INTRODUCTION:

A database management system (DBMS) is a computer software other application that interacts with ends-user, other application and the database itself to capture an analyze data. A general-purpose DBMS allows the definition, creation, querying, update and administration of database.

In our project (CRICKET CLUB MANAGEMENT SYSTEM) was created by the concept of DBMS. So the main purpose of our project is to know about the basic concept of database management system.

Scenario: In a cricket club management system there is a founder or chairman who want to build a cricket club. Chairman has a unique id. His name, address, phone number, date of birth store in the system. The cricket club also has a unique id. Its name, location, phone number also stored. Chairman appointed a manager to maintain the club. Manager also have a unique id and his name, address, date of birth, phone number also stored in this system. The club has board members. They also have unique id, name, address (city, country), phone number, date of birth. Club also have many stuffs. They also have unique id, name, address (city, country), phone number, date of birth. Many players join in the club. They have unique id, name, address (city, country), phone number, date of birth. They also have type. Someone is bowler, someone is batsman and someone is wicket keeper. Manager appointed many coaches. They have unique id, name, address (city, country), phone number, date of birth. They have categories like batting coach, bowling coach, keeping coach.

Build

UNF:

ch-id, ch-name, date of birth, address, ch-phone number, club-id, club-name, location, club-phone number.

1NF:

ch-phone number, club-phone number is multivalued attributes.

ch-id, ch-name, date of birth, address, ch-phone number, club-id club-name, location, club-phone number.

2NF:

1.ch-id, Ch-name, date of birth, address, ch-phone number.

2.club-id, club-name, location, club-phone number.

3NF:

1.ch-id, ch-name, date of birth, address, ch-phone number.

2.club-id, club-name, location, club-phone number.

Table Create:

1.ch-id, ch-name, date of birth, address, ch-phone number.
2.club-id, club-name, location, club-phone number, **ch-id**

Appointed:

UNF:

ch-id, ch-name, address, date of birth, ch-phone number, m-id, m-name, m-phone number, address, date of birth.

1NF:

Here ch-phone and m-phone number is multivalued attributes.

ch-id, ch-name, address, date of birth, ch-phone number, m-id, m-name, m-phone number, address, date of birth.

2NF:

1.ch-id, ch-name, address, date of birth, ch-phone number.

2.m-id, m-name, m-phone number, address, date of birth.

3NF:

1.ch-id, ch-name, address, date of birth, ch-phone number.

2.m-id, m-name, m-phone number, address, date of birth.

Table Create:

1.ch-id, ch-name, address, date of birth, ch-phone number.
2.m-id, m-name, m-phone number, address, date of birth, **ch-id**

Maintain

UNF:

m-id, m-name, m-phone number, date of birth, address, club-id, club-name, location, club-phone number.

1NF:

Here m-phone and club-phone number is multivalued attributes.

m-id, m-name, m-phone number, date of birth, address, club-id, club-name, location, club-phone number.

2NF:

1.m-id, m-name, m-phone number, date of birth, address.

2.club-id, club-name, location, club-phone number.

3NF:

1.m-id, m-name, m-phone number, date of birth, address.

2.club-id, club-name, location, club-phone number.

Table Create:

1.m-id, m-name, m-phone number, date of birth, address.
2.club-id, club-name, location, club-phone number, **m-id**

Appointed:

UNF:

m-id, m-name, m-phone number, address, date of birth, coach-id, coach-name, coach-phone number, city, country, date of birth.

1NF:

Here m-phone and coach-phone number is multivalued attributes.

m-id, m-name, m-phone number, address, date of birth, coach-id, coach-name, coach-phone number, city, country, date of birth.

2NF:

1.m-id, m-name, m-phone number, address, date of birth.

2.coach-id, coach-name, coach-phone number, city, country,

Date of birth.

3NF:

1.m-id, m-name, m-phone number, address, date of birth.

2.coach-id, coach-name, coach-phone number, date of birth.

3.city, country.

Table Create:

1.m-id, m-name, m-phone number, address, date of birth.
2.aid, city, country.
3.coach-id, coach-name, coach-phone number, date of birth, **m-id, aid**

Categories:

UNF:

Coach-id, coach-name, coach-phone number, date of birth, city, country, bating, bowling, keeping.

