

PCA 1 MAKAUT ODD SEMESTER 2024

NAME	RUPAK SARKAR
STREAM	MCA
SEMESTER	1 ST
SUBJECT	RELATIONAL DATABASE
	MANAGEMENT SYSTEM
SUBJECT CODE	CODE: MCAN-192
UNIVERSITY	14271024036
ROLL:	

Q. CREATE THE TABLES WITH THE FOLLOWING SCHEMA:

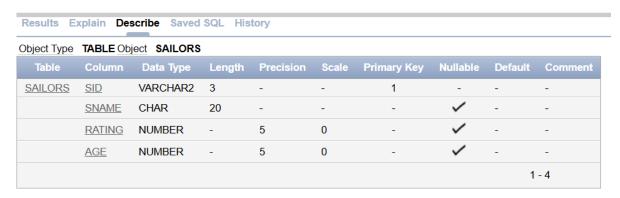
SAILORS(SID, SNAME, RATING, AGE)

BOATS(BID, BNAME, COLOR)

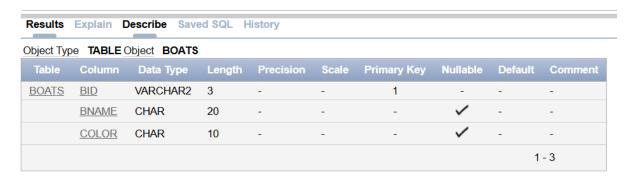
RESERVES(SID, BID, DAY(DATE))

Ans:

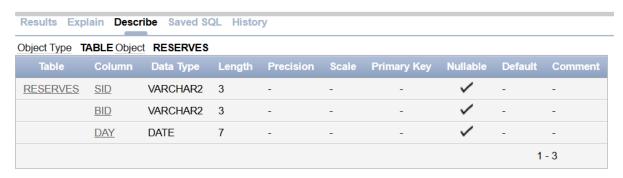
SQL: CREATE TABLE SAILORS(SID VARCHAR2(3) PRIMARY KEY, SNAME CHAR(20), RATING NUMBER(5), AGE NUMBER(5));



SQL: CREATE TABLE BOATS(BID VARCHAR2(3) PRIMARY KEY, BNAME CHAR(20), COLOR CHAR(10));



SQL: CREATE TABLE RESERVES(SID VARCHAR2(3), FOREIGN KEY(SID) REFERENCES SAILORS, BID VARCHAR2(3), FOREIGN KEY(BID) REFERENCES BOATS, DAY DATE);



VALUES OF THE TABLES:

VALUE OF SAILORS TABLE:

Result	s Explain	Describe	Saved So	QL
SID	SNAME	RATING	AGE	
S01	RUPAK	5	22	
S02	SAYAN	1	24	
S03	CHIRU	4	22	
S04	SUBRATA	5	21	
S05	SUDIPTA	4	20	
_				

VALUE OF BOATS TABLE:



5 rows returned in 0.00 seconds

VALUES OF RESERVES TABLE:

Resul	ts Exp	olain Describe	Sa
SID	BID	DAY	
S01	101	11/01/2002	
S02	101	11/02/2002	
S03	103	11/27/2002	

3 rows returned in 0.00 seconds

Q.1. Find the information of all the sailors who have reserved boat reserved boat number 101.

SQL: SELECT * FROM SAILORS S WHERE S.SID IN (SELECT R.SID FROM RESERVES R WHERE R.BID = 101);

Result	s Explain	Describe	Save	d SQL History
SID	SNAME	RATING	AGE	
S01	RUPAK	5	22	
S02	SAYAN	1	24	
2 rows returned in 0.00 seconds Download				

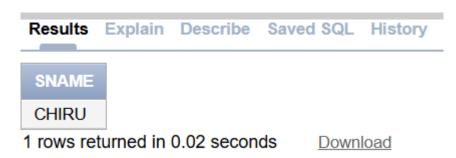
Q.2. FIND THE NAME OF THE BOAT RESERVED BY BOB.

