCES coach(coachID) ON DELETE CASCADE );
57
58 Ⓜ CREATE TABLE includes (
59     coachID VARCHAR(6) NOT NULL,
60     planID  VARCHAR(6) NOT NULL,
61     classID VARCHAR(6) NOT NULL,
62     CONSTRAINT includes_PK PRIMARY KEY (coachID, planID, classID),
63     CONSTRAINT includes_FK1 FOREIGN KEY (coachID) REFERENCES coach(coachID) ON DELETE CASCADE ON UPDATE CASCADE,
64     CONSTRAINT includes_FK2 FOREIGN KEY (planID) REFERENCES workout_plan(planID) ON DELETE CASCADE ON UPDATE CASCADE,
65     CONSTRAINT includes_FK3 FOREIGN KEY (classID ) REFERENCES class(classID ) ON DELETE CASCADE ON UPDATE CASCADE );
```



CREATE TABLE

```
67 • - CREATE TABLE member1 (
68     membershipID      VARCHAR(6) NOT NULL,
69     idNumber          CHAR(10) UNIQUE,
70     fName             VARCHAR(20),
71     lName             VARCHAR(20),
72     age               INT(2),
73     registrationDate DATE,
74     packageID         CHAR(4),
75     branchID          CHAR(4),
76     planID            CHAR(6),
77     CONSTRAINT Member1_PK PRIMARY KEY (membershipID),
78     CONSTRAINT Member1_FK1 FOREIGN KEY (packageID) REFERENCES package(packageID) ON DELETE CASCADE ON UPDATE CASCADE,
79     CONSTRAINT Member1_FK2 FOREIGN KEY (branchID) REFERENCES branch(branchID) ON DELETE SET NULL ON UPDATE CASCADE,
80     CONSTRAINT Member1_FK3 FOREIGN KEY (planID) REFERENCES workout_plan(planID) ON DELETE SET NULL ON UPDATE CASCADE);
81
82 • - CREATE TABLE member_phoneNO (
83     membershipID      VARCHAR(6) NOT NULL,
84     phoneNO           CHAR(10) NOT NULL,
85     CONSTRAINT membe_phoneNO_PK PRIMARY KEY (membershipID,phoneNO),
86     CONSTRAINT membe_phoneNO_FK FOREIGN KEY (membershipID) REFERENCES member1(membershipID) ON DELETE CASCADE );
```

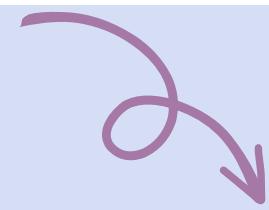
```
89 • - CREATE TABLE dependent (
90     childID           VARCHAR(6) NOT NULL,
91     membershipID      VARCHAR(6) NOT NULL,
92     childName          VARCHAR(30),
93     dateOfBirth        DATE ,
94     gender             CHAR(1) CHECK(gender IN('F','M')),
95     CONSTRAINT dependent_PK PRIMARY KEY(childID,membershipID),
96     CONSTRAINT dependent_FK1 FOREIGN KEY (membershipID) REFERENCES member1(membershipID) ON DELETE CASCADE );
```



Insert all the data using INSERT

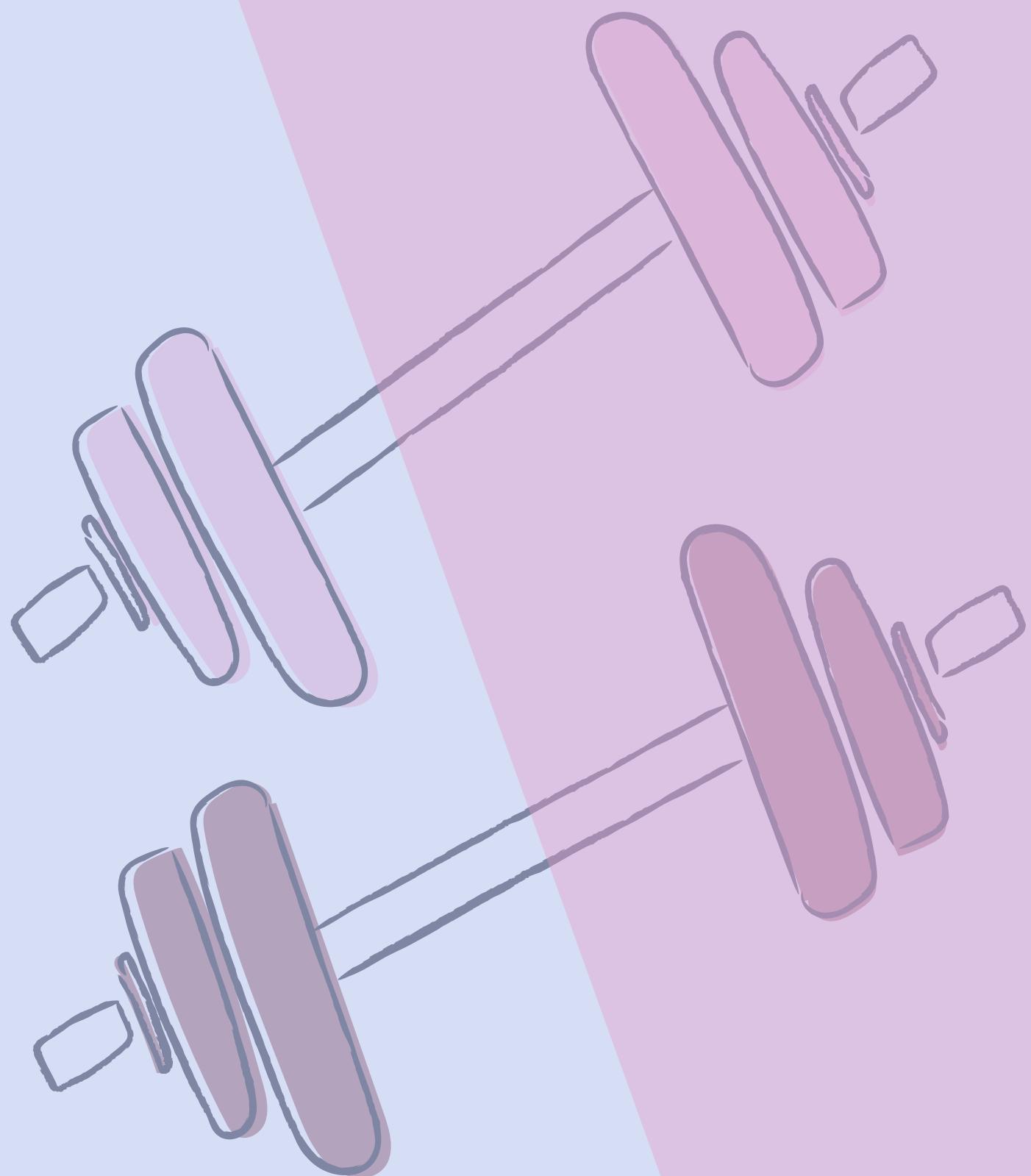
branch

```
98 •    INSERT INTO branch  
99      VALUES('MH11','Saudi Arabia','Makkah','Al-Hajj');  
100 •   INSERT INTO branch  
101     VALUES('JQ12','Saudi Arabia','Jeddah','Quraish');  
102 •   INSERT INTO branch  
103     VALUES('RO13','Saudi Arabia','Riyadh','Al-olaya');  
104 •   INSERT INTO branch  
105     VALUES('DD14' , 'Saudi Arabia','Al-Dammam','Al-dahran');  
106 •   INSERT INTO branch  
107     VALUES('KR15','Saudi Arabia','Al-Khobar','Al-Rawabi');  
108 •   INSERT INTO branch  
109     VALUES('RK16','Saudi Arabia','Riyadh','Al-Khal迪yah');  
110 •   INSERT INTO branch  
111     VALUES('Rm17','Saudi Arabia','Riyadh','Al-Hmraa');
```



Result

	branchID	country	city	street
▶	DD14	Saudi Arabia	Al-Dammam	Al-dahran
	JQ12	Saudi Arabia	Jeddah	Quraish
	KR15	Saudi Arabia	Al-Khobar	Al-Rawabi
	MH11	Saudi Arabia	Makkah	Al-Hajj
	RK16	Saudi Arabia	Riyadh	Al-Khal迪yah
	Rm17	Saudi Arabia	Riyadh	Al-Hmraa
	RO13	Saudi Arabia	Riyadh	Al-olaya
*	NULL	NULL	NULL	NULL



Insert all the data using INSERT

branch_offer

```
113 •    INSERT INTO branch_offer  
114     VALUES('MH11','Join our gym NOW and get voucher for purchase from adidas');  
115 •    INSERT INTO branch_offer  
116     VALUES('MH11','Show up Your Student ID card and get Healthy Meals for 3 months free from diet STORE');  
117 •    INSERT INTO branch_offer  
118     VALUES('JQ12','Join our gym NOW and get voucher for purchase from adidas' );  
119 •    INSERT INTO branch_offer  
120     VALUES('JQ12','6-month subscription and get Healthy Meals for 3 months free from diet STORE' );  
121 •    INSERT INTO branch_offer  
122     VALUES('RO13','Show up Your Student ID card and get Healthy Meals for 3 months free from diet STORE' );  
123 •    INSERT INTO branch_offer  
124     VALUES('RO13','Come with Your frinds and get A ticket to World Cup Qatar2022');  
125 •    INSERT INTO branch_offer  
126     VALUES('DD14','Come with 3 of your frinds and get A ticket to World Cup Qatar2022' );
```

there is a lot inserting values for offers in sql file

Result

	branchID	offer
▶	DD14	Come with 3 of your frinds and get A ticket to World Cup Qatar2022
	JQ12	6-month subscription and get Healthy Meals for 3 months free from diet STORE
	JQ12	Join our gym NOW and get voucher for purchase from adidas
	MH11	Join our gym NOW and get voucher for purchase from adidas
	MH11	Show up Your Student ID card and get Healthy Meals for 3 months free from diet STORE
	RO13	Come with Your frinds and get A ticket to World Cup Qatar2022
	RO13	Show up Your Student ID card and get Healthy Meals for 3 months free from diet STORE
*	NULL	NULL



Insert all the data using INSERT

package