1NF:

Coach-phone number is multivalued attributes.

Coach-id, coach-name, coach-phone number, date of birth, city, country, bating, bowling, keeping.

2NF:

1.coach-id, coach-name, coach-phone number, date of birth, city,

Country.

2.bating, bowling, keeping.

3NF:

1.coach-id, coach-name, coach-phone number, date of birth.

2.city, country.

3.bating, bowling, keeping.

Table Create:

1. aid, city, country.
2. coach-id, coach-name, coach-phone number, date of birth, **aid.**
3.bating, bowling, keeping, **coach-id.**

Has

UNF:

b-id, b-name, b-phone, date of birth, city, country, club-id, club-name, location, club-phone number.

1NF:

Here club-phone number and b-phone number is multivalued attributes.

b-id, b-name, b-phone, date of birth, city, country, club-id, club-name, location, club-phone number.

2NF:

1. b-id, b-name, b-phone number, date of birth, city, country.
2. club-id, club-name, location, club-phone number.

3NF:

1. b-id, b-name, b-phone number, date of birth.
2. city, country.
3. club-id, club-name, location, club-phone number.

Table creation:

1. b-id, b-name, b-phone number, date of birth, **aid**, **club-id**.
2. aid, city, country.
3. club-id, club-name, location, club-phone number.

Has:

UNF:

s-id, s-name, s-phone number, date of birth, city, country, club-id, club-name, location, club-phone.

1NF:

Here s-phone number and club-phone number is multivalued attributes.

s-id, s-name, s-phone number, date of birth, city, country, club-id, club-name, location, club-phone.

2NF:

1.club-id, club-name, location, club-phone.

2.s-id, s-name, s-phone number, date of birth, city, country.

3NF:

1.club-id, club-name, location, club-phone.

2.s-id, s-name, s-phone number, date of birth.

3.city, country.

Table Create:

1.club-id, club-name, location, club-phone.
2.s-id, s-name, s-phone number, date of birth, **aid**, **club-id.**
3.aid, city, country.

Join:

UNF:

club-id, club-name, club-phone number, location, p-id, p-name,p-phone number, date of birth, city, country.

1NF:

Club-phone number and p-phone number are multivalued attributes.

club-id, club-name, club-phone number, location, p-id, p-name,p-phone number, date of birth, city, country.

2NF:

1. club-id, club-name, club-phone number, location.
2. p-id, p-name, p-phone number, date of birth, city, country.

3NF:

1. club-id, club-name, club-phone number, location.
2. p-id, p-name, p-phone number, date of birth.
3. city, country.

Table Create:

1. club-id, club-name, club-phone number, location.
2. p-id, p-name, p-phone number, date of birth, **aid**, **club-id**.
3.aid, city, country.

Categories:

UNF:

p-id, p-name, p-phone number, date of birth, city, country, batsman, bowler, wicket keeper.

1NF:

p-phone number is multivalued attributes

p-id, p-name, p-phone number, date of birth, city, country,

batsman, bowler, wicket keeper.

2NF:

1.p-id, p-name, p-phone number, date of birth, city, country.

2.batsman, bowler, wicket keeper.

3NF:

1. p-id, p-name, p-phone number, date of birth.

2.city, country.

3. batsman, bowler, wicket keeper.

Table Create:

1. p-id, p-name, p-phone number, date of birth, **aid.**
2.aid, city, country.
3. batsman, bowler, wicket keeper, **p-id.**

Table:

1.ch-id, ch-name, ch-phone number, date of birth, address.

2.club-id, club-name, location, club-phone number, **ch-id, m-id**

3.m-id, m-name, m-phone number, date of birth, address, **ch-id**

4.p-id, p-name, p-phone number, date of birth, **aid, club-id**.

5. aid, city, country.