SQL: SELECT B.BNAME FROM BOATS B WHERE B.BID IN (SELECT R.BID FROM RESERVES R WHERE R.SID = (SELECT S.SID FROM SAILORS S WHERE S.SNAME = 'BOB'));



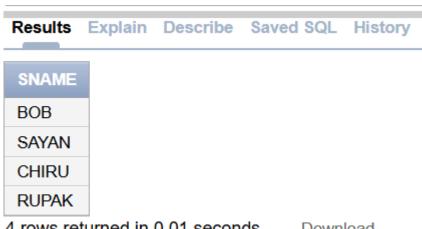
Q.3. FIND THE NAME OF THE SAILORS WHO HAVE RESERVED THE RED BOAT, AND LIST IN THE ORDER OF AGE.

SQL: SELECT S.SNAME FROM SAILORS S WHERE S.SID IN (SELECT R.SID FROM RESERVES R WHERE R.BID IN (SELECT B.BID FROM BOATS B WHERE B.COLOR = 'RED')) ORDER BY S.AGE;



Q.4. FIND THE NAMES OF SAILORS WHO HAVE RESERVED AT LEAST ONE BOAT.

SQL: SELECT DISTINCT S.SNAME FROM Sailors S WHERE S.SID IN (SELECT R.SID FROM RESERVES R);



4 rows returned in 0.01 seconds Download

Q.5. FIND THE IDS AND NAMES OF SAILORS WHO HAVE RESERVED TWO DIFFERENT BOATS ON THE SAME DAY.

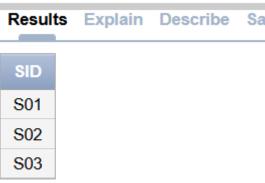
SQL: SELECT DISTINCT S.SID, S.SNAME FROM SAILORS S JOIN RESERVES R1 ON S.SID = R1.SID JOIN RESERVES R2 ON S.SID = R2.SID WHERE R1.DAY = R2.DAY AND R1.BID <> R2.BID;



1 rows returned in 0.01 seconds

Q.6. FIND THE IDS OF SAILORS WHO HAVE RESERVED A RED BOAT OR A GREEN BOAT.

SQL: SELECT DISTINCT R.SID FROM RESERVES R WHERE R.BID IN (SELECT B.BID FROM BOATS B WHERE B.COLOR = 'RED' OR B.COLOR = 'GREEN');



3 rows returned in 0.00 seconds

Q.7. FIND THE NAME AND AGE OF THE YOUNGEST SAILOR.

SQL: SELECT SNAME, AGE FROM SAILORS WHERE AGE = (SELECT MIN(AGE) FROM SAILORS);



1 rows returned in 0.00 seconds

Q.8. COUNT THE NUMBER OF DIFFERENT SAILOR NAMES.

SQL: SELECT COUNT(DISTINCT SNAME) AS UNIQUE_NAMES FROM SAILORS;



1 rows returned in 0.00 seconds

Q.9. FIND THE AVERAGE AGE OF SAILORS FOR EACH RATING LEVEL.

SQL: SELECT RATING, AVG(AGE) AS AVG_AGE FROM SAILORS GROUP BY RATING;

Results	Explain	Describe	Saved SQL	History
RATING			AVG_AGE	
1	24			
5	22.666	666666666	666666666666666666666666666666666666666	66666666666666667
4	21			
3 rows ref	turned in	0.01 secon	ds <u>Down</u>	load

Q.10. FIND THE AVERAGE AGE OF SAILORS FOR EACH RATING LEVEL THAT HAS AT LEAST TWO SAILORS.

SQL: SELECT RATING, AVG(AGE) AS AVG_AGE FROM SAILORS GROUP BY RATING HAVING COUNT(*) >= 2;

Results	Explain	Describe	Saved SQL	History
RATING			AVG_AGE	
5	22.666	666666666	666666666666666666666666666666666666666	66666666666666667
4	21			
2 rows ret	turned in	0.01 secon	ds Down	lnad