```
144 * INSERT INTO package
145   VALUES('PG11','Platinum','1-month','500','Training in one class during the day and use gym equepments');
146 * INSERT INTO package
147   VALUES('PG12','Silver','3-month','1200','Training in three classes during the day and access to dance class and use gym equepments');
148 * INSERT INTO package
149   VALUES('PG13','Bronze','6-month','2000','Unlimited access to classes and access to dance class and use gym equipments and personal swimming coach');
150 * INSERT INTO package
151   VALUES('PG14','Gold','1-year','3300','Unlimited access to classes, access to dance class, use gym equepments personalized eating plan,unlimited use of massage chairs');
152 * INSERT INTO package
153   VALUES('PG15','Weekly','1-week','120','Use gym equepments');
```

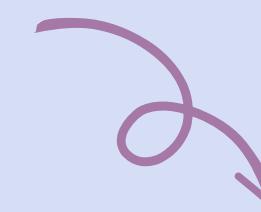
Result

	packageID	packageName	periode	cost	description1
▶	PG11	Platinum	1-month	500.00	Training in one class during the day and use gym equepments
	PG12	Silver	3-month	1200.00	Training in three classes during the day and access to dance class and use gym equepments
	PG13	Bronze	6-month	2000.00	Unlimited access to classes and access to dance class and use gym equipments and personal swimming coach
	PG14	Gold	1-year	3300.00	Unlimited access to classes, access to dance class, use gym equepments personalized eating plan,unlimited use of massage chairs and per...
●	PG15	Weekly	1-week	120.00	Use gym equepments
	NULL	NULL	NULL	NULL	NULL

Insert all the data using INSERT

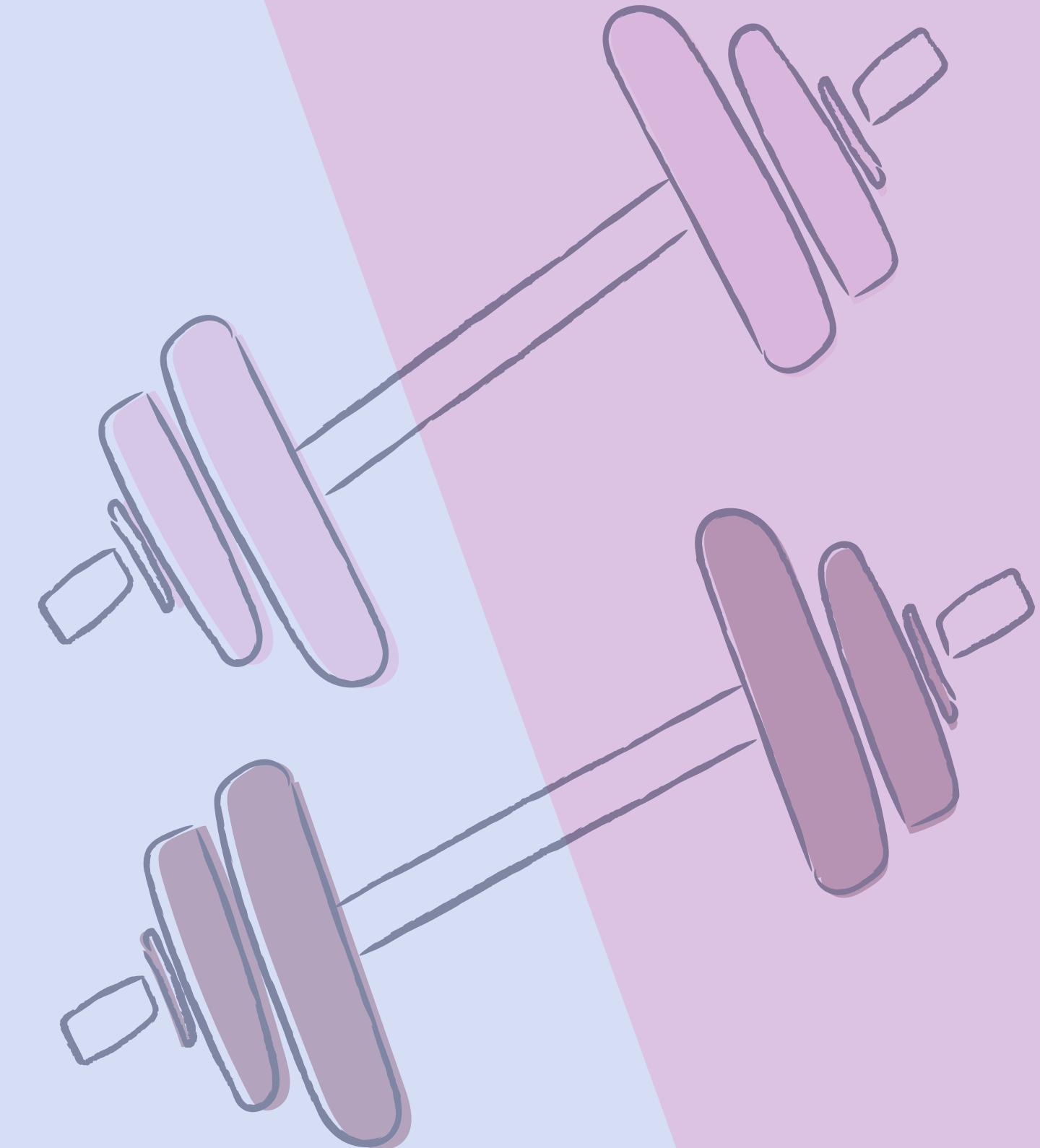
class

```
156 • INSERT INTO class  
157     VALUES ('CS601','YOGA',STR_TO_DATE('5-08-22','%d-%m-%y'),'7:30-8:00 PM');  
158 • INSERT INTO class  
159     VALUES ('CS602','CARDIO',STR_TO_DATE('12-08-22','%d-%m-%y'),'5:30-6:00 PM');  
160 • INSERT INTO class  
161     VALUES ('CS603','ZUMBA',STR_TO_DATE('17-08-22','%d-%m-%y'),'3:30-4:00 PM');  
162 • INSERT INTO class  
163     VALUES ('CS604','BODY COMBAT',STR_TO_DATE('20-08-22','%d-%m-%y'),'10:30-10:55 AM');  
164 • INSERT INTO class  
165     VALUES ('CS605','BODY BALANCE',STR_TO_DATE('27-08-22','%d-%m-%y'),'12:15-1:00 PM');
```



Result

	classID	calssName	date1	time1
▶	CS601	YOGA	2022-08-05	7:30-8:00 PM
	CS602	CARDIO	2022-08-12	5:30-6:00 PM
	CS603	ZUMBA	2022-08-17	3:30-4:00 PM
	CS604	BODY COMBAT	2022-08-20	10:30-10:55 AM
	CS605	BODY BALANCE	2022-08-27	12:15-1:00 PM
●	NULL	NULL	NULL	NULL



Insert all the data using INSERT

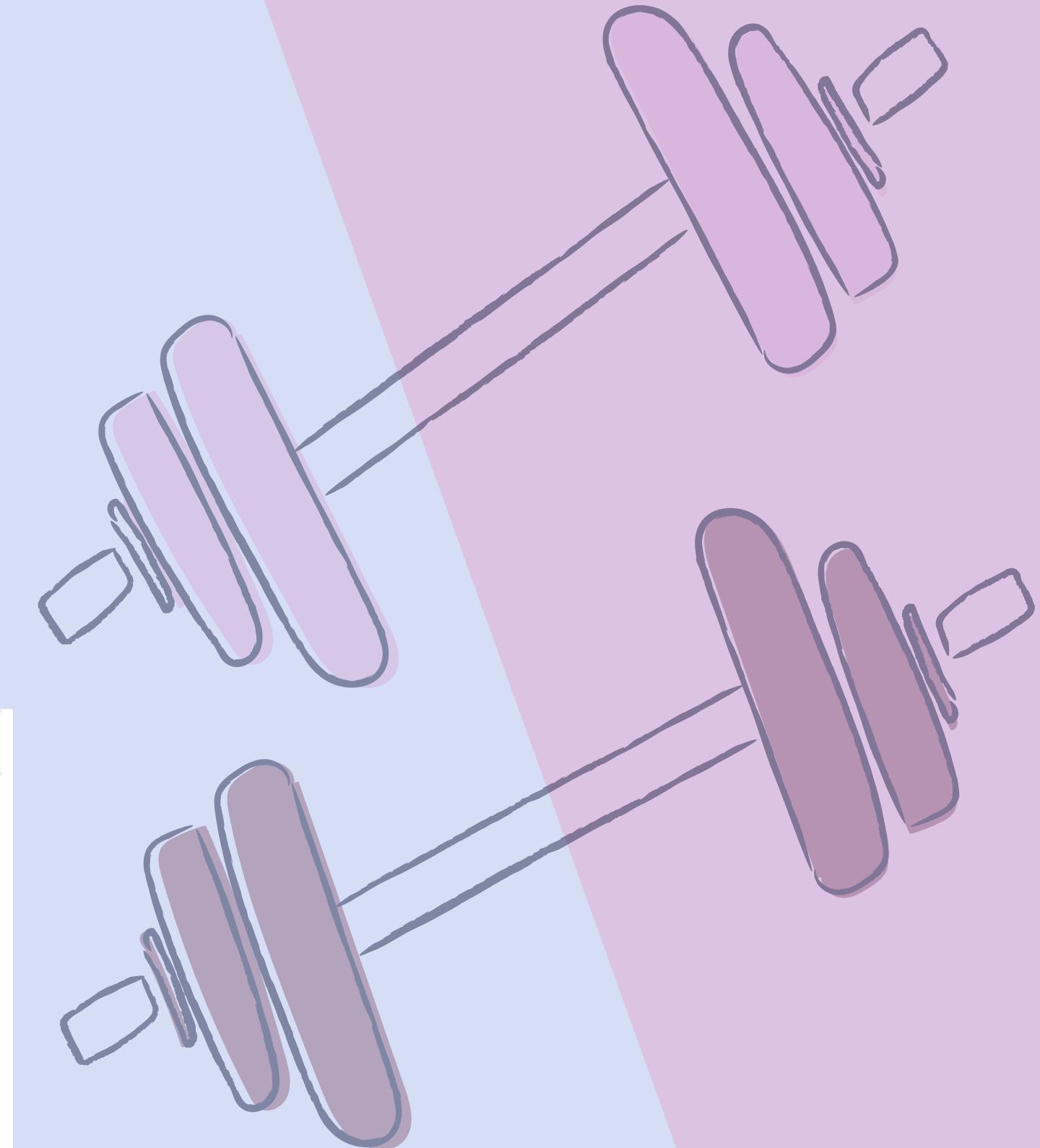
workout_plan

```
167 • INSERT INTO workout_plan  
168     VALUES ('LW319',STR_TO_DATE('5-11-2022','%d-%m-%Y'),STR_TO_DATE('4-07-2022','%d-%m-%Y'),'Lose weight', 180.50);  
169 • INSERT INTO workout_plan  
170     VALUES ('GMM571',STR_TO_DATE('15-11-2022','%d-%m-%Y'),STR_TO_DATE('15-1-2023','%d-%m-%Y'),'Gain muscle mass', 200.99);  
171 • INSERT INTO workout_plan  
172     VALUES ('GS681',STR_TO_DATE('6-11-2022','%d-%m-%Y'),STR_TO_DATE('6-02-2023','%d-%m-%Y'),'Get Shredded', 299.00);  
173 • INSERT INTO workout_plan  
174     VALUES ('WF111',STR_TO_DATE('10-10-2022','%d-%m-%Y'),STR_TO_DATE('10-04-2023','%d-%m-%Y'),'Weight fixing', 120.00);  
175 • INSERT INTO workout_plan  
176     VALUES ('LS481',STR_TO_DATE('4-09-2022','%d-%m-%Y'),STR_TO_DATE('4-11-2022','%d-%m-%Y'),'Learnning to swim', 90.00);  
177 • INSERT INTO workout_plan  
178     VALUES ('LS690',STR_TO_DATE('4-08-2022','%d-%m-%Y'),STR_TO_DATE('4-01-2022','%d-%m-%Y'),'Lose weight', 150.00);
```

there is a lot inserting values for workout_plans in sql file

Result

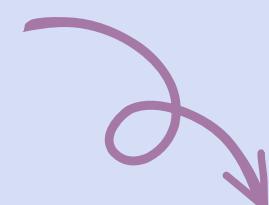
	planID	startDate	endDate	discription	price
▶	GMM571	2022-11-15	2023-01-15	Gain muscle mass	200.99
	GS681	2022-11-06	2023-02-06	Get Shredded	299.00
	LS481	2022-09-04	2022-11-04	Learnning to swim	90.00
	LS690	2022-08-04	2022-01-04	Lose weight	150.00
	LW319	2022-11-05	2022-07-04	Lose weight	180.50
	WF111	2022-10-10	2023-04-10	Weight fixing	120.00
*	HULL	HULL	HULL	HULL	HULL



Insert all the data using INSERT

coach

