

Assignment 1 -DDL Commands

Aim:

To learn the DDL Commands such as

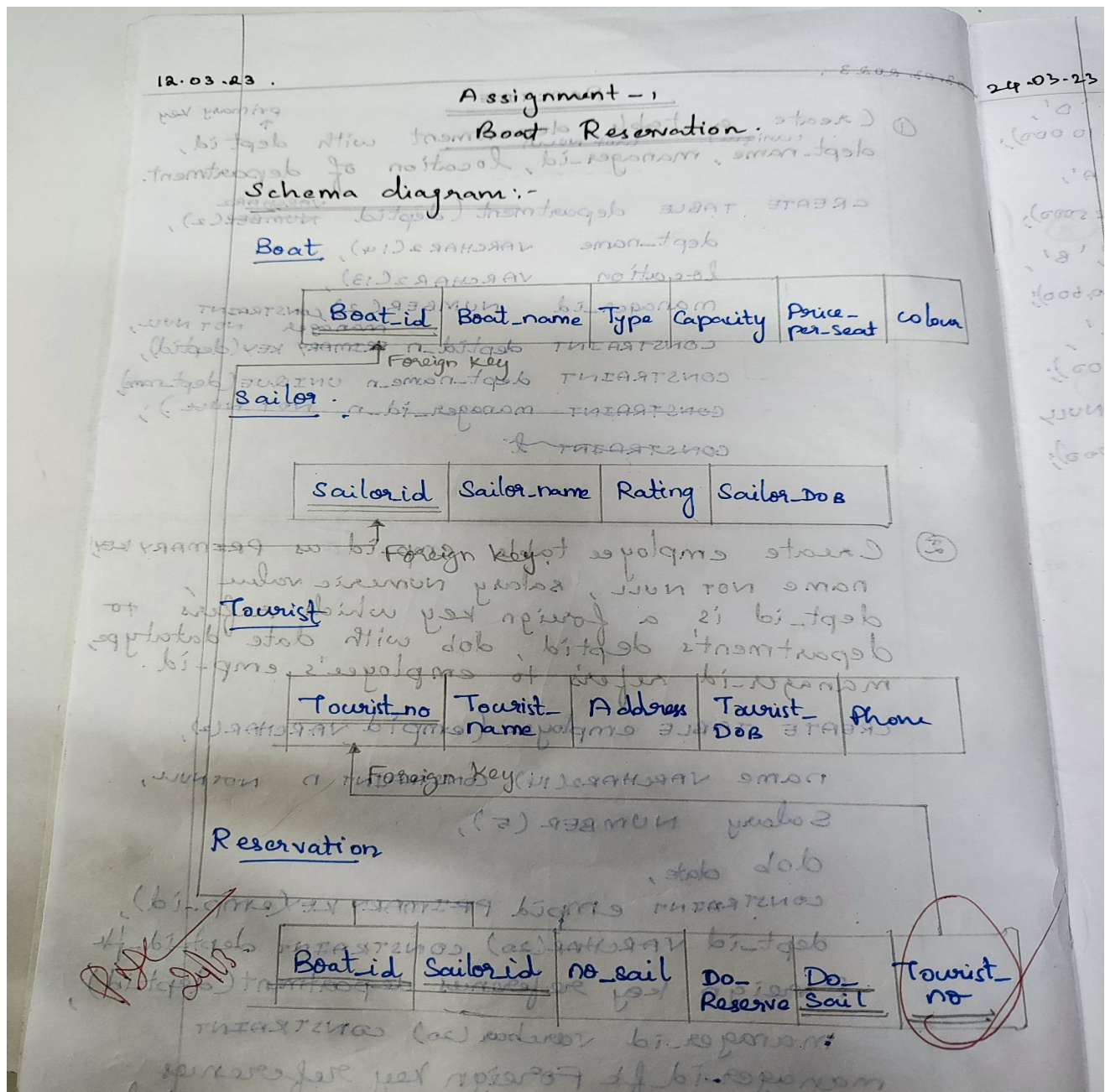
- a) CREATE
- b) DROP
- c) ALTER

To implement the above commands in boat reservation problem.

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Schema Diagram:



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Script File:

SQL> @"Z:\Rohith_085\Assignment-1\Creation.sql"

SQL> REM Dropping tables

SQL>

SQL> DROP table Reservation;

Table dropped.

