# DDL COMMANDS

**CREATING TABLE AUTHOR:**

**SQL>**create table author(author_id varchar(10), names varchar(20),email varchar(50),phone_number number(20),status varchar(20),primary key(author_id));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | AUTHOR ID | VARCHAR2(10 BYTE) | No | (null) | 1 | (null) |
| 2 | NAMES | VARCHAR2(20 BYTE) | Yes | (null) | 2 | (null) |
| 3 | EMAIL | VARCHAR2(50 BYTE) | Yes | (null) | 3 | (null) |
| 4 | PHONE NUMBER | NUMBER(20,0) | Yes | (null) | 4 | (null) |
| 5 | STATUS | VARCHAR2(20 BYTE) | Yes | (null) | 5 | (null) |

**CREATING TABLE PUBLISHER:**

**SQL>**create table publisher(publisher_id varchar(10), pubname varchar(20), address varchar(50), primary key(publisher_id));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | PUBLISHER ID | VARCHAR2(10 BYTE) | No | (null) | 1 | (null) |
| 2 | PUBNAME | VARCHAR2(20 BYTE) | Yes | (null) | 2 | (null) |
| 3 | ADDRESS | VARCHAR2(50 BYTE) | Yes | (null) | 3 | (null) |

**CREATING TABLE MEMBER:**

**SQL>**create table members(member_id varchar(20),membername varchar(30),branch_code varchar(20),roll_number varchar(10),phone_number number(20),email_id varchar(50),date_of_join number(30),status varchar(20),primary key(member_id));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | MEMBER ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | MEMBERNAME | VARCHAR2(30 BYTE) | Yes | (null) | 2 | (null) |
| 3 | BRANCH CODE | VARCHAR2(20 BYTE) | Yes | (null) | 3 | (null) |
| 4 | ROLL NUMBER | VARCHAR2(10 BYTE) | Yes | (null) | 4 | (null) |
| 5 | PHONE NUMBER | NUMBER(20,0) | Yes | (null) | 5 | (null) |
| 6 | EMAIL ID | VARCHAR2(50 BYTE) | Yes | (null) | 6 | (null) |
| 7 | DATE OF JOIN | NUMBER(30,0) | Yes | (null) | 7 | (null) |
| 8 | STATUS | VARCHAR2(20 BYTE) | Yes | (null) | 8 | (null) |

**CREATING TABLE LANGUAGE:**

**SQL>**create table languages(language_id varchar(20),langname varchar(20));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | LANGUAGE ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | LANGNAME | VARCHAR2(20 BYTE) | Yes | (null) | 2 | (null) |

**CREATING TABLE BOOK:**

SQL>create table book(book_id varchar(20),title varchar(20),language_id varchar(20),MRP number(10),publisher_id varchar(10),published_date varchar(10),volume varchar(20),status varchar(10),primary key(book_id),foreign key(language_id) references languages(language_id),foreign key(publisher_id) references publisher(publisher_id));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | BOOK ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | TITLE | VARCHAR2(20 BYTE) | Yes | (null) | 2 | (null) |
| 3 | LANGUAGE ID | VARCHAR2(20 BYTE) | Yes | (null) | 3 | (null) |
| 4 | MRP | NUMBER(10,0) | Yes | (null) | 4 | (null) |
| 5 | PUBLISHER ID | VARCHAR2(10 BYTE) | Yes | (null) | 5 | (null) |
| 6 | PUBLISHED DATE | VARCHAR2(10 BYTE) | Yes | (null) | 6 | (null) |
| 7 | VOLUME | VARCHAR2(20 BYTE) | Yes | (null) | 7 | (null) |
| 8 | STATUS | VARCHAR2(10 BYTE) | Yes | (null) | 8 | (null) |

