

3. Create a table **BOOK** using SQL command to store Accession_No, TITLE, AUTHOR, PUBLISHER, YEAR, PRICE. Apply the suitable structure for the columns. Specify Primary Key and NOT NULL constraints on the table. Insert 10 records. Write the following SQL queries:
- List the details of publishers having 'a' as the second character in their names.
 - Display Accession_No, TITLE, PUBLISHER and YEAR of the books published by the specified author before 2010 in the descending order of YEAR. Accept author during run time.
 - Modify the size of TITLE to increase the size 5 characters more.
 - Display the details of all books other than Microsoft press publishers.
 - Remove the records of the books published before 1990.

3.1 Creating the table and describing its structure

```
CREATE TABLE BOOK
(
  ACCESSION_NO VARCHAR(5) PRIMARY KEY,
  TITLE VARCHAR(25) NOT NULL,
  AUTHOR VARCHAR(15) NOT NULL,
  PUBLISHER VARCHAR(20) NOT NULL,
  YEAR INTEGER NOT NULL,
  PRICE NUMBER(10,2) NOT NULL
);
```

Output

Table created.

Description of BOOK table.

DESCRIBE BOOK; or DESC BOOK;

Name	Null?	Type
ACCESSION_NO	NOT NULL	VARCHAR2(5)
TITLE	NOT NULL	VARCHAR2(30)
AUTHOR	NOT NULL	VARCHAR2(15)
PUBLISHER	NOT NULL	VARCHAR2(20)
YEAR	NOT NULL	NUMBER(38)
PRICE	NOT NULL	NUMBER(10,2)

3.2 Loading data into the table

```
INSERT INTO BOOK VALUES (1001, 'WINGS OF FIRE', 'APJ ABDUL KALAM', 'UNIVERSITY PRESS', 2000, 290);
INSERT INTO BOOK VALUES (1002, 'THE GOD OF SMALL THINGS', 'ARUNDHATI ROY', 'PENGUIN BOOKS',
1997, 310);
INSERT INTO BOOK VALUES (1003, 'THE GUIDE', 'R K NARAYAN', 'VIKING PRESS', 1958, 415);
INSERT INTO BOOK VALUES (1004, 'MALGUDI DAYS', 'R K NARAYAN', 'INDIAN THOUGHT', 1943, 245);
INSERT INTO BOOK VALUES (1005, 'UNTOUCHABLE', 'MULK RAJ ANAND', 'WISHART BOOKS', 1935, 200);
INSERT INTO BOOK VALUES (1006, 'THE ILLUMINATED', 'ANINDITA GHOSE', 'HARPERCOLLINS', 2021, 312);
```

```
INSERT INTO BOOK VALUES (1007, 'THE EARTHSPINNER', 'ANURADHA ROY', 'HACHETTE INDIA', 2021, 373);
INSERT INTO BOOK VALUES (1008, 'JUNGLE NAMA', 'AMITAV GHOSH', 'FOURTH ESTATE INDIA', 2020, 900);
INSERT INTO BOOK VALUES (1009, 'TOMB OF SAND', 'GEETANJALI', 'PENGUIN BOOKS', 2022, 360);
INSERT INTO BOOK VALUES (1010, 'THE WHITE TIGER', 'ARAVIND ADIGA', 'HARPERCOLLINS', 2008, 500);
```

Output

10 rows created.

Displaying the values inserted into the BOOK table.

```
SELECT *
FROM BOOK;
```

ACCES	TITLE	AUTHOR	PUBLISHER	YEAR	PRICE
1001	WINGS OF FIRE	APJ ABDUL KALAM	UNIVERSITY PRESS	2000	290
1002	THE GOD OF SMALL THINGS	ARUNDHATI ROY	PENGUIN BOOKS	1997	310
1003	THE GUIDE	R K NARAYAN	VIKING PRESS	1958	415
1004	MALGUDI DAYS	R K NARAYAN	INDIAN THOUGHT	1943	245
1005	UNTOUCHABLE	MULK RAJ ANAND	WISHART BOOKS	1935	200
1006	THE ILLUMINATED	ANINDITA GHOSE	HARPERCOLLINS	2021	312
1007	THE EARTHSPINNER	ANURADHA ROY	HACHETTE INDIA	2021	373
1008	JUNGLE NAMA	AMITAV GHOSH	FOURTH ESTATE INDIA	2020	900
1009	TOMB OF SAND	GEETANJALI	PENGUIN BOOKS	2022	360
1010	THE WHITE TIGER	ARAVIND ADIGA	HARPERCOLLINS	2008	500

10 rows selected.