SQL> DROP TABLE Tourist;

Table dropped.

SQL> DROP TABLE Sailor;

Table dropped.

SQL> DROP TABLE Boat;

Table dropped.

SQL>

SQL>

SQL>

SQL>

SQL> REM Boat table creation

SQL>

SQL> CREATE TABLE Boat(

2 boat_id VARCHAR(10) CONSTRAINT boat_id_pk PRIMARY KEY,

3 boat_name VARCHAR(20),

4 type VARCHAR(20) CONSTRAINT type_check CHECK(type in ('LUX','CAR','CRU')),

5 capacity NUMBER(4),

6 price_per_seat NUMBER(12),

7 colour VARCHAR(20)

8);

Table created.

SQL>

SQL>

SQL>

SQL>

SQL> REM Description values

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SQL>

SQL> DESCRIBE Boat;

Name	Null?	Type
BOAT_ID	NOT NULL	VARCHAR2(10)
BOAT_NAME		VARCHAR2(20)
TYPE		VARCHAR2(20)
CAPACITY		NUMBER(4)
PRICE_PER_SEAT		NUMBER(12)
COLOUR		VARCHAR2(20)

SQL>

SQL>

SQL>

SQL> REM insertion of valid rows in Boat

SQL>

SQL> INSERT INTO Boat VALUES('B101','Greater Chennai','LUX',100,60000,'White');

1 row created.

SQL> INSERT INTO Boat VALUES('B102','Fantastic four','CRU',200,150000,'Green');

1 row created.

SQL> INSERT INTO Boat VALUES('B103','Avengers','CAR',150,60000,'Red');

1 row created.

SQL> INSERT INTO Boat VALUES('B104','Bessy_Beach','LUX',200,450000,'Gold');

1 row created.

SQL> INSERT INTO Boat VALUES('B105','Luck fellow','CAR',130,780000,'Black');

1 row created.

SQL>

SQL>

SQL> REM Violation of PRIMARY KEY

SQL>

SQL> INSERT INTO Boat VALUES('B101','Feast','LUX',160,60000,'White');

INSERT INTO Boat VALUES('B101','Feast','LUX',160,60000,'White')

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*

ERROR at line 1:

ORA-00001: unique constraint (01085.BOAT_ID_PK) violated

SQL>

SQL> REM Violation of Check Constraint - Rating

SQL>

SQL> INSERT INTO Boat VALUES('B102','Fantastic','XYZ',210,30000,'Red');

INSERT INTO Boat VALUES('B102','Fantastic','XYZ',210,30000,'Red')

*

ERROR at line 1:

ORA-02290: check constraint (01085.TYPE_CHECK) violated

SQL>

SQL>

SQL>

SQL>

SQL> REM Sailor Table creation

SQL>

SQL> CREATE TABLE Sailor(
2 sailor_id VARCHAR(10) CONSTRAINT sailor_id PRIMARY KEY,

3 sailor_name VARCHAR(20),

4 rating VARCHAR(1) CONSTRAINT rating_check CHECK(rating IN ('A','B','C')),

5 sailor_DOB DATE CONSTRAINT date_check CHECK((2023-extract(year from
sailor_DOB)>25))

6);

Table created.

SQL>

SQL>

SQL>

SQL> REM Description of Sailor

SQL>

SQL> DESCRIBE Sailor;

Name

Null? Type

SAILOR_ID

NOT NULL VARCHAR2(10)

SAILOR_NAME

VARCHAR2(20)

RATING

VARCHAR2(1)

SAILOR_DOB

DATE

SQL>

SQL>

SQL>

SQL> REM inserting valid values into Sailor

SQL>

SQL> INSERT INTO Sailor VALUES('S001','Jackie Chan','A',TO_DATE('1993-10-12','YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Sailor VALUES('S002','James Bond','A',TO_DATE('1993-10-12','YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Sailor VALUES('S003','John Smith','B',TO_DATE('1990-10-12','YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Sailor VALUES('S004','Leo','C',TO_DATE('1991-10-12','YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Sailor VALUES('S005','Neil Arms','A',TO_DATE('1995-10-12','YYYY-MM-DD'));

1 row created.