**CREATING TABLE BOOK_AUTHOR:**

SQL>create table book_author(book_id varchar(20),author_id varchar(10),foreign key(book_id) references book(book_id),foreign key(author_id) references author(author_id));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | BOOK ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | AUTHOR ID | VARCHAR2(10 BYTE) | No | (null) | 2 | (null) |

**CREATING TABLE BOOK_ISSUE:**

SQL>create table book_issue(issue_id varchar(20),date_of_issue varchar(10),book_id varchar(20),member_id varchar(20),expected_date_of_return varchar(20),status varchar(20),primary key(issue_id),foreign key(book_id) references book(book_id),foreign key(member_id) references members(member_id));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | ISSUE ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | DATE OF ISSUE | VARCHAR2(10 BYTE) | Yes | (null) | 2 | (null) |
| 3 | BOOK ID | VARCHAR2(20 BYTE) | Yes | (null) | 3 | (null) |
| 4 | MEMBER ID | VARCHAR2(20 BYTE) | Yes | (null) | 4 | (null) |
| 5 | EXPECTED DATE OF RETURN | VARCHAR2(20 BYTE) | Yes | (null) | 5 | (null) |
| 6 | STATUS | VARCHAR2(20 BYTE) | Yes | (null) | 6 | (null) |

**CREATING TABLE BOOK_RETURN:**

SQL>create table book_return(issue_id varchar(20),actual_date_of_return varchar(20),late_days varchar(10),late_fee varchar(10),primary key(issue_id),foreign key(issue_id) references book_issue(issue_id));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | ISSUE ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | ACTUAL DATE OF RETURN | VARCHAR2(20 BYTE) | Yes | (null) | 2 | (null) |
| 3 | LATE DAYS | VARCHAR2(10 BYTE) | Yes | (null) | 3 | (null) |
| 4 | LATE FEE | VARCHAR2(10 BYTE) | Yes | (null) | 4 | (null) |

**CREATING TABLE LATE_FEE_RULE:**

**SQL>**create table late_fee_rule(from_days number(10),to_days number(20),amount number(20));

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | FROM DAYS | NUMBER(10,0) | Yes | (null) | 1 | (null) |
| 2 | TO DAYS | NUMBER(20,0) | Yes | (null) | 2 | (null) |
| 3 | AMOUNT | NUMBER(20,0) | Yes | (null) | 3 | (null) |

**INSERTING VALUES INTO TABLE AUTHOR:**

**SQL>**insert into author values('a1','chetan bhagat','cb@gmail.com',9080706050,'available');

**SQL>**insert into author values('a2','Jane Austin','ja@gmail.com',9181716151,'available');

**SQL>**select * from author;

| | AUTHOR_ID | NAMES | EMAIL | PHONE_NUMBER | STATUS |
|---|---|---|---|---|---|
| 1 | a1 | chetan bhagat | cb@gmail.com | 9080706050 | available |
| 2 | a2 | Jane Austin | ja@gmail.com | 9181716151 | available |

**INSERTING VALUES INTO TABLE PUBLISHER:**

**SQL>**insert into publisher values('p1','blooms','abc house,xyz city,new delhi');

**SQL>**insert into publisher values('p2','DC books','pqr house,abc city,new delhi');

**SQL>**select * from publisher;

| | PUBLISHER_ID | PUBNAME | ADDRESS |
|---|---|---|---|
| 1 | p1 | blooms | abc house,xyz city,new delhi |
| 2 | p2 | DC books | pqr house,abc city,new delhi |

**INSERTING VALUES INTO TABLE MEMBERS:**

**SQL>**insert into members values ('m1','john','branch1',001,5060708090,'john@gmail.com','1/1/01','available');

**SQL>**insert into members values ('m2','mary','branch2',002,5161718191,'mary@gmail.com','20/2/2002','available');

**SQL>**select * from members;

| | MEMBER_ID | MEMBERNAME | BRANCH_CODE | ROLL_NUMBER | PHONE_NUMBER | EMAIL_ID | DATE_OF_JOIN | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1 | m1 | john | branch1 | 1 | 5060708090 | john@gmail.com | 01-01-01 | available |
| 2 | m2 | mary | branch2 | 2 | 5161718191 | mary@gmail.com | 20-02-02 | available |

