

# DATA DEFINITION LANGUAGE

- All our tables have foreign keys in referencing tables so we don't have *insertion anomalies*.
- All our tables have cascade update/delete and restrict constraints, making our database *update/delete anomaly* free too.

## State Table:

```
CREATE TABLE STATE_TBL(  
    STATE_ID SMALLINT PRIMARY KEY,  
    STATE_NAME VARCHAR(20) NOT NULL  
);
```

## City Table:

```
CREATE TABLE CITY_TBL(  
    CITY_ID INT PRIMARY KEY,  
    CITY_NAME VARCHAR(20) NOT NULL,  
    SID SMALLINT NOT NULL REFERENCES STATE_TBL(STATE_ID) ON DELETE RESTRICT ON UPDATE  
    CASCADE  
);
```

## Theatre Table:

```
CREATE TABLE THEATRE_TBL(  
    THEATRE_ID INT PRIMARY KEY,  
    THEATRE_NAME VARCHAR(50) NOT NULL,  
    ADDRESS_LINE1 VARCHAR(200),  
    ADDRESS_LINE2 VARCHAR(200),
```

```
PINCODE INT NOT NULL CHECK(PINCODE between 100000 AND 999999),  
CID INT NOT NULL REFERENCES CITY_TBL(CITY_ID) ON DELETE RESTRICT ON UPDATE CASCADE  
);
```

### **Screen Table:**

```
CREATE TABLE SCREEN_TBL(  
    SCREEN_NO INT PRIMARY KEY,  
    SCREEN_NAME VARCHAR(4) NOT NULL,  
    TID INT NOT NULL REFERENCES THEATRE_TBL(THEATRE_ID) ON DELETE RESTRICT  
    ON UPDATE CASCADE  
);
```

### **Genre Table:**

```
CREATE TABLE GENRE_TBL(  
    GENRE_NAME VARCHAR(20) PRIMARY KEY  
);
```

### **Movie Table:**

```
CREATE TABLE MOVIE_TBL(  
    MOVIE_ID INT PRIMARY KEY,  
    MOVIE_NAME VARCHAR(50) NOT NULL,  
    RELEASE_DATE DATE NOT NULL,-- CHECK(RELEASE_DATE>=CURRENT_DATE),  
    DESCRIPTION VARCHAR(500),
```

```
MOVIE_LANGUAGE VARCHAR(30) NOT NULL,  
  
RATING DECIMAL(3,1) CHECK(RATING>=1 AND RATING<=10),  
  
UNIQUE(MOVIE_NAME,RELEASE_DATE)  
  
);
```

### **Movie Genre Table:**

```
CREATE TABLE MOVIE_GENRE_TBL(  
  
    GNAME VARCHAR(20) REFERENCES GENRE_TBL(GENRE_NAME) ON DELETE RESTRICT ON  
    UPDATE CASCADE,  
  
    MID INT REFERENCES MOVIE_TBL(MOVIE_ID) ON DELETE RESTRICT ON UPDATE CASCADE,  
  
    PRIMARY KEY(GNAME,MID)  
  
);
```

### **Show Table:**

```
CREATE TABLE SHOW_TBL(  
  
    SHOW_ID INT PRIMARY KEY,  
  
    SNO INT NOT NULL REFERENCES SCREEN_TBL(SCREEN_NO) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
  
    MID INT NOT NULL REFERENCES MOVIE_TBL(MOVIE_ID) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
  
    DATETIME TIMESTAMP NOT NULL,-- CHECK (DATETIME > CURRENT_TIMESTAMP),  
  
    UNIQUE(SNO,MID,DATETIME)  
  
);
```

### **Seat Table:**

```
CREATE TABLE SEAT_TBL(  
    SEAT_NO INT PRIMARY KEY,  
    SEAT_NAME VARCHAR(3) NOT NULL,  
    SNO INT NOT NULL REFERENCES SCREEN_TBL(SCREEN_NO) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
    SEAT_CATEGORY VARCHAR(8) NOT NULL CHECK(SEAT_CATEGORY IN  
    ('SILVER','GOLD','PLATINUM')),  
    UNIQUE(SEAT_NAME,SNO)  
);
```

### **Customer Table:**

```
CREATE TABLE CUSTOMER_TBL(  
    CONTACT_NO BIGINT PRIMARY KEY CHECK(CONTACT_NO BETWEEN 1000000000 AND  
    9999999999),  
    CUSTOMER_NAME VARCHAR(30) NOT NULL,  
    EMAIL VARCHAR(50)  
);
```

### **Ticket Table:**

```
CREATE TABLE TICKET_TBL(  
    TICKET_NO INT PRIMARY KEY,  
    PRICE Decimal(6,2) NOT NULL,  
    SNO INT NOT NULL REFERENCES SEAT_TBL(SEAT_NO) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
    SID INT NOT NULL REFERENCES SHOW_TBL(SHOW_ID) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
    UNIQUE(SNO,SID)
```

);

### **Payment Table:**

```
CREATE TABLE PAYMENT_TBL(  
    PAYMENT_ID INT PRIMARY KEY,  
    AMOUNT DECIMAL(8,2) NOT NULL,  
    PAYMENT_MODE BOOLEAN  
);
```

### **Booked (tickets) Table:**

```
CREATE TABLE BOOKED_TBL(  
    BOOKING_ID INT PRIMARY KEY,  
    CNO BIGINT NOT NULL REFERENCES CUSTOMER_TBL(CONTACT_NO) ON DELETE RESTRICT ON  
    UPDATE CASCADE,  
    PID INT NOT NULL REFERENCES PAYMENT_TBL(PAYMENT_ID) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
    TNO INT NOT NULL REFERENCES TICKET_TBL(TICKET_NO) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
    BOOKING_TIME TIMESTAMP,  
    UNIQUE(CNO,PID,TNO)  
);
```

### **Review Table:**

```
CREATE TABLE REVIEW(  
    REVIEW_ID INT PRIMARY KEY,  
    CNO BIGINT NOT NULL REFERENCES CUSTOMER_TBL(CONTACT_NO) ON DELETE RESTRICT ON  
    UPDATE CASCADE,  
    MID INT NOT NULL REFERENCES MOVIE_TBL(MOVIE_ID) ON DELETE RESTRICT ON UPDATE  
    CASCADE,  
    RATING DECIMAL(2,1) NOT NULL CHECK(RATING>=1 AND RATING<=10),
```

```
REVIEW_COMMENT VARCHAR(1000) NOT NULL,  
UNIQUE(CNO,MID)  
);
```