3.3 Queries

3.3.1 List the details of publishers having 'a' as the second character in their names.

```
SELECT *
FROM BOOK
WHERE PUBLISHER LIKE '_A%';
```

Output

ACCES	TITLE	AUTHOR	PUBLISHER	YEAR	PRICE
1006	THE ILLUMINATED	ANINDITA GHOSE	HARPERCOLLINS	2021	312
1007	THE EARTHSPINNER	ANURADHA ROY	HACHETTE INDIA	2021	373
1010	THE WHITE TIGER	ARAVIND ADIGA	HARPERCOLLINS	2008	500

3.3.2 Display Accession_No, TITLE, PUBLISHER and YEAR of the books published by the specified author before 2010 in the descending order of YEAR. Accept author during run time.

```
SELECT ACCESSION_NO, TITLE, PUBLISHER, YEAR
FROM BOOK
WHERE YEAR<2010 AND AUTHOR=&AUTHOR
ORDER BY YEAR DESC;
```

Output

```
Enter value for author: 'R K NARAYAN'
old 3: WHERE YEAR<2010 AND AUTHOR=&AUTHOR
new 3: WHERE YEAR<2010 AND AUTHOR='R K NARAYAN'
```

ACCES	TITLE	PUBLISHER	YEAR
1003	THE GUIDE	VIKING PRESS	1958
1004	MALGUDI DAYS	INDIAN THOUGHT	1943

3.3.3 Modify the size of TITLE to increase the size 5 characters more.

```
ALTER TABLE BOOK
MODIFY TITLE VARCHAR(30);
```

Output

Table altered.

Description of BOOK table.

```
DESCRIBE BOOK;          or      DESC BOOK;
```

Name	Null?	Type
ACCESSION_NO	NOT NULL	VARCHAR2(5)
TITLE	NOT NULL	VARCHAR2(30)
AUTHOR	NOT NULL	VARCHAR2(15)
PUBLISHER	NOT NULL	VARCHAR2(20)
YEAR	NOT NULL	NUMBER(38)
PRICE	NOT NULL	NUMBER(10,2)

3.3.4 Display the details of all books other than Microsoft press publishers.

```
SELECT *
FROM BOOK
WHERE NOT PUBLISHER = 'MICROSOFT PRESS';
```

OR

```
SELECT *
FROM BOOK
WHERE PUBLISHER NOT IN ('MICROSOFT PRESS');
```

(Any one of the above)

Output

ACCES	TITLE	AUTHOR	PUBLISHER	YEAR	PRICE
1001	WINGS OF FIRE	APJ ABDUL KALAM	UNIVERSITY PRESS	2000	290
1002	THE GOD OF SMALL THINGS	ARUNDHATI ROY	PENGUIN BOOKS	1997	310
1003	THE GUIDE	R K NARAYAN	VIKING PRESS	1958	415
1004	MALGUDI DAYS	R K NARAYAN	INDIAN THOUGHT	1943	245
1005	UNTOUCHABLE	MULK RAJ ANAND	WISHART BOOKS	1935	200
1006	THE ILLUMINATED	ANINDITA GHOSE	HARPERCOLLINS	2021	312
1007	THE EARTHSPINNER	ANURADHA ROY	HACHETTE INDIA	2021	373
1009	TOMB OF SAND	GEETANJALI	PENGUIN BOOKS	2022	360
1010	THE WHITE TIGER	ARAVIND ADIGA	HARPERCOLLINS	2008	500

9 rows selected.

3.3.5 Remove the records of the books published before 1990.

```
DELETE
FROM BOOK
WHERE YEAR<1990;
```

Output

3 rows deleted.

Displaying the contents of BOOK table.

```
SELECT *  
FROM BOOK;
```

ACCES	TITLE	AUTHOR	PUBLISHER	YEAR	PRICE
1001	WINGS OF FIRE	APJ ABDUL KALAM	UNIVERSITY PRESS	2000	290
1002	THE GOD OF SMALL THINGS	ARUNDHATI ROY	PENGUIN BOOKS	1997	310
1006	THE ILLUMINATED	ANINDITA GHOSE	HARPERCOLLINS	2021	312
1007	THE EARTHSPINNER	ANURADHA ROY	HACHETTE INDIA	2021	373
1008	JUNGLE NAMA	AMITAV GHOSH	MICROSOFT PRESS	2020	900
1009	TOMB OF SAND	GEETANJALI	PENGUIN BOOKS	2022	360
1010	THE WHITE TIGER	ARAVIND ADIGA	HARPERCOLLINS	2008	500

7 rows selected.

Date of Submission	Remarks
Signature of the Lecturer	