**INSERTING VALUES INTO TABLE LANGUAGE:**

**SQL>**insert into languages values('L1','english');

**SQL>**insert into languages values('L2','malayalam');

**SQL>**select * from languages;

| | LANGUAGE_ID | LANGNAME |
|---|---|---|
| 1 | L1 | english |
| 2 | L2 | malayalam |

**INSERTING VALUES INTO TABLE BOOK:**

**SQL>**insert into book values('b1','2 states','L1',125,'p1','1/1/01','v1','available');

**SQL>**insert into book values('b2','pride','L2',500,'p2','1/1/20','v2','available');

**SQL>**select * from book;

| | BOOK_ID | TITLE | LANGUAGE_ID | MRP | PUBLISHER_ID | PUBLISHED_DATE | VOLUME | STATUS | PAGES |
|---|---|---|---|---|---|---|---|---|---|
| 1 | b1 | 2 states | L1 | 125 | p1 | 1/1/01 | v1 | available | (null) |
| 2 | b2 | pride | L2 | 500 | p2 | 1/1/20 | v2 | available | (null) |

**INSERTING VALUES INTO TABLE BOOK_ISSUE:**

**SQL>**insert into book_issue values('bI1','12/8/24','b1','m1','20/8/24','available');

**SQL>**insert into book_issue values('bI2','15/8/24','b1','m1','25/8/24','available');

**SQL>**select * from book_issue;

| | ISSUE_ID | DATE_OF_ISSUE | BOOK_ID | MEMBER_ID | EXPECTED_DATE_OF_RETURN | STATUS |
|---|---|---|---|---|---|---|
| 1 | bI1 | 12-08-24 | b1 | m1 | 20-08-24 | available |
| 2 | bI2 | 15-08-24 | b1 | m1 | 25-08-24 | available |

**INSERTING VALUES INTO TABLE BOOK_AUTHOR:**

**SQL>**insert into book_author values('b1','a1');

**SQL>**insert into book_author values('b2','a2');

**SQL>**select * from book_author;

| | BOOK_ID | AUTHOR_ID |
|---|---|---|
| 1 | b1 | a1 |
| 2 | b2 | a2 |

**INSERTING VALUES INTO TABLE BOOK_RETURN:**

SQL>insert into book_return values('bI1','20/8/24',0,0);

SQL>insert into book_return values('bI2','25/8/24',5,10);

SQL>select * from book_return;

| | ISSUE_ID | ACTUAL_DATE_OF_RETURN | LATE_DAYS | LATE_FEE |
|---|---|---|---|---|
| 1 | bI1 | 20-08-24 | 0 | 0 |
| 2 | bI2 | 25-08-24 | 5 | 10 |

**INSERTING VALUES INTO TABLE LATE_FEE_RULE:**

SQL>insert into late_fee_rule values(0,7,10);

SQL>insert into late_fee_rule values(7,30,100);

SQL>select * from late_fee_rule;

| | FROM_DAYS | TO_DAYS | AMOUNT |
|---|---|---|---|
| 1 | 0 | 7 | 10 |
| 2 | 7 | 30 | 100 |

**1)ALTER TABLE—adding a new column to book table**

SQL>alter table book add pages varchar(20);

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | BOOK ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | TITLE | VARCHAR2(20 BYTE) | Yes | (null) | 2 | (null) |
| 3 | LANGUAGE ID | VARCHAR2(20 BYTE) | Yes | (null) | 3 | (null) |
| 4 | MRP | NUMBER(10,0) | Yes | (null) | 4 | (null) |
| 5 | PUBLISHER ID | VARCHAR2(10 BYTE) | Yes | (null) | 5 | (null) |
| 6 | PUBLISHED DATE | VARCHAR2(20 BYTE) | Yes | (null) | 6 | (null) |
| 7 | VOLUME | VARCHAR2(20 BYTE) | Yes | (null) | 7 | (null) |
| 8 | STATUS | VARCHAR2(10 BYTE) | Yes | (null) | 8 | (null) |
| 9 | PAGES | VARCHAR2(20 BYTE) | Yes | (null) | 9 | (null) |

