Brian Johnston  
Assignment 2  
CS-300-ON  
Database Management Systems

1. List only the name and rating for all Sailors.   
   **πname, rating(S)**
2. List all sailor information for sailors with a rating>8).    
   **σrating>8(S)**
3. List the boat id for boats all red boats.    
   **πbid(σcolor=”red”(B))**
4. List the boat id for all red boats and all green boats.    
   **πbid(σcolor=”red” or color=”green”(B))**
5. List the name of every sailor who is aged 16 or under.    
   **πname(σage<=16(S))**
6. List the name and rating for all sailors who have a rating of 7 and below.    
   **πname, rating(σrating<=7(S))**
7. Count the number of reservations for boat number 4.    
   ζCOUNT sid(**σbid=4(R))**
8. Find the names of sailors who have reserved boat 103.    
   **πsname(σbid=103(πsid, bid(R) ⋈ πsid, sname(S)))**
9. Find the names of sailors who have reserved a red boat.    
   **πsname(σcolor=”red”((πbid, color(B) ⋈ πsid, bid(R)) ⋈ πsid, sname(S)))**
10. Find the colors of the boats reserved by Lubber.    
    **πcolor(σsname=”Lubber”((πbid, color(B) ⋈ πsid, bid(R)) ⋈ πsid, sname(S)))**
11. Find the names of sailors who have reserved a red and green boat.    
    **πsname(σcolor=”red” and color=”green”((πbid, color(B) ⋈ πsid, bid(R)) ⋈ πsid, sname(S)))**
12. Find the names of sailors with age over 20 who have not reserved a red boat.    
    **πsname(σage>20 and color!=”red”((πbid, color(B) ⋈ πsid, bid(R)) ⋈ πsid, sname(S)))**