SQL>

SQL>

SQL> REM violation of primary key

SQL>

SQL> INSERT INTO Sailor VALUES('S001','Jason','B',TO_DATE('1990-11-5','YYYY-MM-DD'));

INSERT INTO Sailor VALUES('S001','Jason','B',TO_DATE('1990-11-5','YYYY-MM-DD'))

*

ERROR at line 1:

ORA-00001: unique constraint (01085.SAILOR_ID) violated

SQL>

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```
SQL>
SQL>
SQL> REM violation of check constraint - DOB
SQL>
SQL> INSERT INTO Sailor VALUES('S001','Jill','B',TO_DATE('2012-11-5','YYYY-MM-DD'));
INSERT INTO Sailor VALUES('S001','Jill','B',TO_DATE('2012-11-5','YYYY-MM-DD'))
*
ERROR at line 1:
ORA-02290: check constraint (01085.DATE_CHECK) violated

SQL>
SQL>
SQL>
SQL> REM Violation of CHECK constraint - Rating
SQL>
SQL> INSERT INTO Sailor VALUES('S002','Jane','E',TO_DATE('1993-10-12','YYYY-MM-DD'));
INSERT INTO Sailor VALUES('S002','Jane','E',TO_DATE('1993-10-12','YYYY-MM-DD'))
*
ERROR at line 1:
ORA-02290: check constraint (01085.RATING_CHECK) violated

SQL>
SQL>
SQL>
SQL> REM Tourist table creation
SQL>
SQL> CREATE TABLE Tourist(
  2  tourist_id VARCHAR(10) CONSTRAINT tourist_id_pk PRIMARY KEY,
  3  tourist_name VARCHAR(20),
  4  address VARCHAR(20),
  5  tourist_DOB DATE,
  6  phone INT
  7 );

Table created.

SQL>
SQL>
SQL>
SQL>
SQL>
```

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SQL> REM description of Tourist table

SQL>

SQL> DESCRIBE Tourist;

Name	Null?	Type
TOURIST_ID	NOT NULL	VARCHAR2(10)
TOURIST_NAME		VARCHAR2(20)
ADDRESS		VARCHAR2(20)
TOURIST_DOB		DATE
PHONE		NUMBER(38)

SQL>

SQL>

SQL>

SQL> REM Insertion of valid values into Tourist

SQL>

SQL> INSERT INTO Tourist VALUES('T001','David','1st Main RD',TO_DATE('2000-10-12','YYYY-MM-DD'),1234567890);

1 row created.

SQL> INSERT INTO Tourist VALUES('T002','Ashwin','3rd Main RD',TO_DATE('2003-10-12','YYYY-MM-DD'),1232367890);

1 row created.

SQL> INSERT INTO Tourist VALUES('T003','Khwaja','4th Main RD',TO_DATE('2010-11-12','YYYY-MM-DD'),1234567831);

1 row created.

SQL> INSERT INTO Tourist VALUES('T004','Hello','5th Main RD',TO_DATE('2011-02-09','YYYY-MM-DD'),1234567878);

1 row created.

SQL> INSERT INTO Tourist VALUES('T005','Smith','6th Main RD',TO_DATE('2015-02-10','YYYY-MM-DD'),1234555878);

1 row created.

SQL>

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```
SQL>
SQL> REM violation of primary key
SQL>
SQL> INSERT INTO Tourist VALUES('T001','Root','2nd Main RD',TO_DATE('2010-10-12','YYYY-MM-DD'),1234567890);
INSERT INTO Tourist VALUES('T001','Root','2nd Main RD',TO_DATE('2010-10-12','YYYY-MM-DD'),1234567890)
```

*

ERROR at line 1:
ORA-00001: unique constraint (01085.TOURIST_ID_PK) violated

```
SQL>
SQL>
SQL>
SQL> REM Creation of Reservation
SQL>
SQL> CREATE TABLE Reservation(
  2 boat_id VARCHAR(10) CONSTRAINT boat_id_fk REFERENCES Boat(boat_id),
  3 sailor_id VARCHAR(10) CONSTRAINT sailor_id_fk REFERENCES Sailor(sailor_id),
  4 tourist_id VARCHAR(10) CONSTRAINT tourist_id_fk REFERENCES Tourist(tourist_id),
  5 number_persons INT,
  6 date_reserve DATE,
  7 date_sail DATE,
  8 CONSTRAINT Reservation_ck PRIMARY KEY(boat_id,sailor_id,date_sail),
  9 CONSTRAINT advance_check CHECK(date_reserve <=(date_sail-INTERVAL '12' DAY))
10 );
```

