Introduction to Databases

Constraints

- Sailors(sid:integer, sname:string,rating:integer,age:real)
- Boats(bid:integer, bname: string, color: string)
- Reserves(sid:integer, bid: integer, day: date)
- Rating must be between 1 and 10

CREATE TABLE Sailors (sid INTEGER,
  sname CHAR (10),
  rating INTEGER,
  age REAL,
  PRIMARY KEY (sid)
CHECK (rating >=1 AND rating <=10)
Constraints

- Sailors(sid:integer, sname:string,rating:integer,age:real)
- Boats(bid:integer, bname: string, color: string)
- Reserves(sid:integer, bid: integer, day: date)
- Make sure Interlake boats cannot be reserved

CREATE TABLE Reserves (sid INTEGER, bid INTEGER, day DATE, FOREIGN KEY (sid) REFERENCES Sailors, FOREIGN KEY (bid) REFERENCES Boats, CONSTRAINTS noInterlakeRes CHECK ('Interlake' NOT IN (SELECT B.bname FROM Boats B WHERE B.bid = Reserves.bid))

Assertions

- Sailors(sid:integer, sname:string,rating:integer,age:real)
- Boats(bid:integer, bname: string, color: string)
- Reserves(sid:integer, bid: integer, day: date)
- Make sure the number of sailors plus number of boats is less than 100 to be considered as a small club
Assertions

- Sailors(sid: integer, sname: string, rating: integer, age: real)
- Boats(bid: integer, bname: string, color: string)
- Reserves(sid: integer, bid: integer, day: date)

- CREATE ASSERTION smallClub
  CHECK ((SELECT COUNT(S.sid) FROM Sailors S) + (SELECT COUNT(B.bid) FROM Boats B) < 100)

Any Questions?