-- LAB #1 DDL--

-- DROP TABLES IF EXISTS.

DROP TABLE reserves;

DROP TABLE sailors;

DROP TABLE boats;

-- CREATE TABLES

CREATE TABLE sailors(

sid INT NOT NULL CONSTRAINT sailors\_PK PRIMARY KEY,

sname VARCHAR2(20),

rating INT,

age DECIMAL(4,1)

);

CREATE TABLE boats(

bid INT NOT NULL CONSTRAINT BOAT\_PK PRIMARY KEY,

bname VARCHAR2(20),

color VARCHAR2(20)

);

CREATE TABLE reserves(

sid INT,

bid INT,

day DATE,

PRIMARY KEY (sid,bid,day),

FOREIGN KEY (sid) REFERENCES sailors(sid) ON DELETE CASCADE,

FOREIGN KEY (bid) REFERENCES boats(bid) ON DELETE CASCADE

);

-- INITIALIZE THE TABLES

INSERT INTO sailors (sid,sname,rating,age) VALUES(22,'Dustin',7,45.0);

INSERT INTO sailors (sid,sname,rating,age) VALUES(29,'Brutus',1,33.0);

INSERT INTO sailors (sid,sname,rating,age) VALUES(31,'Lubber',8,55.5);

INSERT INTO sailors (sid,sname,rating,age) VALUES(32,'Andy',8,25.5);

INSERT INTO sailors (sid,sname,rating,age) VALUES(58,'Rusty',10,35.0);

INSERT INTO sailors (sid,sname,rating,age) VALUES(64,'Horataio',7,35.0);

INSERT INTO sailors (sid,sname,rating,age) VALUES(71,'Zorba',10,16.0);

INSERT INTO sailors (sid,sname,rating,age) VALUES(74,'Horataio',9,35.0);

INSERT INTO sailors (sid,sname,rating,age) VALUES(85,'Art',3,25.5);

INSERT INTO sailors (sid,sname,rating,age) VALUES(95,'Bob',3,63.5);

INSERT INTO boats (bid,bname,color) VALUES(101,'Interlake','blue');

INSERT INTO boats (bid,bname,color) VALUES(102,'Interlake','red');

INSERT INTO boats (bid,bname,color) VALUES(103,'Clipper','green');

INSERT INTO boats (bid,bname,color) VALUES(104,'Marine','red');

INSERT INTO reserves(sid,bid,day) VALUES(58,101,'10-OCT-20');

INSERT INTO reserves(sid,bid,day) VALUES(58,102,'10-OCT-20');

INSERT INTO reserves(sid,bid,day) VALUES(58,103,'8-OCT-20');

INSERT INTO reserves(sid,bid,day) VALUES(29,104,'7-OCT-20');

INSERT INTO reserves(sid,bid,day) VALUES(29,102,'10-Nov-20');

INSERT INTO reserves(sid,bid,day) VALUES(71,103,'6-NOV-20');

INSERT INTO reserves(sid,bid,day) VALUES(74,104,'12-NOV-20');

INSERT INTO reserves(sid,bid,day) VALUES(64,101,'5-SEP-20');

INSERT INTO reserves(sid,bid,day) VALUES(64,102,'8-SEP-20');

INSERT INTO reserves(sid,bid,day) VALUES(74,103,'8-SEP-20');

COMMIT;

-- END LAB #1 DDL---- Lab #1 Question s

--1 Find the names of sailors who have reserved boat number 102

--2 Find the names of sailors who have reserved any boat other than boat number 102

EXTRA CREDIT

+2 points extra for --- find ALL sailors who have NEVER reserved boat 102

--3 Find the names of sailors who have reserved a blue boat

--4 Find the colors of boats reserved by Rusty

--5 Find the names of sailors who have reserved at least one boat

--6 Find the names of sailors who have reserved a red or a blue boat

-- DO NOT SUBMIT THIS PART

--7 After you have com pleted all of th e above, drop the

-- ANSWERS TO THE LAB

-- QUESTION 1

SET ECHO ON;

SELECT sname

FROM sailors S JOIN reserves r

ON s.sid = r.sid

WHERE bid = 102;

-- QUESTION 2

SELECT DISTINCT sname

FROM sailors s JOIN reserves r

ON s.sid = r.sid

WHERE bid != 102;

-- EXTRA CREDIT

SELECT sname

FROM sailors s JOIN reserves r

ON s.sid = r.sid

WHERE bid != 102;

-- QUESTION 3

SELECT DISTINCT sname

FROM sailors s, reserves r, boats b

WHERE s.sid = r.sid

AND r.bid = b.bid

AND b.color = 'blue';

-- QUESTION 4

SELECT color

FROM boats b JOIN reserves r

ON b.bid = r.bid

JOIN sailors s

ON s.sid = r.sid

WHERE sname = 'Rusty';

-- QUESTION 5

SELECT DISTINCT S.sname, S.sid

FROM sailors S, reserves R

WHERE S.sid = R.sid

ORDER BY sid;

-- QUESTION 6

SELECT DISTINCT sname, sailors.sid

FROM sailors JOIN reserves

ON sailors.sid = reserves.sid

JOIN boats

ON boats.bid = reserves.bid

WHERE color IN ('red', 'blue');