```
190 • INSERT INTO coach
191     VALUES ('C101','1124573836','Maram','Alrasheed','Saudi Arabia','Makkah','Al-Shawgiyah',2500.00);
192 • INSERT INTO coach
193     VALUES ('C102','1023858564','Sara','Alharbi','Saudi Arabia','Jeddah','Hiraa',2500.00);
194 • INSERT INTO coach
195     VALUES ('C103','1118593052','Ahlam','Alshreef','Saudi Arabia','Riyadh','Al-Rashid',3000.00);
196 • INSERT INTO coach
197     VALUES ('C104','1485920492','Raghad','Aljohani','Saudi Arabia','Al-Khobar','Al-Tahliya',2000.00)
198 • INSERT INTO coach
199     VALUES ('C105','1749647659','Samar','Alahmadi','Saudi Arabia','Al-Dammam','Al-dahran',3500.00);
```



Result

Insert all the data using INSERT

coach_phoneNo

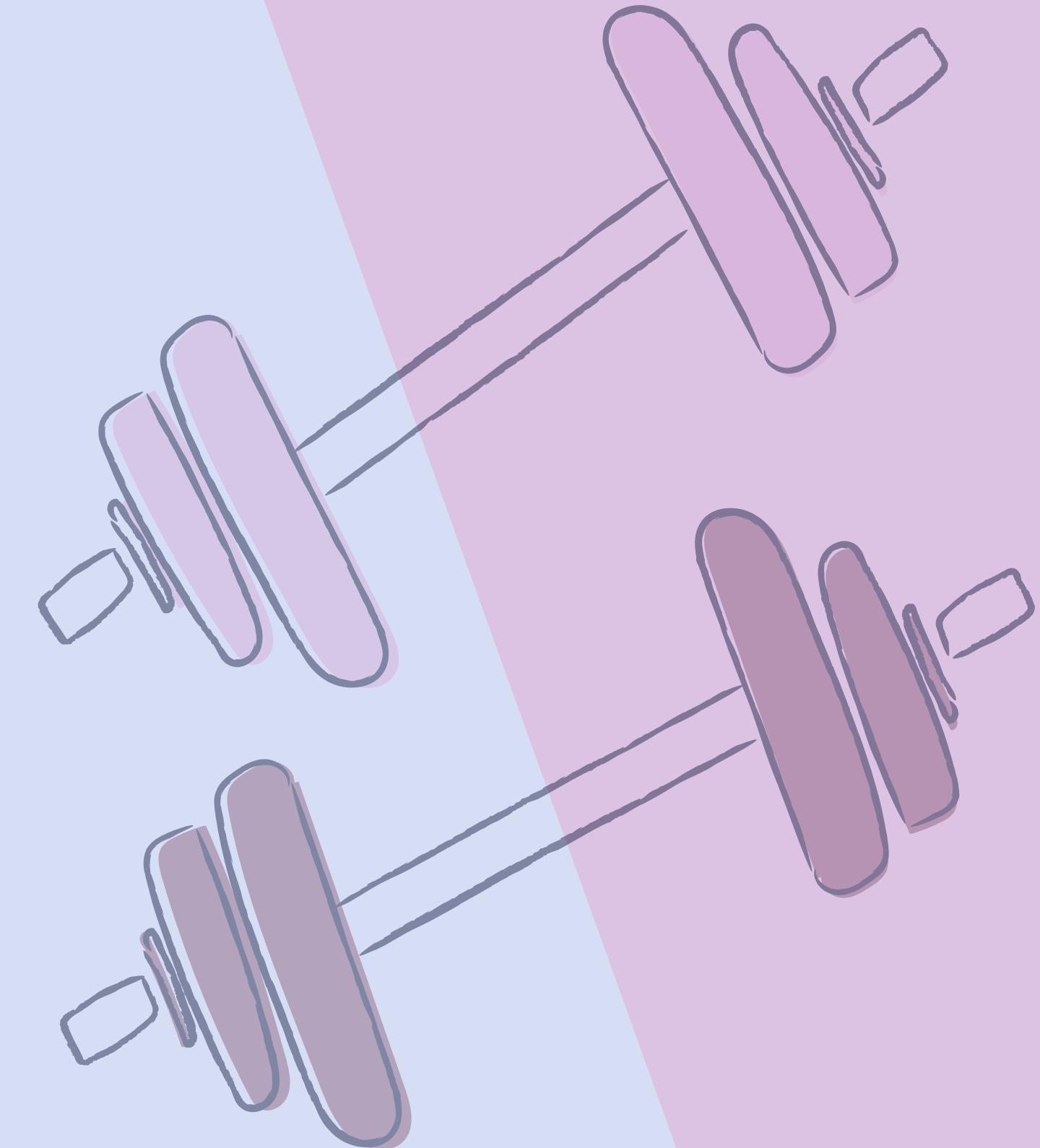


Result

```
201 •     INSERT INTO coach_phoneNO  
202     VALUES ('C101','0567774623');  
203 •     INSERT INTO coach_phoneNO  
204     VALUES ('C101','0563425493');  
205 •     INSERT INTO coach_phoneNO  
206     VALUES ('C101','0564525420');  
207 •     INSERT INTO coach_phoneNO  
208     VALUES ('C102','0574535382');  
209 •     INSERT INTO coach_phoneNO  
210     VALUES ('C102','0573425662');  
211 •     INSERT INTO coach_phoneNO  
212     VALUES ('C103','0567639832');  
213 •     INSERT INTO coach_phoneNO  
214     VALUES ('C103','0564328739');  
215 •     INSERT INTO coach_phoneNO  
216     VALUES ('C104','0574373185');  
217 •     INSERT INTO coach_phoneNO  
218     VALUES ('C105','0594537639');
```

	coachID	phoneNO
▶	C101	0563425493
	C101	0564525420
	C101	0567774623
	C102	0573425662
	C102	0574535382
	C103	0564328739
	C103	0567639832
	C104	0574373185
	C105	0594537639
	NULL	NULL

there is a lot inserting values for coach_phoneNo in sql file



Insert all the data using INSERT

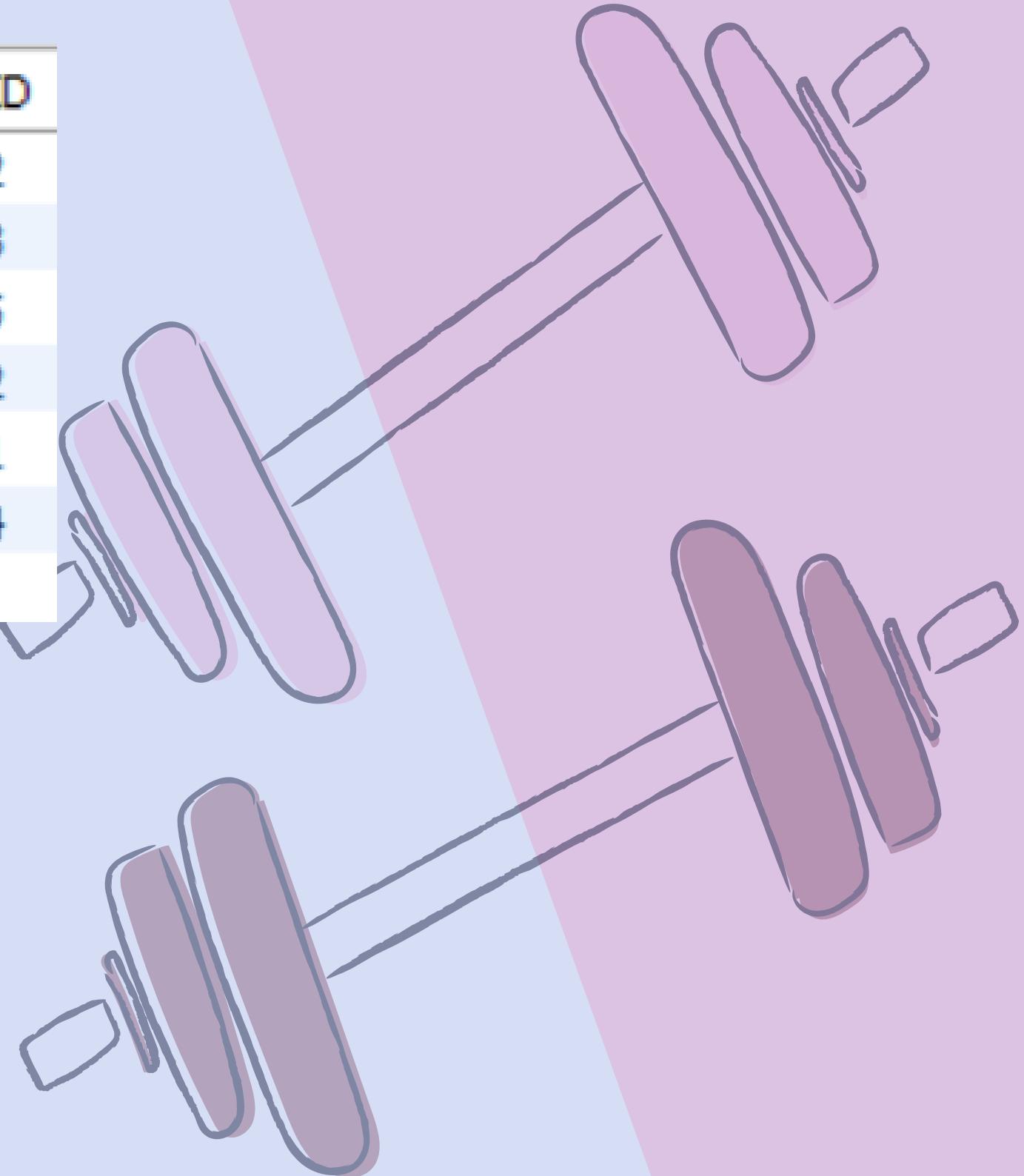
includes

```
359 • INSERT INTO includes  
360     VALUES ('C101','LW319','CS601');  
361 • INSERT INTO includes  
362     VALUES ('C102','GMM571','CS602');  
363 • INSERT INTO includes  
364     VALUES ('C103','GS681','CS603');  
365 • INSERT INTO includes  
366     VALUES ('C104','WF111','CS604');  
367 • INSERT INTO includes  
368     VALUES('C105','LS481','CS605');  
369 • INSERT INTO includes  
370     VALUES('C101','LS690','CS602');  
371 • INSERT INTO includes  
372     VALUES('C103','MA990','CS604');  
373 • INSERT INTO includes  
374     VALUES ('C101','RW571','CS601');  
375 • INSERT INTO includes  
376     VALUES ('C102','LK681','CS602');  
377 • INSERT INTO includes  
378     VALUES ('C103','QD111','CS603');
```



Result

	coachID	planID	classID
▶	C102	GMM571	CS602
	C103	GS681	CS603
	C105	LS481	CS605
	C101	LS690	CS602
	C101	LW319	CS601
	C104	WF111	CS604
✖	NULL	NULL	NULL



Insert all the data using INSERT

```
221 • INSERT INTO member1
222     VALUES('101M','1114573836','Norah','Alhazmi',18,STR_TO_DATE('5-Nov-2022','%d-%b-%Y'),'PG11','MH11','LW319');
223 • INSERT INTO member1
224     VALUES('102M','1123858564','Lina','Aljhani',30,STR_TO_DATE('1-Nov-2022','%d-%b-%Y'),'PG12','JQ12','GMM571');
225 • INSERT INTO member1
226     VALUES ('103M','1111593052','Samia','Alharbi',22,STR_TO_DATE('22-Sep-2021','%d-%b-%Y'),'PG13','R013','GS681');
227 • INSERT INTO member1
228     VALUES ('104M','1485420492','Raghad','Alshrif',19,STR_TO_DATE('14-Aug-2022','%d-%b-%Y'),'PG14','DD14','WF111' )
229 • INSERT INTO member1
230     VALUES ('105M','474964769','Ghaida','Katfi',23,STR_TO_DATE('1-Aug-2022','%d-%b-%Y'),'PG15','KR15',NULL);
231 • INSERT INTO member1
232     VALUES ('109M','8664893249','Reem','Alharbi',19,STR_TO_DATE('4-Aug-2022','%d-%b-%Y'),'PG13','MH11','LS690');
233 • INSERT INTO member1
234     VALUES ('110M','5634588566','Soha','AlOTABI',24,STR_TO_DATE('7-NOV-2023','%d-%b-%Y'),'PG11','Rm17','MA990');
235 • INSERT INTO member1
236     VALUES ('111M','8634598543','Rana','Althbiti',25,STR_TO_DATE('8-AUG-2023','%d-%b-%Y'),'PG12','MH11','WL678');
237 • INSERT INTO member1
238     VALUES ('112M','5789576465','Wafa','Althagafi',20,STR_TO_DATE('9-Oct-2023','%d-%b-%Y'),'PG14','R013',NULL);
239 • INSERT INTO member1
240     VALUES ('113M','863679356','Rwan','Althbiti',21,STR_TO_DATE('12-NOV-2023','%d-%b-%Y'),'PG13','JQ12',NULL);
```

there is a lot inserting values for members in sql file

Result

Insert all the data using INSERT

member_phoneNO

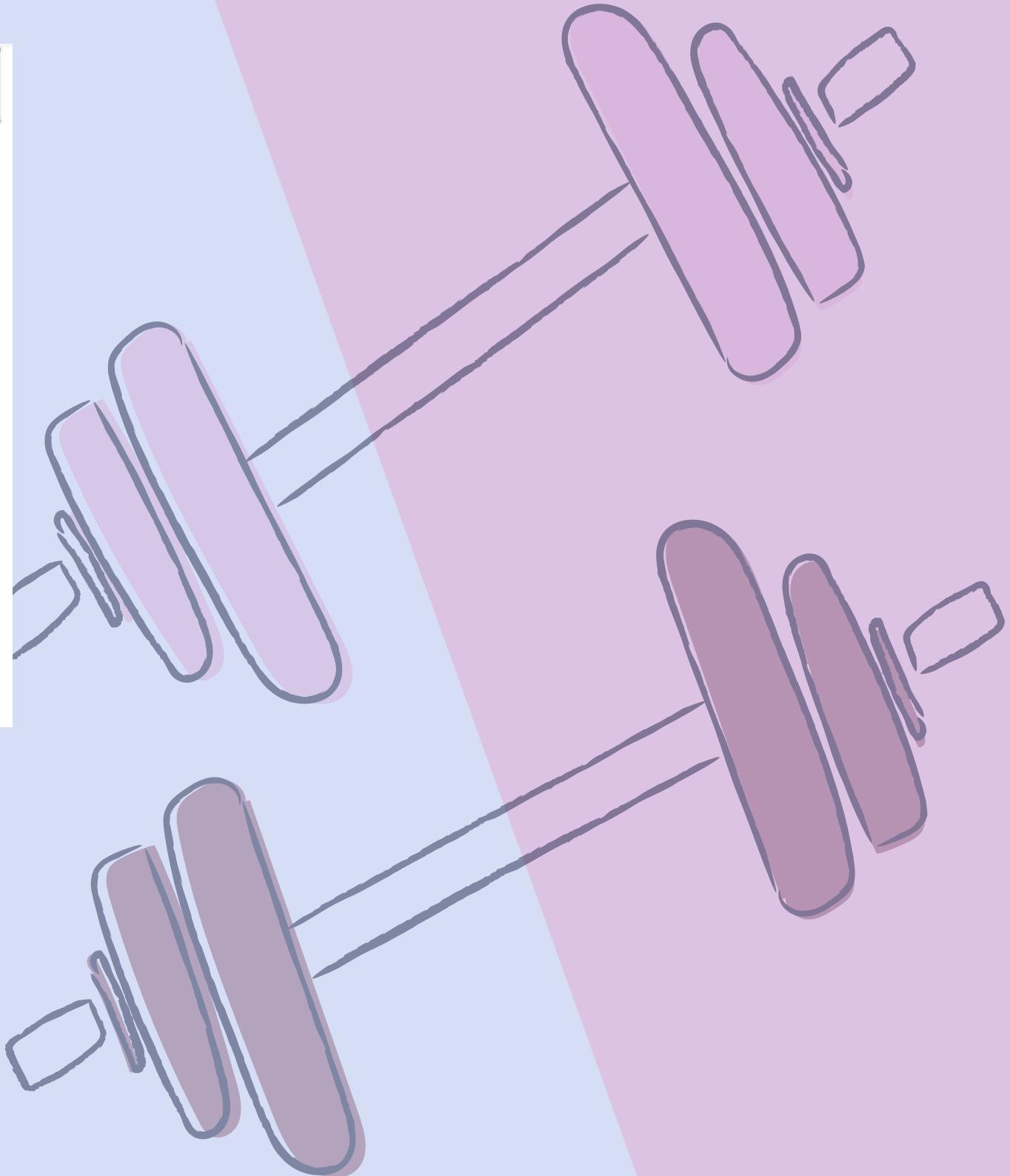


Result

