

DDL Statements

```
CREATE TABLE DEVELOPER(  
    DEV_ID          CHAR(7) PRIMARY KEY,  
    D_NAME          VARCHAR(20) NOT NULL ,  
    D_EMAIL          VARCHAR(50) NOT NULL UNIQUE,  
    D_CONTACT_INFO   DECIMAL(10) NOT NULL UNIQUE,  
    D_ADDRESS        VARCHAR(100) ,  
    D_COUNTRY        VARCHAR(20) NOT NULL ,  
    GENDER           CHAR(1) NOT NULL CHECK(GENDER IN ('M','F','O' )),  
    DOB              DATE NOT NULL,  
    DEV_CREATE_AT    TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP  
);
```

```
CREATE TABLE COMPANY(  
    COM_ID           CHAR(7) PRIMARY KEY,  
    C_NAME           VARCHAR(20) NOT NULL,  
    C_EMAIL           VARCHAR(50) NOT NULL UNIQUE,  
    C_CONTACT_INFO    DECIMAL(10) NOT NULL UNIQUE,  
    C_ADDRESS         VARCHAR(100) ,  
    C_COUNTRY         VARCHAR(20) NOT NULL,  
    COMPANY_TYPE      VARCHAR(7) NOT NULL CHECK (COMPANY_TYPE IN ('IT','NON-IT')),  
    COMPANY_SIZE      VARCHAR(7) NOT NULL CHECK (COMPANY_SIZE IN ('GRADE A','GRADE B','GRADE C')),  
    COM_CREATE_AT     TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP  
);
```

```
CREATE TABLE ADMIN(  
    ADM_ID          CHAR(7) PRIMARY KEY,  
    A_NAME          VARCHAR(20) NOT NULL,  
    GENDER          CHAR(1) NOT NULL CHECK(GENDER IN ('M','F','O' )),  
    A_EMAIL          VARCHAR(50) NOT NULL UNIQUE,  
    A_CONTACT_INFO  DECIMAL(10) NOT NULL UNIQUE,  
    ADM_CREATE_AT   TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP  
);
```

```
CREATE TABLE SKILL(  
    SKILL_ID        CHAR(7) PRIMARY KEY,  
    S_NAME          VARCHAR(20) NOT NULL UNIQUE,  
    S_DESCRIPTION    VARCHAR(500) NOT NULL,  
    IMPROVEMENT      VARCHAR(500),  
    SKILL_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP  
);
```

```
CREATE TABLE QUESTION(  
    QUE_ID          CHAR(7) PRIMARY KEY,  
    TITLE           VARCHAR(40) NOT NULL,  
    Path            Varchar(40) NOT NULL UNIQUE,  
    DIFFICULTY_LEVEL VARCHAR(10) NOT NULL CHECK (DIFFICULTY_LEVEL IN  
    ('BEGINNER','MODERATE','EXPERT')),  
    TOTAL_SCORE      INT NOT NULL,  
    SKILL_ID         CHAR(7) NOT NULL,  
    QUE_CREATE_AT   TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (SKILL_ID) REFERENCES SKILL(SKILL_ID) ON UPDATE CASCADE ON DELETE RESTRICT  
);
```

```

CREATE TABLE ASSIGNMENT(
    ASSI_ID          CHAR(7) PRIMARY KEY,
    A_NAME           VARCHAR(50) NOT NULL,
    A_DESCRIPTION     VARCHAR(100) NOT NULL,
    A_STATUS          VARCHAR(10) NOT NULL CHECK (A_STATUS IN ('PUBLISH','UN-PUBLISH')) DEFAULT
    'UN-PUBLISH',
    SKILL_ID          CHAR(7) NOT NULL,
    ADM_ID            CHAR(7) NOT NULL,
    ASSI_CREATE_AT    TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (SKILL_ID) REFERENCES SKILL(SKILL_ID) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (ADM_ID) REFERENCES ADMIN(ADM_ID) ON UPDATE CASCADE ON DELETE RESTRICT
);

