

Relational Model to SQL DDL

```
CREATE SCHEMA RTO;  
SET SEARCH_PATH TO RTO;
```

```
CREATE TABLE USER_DETAILS  
(  
  USER_ID CHAR(10) PRIMARY KEY,  
  FNAME VARCHAR(20) NOT NULL,  
  LNAME VARCHAR(20) NOT NULL,  
  DOB DATE,  
  MOBILE_NO NUMERIC(10),  
  EMAIL VARCHAR(30),  
  PAN_NO CHAR(10) UNIQUE NOT NULL,  
  CITY VARCHAR(50)  
);
```

```
CREATE TABLE OFFICE  
(  
  OFFICE_ID CHAR(10) PRIMARY KEY,  
  CITY VARCHAR(20),  
  PINCODE NUMERIC(6)  
);
```

```
CREATE TABLE DEPARTMENT  
(  
  DEPT_ID CHAR(10) PRIMARY KEY,  
  DEPT_NAME VARCHAR(50) CHECK (DEPT_NAME IN('PERMIT','ECHALLAN','LICENSE','VEHICLE  
REGISTRATION')),  
  OFFICE_ID CHAR(10) REFERENCES OFFICE(OFFICE_ID) ON UPDATE CASCADE ON DELETE  
RESTRICT  
);
```

```
CREATE TABLE EMPLOYEE  
(  
  EMP_ID CHAR(10) PRIMARY KEY,  
  FNAME VARCHAR(20) NOT NULL,  
  LNAME VARCHAR(20) NOT NULL,  
  DOB DATE,  
  MOBILE_NO NUMERIC(10),  
  EMAIL VARCHAR(30),  
  SALARY NUMERIC(5),  
  DEPT_ID CHAR(10) REFERENCES DEPARTMENT(DEPT_ID) ON UPDATE CASCADE);
```

```
CREATE TABLE PAYMENT
(
TRAN_ID VARCHAR(20) PRIMARY KEY,
AMOUNT NUMERIC(6) NOT NULL,
PAY_DESCR VARCHAR(20),
TIME_STAMP TIMESTAMP,
USER_ID CHAR(10) REFERENCES USER_DETAILS(USER_ID) ON UPDATE CASCADE ON DELETE
CASCADE,
DEPT_ID CHAR(10) REFERENCES DEPARTMENT(DEPT_ID) ON UPDATE CASCADE ON DELETE
CASCADE
);
```

```
CREATE TABLE APPOINTMENT
(
APP_ID CHAR(9) PRIMARY KEY,
APP_STATUS VARCHAR(10) CHECK (APP_STATUS IN ('PENDING','APPROVED','CANCELLED')),
APP_TYPE VARCHAR(20) CHECK (APP_TYPE IN
('LEARNERS','DRIVERS','INTERNATIONAL','PERMIT','VEHICLE REGISTRATION')),
TIME_STAMP TIMESTAMP,
USER_ID CHAR(10) REFERENCES USER_DETAILS(USER_ID) ON UPDATE CASCADE,
DEPT_ID CHAR(10) REFERENCES DEPARTMENT(DEPT_ID) ON UPDATE CASCADE
);
```

```
CREATE TABLE PERMIT
(
PER_ID CHAR(10) PRIMARY KEY,
PER_TYPE VARCHAR(3) CHECK (PER_TYPE IN ('LGV','HGV')),
VALIDITY DATE NOT NULL
);
```

```
CREATE TABLE VEHICLE_REGISTRATION
(
LICENSE_PLATE_NO CHAR(10) PRIMARY KEY,
ENGINE_NO VARCHAR(20) NOT NULL,
CHASIS_NO CHAR(17) NOT NULL,
VEH_TYPE VARCHAR(5) CHECK (VEH_TYPE IN ('LMV','HMV','TRANS')),
TIME_STAMP TIMESTAMP NOT NULL,
PER_ID CHAR(10) REFERENCES PERMIT(PER_ID) ON UPDATE CASCADE,
USER_ID CHAR(10) REFERENCES USER_DETAILS(USER_ID) ON UPDATE CASCADE ON DELETE
RESTRICT
);
```

```
CREATE TABLE ECHALLAN
(
E_CHALLAN_ID CHAR(10) PRIMARY KEY,
E_CHALLAN_TYPE VARCHAR(200) NOT NULL,
TIME_STAMP TIMESTAMP NOT NULL,
USER_ID CHAR(10) REFERENCES USER_DETAILS(USER_ID) ON UPDATE CASCADE
);
```

```
CREATE TABLE LICENSE_RESULT
(
APP_ID CHAR(9) REFERENCES APPOINTMENT(APP_ID) ON UPDATE CASCADE ON DELETE
CASCADE,
TEST_RESULT BOOLEAN,
PRIMARY KEY(APP_ID,TEST_RESULT)
);
```

```
CREATE TABLE DRIVING_LICENSE
(
L_ID CHAR(15) PRIMARY KEY,
D_TYPE VARCHAR(50) CHECK (D_TYPE IN('LEARNERS','DRIVING','INTERNATIONAL')),
ISSUE_DATE DATE NOT NULL,
VALIDITY DATE NOT NULL,
USER_ID CHAR(10) REFERENCES USER_DETAILS(USER_ID) ON UPDATE CASCADE ON DELETE
RESTRICT
);
```

```
CREATE TABLE APPOINTMENT_RESECHEDULE
(
APP_ID CHAR(9) REFERENCES APPOINTMENT(APP_ID) ON UPDATE CASCADE ON DELETE
CASCADE,
TIME_STAMP TIMESTAMP NOT NULL,
PRIMARY KEY(APP_ID,TIME_STAMP)
);
```

NOTE : As all of the tables are already in BCNF so no normalization is required hence there are no changes in the DDL statements.