6.batsman, bowler, wicket keeper, **p-id.**

7.s-id, s-name, s-phone number, date of birth, **aid, club-id.**

8.b-id, b-name, b-phone number, date of birth, **aid, club-id.**

9.coach-id, coach-name, coach-phone number, date of birth, **aid, club-id.**

10.bowling, bating, wicket keeper, **coach-id.**

Table Chairman:

create table CHAIRMAN(ch_id number(10) primary key,ch_name varchar2(20) not null,date_of_birth varchar2(20),ch_phone number(20),address varchar2(50) not null);

Results Explain Describe Saved SQL History

Object Type TABLE Object CHAIRMAN

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CHAIRMAN	CH_ID	Number	-	10	0	1	-	-	-
	CH_NAME	Varchar2	20	-	-	-	-	-	-
	DATE_OF_BIRTH	Varchar2	20	-	-	-	✓	-	-
	CH_PHONE	Number	-	20	0	-	✓	-	-
	ADDRESS	Varchar2	50	-	-	-	-	-	-

1 - 5

Table CRICKET CLUB:

create table CRICKET_CLUB(club_id number(10) primary key,club_name varchar2(20) not null,location varchar2(20) not null,club_phone number(20),ch_id number(10),mid number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object CRICKET_CLUB

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CRICKET_CLUB	CLUB_ID	Number	-	10	0	1	-	-	-
	CLUB_NAME	Varchar2	20	-	-	-	-	-	-
	LOCATION	Varchar2	20	-	-	-	-	-	-
	CLUB_PHONE	Number	-	20	0	-	✓	-	-
	CH_ID	Number	-	10	0	-	✓	-	-
	MID	Number	-	10	0	-	✓	-	-

1 - 6

Table MANAGER:

create table MANAGER(mid number(10) primary key,m_name varchar2(20) not null,m_phone number(20),date_of_birth varchar2(20),address varchar2(50) not null,ch_id number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object MANAGER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MANAGER	MID	Number	-	10	0	1	-	-	-
	M_NAME	Varchar2	20	-	-	-	-	-	-
	M_PHONE	Number	-	20	0	-	✓	-	-
	DATE_OF_BIRTH	Varchar2	20	-	-	-	✓	-	-
	ADDRESS	Varchar2	50	-	-	-	-	-	-
	CH_ID	Number	-	10	0	-	✓	-	-

1 - 6

Table ADDRESS:

create table ADDRESS(aid number(10) primary key,city varchar2(20),country varchar2(20));

Results Explain Describe Saved SQL History

Object Type TABLE Object ADDRESS

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ADDRESS	AID	Number	-	10	0	1	-	-	-
	CITY	Varchar2	20	-	-	-	✓	-	-
	COUNTRY	Varchar2	20	-	-	-	✓	-	-

1 - 3

Table PLAYER:

create table PLAYER(pid number(10) primary key, p_name varchar2(20) not null,p_phone number(20),date_of_birth varchar2(20),aid number(10),club_id number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object PLAYER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PLAYER	PID	Number	-	10	0	1	-	-	-
	P_NAME	Varchar2	20	-	-	-	-	-	-
	P_PHONE	Number	-	20	0	-	✓	-	-
	DATE_OF_BIRTH	Varchar2	20	-	-	-	✓	-	-
	AID	Number	-	10	0	-	✓	-	-
	CLUB_ID	Number	-	10	0	-	✓	-	-

1 - 6

Table TYPE:

create table TYPE(batsman varchar2(3),bowler varchar2(3),wicket_keeper varchar2(3),pid number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object TYPE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TYPE	BATSMAN	Varchar2	3	-	-	-	✓	-	-
	BOWLER	Varchar2	3	-	-	-	✓	-	-
	WICKET_KEEPER	Varchar2	3	-	-	-	✓	-	-
	PID	Number	-	10	0	-	✓	-	-

1 - 4

Table STUFF:

create table STAFF(sid number(10) primary key,sname varchar2(20) not null,sphone number(20),date_of_birth varchar2(20),aid number(10),club_id number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object STAFF

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STAFF	SID	Number	-	10	0	1	-	-	-
	SNAME	Varchar2	20	-	-	-	-	-	-
	SPHONE	Number	-	20	0	-	✓	-	-
	DATE_OF_BIRTH	Varchar2	20	-	-	-	✓	-	-
	AID	Number	-	10	0	-	✓	-	-
	CLUB_ID	Number	-	10	0	-	✓	-	-