```

```

CREATE TABLE CONTEST(
    CON_ID            CHAR(10) PRIMARY KEY,
    C_NAME            VARCHAR(50) NOT NULL,
    START_TIME_DATE    TIMESTAMP NOT NULL,
    END_TIME_DATE      TIMESTAMP NOT NULL,
    C_STATUS           VARCHAR(10) NOT NULL CHECK (C_STATUS IN ('PUBLISH','UN-PUBLISH')) DEFAULT
    'UN-PUBLISH',
    ADM_ID             CHAR(7) CHECK((ADM_ID!=NULL AND COM_ID=NULL) OR (ADM_ID=NULL AND
    COM_ID!=NULL) ) ,
    COM_ID             CHAR(7) CHECK((ADM_ID!=NULL AND COM_ID=NULL) OR (ADM_ID=NULL AND
    COM_ID!=NULL) ),
    CON_CREATE_AT      TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (COM_ID) REFERENCES COMPANY(COM_ID) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (ADM_ID) REFERENCES ADMIN(ADM_ID) ON UPDATE CASCADE ON DELETE RESTRICT
);

```

```
CREATE TABLE PROFILE(  
    DEV_ID                CHAR(7) PRIMARY KEY,  
    BIO                   VARCHAR(40),  
    AVTAR                 BYTEA,  
    CURRENT_EDUCATION     VARCHAR(10),  
    YEAR_OF_GRADUATION    DATE,  
    QUALIFICATION         VARCHAR(20),  
    TOTAL_SCORE           INT DEFAULT 0,  
    P_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON UPDATE CASCADE ON DELETE CASCADE  
);
```

```
CREATE TABLE CERTIFICATE(  
    TITLE                 VARCHAR(100) NOT NULL,  
    RANK                  INT NOT NULL,  
    DEV_ID               CHAR(7) ,  
    CON_ID               CHAR(10),  
    PRIMARY KEY (DEV_ID,CON_ID),  
    C_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (CON_ID) REFERENCES CONTEST(CON_ID) ON DELETE RESTRICT ON UPDATE CASCADE,  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON DELETE RESTRICT ON UPDATE CASCADE  
);
```

```
CREATE TABLE JOB_INFORMATION(  
    SALARY                INT NOT NULL,  
    JOB_ITLE             VARCHAR(20) NOT NULL,  
    ABOUT                VARCHAR(100) NOT NULL,  
    ELIGIBILITY          VARCHAR(100) NOT NULL,  
    TOTAL_INTAKE         INT NOT NULL,  
    CON_ID               CHAR(10) PRIMARY KEY,  
    JI_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (CON_ID) REFERENCES CONTEST(CON_ID) ON UPDATE CASCADE ON DELETE CASCADE  
);
```

```
CREATE TABLE HOBBY(  
    H_NAME          VARCHAR(20) NOT NULL,  
    DEV_ID           CHAR(7) ,  
    H_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    PRIMARY KEY(DEV_ID,H_NAME),  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID)  
  
);
```

```
CREATE TABLE TESTCASE(  
    INPUT           TEXT ,  
    QUE_ID           CHAR(7),  
    OUTPUT           TEXT NOT NULL,  
    PRIMARY KEY(INPUT,QUE_ID),  
    T_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (QUE_ID) REFERENCES QUESTION(QUE_ID) ON UPDATE CASCADE ON DELETE CASCADE  
  
);
```

```
CREATE TABLE PRACTICE_ASSIGNMENT(  
    ASSI_ID           CHAR(7),  
    DEV_ID            CHAR(7),  
    PRIMARY KEY(ASSI_ID,DEV_ID),  
    PA_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (ASSI_ID) REFERENCES ASSIGNMENT(ASSI_ID) ON UPDATE CASCADE ON DELETE RESTRICT  
  
);
```

```
CREATE TABLE CONTAINS(  
    SKILL_ID      CHAR(7),  
    DEV_ID       CHAR(7),  
    SCORE        INT,  
    PRIMARY KEY (SKILL_ID,DEV_ID),  
    CO_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (SKILL_ID) REFERENCES SKILL(SKILL_ID) ON UPDATE CASCADE ON DELETE RESTRICT  
);
```

```
CREATE TABLE ATTEND_QUE_ASSIGNMENT(  
    DEV_ID      CHAR(7),  
    QUE_ID      CHAR(7),  
    ASSI_ID     CHAR(7),  
    STATUS      VARCHAR(10) NOT NULL CHECK (STATUS IN ('SOLVED','UNSOLVED')) DEFAULT 'UNSOLVED',  