```
259 •     INSERT INTO member_phoneNO  
260     VALUES ('101M','0555765123');  
261 •     INSERT INTO member_phoneNO  
262     VALUES ('101M','0557653245');  
263 •     INSERT INTO member_phoneNo  
264     VALUES('102M','0555189234');  
265 •     insert into member_phoneNo  
266     VALUES('102M','0556827835');  
267 •     INSERT INTO member_phoneNo  
268     VALUES('102M','0555346255');  
269 •     INSERT INTO member_phoneNo  
270     VALUES('103M','0569999832');  
271 •     INSERT INTO member_phoneNo  
272     VALUES('104M','0578945938');  
273 •     INSERT INTO member_phoneNo  
274     VALUES('105M','0597434339');  
275 •     INSERT INTO member_phoneNo  
276     VALUES('109M','0566674333');
```

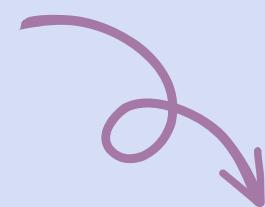
	membershipID	phoneNO
▶	101M	0555765123
	101M	0557653245
	102M	0555189234
	102M	0555346255
	102M	0556827835
	103M	0569999832
	104M	0578945938
	105M	0597434339
	109M	0566674333
●	NULL	NULL

there is a lot inserting values for member_phoneNO in sql file



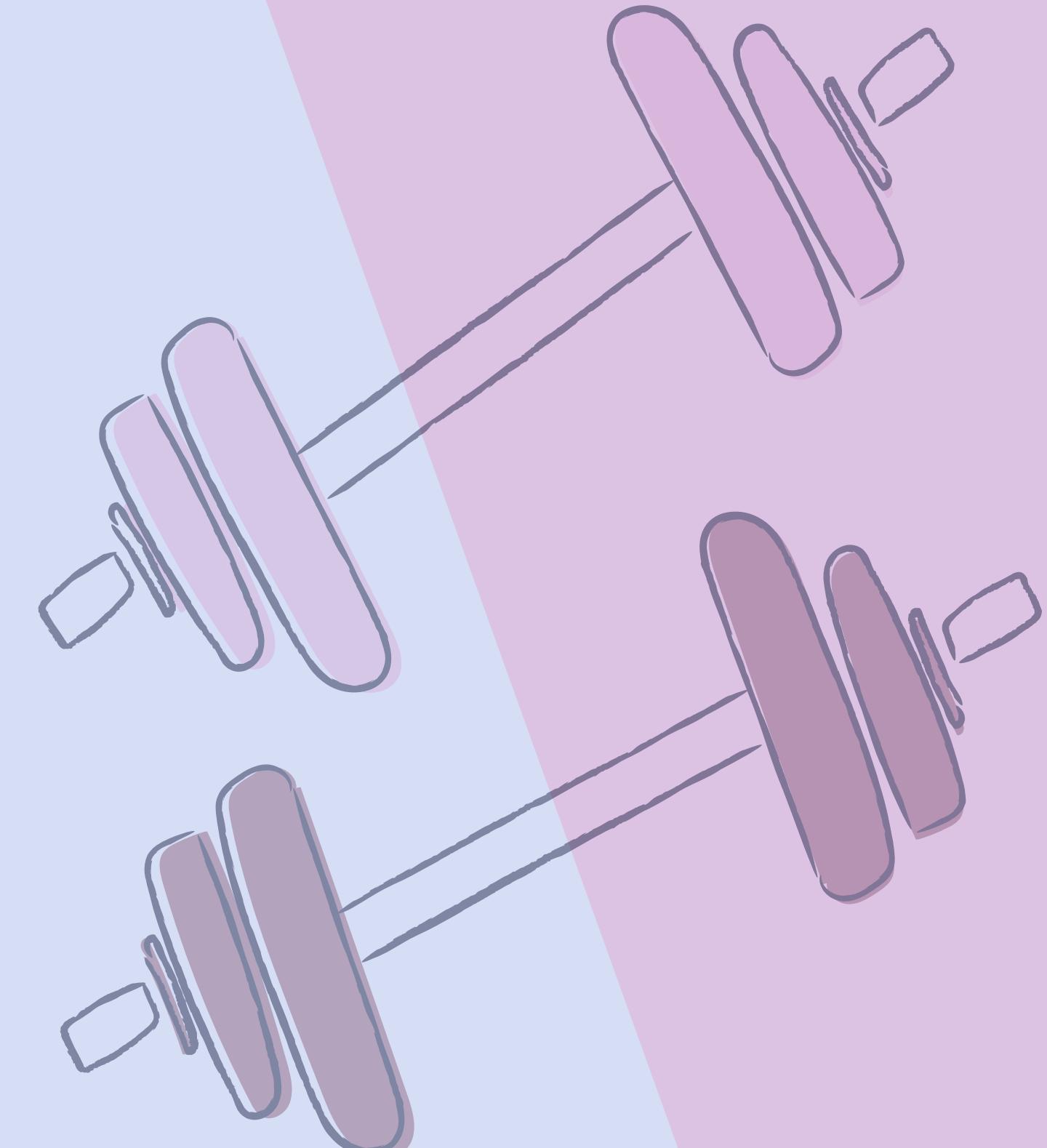
Insert all the data using INSERT dependent

```
347 • INSERT INTO dependent  
348     VALUE ('ch231','101M','ahmad',STR_TO_DATE('23-04-2018','%d-%m-%Y'),'M');  
349 • INSERT INTO dependent  
350     VALUE ('ch639','102M','lama',STR_TO_DATE('15-03-2019','%d-%m-%Y'),'F');  
351 • INSERT INTO dependent  
352     VALUE ('ch232','104M','sara',STR_TO_DATE('14-05-2017','%d-%m-%Y'),'F');  
353 • INSERT INTO dependent  
354     VALUE('ch739','105M','saeed',STR_TO_DATE('10-10-2018','%d-%m-%Y'),'M');  
355 • INSERT INTO dependent  
356     VALUE('ch283','105M','ruba',STR_TO_DATE('9-12-2019','%d-%m-%Y'),'F');
```



Result

	childID	membershipID	childName	dateOfBirth	gender
▶	ch231	101M	ahmad	2018-04-23	M
	ch232	104M	sara	2017-05-14	F
	ch283	105M	ruba	2019-12-09	F
	ch639	102M	lama	2019-03-15	F
	ch739	105M	saeed	2018-10-10	M
*	NULL	NULL	NULL	NULL	NULL



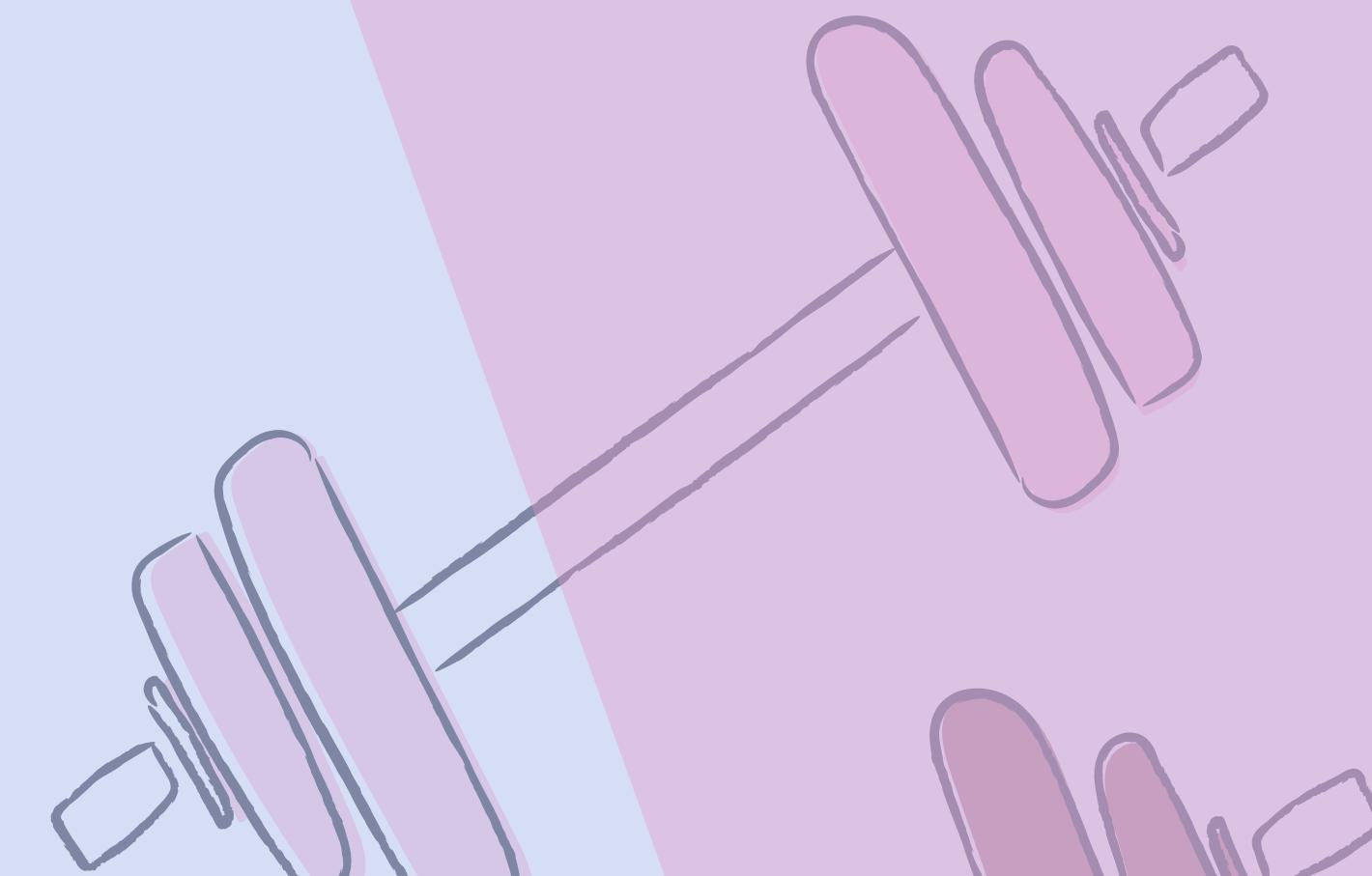
Query data using SELECT

1-Query about the member's names for specific city (Jeddah)

