

# University of Colombo School of Computing

## SCS 2209- Database II

### Lab Sheet 02

3)

a)  $R1 \leftarrow \sigma \text{ Address LIKE \%Mirissa\% (Hotel)}$

$R2 \leftarrow \rho \text{ Hotel, Telephone, Address } (\pi \text{ Name, PhoneNo, Address } (R1))$

b)  $R1 \leftarrow \sigma \text{ price} < 10000 \text{ (RoomType)}$

$R2 \leftarrow \sigma \text{ type} = \text{'double'} \text{ OR } \text{type} = \text{'family'} \text{ (Room)}$

$R3 \leftarrow (R1) \bowtie R1.\text{RoomNo} = R2.\text{RoomNo} \text{ (R2)}$

$R4 \leftarrow \tau \text{ price } (R3)$

$R5 \leftarrow R4 \bowtie \text{Hotel.HotelNo} = R4.\text{HotelNo} \text{ (Hotel)}$

$R6 \leftarrow \pi \text{ Name, Type, RoomNo } (R5)$

$R7 \leftarrow \rho \text{ Hotel, RoomType, RoomNo } (R6)$

c)  $R1 \leftarrow \sigma \text{ type} = \text{'A/C double'} \text{ (RoomType)}$

$R2 \leftarrow \rho \text{ TotalIncome } (\pi \text{ sum(price) } (R1))$

4)

a) `SELECT name AS 'Hotel', PhoneNo AS 'Telephone', Address FROM Hotel WHERE Address LIKE '%Mirissa%';`

b) `SELECT h.Name AS 'Hotel', t.Type AS 'Room Type', r.Room_No AS 'Room No' FROM Hotel h, RoomType t, Room r WHERE h.Hotel_No AND (t.Type="double" OR t.type="family") AND t.price<=10000.00;`

c) `SELECT SUM(price) AS 'Total Income' FROM RoomType WHERE Type="A/C double";`