Table created.

```
SQL>
SQL>
SQL>
SQL> REM Description of Reservation
SQL>
SQL> DESCRIBE Reservation;
```

Name	Null?	Type
BOAT_ID	NOT NULL	VARCHAR2(10)
SAILOR_ID	NOT NULL	VARCHAR2(10)
TOURIST_ID		VARCHAR2(10)
NUMBER_PERSONS		NUMBER(38)

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DATE_RESERVE
DATE_SAIL

DATE
NOT NULL DATE

SQL>

SQL>

SQL>

SQL> REM Insertion of Valid Rows

SQL>

SQL> INSERT INTO Reservation VALUES('B101','S001','T001',10,TO_DATE('2000-10-12','YYYY-MM-DD'),TO_DATE('2000-10-25','YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Reservation VALUES('B102','S002','T002',10,TO_DATE('2011-10-12','YYYY-MM-DD'),TO_DATE('2011-10-25','YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Reservation VALUES('B103','S003','T003',10,TO_DATE('2012-05-11','YYYY-MM-DD'),TO_DATE('2012-05-30','YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Reservation VALUES('B104','S004','T004',10,TO_DATE('2013-01-12','YYYY-MM-DD'),TO_DATE('2013-01-25','YYYY-MM-DD'));

1 row created.

SQL>

SQL>

SQL> REM Violation of primary key

SQL>

SQL> INSERT INTO Reservation Values('B101','S001','T002',10,TO_DATE('2000-10-12','YYYY-MM-DD'),TO_DATE('2000-10-25','YYYY-MM-DD'));

INSERT INTO Reservation Values('B101','S001','T002',10,TO_DATE('2000-10-12','YYYY-MM-DD'),TO_DATE('2000-10-25','YYYY-MM-DD'))

*

ERROR at line 1:

ORA-00001: unique constraint (01085.RESERVATION_CK) violated

SQL>

SQL>

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SQL> REM violation of Check constraint

SQL>

SQL> INSERT INTO Reservation VALUES('B105','S005','T005',10,TO_DATE('2014-09-12','YYYY-MM-DD'),TO_DATE('2014-09-15','YYYY-MM-DD'));

INSERT INTO Reservation VALUES('B105','S005','T005',10,TO_DATE('2014-09-12','YYYY-MM-DD'),TO_DATE('2014-09-15','YYYY-MM-DD'))

*

ERROR at line 1:

ORA-02290: check constraint (01085.ADVANCE_CHECK) violated

SQL>

SQL>

SQL> REM Violation of Foreign key constraint

SQL>

SQL> INSERT INTO Reservation Values('T101','B001','S002',11,TO_DATE('2000-10-12','YYYY-MM-DD'),TO_DATE('2000-10-25','YYYY-MM-DD'));

INSERT INTO Reservation Values('T101','B001','S002',11,TO_DATE('2000-10-12','YYYY-MM-DD'),TO_DATE('2000-10-25','YYYY-MM-DD'))

*

ERROR at line 1:

ORA-02291: integrity constraint (01085.TOURIST_ID_FK) violated - parent key not found

SQL>

SQL>

SQL>

SQL>

SQL>

SQL> SELECT *

2 FROM Boat;

BOAT_ID	BOAT_NAME	TYPE	CAPACITY	PRICE_PER_SEAT	COLOUR
---------	-----------	------	----------	----------------	--------

B101	Greater Chennai	LUX	100	60000	White
B102	Fantastic four	CRU	200	150000	Green
B103	Avengers	CAR	150	60000	Red
B104	Bessy_Beach	LUX	200	450000	Gold
B105	Luck fellow	CAR	130	780000	Black

SQL>

SQL> SELECT *

2 FROM Sailor;

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SAILOR_ID	SAILOR_NAME	R SAILOR_DO
S001	Jackie Chan	A 12-OCT-93
S002	James Bond	A 12-OCT-93
S003	John Smith	B 12-OCT-90
S004	Leo	C 12-OCT-91
S005	Neil Arms	A 12-OCT-95