```
SELECT fName , lName  
FROM member1  
WHERE branchID IN (SELECT branchID  
                     FROM branch  
                     WHERE city='Jeddah');
```

Result

	fName	lName
▶	Lina	Aljhani
	Rwan	Althbiti
	Lama	Aljhani

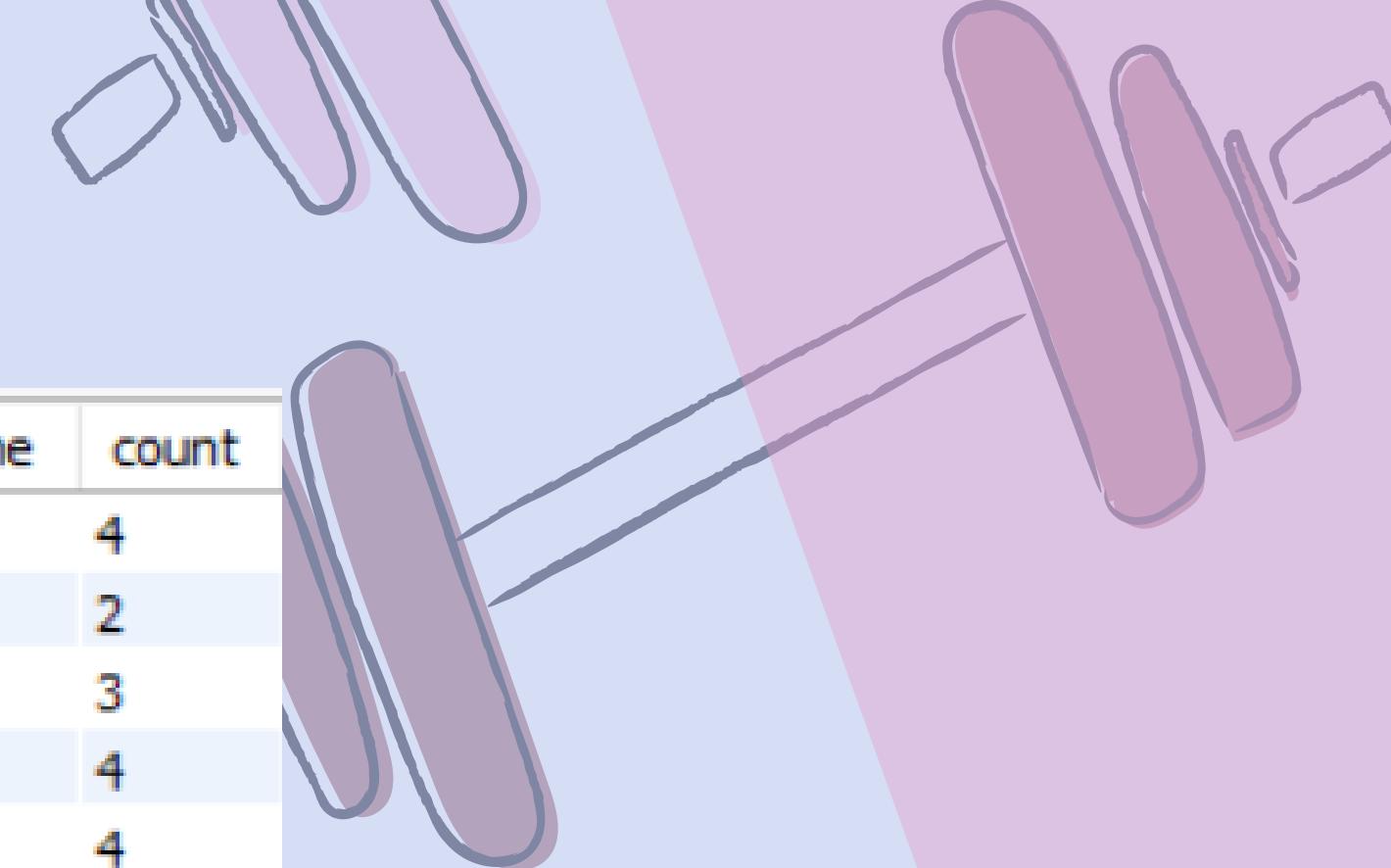


2-Query about the number of participants for each package

```
SELECT packageName, COUNT(membershipID) AS count  
FROM member1 m, package p  
WHERE m.packageID = p.packageID  
GROUP BY packageName
```

Result

	packageName	count
▶	Bronze	4
	Gold	2
	Platinum	3
	Silver	4
	Weekly	4



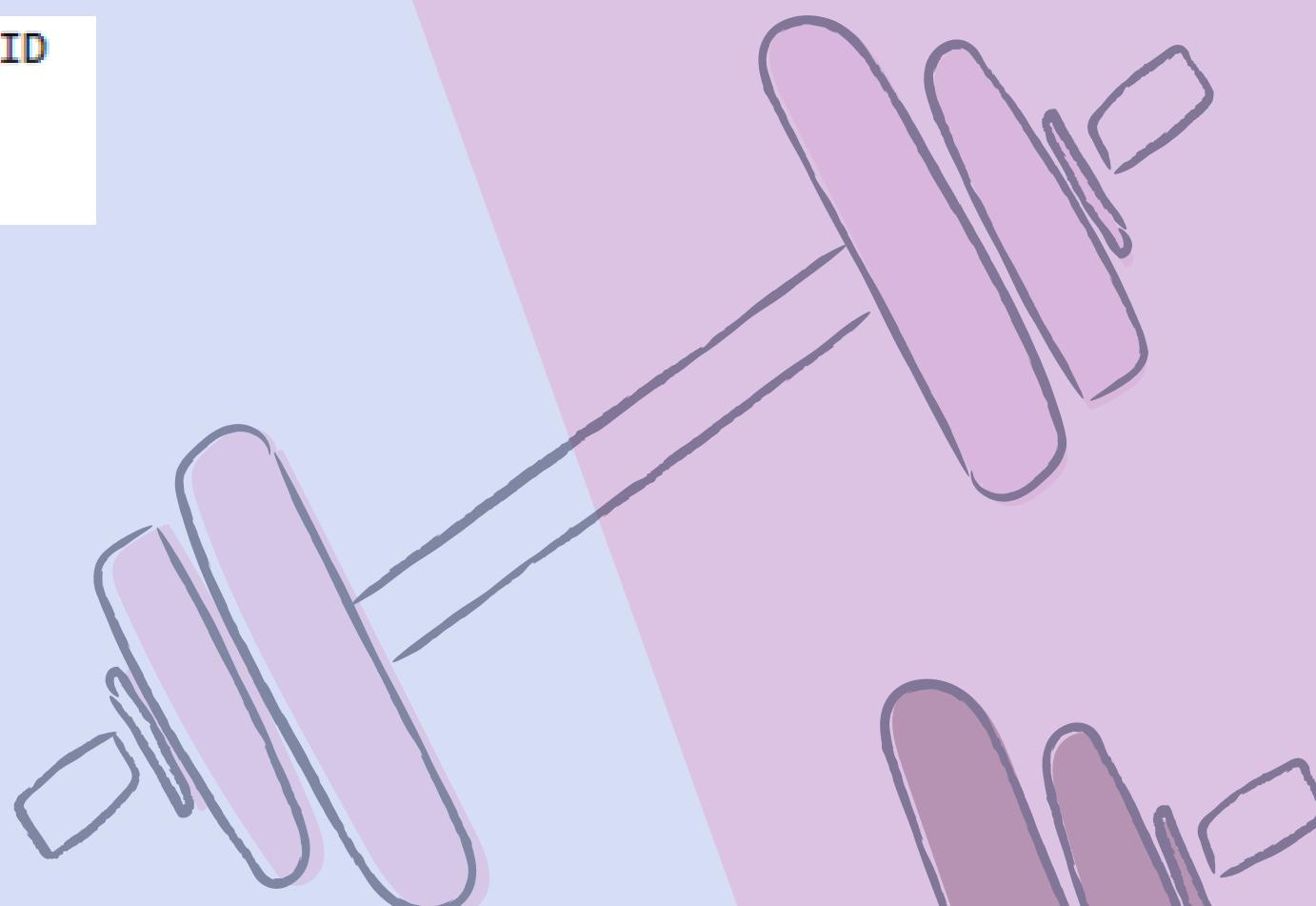
Query data using SELECT

3-Query about members who have dependent\s with the ID of their children

```
SELECT s.membershipID, Fname AS preant_First_Name , lname AS preant_Last_Name ,childID  
FROM member1 s ,dependent d  
WHERE d.membershipID = s.membershipID;
```

Result

membershipID	preant_First_Name	preant_Last_Name	childID
101M	Norah	Alhazmi	ch231
102M	Lina	Aljhani	ch639
104M	Raghad	Alshrif	ch232
105M	Ghaida	Katfi	ch283
105M	Ghaida	Katfi	ch739

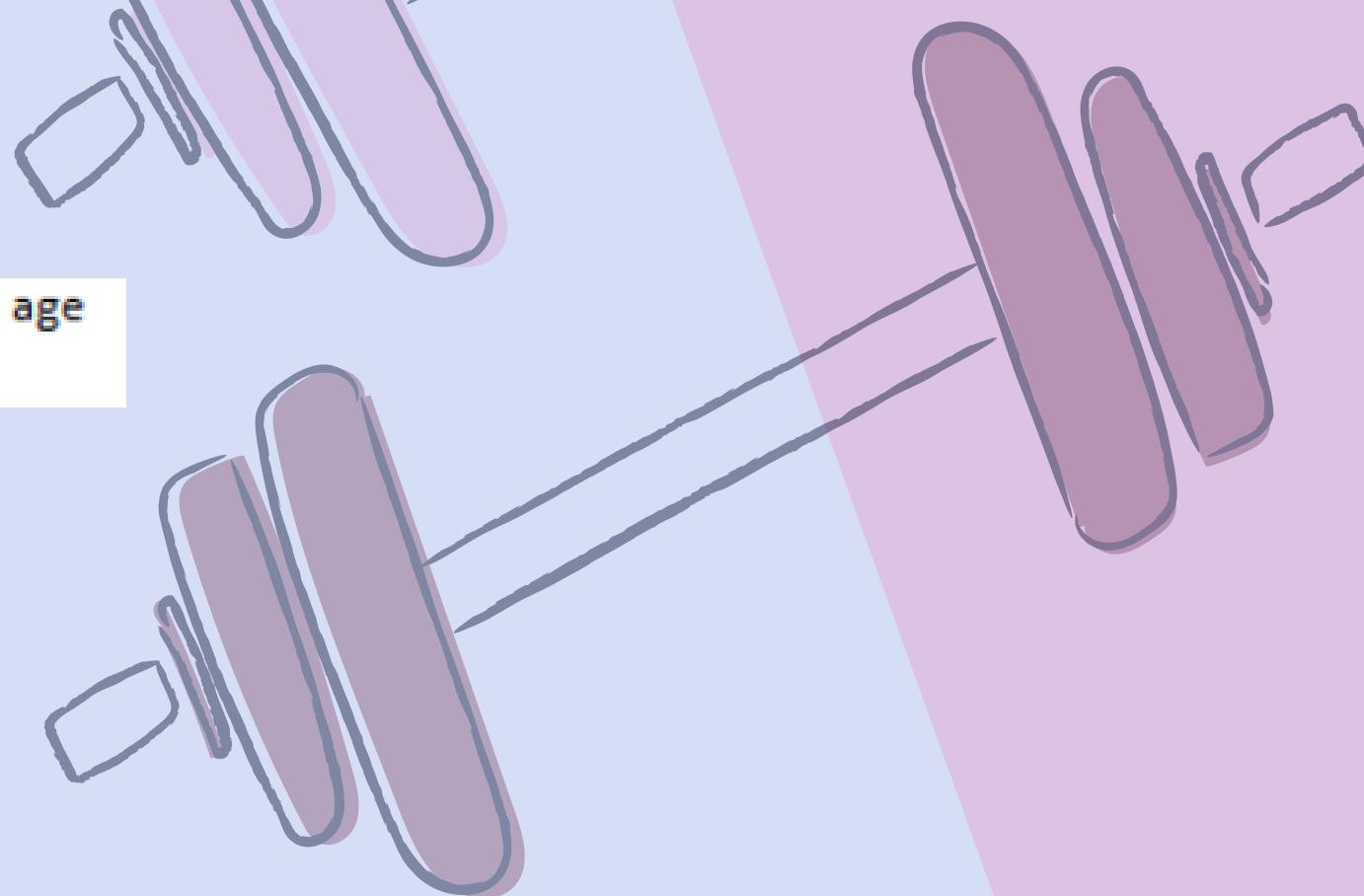


4-Query about dependents and calculate their ages