**2)ALTER TABLE—modify the data type of a column in the member table**

SQL>alter table members modify date_of_join date;

| | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|---|---|---|---|---|---|
| 1 | MEMBER ID | VARCHAR2(20 BYTE) | No | (null) | 1 | (null) |
| 2 | MEMBERNAME | VARCHAR2(30 BYTE) | Yes | (null) | 2 | (null) |
| 3 | BRANCH CODE | VARCHAR2(20 BYTE) | Yes | (null) | 3 | (null) |
| 4 | ROLL NUMBER | VARCHAR2(10 BYTE) | Yes | (null) | 4 | (null) |
| 5 | PHONE NUMBER | NUMBER(20,0) | Yes | (null) | 5 | (null) |
| 6 | EMAIL ID | VARCHAR2(50 BYTE) | Yes | (null) | 6 | (null) |
| 7 | DATE OF JOIN | DATE | Yes | (null) | 7 | (null) |
| 8 | STATUS | VARCHAR2(20 BYTE) | Yes | (null) | 8 | (null) |

**3)TRUNCATE TABLE—remove all records from publisher table**

**SQL>**SELECT * FROM USER_CONSTRAINTS WHERE TABLE_NAME ='PUBLISHER';

| OWNER | CONSTRAINT_NAME | CONSTRAINT_TYPE | TABLE_NAME | SEARCH_CONDITION | SEARCH_CONDITION_VC | R_OW |
|-------|-----------------|-----------------|------------|------------------|---------------------|------|
| C22CSA05 | SYS_C0059359 | P | PUBLISHER | (null) | (null) | (null) |

**SQL>**SELECT * FROM USER_CONSTRAINTS WHERE TABLE_NAME ='BOOK';

| OWNER | CONSTRAINT_NAME | CONSTRAINT_TYPE | TABLE_NAME | SEARCH_CONDITION | SEARCH_CONDITION_VC | R_OWNER | R_CONSTRAINT_NAME | DELE |
|-------|-----------------|-----------------|------------|------------------|---------------------|---------|-------------------|------|
| C22CSA05 | SYS_C0059444 | P | BOOK | (null) | (null) | (null) | (null) | (null) |
| C22CSA05 | SYS_C0059445 | R | BOOK | (null) | (null) | C22CSA05 | SYS_C0059415 | NO ACT |
| C22CSA05 | SYS_C0059446 | R | BOOK | (null) | (null) | C22CSA05 | SYS_C0059359 | NO ACT |

**SQL>**ALTER TABLE BOOK DISABLE CONSTRAINT SYS_C0059446;

table BOOK altered.

**SQL>**TRUNCATE TABLE PUBLISHER;

table PUBLISHER truncated.

**SQL>**Select * from publisher;

| PUBLISH... | NAME | ADDRESS |
|------------|------|---------|
|            |      |         |

**4)DROP TABLE—delete the author table from the database**

**SQL>**drop table author;

**SQL>**desc author;

```
table AUTHOR dropped.
desc author
ERROR:
----------------------------------
ERROR: object AUTHOR does not exist
```

**5)RENAME TABLE—change the name of late_fee_rule table to fine table**

**SQL>**alter table late_fee_rule rename to fine_table;

**SQL>**desc fine_table;

```
table LATE_FEE_RULE altered.
desc fine_table
Name      Null Type
--------- ---- ----------
FROM_DAYS      NUMBER(10)
TO_DAYS    NUMBER(20)
AMOUNT     NUMBER(20)
```