SQL>

SQL> SELECT *
2 FROM Tourist;

TOURIST_ID	TOURIST_NAME	ADDRESS	TOURIST_D	PHONE
T001	David	1st Main RD	12-OCT-00	1234567890
T002	Ashwin	3rd Main RD	12-OCT-03	1232367890
T003	Khwaja	4th Main RD	12-NOV-10	1234567831
T004	Hello	5th Main RD	09-FEB-11	1234567878
T005	Smith	6th Main RD	10-FEB-15	1234555878

SQL>

SQL> SELECT *
2 FROM Reservation;

BOAT_ID	SAILOR_ID	TOURIST_ID	NUMBER_PERSONS	DATE_RESE	DATE_SAIL
B101	S001	T001	10	12-OCT-00	25-OCT-00
B102	S002	T002	10	12-OCT-11	25-OCT-11
B103	S003	T003	10	11-MAY-12	30-MAY-12
B104	S004	T004	10	12-JAN-13	25-JAN-13

SQL>

SQL>

SQL> @"Z:\Rohith_085\Assignment-1\Alter.sql"

SQL> REM Alter Commands

SQL>

SQL>

SQL> REM 8. It is identified that the number of children have to be mentioned while booking the boat by the tourists.

SQL>

SQL> ALTER TABLE RESERVATION

2 ADD children_count INT;

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Table altered.

SQL>

SQL> DESCRIBE Reservation;

Name	Null?	Type
BOAT_ID	NOT NULL	VARCHAR2(10)
SAILOR_ID	NOT NULL	VARCHAR2(10)
TOURIST_ID		VARCHAR2(10)
NUMBER_PERSONS		NUMBER(38)
DATE_RESERVE		DATE
DATE_SAIL	NOT NULL	DATE
CHILDREN_COUNT		NUMBER(38)

SQL>

SQL>

SQL>

SQL>

SQL> REM 9. The width of a tourist name is not adequate for most of the tourists.

SQL>

SQL> REM Inserting large name into Tourist

SQL> INSERT INTO Tourist VALUES('T001','adadadadadadadadadadad','1st Main

RD',TO_DATE('2000-10-12','YYYY-MM-DD'),1234567890);

INSERT INTO Tourist VALUES('T001','adadadadadadadadadadad','1st Main RD',TO_DATE('2000-10-12','YYYY-MM-DD'),1234567890)

*

ERROR at line 1:

ORA-12899: value too large for column "01085"."TOURIST"."TOURIST_NAME" (actual: 22, maximum: 20)

SQL>

SQL> REM Altering the constraint

SQL> ALTER TABLE Tourist

2 MODIFY tourist_name VARCHAR(60);

Table altered.

SQL>

SQL> DESCRIBE Tourist;

Name	Null?	Type
------	-------	------

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```
-----  
-----  
TOURIST_ID                NOT NULL VARCHAR2(10)  
TOURIST_NAME              VARCHAR2(60)  
ADDRESS                   VARCHAR2(20)  
TOURIST_DOB               DATE  
PHONE                     NUMBER(38)
```

SQL>

SQL> REM Insertion of large name

SQL> INSERT INTO Tourist VALUES('T010','adadadadadadadadadadad','1st Main
RD',TO_DATE('2000-10-12','YYYY-MM-DD'),1234567890);

1 row created.

SQL>

SQL>

SQL>

SQL>

SQL> REM 10. Reservation can not be done without the reserve_date.

SQL>

SQL> ALTER TABLE Reservation

2 MODIFY date_reserve DATE NOT NULL;

Table altered.

SQL>

SQL> DESCRIBE Reservation;

```
Name                                Null?   Type  
-----  
-----
```

```
BOAT_ID                NOT NULL VARCHAR2(10)  
SAILOR_ID              NOT NULL VARCHAR2(10)  
TOURIST_ID              VARCHAR2(10)  
NUMBER_PERSONS         NUMBER(38)  
DATE_RESERVE           NOT NULL DATE  
DATE_SAIL              NOT NULL DATE  
CHILDREN_COUNT         NUMBER(38)
```

SQL>

SQL> REM Insertion of NULL value

SQL> INSERT INTO Reservation VALUES('B101','S001','T001',NULL,TO_DATE('2000-10-
25','YYYY-MM-DD'),3);

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```
INSERT INTO Reservation VALUES('B101','S001','T001',NULL,TO_DATE('2000-10-25','YYYY-MM-DD'),3)
```