```
SELECT childID,childName,dateOfBirth,gender,TIMESTAMPDIFF(YEAR,dateOfBirth,CURDATE()) AS age  
FROM dependent;
```

Result

	childID	childName	dateOfBirth	gender	age
▶	ch231	ahmad	2018-04-23	M	4
	ch232	sara	2017-05-14	F	5
	ch283	ruba	2019-12-09	F	2
	ch639	lama	2019-03-15	F	3
	ch739	saeed	2018-10-10	M	4



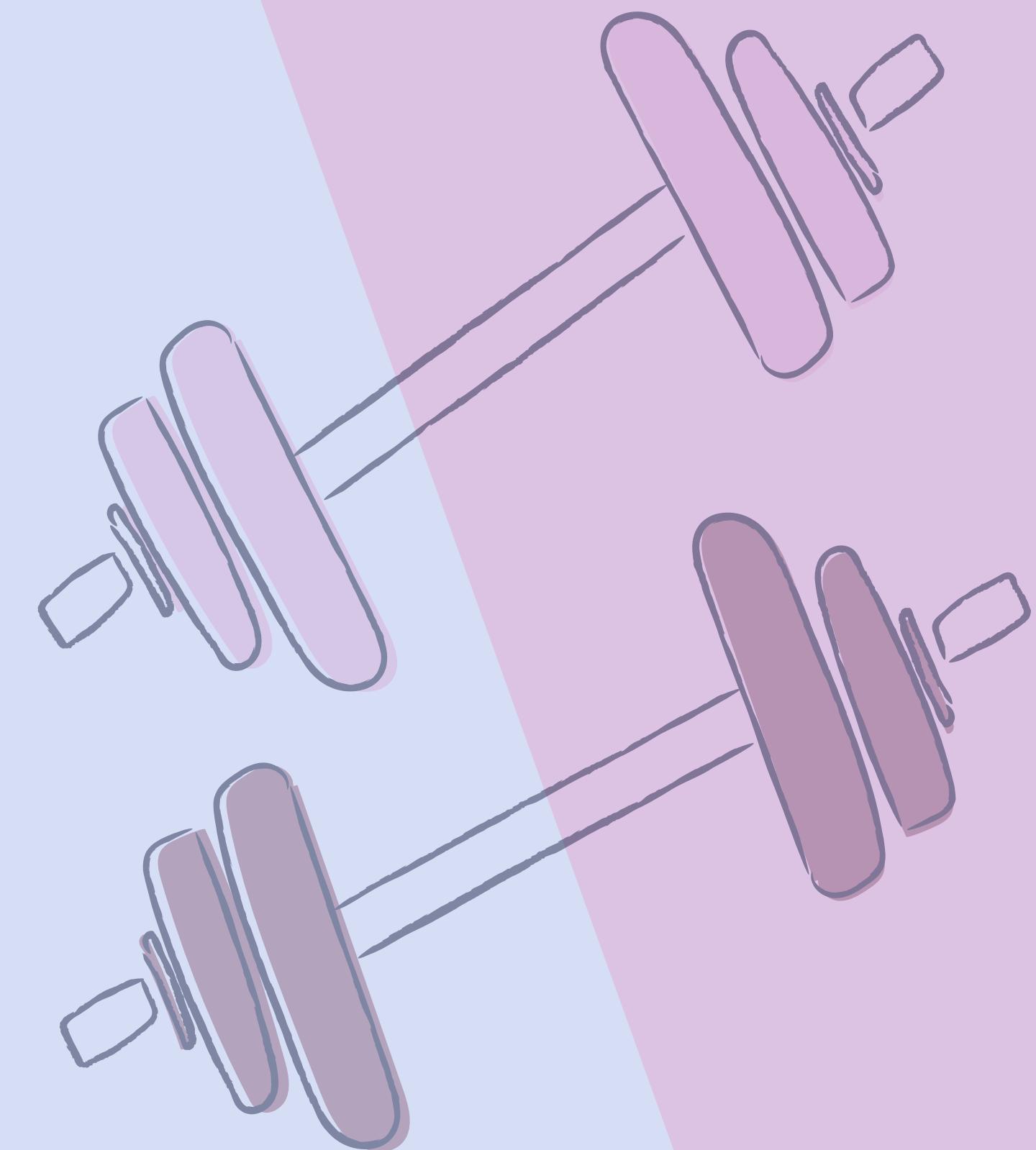
Query data using SELECT

5-Query about the number of members in each city

```
SELECT DISTINCT city, COUNT(membershipID) AS count_of_members  
FROM member1 m, branch b  
WHERE m.branchID = b.branchID  
GROUP BY city  
ORDER BY count_of_members DESC;
```

Result

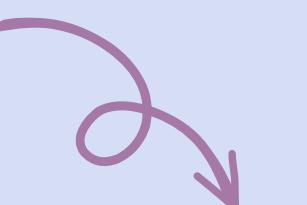
	city	count_of_members
▶	Riyadh	6
	Makkah	4
	Jeddah	3
	Al-Khobar	3
	Al-Dammam	1



Query data using SELECT

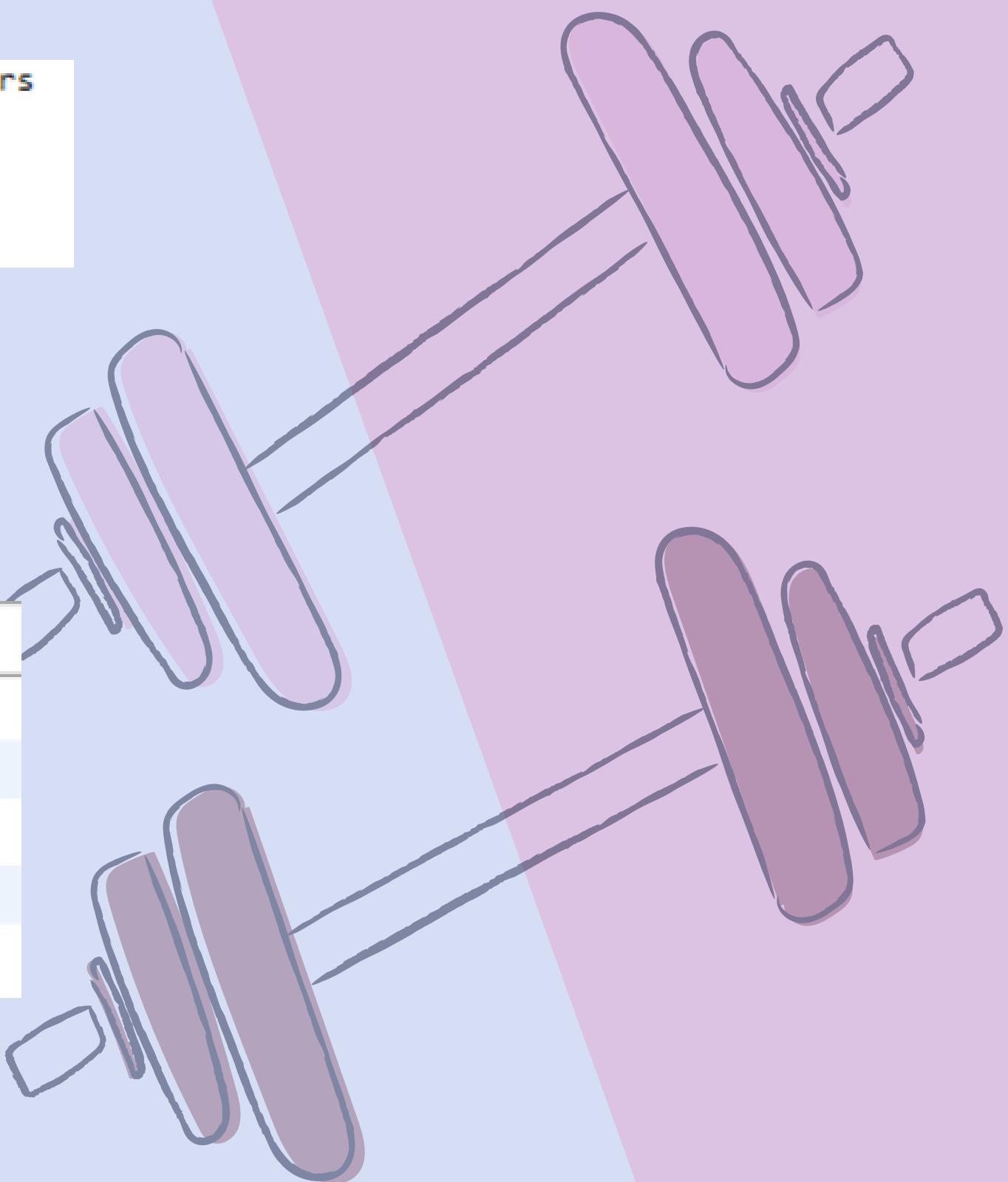
6-Query about the number of plans for each coach

```
SELECT fName AS coach_First_Name ,lName AS coach_Last_Name , COUNT(planID) AS NumberOfMembers  
FROM coach c , includes i  
WHERE c.coachID=i.coachID  
GROUP BY fName ;
```



Result

	coach_First_Name	coach_Last_Name	NumberOfMembers
▶	Maram	Alrasheed	2
	Sara	Alharbi	2
	Ahlam	Alshreef	3
	Raghad	Aljohani	1
	Samar	Alahmadi	1



Query data using SELECT

7-Query about list all information of workout plan and classes for each member

```
CREATE VIEW MemberPlanInfo AS
SELECT membershipID,m.fname AS member_first_name,m.lName AS member_last_name,m.planID,concat('from ',startDate,' To ',endDate)
AS DurationOfPlan , ch.fname AS Coach_first_name,ch.lName AS Coach_last_name,c.className,date1 AS DateOfClass,time1 AS TimofClass
FROM member m,includes i,class c , workout_plan W ,coach ch
WHERE m.planID=i.planID AND i.classID=c.classID AND i.planID=W.planID AND ch.coachID=i.coachID
ORDER BY m.fname;
```

```
SELECT *
FROM MemberPlanInfo;
```

Result

View: memberplaninfo

Columns:

membershipID	varchar(6)
member_first_name	varchar(20)
member_last_name	varchar(20)
planID	char(6)
DurationOfPlan	varchar(31)
Coach_first_name	varchar(20)
Coach_last_name	varchar(20)
className	varchar(30)
DateOfClass	date
TimofClass	varchar(20)

	membershipID	member_first_name	member_last_name	planID	DurationOfPlan	Coach_first_name	Coach_last_name	className	DateOfClass	TimofClass
▶	115M	Afnan	Alhazmi	RW571	from 2022-09-22 To 2023-12-06	Maram	Alrasheed	YOGA	2022-08-05	7:30-8:00 PM
	116M	Lama	Aljhani	LK681	from 2022-11-01 To 2023-04-10	Sara	Alharbi	CARDIO	2022-08-12	5:30-6:00 PM
	102M	Lina	Aljhani	GMM571	from 2022-11-15 To 2023-01-15	Sara	Alharbi	CARDIO	2022-08-12	5:30-6:00 PM
	101M	Norah	Alhazmi	LW319	from 2022-11-05 To 2022-07-04	Maram	Alrasheed	YOGA	2022-08-05	7:30-8:00 PM
	117M	Raghad	Alotabi	QD111	from 2022-11-15 To 2023-01-15	Ahlam	Alshreef	ZUMBA	2022-08-17	3:30-4:00 PM
	104M	Raghad	Alshrif	WF111	from 2022-10-10 To 2023-04-10	Raghad	Aljohani	BODY COMBAT	2022-08-20	10:30-10:55 AM
	109M	Reem	Alharbi	LS690	from 2022-08-04 To 2022-01-04	Maram	Alrasheed	CARDIO	2022-08-12	5:30-6:00 PM
	103M	Samia	Alharbi	GS681	from 2022-11-06 To 2023-02-06	Ahlam	Alshreef	ZUMBA	2022-08-17	3:30-4:00 PM
	110M	Soha	Alotabi	MA990	from 2023-11-07 To 2024-02-12	Ahlam	Alshreef	BODY COMBAT	2022-08-20	10:30-10:55 AM

Query data using SELECT

8-Create views for total price for each member

```
CREATE VIEW TotalPrice1 AS  
SELECT membershipID, price AS planPrice , cost AS packagePrice, (cost+price) as TotalPrice  
FROM workout_plan w, package p, member1 m  
WHERE m.packageID = p.packageID AND w.planID = m.planID ;
```

Result

	membershipID	planPrice	packagePrice	TotalPrice
▶	101M	180.50	500.00	680.50
	110M	250.00	500.00	750.00
	115M	300.00	500.00	800.00
	102M	200.99	1200.00	1400.99
	111M	200.00	1200.00	1400.00

view for members they have workout plan

View: totalprice1

Columns:
membershipID varchar(6)
planPrice decimal(7,2)
packagePrice decimal(6,2)
TotalPrice decimal(8,2)

