**SAILOR (Sid, Sname, Rating, Age)**

**BOAT (Bid, Bname, Color)**

**RESERVES (Sid, Bid, Date)**

**1- Find names of sailors who’ve reserved boat #103**

SELECT Sname

FROM SAILOR as S, RESERVES as R,

WHERE S.Sid = R.Sid AND R.Bid = ‘103’

**2- Find names of sailors who’ve reserved a red boat**

SELECT Sname

FROM SAILOR as S, RESERVES as R, BOAT as B,

WHERE S.Sid = R.Sid AND R.Bid = B.Bid AND B.Color = ‘Red’

**3- Find sailors (i.e. all sailor info) who’ve reserved at least two different boats. DO NOT USE COUNT DISTINCT.**

SELECT \*

FROM SAILOR as S, RESERVES as R, RESERVES as R2,

WHERE S.Sid = R.Sid AND S.Sid = R2.Sid AND R.Bid <> R2.Bid

**4- Find sailors who’ve reserved a red or a green boat. DO NOT USE THE UNION OPERATOR.**

SELECT \*

FROM SAILOR as S, RESERVES as R, BOAT as B,

WHERE S.Sid = R.Sid AND ((R.Bid = B.Bid AND B.Color = ‘Red’) OR (R.Bid = B.Bid AND B.Color = ‘Green’))

**5- Find sailors who’ve reserved a red boat or a green boat. USE THE UNION OPERATOR.**

SELECT \*

FROM SAILOR as S, RESERVES as R, BOAT as B,

WHERE S.Sid = R.Sid AND R.Bid = B.Bid AND B.Color = ‘Red’

UNION

SELECT \*

FROM SAILOR as S, RESERVES as R, BOAT as B,

WHERE S.Sid = R.Sid AND R.Bid = B.Bid AND B.Color = ‘Green’

**6- Find sailors who’ve reserved a red boat and a green boat**

SELECT \*

FROM SAILOR as S, RESERVES as R, RESERVES as R2, BOAT as B,

WHERE (S.Sid = R.Sid AND R.Bid = B.Bid AND B.Color = ‘Red’)

AND (S.Sid = R2.Sid AND R.Bid = B.Bid AND B.Color = ‘Green’)

**7- Find sailors who’ve reserved a red boat but not a green boat**

SELECT \*

FROM SAILOR as S, RESERVES as R, RESERVES as R2, BOAT as B,

WHERE (S.Sid = R.Sid AND R.Bid = B.Bid AND B.Color = ‘Red’)

AND (S.Sid = R.Sid AND R.Bid = B.Bid AND B.Color <> ‘Green’)

**8- For each sailor rating group, find the average age of sailors.**

SELECT AVG (Age)

FROM SAILOR

GROUP BY Rating

**9- For each sailor rating group with at least two eligible voter (>=18 years), find the average age of its sailors who are eligible to vote.**

SELECT AVG(AGE)

FROM SAILOR

WHERE AGE >= 18

GROUP BY RATING

HAVING COUNT(\*) > 1

**10- Find names and the result of incrementing the ratings by 1 for sailors who have sailed two different boats on the same day. DO NOT USE AGGREGATE FUNCTIONS.**

**11- Find names and ids for sailors who’ve reserved at least two different boats. USE COUNT DISTINCT.**

SELECT Sname, Sid

FROM SAILOR as S, RESERVES as R,

WHERE S.Sid = R.Sid AND

(SELECT COUNT(DISTINCT BID)

FROM RESERVES as R

WHERE S.Sid = R.Sid) > 1