1 - 6

Table BOARD MEMBERS:

create table BOARD_MEMBER(bid number(10) primary key,bname varchar2(20) not null,bphone varchar2(20),date_of_birth varchar2(20),aid number(10),club_id number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object BOARD_MEMBER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
BOARD_MEMBER	BID	Number	-	10	0	1	-	-	-
	BNAME	Varchar2	20	-	-	-	-	-	-
	BPHONE	Varchar2	20	-	-	-	✓	-	-
	DATE_OF_BIRTH	Varchar2	20	-	-	-	✓	-	-
	AID	Number	-	10	0	-	✓	-	-
	CLUB_ID	Number	-	10	0	-	✓	-	-

1 - 6

Table COACH:

create table COACH(cid number(10) primary key,cname varchar2(20) not null,cphone number(20),date_of_birth varchar2(20),aid number(10),mid number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object COACH

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
COACH	CID	Number	-	10	0	1	-	-	-
	CNAME	Varchar2	20	-	-	-	-	-	-
	CPHONE	Number	-	20	0	-	✓	-	-
	DATE_OF_BIRTH	Varchar2	20	-	-	-	✓	-	-
	AID	Number	-	10	0	-	✓	-	-
	MID	Number	-	10	0	-	✓	-	-

1 - 6

Table CATAGORIES:

create table CATAGORIES(bating varchar2(3),bowling varchar2(3),wicket_keeping varchar2(3),cid number(10));

Results Explain Describe Saved SQL History

Object Type TABLE Object CATAGORIES

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CATAGORIES	BATING	Varchar2	3	-	-	-	✓	-	-
	BOWLING	Varchar2	3	-	-	-	✓	-	-
	WICKET_KEEPING	Varchar2	3	-	-	-	✓	-	-
	CID	Number	-	10	0	-	✓	-	-

1 - 4

CONSTRAINTS:

1.alter table MANAGER add constraint fk foreign key(ch_id) references CHAIRMAN(ch_id);

2.alter table CRICKET_CLUB add constraint fkk foreign key(ch_id) references CHAIRMAN(ch_id);

3.alter table CRICKET_CLUB add constraint fkpppp foreign key(mid) references MANAGER(mid);

4.alter table PLAYER add constraint f foreign key(aid) references ADDRESS(aid);

5.alter table PLAYER add constraint fp foreign key(club_id) references CRICKET_CLUB(club_id);

6.alter table TYPE add constraint fpp foreign key(pid) references PLAYER(pid);

7.alter table STAFF add constraint fkkk foreign key(aid) references ADDRESS(aid);

8.alter table STAFF add constraint fkkp foreign key(club_id) references CRICKET_CLUB(club_id);

9.alter table BOARD_MEMBER add constraint fkpk foreign key(aid) references ADDRESS(aid);

10.alter table BOARD_MEMBER add constraint fpkp foreign key(club_id) references CRICKET_CLUB(club_id);

11.alter table COACH add constraint fpkk foreign key(mid) references MANAGER(mid);