```
CREATE VIEW TotalPrice2 AS  
SELECT membershipID, planID AS planPrice , cost AS packagePrice, (cost+0) as TotalPrice  
FROM package p, member1 m  
WHERE m.packageID = p.packageID AND planID IS NULL;
```

Result

	membershipID	planPrice	packagePrice	TotalPrice
▶	105M	NULL	120.00	120.00
	112M	NULL	3300.00	3300.00
	113M	NULL	2000.00	2000.00
	114M	NULL	120.00	120.00
	118M	NULL	120.00	120.00
	119M	NULL	1200.00	1200.00
	120M	NULL	120.00	120.00

view for members they have not workout plan

View: totalprice2

Columns:
membershipID varchar(6)
planPrice char(6)
packagePrice decimal(6,2)
TotalPrice decimal(7,2)

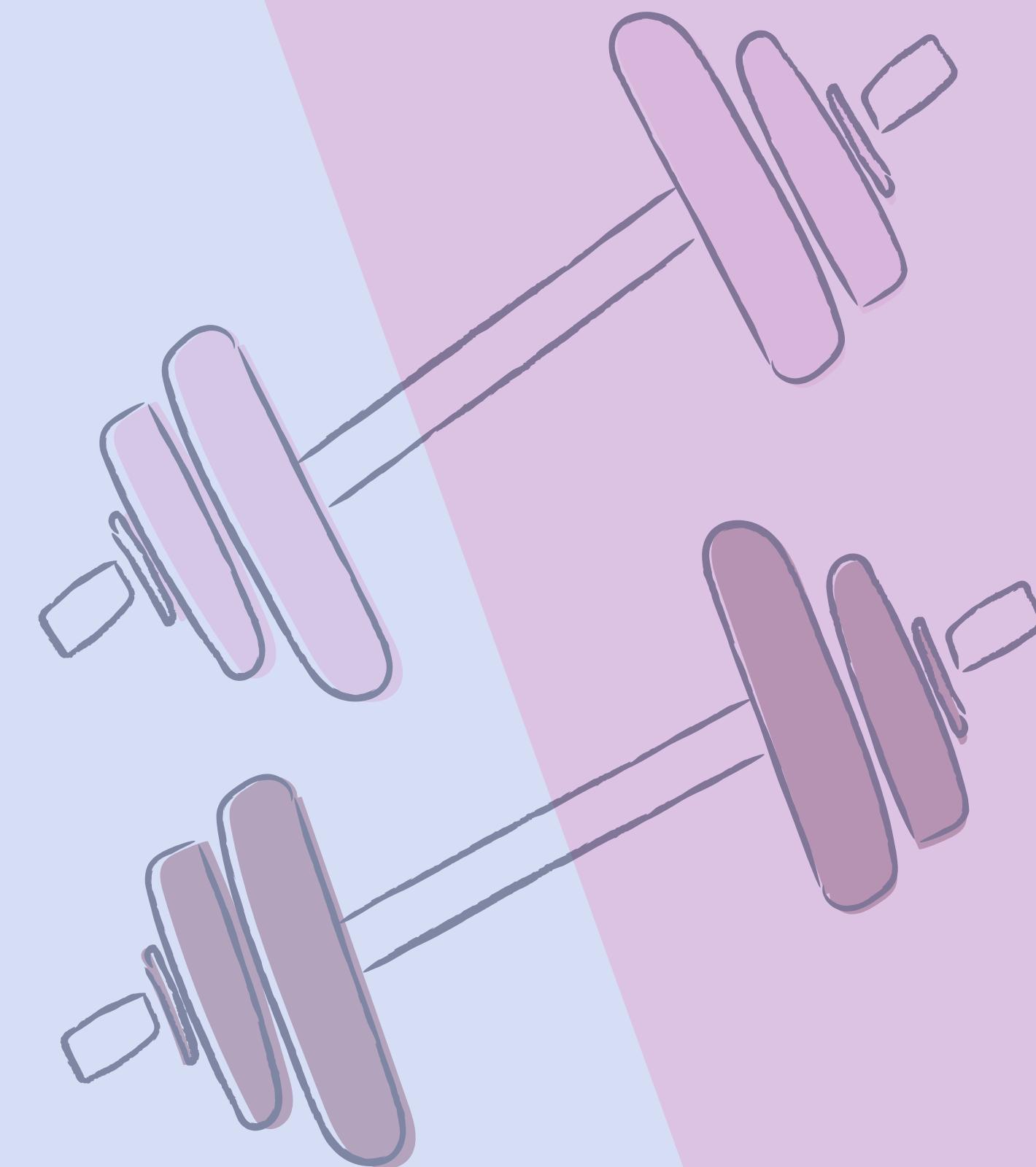
Query data using SELECT

9-Query about the total price for all members in the gym

```
SELECT * FROM totalprice1  
UNION ALL  
SELECT * FROM totalprice2;
```

Result

	membershipID	planPrice	packagePrice	TotalPrice
▶	101M	180.50	500.00	680.50
	110M	250.00	500.00	750.00
	115M	300.00	500.00	800.00
	102M	200.99	1200.00	1400.99
	111M	200.00	1200.00	1400.00
	116M	140.00	1200.00	1340.00
	103M	299.00	2000.00	2299.00
	109M	150.00	2000.00	2150.00
	117M	230.99	2000.00	2230.99
	104M	120.00	3300.00	3420.00
	105M	NULL	120.00	120.00
	112M	NULL	3300.00	3300.00
	113M	NULL	2000.00	2000.00
	114M	NULL	120.00	120.00
	118M	NULL	120.00	120.00
	119M	NULL	1200.00	1200.00
	120M	NULL	120.00	120.00



Query data using SELECT

10-Creat a view to list coaches and the members they train

```
CREATE VIEW coachInfo AS  
SELECT ch.coachID ,ch.fName AS coach_first_name,ch.lName AS coach_last_name,W.description AS plan_Discription ,  
m.fName AS member_first_name,m.lName AS member_last_name  
FROM member1 m,includes i, workout_plan W ,coach ch  
WHERE m.planID=i.planID AND i.planID=W.planID And ch.coachID=i.coachID  
ORDER BY ch.coachID;
```

```
SELECT *  
FROM coachInfo;
```

Result

	coachID	coach_first_name	coach_last_name	plan_Discription	member_first_name	member_last_name
▶	C101	Maram	Alrasheed	Lose weight	Reem	Alharbi
	C101	Maram	Alrasheed	healthy Weight gain	Afnan	Alhazmi
	C102	Sara	Alharbi	Gain muscle mass	Lina	Aljhani
	C102	Sara	Alharbi	Lose weight	Lama	Aljhani
	C103	Ahlam	Alshreef	Get Shredded	Samia	Alharbi
	C103	Ahlam	Alshreef	muscle amplification	Soha	Alotabi
	C103	Ahlam	Alshreef	improve health	Raghad	Alotabi
	C104	Raghad	Aljohani	Weight fixing	Raghad	Alshrif

View: coachinfo

Columns:

coachID	varchar(6)
coach_first_name	varchar(20)
coach_last_name	varchar(20)
plan_Discription	varchar(100)
member_first_name	varchar(20)
member_last_name	varchar(20)

Change data using UPDATE

1- Update a specific phone number

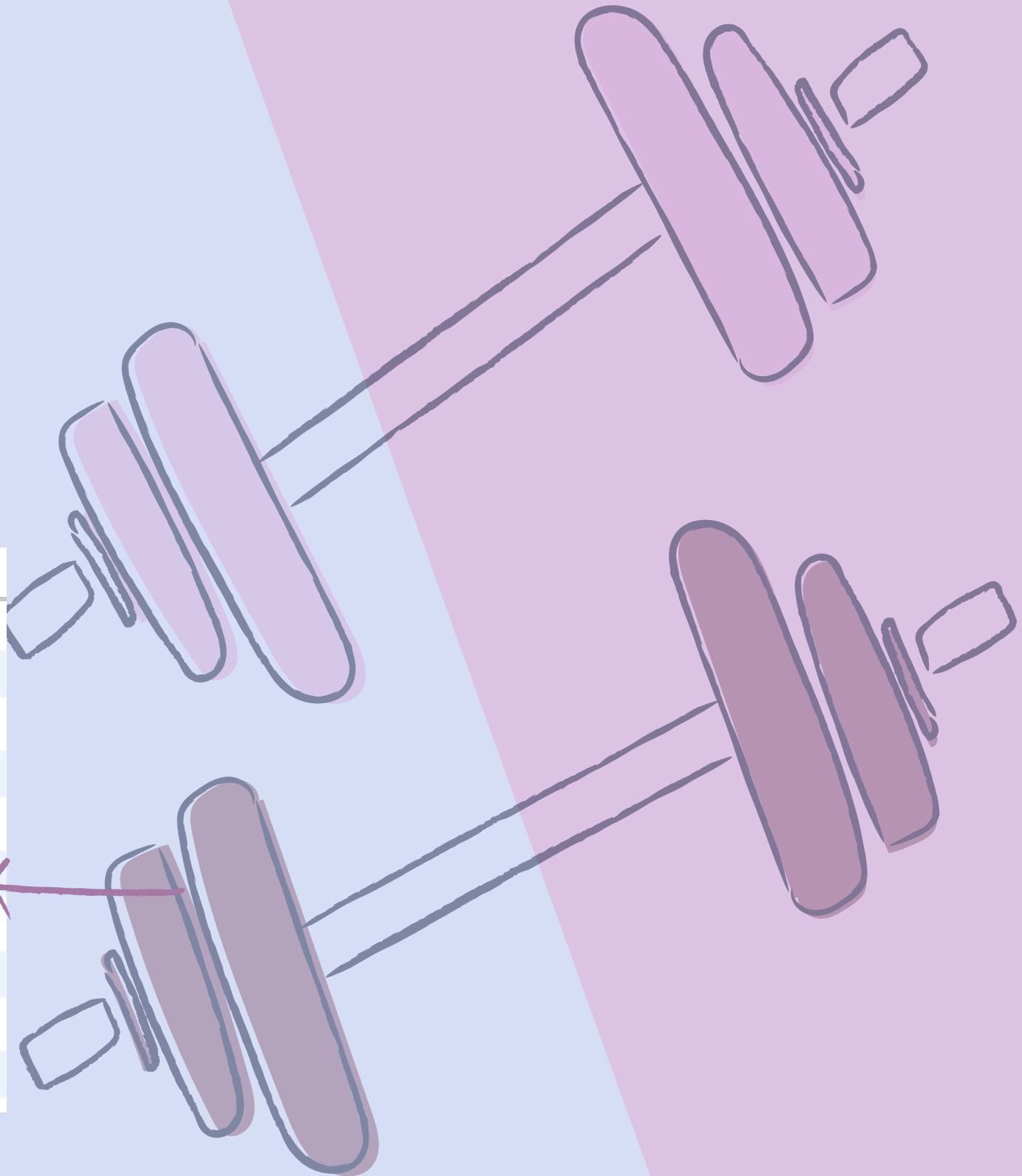
	membershipID	phoneNO
▶	101M	0555765123
	101M	0557653245
	101M	0557753856
	102M	0555189234
	102M	0555346255
	102M	0556827835
	103M	0506763993
	103M	0565528739
	103M	0569999832
	104M	0567247346

before update

