# **Q 2**

1. Π FirstName , LastName, MemberID (σ Coach

=’null’ (Member))

1. {t | ∃ m ∈ Member (t[FirstName] = m[FirstName] ∧

t[LastName] = m[LastName] ∧ t[MemberID] =

m[MemberID] ∧ m[Coach] = ‘null’)}

1. select FirstName , LastName, MemberID from

Member where Coach is null;

1. Π FirstName , LastName, MemberID (σ

JoinDate>= '1/1/2013'  ^

Joindate <= '12/31/2013' (Member))

1. {t | ∃ m ∈ Member (t[FirstName] = m[FirstName] ∧

t[LastName] = m[LastName] ∧ t[MemberID] =

m[MemberID] ∧ m[JoinDate] >= '1/1/2013' ∧

m[JoinDate] <= '12/31/2013')}

1. [select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) FirstName , LastName, MemberID from

Member where JoinDate>= '1/1/2013'

[and](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/logical-operators.html#operator_and) Joindate <= '12/31/2013'

(1) Π FirstName , LastName, MemberID (σ

Year <> '2013' (Member ⋈ Entry))

(2) {t | ∃ m ∈ Member (t[FirstName] = m[FirstName] ∧

t[LastName] = m[LastName] ∧ t[MemberID] =

m[MemberID] ∧ ∃ e ∈ Entry (m[MemberID] =

e[MemberID] ^ e[Year] <> '2013'))}

(3) select concat(m.FirstName,' ', m.LastName) as

MemberName , m.MemberID from Member m join Entry

e on(m.MemberID= e.MemberID) where e.Year!=2013;

d)

1. Π FirstName , LastName, MemberID (σ

Entry.Year = e2.Year (xP e2 (Entry) ⋈ Member ⋈ Entry))

1. {t | ∃ m ∈ Member (t[FirstName] =

m[FirstName] ∧ t[LastName] = m[LastName] ∧

t[MemberID] = m[MemberID] ∧ ∃ e,e2 ∈ Entry

(m[MemberID] = e[MemberID] ^ e[MemberID] =

e2[MemberID] ^ e[Year] = e2[Year] ))}

1. select distinct m.FirstName , m.LastName,

m.MemberID from Member m join Entry e on

(m.MemberID=e.MemberID) Join Entry e2

on(e2.MemberID=e.MemberID) where

e.Year=e2.Year ;