*

ERROR at line 1:
ORA-00947: not enough values

SQL>

SQL> REM Insertion of valid row in Reservation table

```
SQL> INSERT INTO Reservation VALUES('B101','S001','T001',10,TO_DATE('2000-10-04','YYYY-MM-DD'),TO_DATE('2000-10-26','YYYY-MM-DD'),2);
```

1 row created.

SQL>

SQL>

SQL>

SQL>

SQL> REM 11. The date of birth of a tourist can be addressed later.

SQL>

```
SQL> ALTER TABLE Tourist
  2 DROP COLUMN tourist_dob;
```

Table altered.

SQL>

SQL> DESCRIBE Tourist;

Name	Null?	Type
TOURIST_ID	NOT NULL	VARCHAR2(10)
TOURIST_NAME		VARCHAR2(60)
ADDRESS		VARCHAR2(20)
PHONE		NUMBER(38)

SQL>

SQL> REM Insertion of valid row after deletion of column

```
SQL> INSERT INTO Tourist VALUES('T009','David','1st Main RD',1234567890);
```

1 row created.

SQL>

SQL>

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```
SQL>
SQL>
SQL> REM 12. The rating for sailor D has to be added.
SQL>
SQL> REM Constraint violation
SQL> INSERT INTO Sailor VALUES('S007','Minsker','D',TO_DATE('1993-10-12','YYYY-MM-DD'));
INSERT INTO Sailor VALUES('S007','Minsker','D',TO_DATE('1993-10-12','YYYY-MM-DD'))
*
ERROR at line 1:
ORA-02290: check constraint (01085.RATING_CHECK) violated
```

```
SQL>
SQL> REM Alter Statement
SQL> ALTER TABLE Sailor
  2 DROP CONSTRAINT rating_check;
```

Table altered.

```
SQL>
SQL> ALTER TABLE Sailor
  2 ADD (CONSTRAINT rating_check CHECK(rating IN ('A','B','C','D')));
```

Table altered.

```
SQL>
SQL> DESCRIBE Sailor;
```

Name	Null?	Type
SAILOR_ID	NOT NULL	VARCHAR2(10)
SAILOR_NAME		VARCHAR2(20)
RATING		VARCHAR2(1)
SAILOR_DOB		DATE

```
SQL>
SQL> REM Insertion of valid row after alter
SQL> INSERT INTO Sailor VALUES('S007','Minsker','D',TO_DATE('1993-10-12','YYYY-MM-DD'));

1 row created.
```


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```
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL> REM 13. All luxurious boats are colored yellow.
SQL>
SQL> DELETE FROM Reservation;
```

5 rows deleted.

```
SQL> DELETE FROM Boat;
```

5 rows deleted.

```
SQL>
SQL> ALTER TABLE Boat
  2 ADD CONSTRAINT colour_chk CHECK((colour IN ('yellow') AND type IN ('LUX')) OR type
IN ('CAR','CRU'));
```

Table altered.

```
SQL>
SQL> DESCRIBE Boat;
```

Name	Null?	Type
BOAT_ID	NOT NULL	VARCHAR2(10)
BOAT_NAME		VARCHAR2(20)
TYPE		VARCHAR2(20)
CAPACITY		NUMBER(4)
PRICE_PER_SEAT		NUMBER(12)
COLOUR		VARCHAR2(20)

```
SQL>
SQL> REM : inserting row that will be accepted
SQL> INSERT INTO Boat VALUES ('B006', 'Boat-6', 'LUX', 10, 599, 'yellow');
```

1 row created.

```
SQL> INSERT INTO Boat VALUES ('B026', 'Boat-26', 'CAR', 10, 599, 'green');
```

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1 row created.