```
UPDATE member_phoneNo  
SET phoneNo='0558942198'  
WHERE phoneNo='0555346255';
```

Result

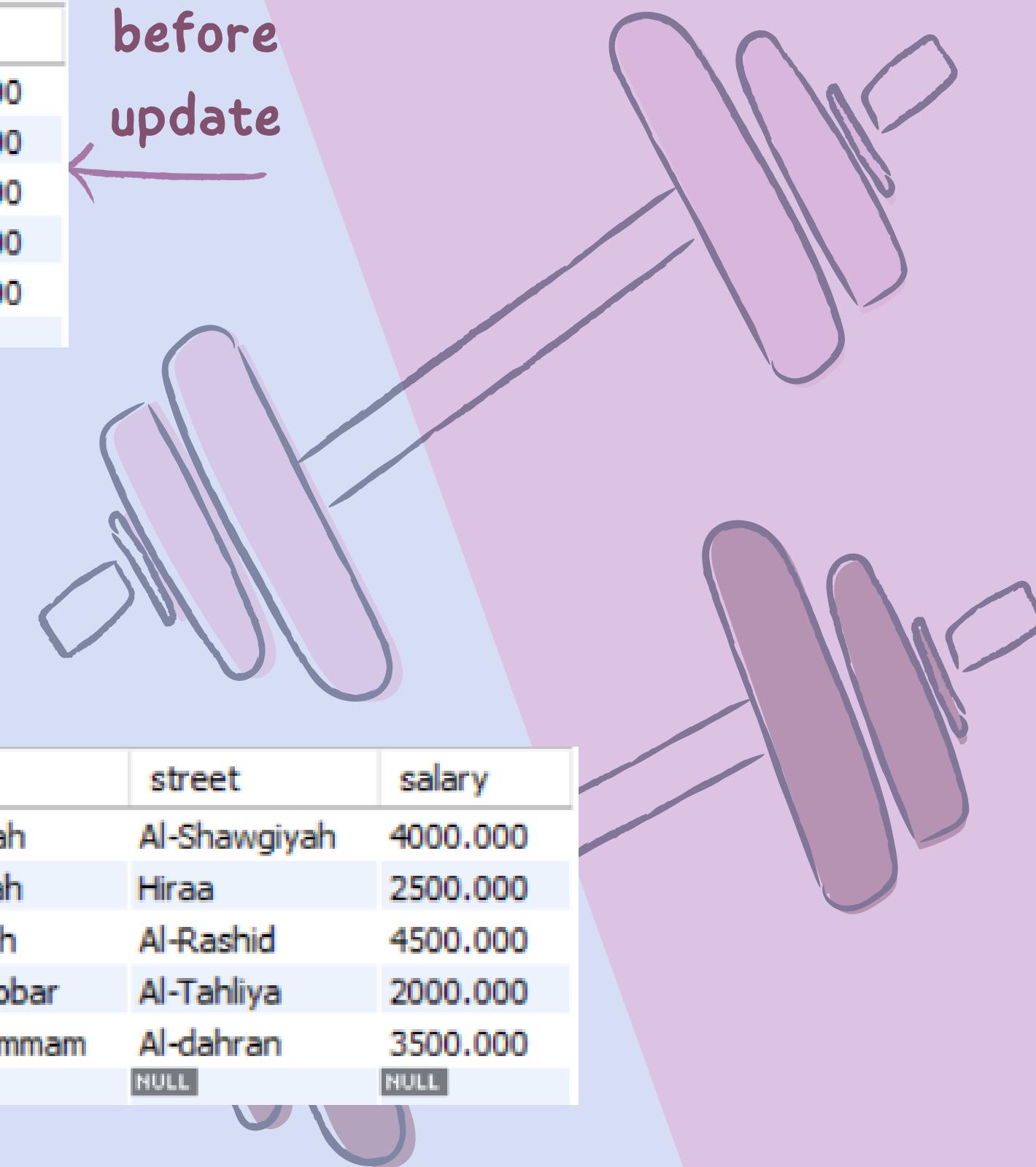
	membershipID	phoneNO
▶	101M	0555765123
	101M	0557653245
	101M	0557753856
	102M	0555189234
	102M	0556827835
	102M	0558942198
	103M	0506763993
	103M	0565528739
	103M	0569999832
	104M	0567247346



Change data using UPDATE , SELECT

2- Update the salaries of coaches who have more than 2 classes

before update



```
UPDATE coach
SET salary = salary+1500
WHERE coachID IN (SELECT coachID
                   FROM includes
                   GROUP BY coachID
                   HAVING count(classID)>2)
```

Result

Delete data using DELETE

1-Delete members who have withdrawn from the gym

	membershipID	idNumber	fName	IName	age	registrationDate	packageID	branchID	planID
▶	101M	1114573836	Norah	Alhazmi	18	2022-11-05	PG11	MH11	LW319
	102M	1123858564	Lina	Aljhani	30	2022-11-01	PG12	JQ12	GMM571
	103M	1111593052	Samia	Alharbi	22	2021-09-22	PG13	RO13	GS681
	104M	1485420492	Raghad	Alshrif	19	2022-08-14	PG14	DD14	WF111
	105M	474964769	Ghaida	Katfi	23	2022-08-01	PG15	KR15	NULL
	109M	8664893249	Reem	Alharbi	19	2022-08-04	PG13	MH11	LS690
	110M	5634588566	Soha	Alotabi	24	2023-11-07	PG11	Rm17	MA990
	111M	8634598543	Rana	Althbiti	25	2023-08-08	PG12	MH11	WL678
	112M	5789576465	wafa	Althagafi	20	2023-10-09	PG14	RO13	NULL
	113M	863679356	Rwan	Althbiti	21	2023-11-12	PG13	JQ12	NULL
	114M	5434643290	Hana	Alotabi	22	2023-10-21	PG15	RO13	NULL
	115M	199157345	Afnan	Alhazmi	18	2022-09-22	PG11	MH11	RW571
	116M	1243858564	Lama	Aljhani	30	2022-11-01	PG12	JQ12	LK681
	117M	171593052	Raghad	Alotabi	22	2022-11-15	PG13	RO13	QD111
	118M	474334769	Salma	Alharbi	23	2022-08-01	PG15	KR15	NULL
	119M	925378656	Rand	Althbiti	23	2022-11-06	PG12	KR15	NULL
	120M	7427576466	Elaf	Althagafi	23	2022-10-02	PG15	RO13	NULL
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

before delete

Result

	membershipID	idNumber	fName	IName	age	registrationDate	packageID	branchID	planID
▶	102M	1123858564	Lina	Aljhani	30	2022-11-01	PG12	JQ12	GMM571
	103M	1111593052	Samia	Alharbi	22	2021-09-22	PG13	RO13	GS681
	104M	1485420492	Raghad	Alshrif	19	2022-08-14	PG14	DD14	WF111
	109M	8664893249	Reem	Alharbi	19	2022-08-04	PG13	MH11	LS690
	110M	5634588566	Soha	Alotabi	24	2023-11-07	PG11	Rm17	MA990
	111M	8634598543	Rana	Althbiti	25	2023-08-08	PG12	MH11	WL678
	112M	5789576465	wafa	Althagafi	20	2023-10-09	PG14	RO13	NULL
	113M	863679356	Rwan	Althbiti	21	2023-11-12	PG13	JQ12	NULL
	114M	5434643290	Hana	Alotabi	22	2023-10-21	PG15	RO13	NULL
	115M	199157345	Afnan	Alhazmi	18	2022-09-22	PG11	MH11	RW571
	116M	1243858564	Lama	Aljhani	30	2022-11-01	PG12	JQ12	LK681
	117M	171593052	Raghad	Alotabi	22	2022-11-15	PG13	RO13	QD111
	118M	474334769	Salma	Alharbi	23	2022-08-01	PG15	KR15	NULL
	119M	925378656	Rand	Althbiti	23	2022-11-06	PG12	KR15	NULL
	120M	7427576466	Elaf	Althagafi	23	2022-10-02	PG15	RO13	NULL
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
DELETE m , p
FROM member1 m ,workout_plan p
WHERE m.planID=p.planID AND m.membershipID='101M';
```

The member has workout plan

```
DELETE FROM member1
WHERE planID IS NULL AND membershipID='105M';
```

The member has not workout plan



Query data using **DELETE**

2-Delete an offer from the branch

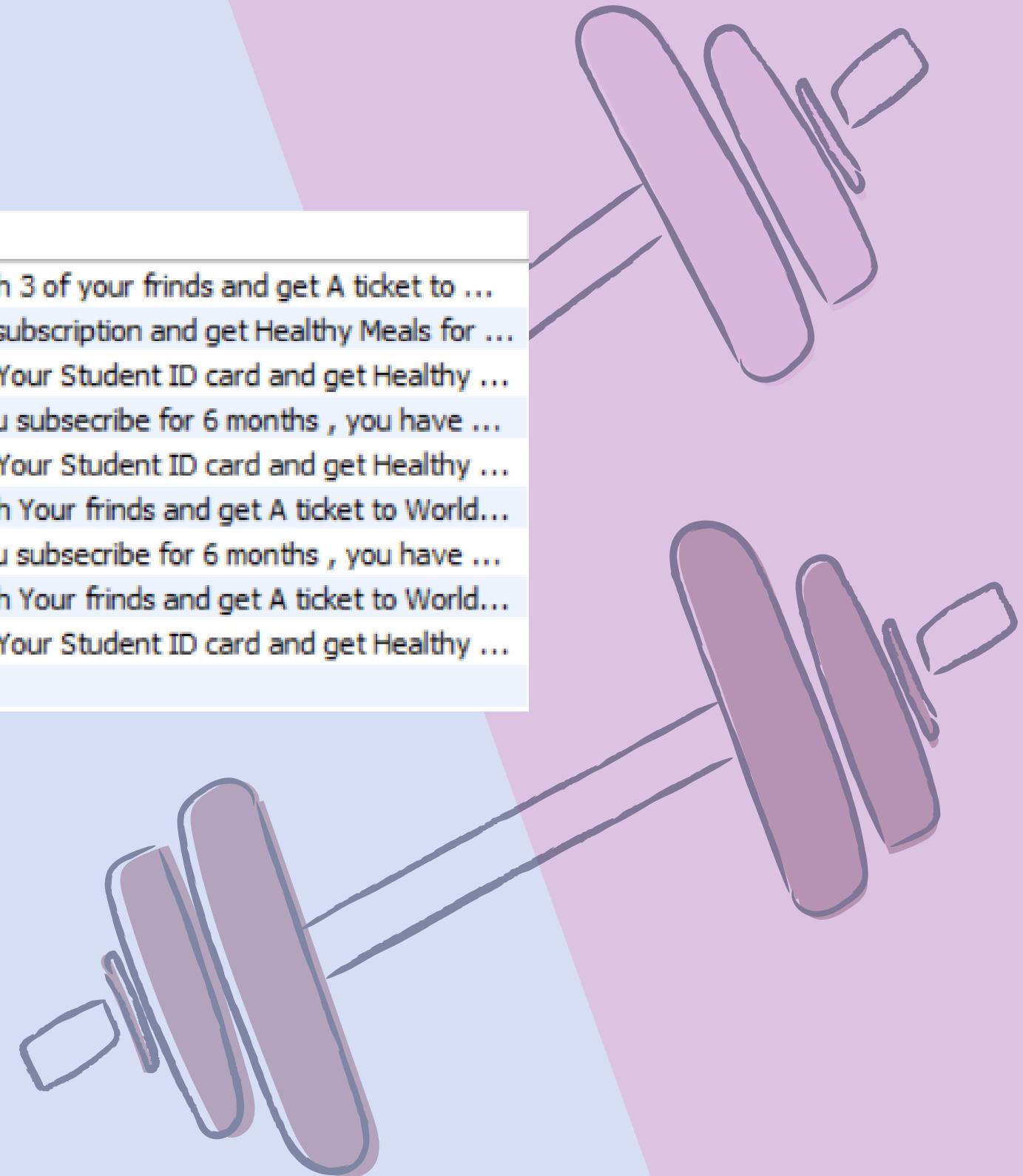
	branchID	offer
▶	DD14	Come with 3 of your frinds and get A ticket to ...
	JQ12	6-month subscription and get Healthy Meals for ...
	JQ12	Join our gym NOW and get voucher for purchas...
	KR15	Join our gym NOW and get voucher for purchas...
	KR15	Show up Your Student ID card and get Healthy ...
	KR15	When you subsecribe for 6 months , you have ...
	MH11	Join our gym NOW and get voucher for purchas...
	MH11	Show up Your Student ID card and get Healthy ...
	RK16	Come with Your frinds and get A ticket to World...
	RK16	Join our gym NOW and get voucher for purchas...
	Rm17	When you subsecribe for 6 months , you have ...
	RO13	Come with Your frinds and get A ticket to World...
	RO13	Show up Your Student ID card and get Healthy ...
●	NULl	NULl

before delete

Result

```
DELETE FROM branch_offer  
WHERE offer = 'Join our gym NOW and get voucher for purchase from adidas';
```

	branchID	offer
▶	DD14	Come with 3 of your frinds and get A ticket to ...
	JQ12	6-month subscription and get Healthy Meals for ...
	KR15	Show up Your Student ID card and get Healthy ...
	KR15	When you subsecribe for 6 months , you have ...
	MH11	Show up Your Student ID card and get Healthy ...
	RK16	Come with Your frinds and get A ticket to World...
	Rm17	When you subsecribe for 6 months , you have ...
	RO13	Come with Your frinds and get A ticket to World...
	RO13	Show up Your Student ID card and get Healthy ...
●	NULl	NULl





Difficulties that we faced

- 1- Difficulty dealing with mySQL workbench where some error messages appear with no error actually.**

 - 2-Each member writes her part in SQL differently and when compiling the code some errors occur that needs huge work to fix.**
- 