    AQA_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    PRIMARY KEY(DEV_ID,QUE_ID,ASSI_ID),  
  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (ASSI_ID) REFERENCES ASSIGNMENT(ASSI_ID) ON DELETE RESTRICT ON UPDATE CASCADE,  
    FOREIGN KEY (QUE_ID) REFERENCES QUESTION(QUE_ID) ON DELETE RESTRICT ON UPDATE CASCADE  
);
```

```
CREATE TABLE QUE_ASSIGN_ASSIGNMENT(  
    QUE_ID      CHAR(7),  
    ASSI_ID     CHAR(7),  
    QAA_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    PRIMARY KEY(QUE_ID,ASSI_ID),  
    FOREIGN KEY (ASSI_ID) REFERENCES ASSIGNMENT(ASSI_ID) ON DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (QUE_ID) REFERENCES QUESTION(QUE_ID) ON DELETE RESTRICT ON UPDATE CASCADE  
);
```

```
CREATE TABLE ATTEND_TESTCASE_ASSIGNMENT(  
    DEV_ID      CHAR(7),  
    QUE_ID      CHAR(7),  
    ASSI_ID     CHAR(7),  
    INPUT       TEXT,  
    STATUS      VARCHAR(5) CHECK (STATUS IN ('PASS','FAIL')) NOT NULL DEFAULT 'FAIL',  
    ATA_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    PRIMARY KEY (DEV_ID,QUE_ID,ASSI_ID,INPUT),  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (ASSI_ID) REFERENCES ASSIGNMENT(ASSI_ID) ON DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (INPUT,QUE_ID) REFERENCES TESTCASE(INPUT,QUE_ID) ON DELETE RESTRICT ON UPDATE CASCADE  
);
```

```
CREATE TABLE ATTEND_QUE_CONTEST(  
    DEV_ID      CHAR(7),  
    QUE_ID      CHAR(7),  
    CON_ID      CHAR(10),  
    STATUS      VARCHAR(10) NOT NULL CHECK (STATUS IN ('COMPLETE','INCOMPLETE')) DEFAULT 'INCOMPLETE',  
    AQC_CREATE_AT TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,  
    PRIMARY KEY (DEV_ID,QUE_ID,CON_ID),  
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON UPDATE CASCADE ON DELETE CASCADE,  
    FOREIGN KEY (CON_ID) REFERENCES CONTEST(CON_ID) ON UPDATE CASCADE ON DELETE RESTRICT,  
    FOREIGN KEY (QUE_ID) REFERENCES QUESTION(QUE_ID) ON UPDATE CASCADE ON DELETE RESTRICT  
);
```

```

CREATE TABLE ATTEND_TESTCASE_CONTEST(
    DEV_ID          CHAR(7),
    QUE_ID          CHAR(7),
    CON_ID          CHAR(10),
    INPUT           TEXT,
    STATUS           VARCHAR(5) CHECK (STATUS IN ('PASS','FAIL')) NOT NULL DEFAULT 'FAIL',
    ATC_CREATE_AT   TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,
    PRIMARY KEY(DEV_ID,QUE_ID,CON_ID,INPUT),
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON UPDATE CASCADE ON DELETE CASCADE,
    FOREIGN KEY (CON_ID) REFERENCES CONTEST(CON_ID) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (INPUT,QUE_ID) REFERENCES TESTCASE(INPUT,QUE_ID) ON UPDATE CASCADE ON DELETE
    RESTRICT
);

```

```

CREATE TABLE ASSIGN_IN(
    QUE_ID          CHAR(7),
    CON_ID          CHAR(10),
    AI_CREATE_AT   TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,
    PRIMARY KEY(QUE_ID,CON_ID),
    FOREIGN KEY (CON_ID) REFERENCES CONTEST(CON_ID) ON DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (QUE_ID) REFERENCES QUESTION(QUE_ID) ON DELETE CASCADE ON UPDATE CASCADE
);

```

```

CREATE TABLE PARTICIPATE(
    DEV_ID          CHAR(7) ,
    CON_ID          CHAR(10),
    SCORE           INT NOT NULL DEFAULT 0,
    IS_RECRUITED    BOOLEAN NOT NULL DEFAULT 'F' CHECK (IS_RECRUITED IN ('F','T')) ,
    PR_CREATE_AT   TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,
    PRIMARY KEY (DEV_ID,CON_ID),
    FOREIGN KEY (CON_ID) REFERENCES CONTEST(CON_ID) ON DELETE RESTRICT ON UPDATE CASCADE,
    FOREIGN KEY (DEV_ID) REFERENCES DEVELOPER(DEV_ID) ON DELETE CASCADE ON UPDATE CASCADE
);

```


