Solution to Assignment 2

1 Basket player data

1.1 Q1

$$\Pi_{name,ID,Email}(\sigma_{PlayPos} =' Middle'(Player))$$

1.2 Q2

$$\Pi_{S.year,S.totalPoints}($$

$$\sigma_{(P.ID=S.PlayerID)\wedge(P.Name='LoboLouie')}$$

$$(\rho_P(Player) \times \rho_S(Stats))$$

$$)$$

1.3 Q3

$$\Pi_{P.Name}($$

$$\sigma_{(P.ID=L.PlayerID)\wedge(L.GameID=G.GameID)\wedge(G.Result=\text{“}lose\text{”})\wedge(G.PlayingVenue=\text{”}PanAm\text{”})}$$

$$(\rho_P(Player) \times \rho_G(Game) \times \rho_L(Play))$$

$$)$$

1.4 Q4

Find the average points scored by all players

$G_{avg(S.TotalPoints)}(\rho_S(Stats))$

1.5 Q5

Find the maximum points scored in each year

$_{S.year}G_{max(S.totalPoints)}(\rho_S(Stats))$

2 Book data

2.1 Q1

SELECT b.title

FROM books b, borrowed br, members m

WHERE b.isbn = br.isbn and m.memb_no = br.memb_no and m.name = "Sam";

2.2 Q2

SELECT*

FROM members

WHERE name not like "a%";

2.3 Q3

SELECT m.memb_no, count(m.memb_no)

FROM members m, borrowed br

WHERE m.memb_no = br.memb_no and m.name= "Sam" GROUP BY m.memb_no

ORDER BY count(m.memb_no) ASC;

2.4 Q4

SELECT *

FROM members

WHERE name like "%m%";

2.5 Q5

SELECT DISTINCT(b.publisher)

FROM members m, books b, borrowed br

WHERE m.memb_no = br.memb_no and br.isbn = b.isbn and m.name = “Kim”;