SQL>

SQL> REM: inserting row that will violate check constraint

SQL> INSERT INTO Boat VALUES ('B007', 'Boat-7', 'LUX', 10, 1200, 'black');

INSERT INTO Boat VALUES ('B007', 'Boat-7', 'LUX', 10, 1200, 'black')

*

ERROR at line 1:

ORA-02290: check constraint (01085.COLOUR_CHK) violated

SQL> INSERT INTO Boat VALUES ('B007', 'Boat-7', 'LRT', 10, 1200, 'black');

INSERT INTO Boat VALUES ('B007', 'Boat-7', 'LRT', 10, 1200, 'black')

*

ERROR at line 1:

ORA-02290: check constraint (01085.COLOUR_CHK) violated

SQL>

SQL>

SQL>

SQL>

SQL> REM 14. Each boat should have different name.

SQL>

SQL> ALTER TABLE Boat

2 ADD CONSTRAINT name_unique UNIQUE(boat_name);

Table altered.

SQL>

SQL> DESCRIBE Boat;

Name	Null?	Type
BOAT_ID	NOT NULL	VARCHAR2(10)
BOAT_NAME		VARCHAR2(20)
TYPE		VARCHAR2(20)
CAPACITY		NUMBER(4)
PRICE_PER_SEAT		NUMBER(12)
COLOUR		VARCHAR2(20)

SQL>

SQL> REM Constraint violation

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```
SQL> INSERT INTO Boat VALUES('B106','Greater Chennai','LUX',100,60000,'White');
INSERT INTO Boat VALUES('B106','Greater Chennai','LUX',100,60000,'White')
*
```

ERROR at line 1:
ORA-02290: check constraint (01085.COLOUR_CHK) violated

```
SQL> INSERT INTO Boat VALUES('B106','Greater Chennai','LUX',100,60000,'White');
INSERT INTO Boat VALUES('B106','Greater Chennai','LUX',100,60000,'White')
*
```

ERROR at line 1:
ORA-02290: check constraint (01085.COLOUR_CHK) violated

```
SQL>
SQL> REM Insertion of valid rows
SQL> INSERT INTO Boat VALUES('B107','Greater Tuty','LUX',100,60000,'yellow');
```

1 row created.

```
SQL> INSERT INTO Boat VALUES('B108','Greater Cbe','LUX',100,60000,'yellow');
```

1 row created.

```
SQL>
SQL>
SQL>
SQL>
```

SQL> REM 15. A sailor may resign his job later or a boat may get damaged. Hence on removing the details of the sailor / boat, ensure that all the corresponding details are also deleted.

```
SQL>
SQL> ALTER TABLE Reservation
2 DROP CONSTRAINT boat_id_fk;
```

Table altered.

```
SQL>
SQL> ALTER TABLE Reservation
2 DROP CONSTRAINT sailor_id_fk;
```

Table altered.

```
SQL>
```

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SQL> REM Adding constraint to reflect on all tables

SQL>

SQL> ALTER TABLE Reservation

```
2 MODIFY boat_id varchar2(10) CONSTRAINT boat_id_fk REFERENCES Boat(boat_id)
3 ON DELETE CASCADE;
```

Table altered.

SQL>

SQL> ALTER TABLE Reservation

```
2 MODIFY sailor_id varchar2(10) CONSTRAINT sailor_id_fk REFERENCES Sailor(sailor_id)
3 ON DELETE CASCADE;
```

Table altered.

SQL>

SQL> DESCRIBE Reservation;

Name	Null?	Type
BOAT_ID	NOT NULL	VARCHAR2(10)
SAILOR_ID	NOT NULL	VARCHAR2(10)
TOURIST_ID		VARCHAR2(10)
NUMBER_PERSONS		NUMBER(38)
DATE_RESERVE	NOT NULL	DATE
DATE_SAIL	NOT NULL	DATE
CHILDREN_COUNT		NUMBER(38)

SQL>

SQL> REM Inserting values into Reservation Table

SQL>

```
SQL> INSERT INTO Reservation values('B006','S001','T002',7,TO_DATE('2023-03-11', 'YYYY-MM-DD'),TO_DATE('2023-03-31', 'YYYY-MM-DD'),5);
```

1 row created.

```
SQL> INSERT INTO Reservation values('B107','S002','T004',12,TO_DATE('2023-03-05', 'YYYY-MM-DD'),TO_DATE('2023-03-25', 'YYYY-MM-DD'),6);
```

1 row created.

