CREATE DATABASE AS MYDB;

CREATE TABLE team (

teamnum INT PRIMARY KEY,

teamname VARCHAR(50),

city VARCHAR(50),

manager VARCHAR(50)

);

CREATE TABLE coach (

teamnum INT,

coachname VARCHAR(50),

telephone VARCHAR(20),

PRIMARY KEY (teamnum, coachname),

FOREIGN KEY (teamnum) REFERENCES team(teamnum)

);

CREATE TABLE work\_experience (

teamnum INT,

coachname VARCHAR(50),

experiencetype VARCHAR(50),

yearsexperience INT,

PRIMARY KEY (teamnum, coachname, experiencetype),

FOREIGN KEY (teamnum, coachname) REFERENCES coach(teamnum, coachname)

);

CREATE TABLE bats (

teamnum INT,

serialnum INT,

manufacturer VARCHAR(50),

PRIMARY KEY (teamnum, serialnum),

FOREIGN KEY (teamnum) REFERENCES team(teamnum)

);

CREATE TABLE player (

playernum INT PRIMARY KEY,

playername VARCHAR(50),

age INT

);

CREATE TABLE affiliation (

playernum INT,

teamnum INT,

years INT,

battingavg DECIMAL(5,3),

PRIMARY KEY (playernum, teamnum),

FOREIGN KEY (playernum) REFERENCES player(playernum),

FOREIGN KEY (teamnum) REFERENCES team(teamnum)

);

-- Inserting data into the team table

INSERT INTO team (teamnum, teamname, city, manager) VALUES

(1, 'Red Sox', 'Boston', 'Alex Cora'),

(2, 'Yankees', 'New York', 'Aaron Boone'),

(3, 'Dodgers', 'Los Angeles', 'Dave Roberts');

-- Inserting data into the coach table

INSERT INTO coach (teamnum, coachname, telephone) VALUES

(1, 'Alex Cora', '555-1234'),

(2, 'Aaron Boone', '555-5678'),

(3, 'Waqar', '555-9012');

-- Inserting data into the work\_experience table

INSERT INTO work\_experience (teamnum, coachname, experiencetype, yearsexperience) VALUES

(1, 'Alex Cora', 'uni', 5),

(1, 'Alex Cora', 'uni', 10),

(2, 'Aaron Boone', ‘college', 3),

(3, 'Waqar', ‘college', 6),

(3, 'Waqar', 'state', 12);

-- Inserting data into the bats table

INSERT INTO bats (teamnum, serialnum, manufacturer) VALUES

(1, 12345, 'Louisville Slugger'),

(2, 23456, 'Marucci'),

(3, 34567, 'Rawlings');

-- Inserting data into the player table

INSERT INTO player (playernum, playername, age) VALUES

(1, 'Xander Bogaerts', 29),

(2, 'Aaron Judge', 29),

(3, 'Cody Bellinger', 26);

-- Inserting data into the affiliation table

INSERT INTO affiliation (playernum, teamnum, years, battingavg) VALUES

(1, 1, 7, 0.295),

(2, 2, 5, 0.273),

(3, 3, 4, 0.267);

----Q1-----

SELECT teamname,city

FROM team

Where teamnum>15

ORDER BY Teamname ASC;

----Q2-----

SELECT Playername

FROM Player

WHERE Age<18

----Q3-----

SELECT Coachname

FROM Workexperience

WHERE Coachname LIKE ‘%R%’ AND Experincetype=’college’

AND yearsexperince>=5 OR Yearsexperience<=10;

----Q4-----

SELECT SUM(Yearsexperience)

FROM work\_experience

WHERE Coachname=’Waqar’ AND Teamnum=25;

----Q5-----

SELECT COUNT(DISTINCT Experiencetype)

FROM WORK\_EXPERIENCE

WHERE COACHNAME=’WAQAR’ AND TEAMNUM=3;

----Q6-----

SELECT COACHNAME,SUM(YEARSEXPERIENCE)

FROM WORK\_EXPERIENCE

WHERE TEAMNUM=3

GROUP BY COACHNAME;

----Q7-----

SELECT COUNT(DISTINCT MANUFACTURER)

FROM BATS;

----Q8-----

SELECT P.PLAYERNAME

FROM PLAYER AS P

JOIN AFFILIATION A ON P.PLAYERNUM=A.PLAYERNUM

JOIN TEAM AS T ON T.TEAMNUM=A.TEAMNUM

WHERE T.TEAMNAME=’YANKEES’ AND A.YEARS>=5;

----Q9-----

SELECT C.COACHNAME,SUM(YEARSEXPERIENCE)

FROM TEAM,COACH,WORK\_EXPERIENCE

JOIN COACH AS C ON T.TEAMNUM=C.TEAMNUM

JOIN WORK\_EXPERIENCE AS W C.COACHNAME=W.COACHNAME

WHERE TEAMNAME=’ROYALS’ AND W.YEARSEXPERIENCE>8

GROUP BY C.COACHNAME;

----Q10----

SELECT \* FROM PLAYER

WHERE AGE=(SELECT MIN(AGE) FROM PLAYER)

ORDER BY AGE ASC

----Q11----

SELECT PLAYERNAME FROM PLAYER

WHERE PLAYERNAME LIKE ‘%M%’ AND AGE =(SELECT MIN(AGE FROM

PLAYER)WHERE PLAYERNAME LIKE ‘%M%’);

----Q12----

SELECT PLAYERNAME FROM PLAYER AS P

INNER JOIN AFFILATION AS A ON P.PLAYERNUM=A.PLAYERNUM

GROUP BY P.PLAYERNUM, PLAYERNAME

HAVING COUNT(DISTINCT(A.TEAMNUM))>2;

----Q13----

SELECT PLAYERNAME FROM PLAYER AS P

LEFT OUTER JOIN AFFILIATION AS A

ON P.PLAYERNUM=A.PLAYERNUM

WHERE A.TEAMNUM IS NULL;

----Q14----

SELECT PLAYERNAME, COUNT(DISTINCT(TEAMNUM))

FROM PLAYER AS P

INNER JOIN AFFILIATION P.PLAYERNUM=A.PLAYERNUM

ORDER BY P.PLAYERNAME;

----Q15----

SELECT T.TEAMNAME,A.BATTINGAVG

FROM TEAM AS T

INNER JOIN AFFILIATION AS A T.TEAMNUM=A.TEAMNUM

ORDER BY TEAMNAME;