CONTINUE CONSTRAINTS>>>>>

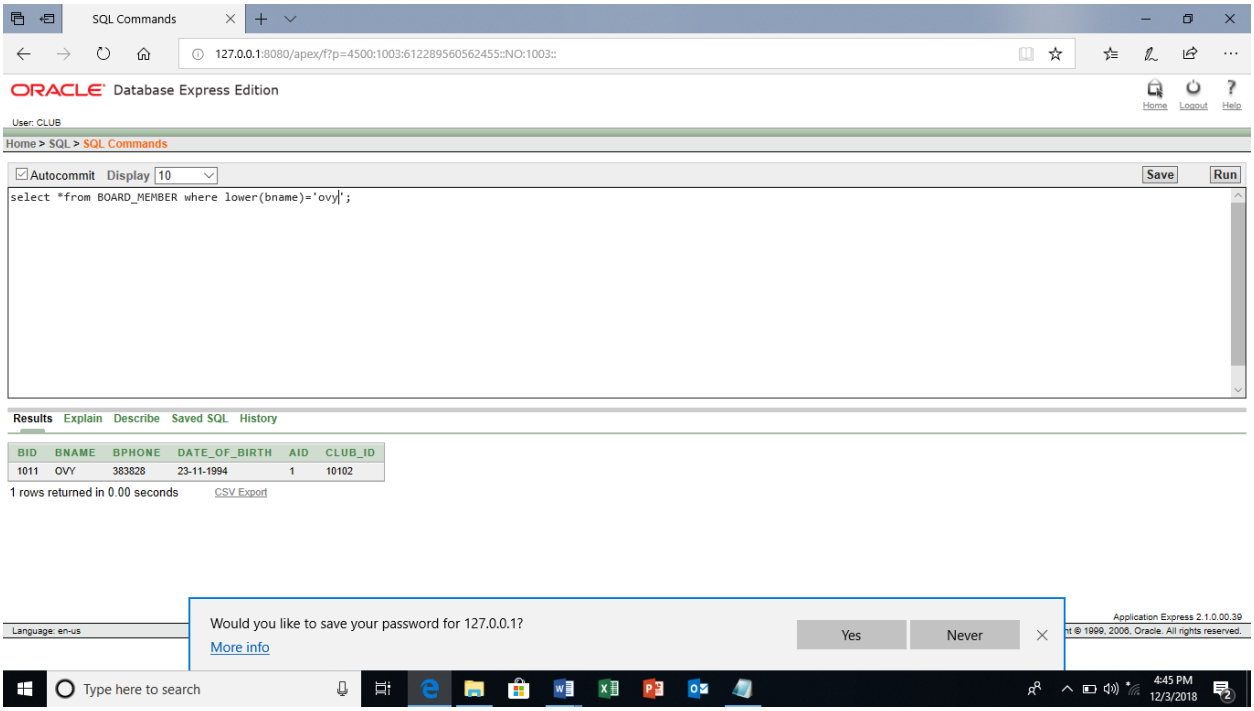
12.alter table COACH add constraint fppp foreign key(aid) references ADDRESS(aid);

13.alter table CATAGORIES add constraint fppk foreign key(cid) references COACH(cid);

QUERY WRITING:

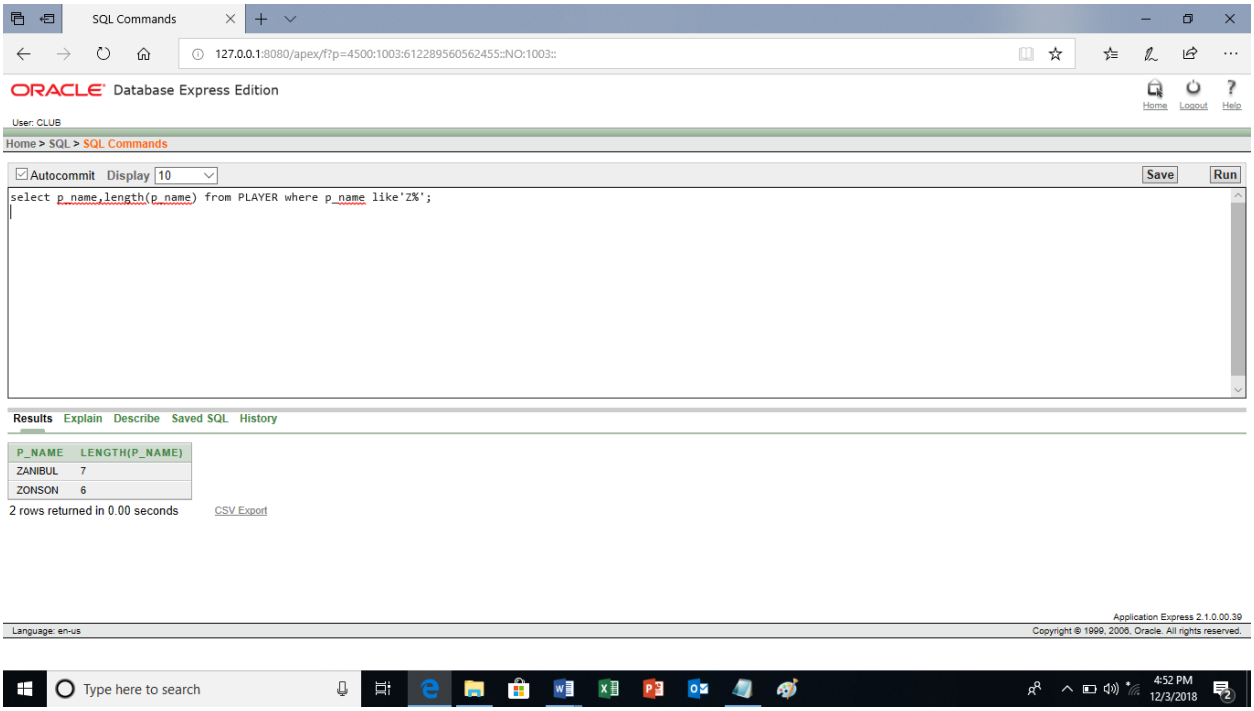
1.DISPLAY ALL DATA OF BOARD MEMBER ovy

Ans: select * from BOARD_MEMBER where lower(bname)=’ovy’;



2. DISPLAY player name and length of player name ,name starts with Z

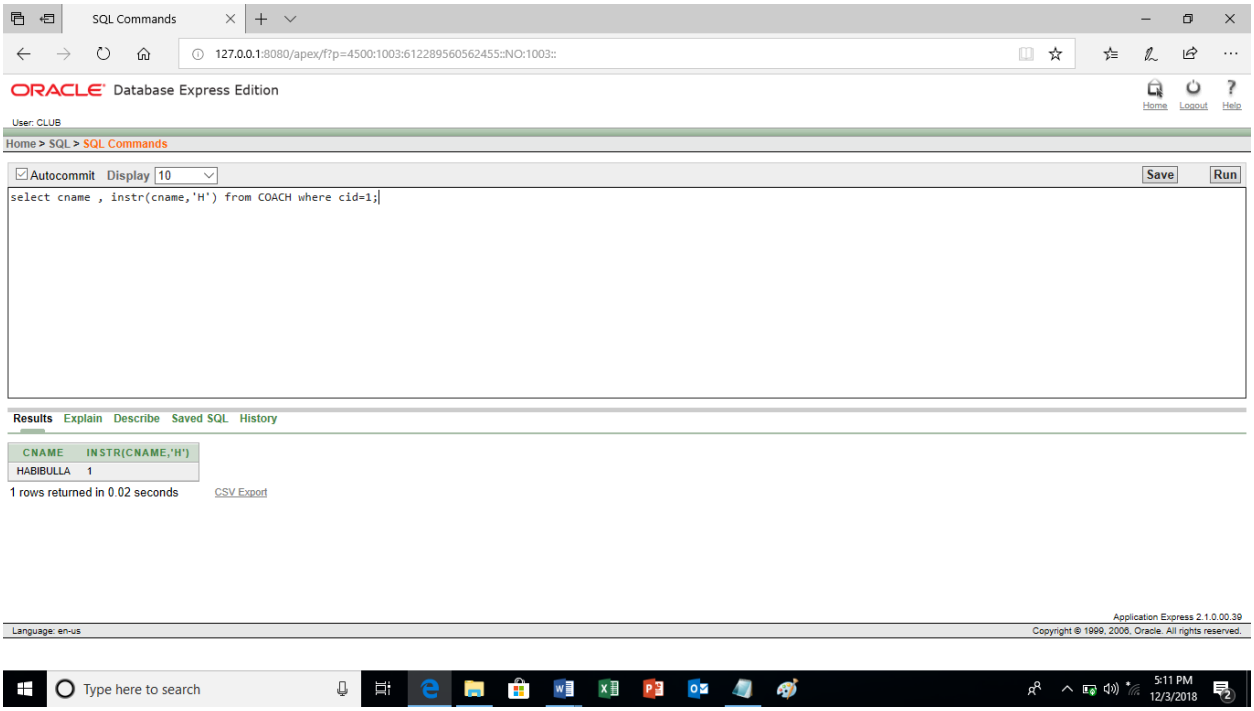
ANS: select p_name,length(p_name) from PLAYER where p_name like'Z%';



3.DISPLAY COACH NAME,THE FIRST POSITION OF ALPHABET H IN COACH NAME OF 1 ID HOLDER

Ans:

select cname , instr(cname,'H') from COACH where cid=1;



GROUP FUNCTION:

1.DISPLAY THE NUMBER OF BOARD MEMBER

Ans: select count(bid) from BOARD_MEMBER;