```
SQL> INSERT INTO Reservation values('B108','S004','T001',9,TO_DATE('2023-03-02', 'YYYY-MM-DD'),TO_DATE('2023-03-30', 'YYYY-MM-DD'),7);
```

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1 row created.

```
SQL> INSERT INTO Reservation values('B026','S003','T003',25,TO_DATE('2023-03-06', 'YYYY-MM-DD'),TO_DATE('2023-03-28', 'YYYY-MM-DD'),8);
```

1 row created.

```
SQL>
```

```
SQL> REM Reservation table before cascade
```

```
SQL>
```

```
SQL> SELECT *
2 FROM Reservation;
```

BOAT_ID	SAILOR_ID	TOURIST_ID	NUMBER_PERSONS	DATE_RESE	DATE_SAIL	CHILDREN_COUNT
---------	-----------	------------	----------------	-----------	-----------	----------------

B006	S001	T002	7	11-MAR-23	31-MAR-23	5
B107	S002	T004	12	05-MAR-23	25-MAR-23	6
B108	S004	T001	9	02-MAR-23	30-MAR-23	7
B026	S003	T003	25	06-MAR-23	28-MAR-23	8

```
SQL>
```

```
SQL> REM Boat table before the cascade
```

```
SQL>
```

```
SQL> SELECT *
2 FROM Boat;
```

BOAT_ID	BOAT_NAME	TYPE	CAPACITY	PRICE_PER_SEAT	COLOUR
---------	-----------	------	----------	----------------	--------

B108	Greater Cbe	LUX	100	60000	yellow
B006	Boat-6	LUX	10	599	yellow
B026	Boat-26	CAR	10	599	green
B107	Greater Tuty	LUX	100	60000	yellow

```
SQL>
```

```
SQL> REM Sailor table before the cascade
```

```
SQL>
```

```
SQL> SELECT *
2 FROM Sailor;
```

SAILOR_ID	SAILOR_NAME	R SAILOR_DO
-----------	-------------	-------------

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3122 21 5001 085

Date: 12.03.2023
Ex. No. 1

```
S001   Jackie Chan   A 12-OCT-93
S002   James Bond   A 12-OCT-93
S003   John Smith   B 12-OCT-90
S004   Leo           C 12-OCT-91
S005   Neil Arms    A 12-OCT-95
S007   Minsker       D 12-OCT-93
```

6 rows selected.

SQL>

SQL> REM : deleting values from Boats & Sailors table.

SQL>

SQL> DELETE Boat

2 WHERE boat_id = 'B107';

1 row deleted.

SQL>

SQL> DELETE FROM Sailor

2 WHERE sailor_id = 'S004';

1 row deleted.

SQL>

SQL> REM Reservation table after cascade

SQL>

SQL> SELECT *

2 FROM Reservation;

```
BOAT_ID  SAILOR_ID  TOURIST_ID  NUMBER_PERSONS  DATE_RESE  DATE_SAIL
CHILDREN_COUNT
```

```
-----
B006     S001     T002           7 11-MAR-23 31-MAR-23      5
B026     S003     T003           25 06-MAR-23 28-MAR-23      8
```

SQL>

SQL> REM Boat table after the cascade

SQL>

SQL> SELECT *

2 FROM Boat;

```
BOAT_ID  BOAT_NAME      TYPE          CAPACITY PRICE_PER_SEAT COLOUR
-----
```

M. Rohith
3122 21 5001 085

Date: 12.03.2023
Ex. No. 1

B108	Greater Cbe	LUX	100	60000 yellow
B006	Boat-6	LUX	10	599 yellow
B026	Boat-26	CAR	10	599 green

SQL>

SQL> REM Sailor table after the cascade

SQL>

SQL> SELECT *
2 FROM Sailor;

SAILOR_ID	SAILOR_NAME	R SAILOR_DO
-----------	-------------	-------------

S001	Jackie Chan	A 12-OCT-93
S002	James Bond	A 12-OCT-93
S003	John Smith	B 12-OCT-90
S005	Neil Arms	A 12-OCT-95
S007	Minsker	D 12-OCT-93

SQL>

SQL>

SQL> spool off;

Results / Inferences:

Thus DDL Commands for the Boat Reservation problem has been implemented in SQL plus along with various constraints violation checking.