

CREATE TABLE USER

```
(
    username CHAR(20),
    user_password CHAR(16),
    surname CHAR(20),
    PRIMARY KEY (username)
)
```

CREATE TABLE PLAYER

```
(
    username CHAR(20),
    height REAL,
    date_of_birth DATE,
    weight REAL,
    FOREIGN KEY (username) REFERENCES USER(username),
    PRIMARY KEY (username)
)
```

CREATE TABLE POSITION\_TYPE

```
(
    position_id REAL,
    position_name CHAR(20) NOT NULL,
    PRIMARY KEY (position_id)
)
```

CREATE TABLE PLAYER\_POSITION

```
(
    username CHAR(20) NOT NULL,
    position_id REAL NOT NULL,
    FOREIGN KEY (username) REFERENCES PLAYER(username) ON DELETE CASCADE
ON UPDATE CASCADE,
    FOREIGN KEY (position_id) REFERENCES POSITION_TYPE(position_id) ON
DELETE CASCADE ON UPDATE CASCADE,
    PRIMARY KEY (username, position_id)
)
```

CREATE TABLE PLAYER\_LIST

```
(
    username CHAR(20) NOT NULL,
    session_id REAL NOT NULL,
    FOREIGN KEY (username) REFERENCES PLAYER(username) CASCADE ON DELETE
CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (session_id) REFERENCES VOLLEYBALL_MATCH(session_id) ON
DELETE CASCADE ON UPDATE CASCADE,
    PRIMARY KEY (username, session_id)
)
```

CREATE TABLE VOLLEYBALL\_MATCH

```
(
    session_id REAL,
    team_id REAL NOT NULL,
    PRIMARY KEY (session_id)
)
```

```

CREATE TABLE COACH
(
    username CHAR(20),
    nationality CHAR(20) NOT NULL,
    FOREIGN KEY (username) REFERENCES USER(username),
    PRIMARY KEY (username)
)

CREATE TABLE JURY
(
    username CHAR(20),
    nationality CHAR(20) NOT NULL,
    FOREIGN KEY (username) REFERENCES USER(username),
    PRIMARY KEY (username)
)

CREATE TABLE CHANNEL
(
    channel_id CHAR(20),
    channel_name CHAR(20) UNIQUE,
    PRIMARY KEY (channel_id)
)

CREATE TABLE TEAM
(
    team_id REAL,
    team_name CHAR(20),
    channel_id CHAR(20) NOT NULL,
    FOREIGN KEY (channel_id) REFERENCES CHANNEL(channel_id),
    PRIMARY KEY (team_id)
)

CREATE TABLE DIRECTS
(
    team_id REAL,
    coach_username CHAR(20),
    contract_start_date DATE,
    contract_end_date DATE,
    FOREIGN KEY (team_id) REFERENCES TEAM(team_id),
    FOREIGN KEY (coach_username) REFERENCES COACH(username),
    PRIMARY KEY (team_id, coach_username)
)

CREATE TABLE STADIUM
(
    stadium_id REAL,
    stadium_name CHAR(20),
    stadium_country CHAR(20),
    PRIMARY KEY (stadium_id)
)

CREATE TABLE VOLLEYBALL_MATCH_STADIUM
(
    session_id REAL,

```

```

        time_slot INTEGER NOT NULL,
        stadium_id REAL NOT NULL,
        match_date DATE NOT NULL,
        FOREIGN KEY (session_id) REFERENCES VOLLEYBALL_MATCH(session_id),
        FOREIGN KEY (stadium_id) REFERENCES STADIUM(stadium_id),
        PRIMARY KEY (session_id),
        CHECK (time_slot >= 0 AND time_slot <= 4),
        UNIQUE (stadium_id, match_date, time_slot)
    )

```

```

CREATE TABLE RATES
(
    username CHAR(20),
    session_id REAL,
    rating REAL,
    FOREIGN KEY (username) REFERENCES JURY(username),
    FOREIGN KEY (session_id) REFERENCES VOLLEYBALL_MATCH(session_id),
    PRIMARY KEY (username, session_id)
)

```

```

CREATE TABLE PLAYER_TEAM
(
    username CHAR(20) NOT NULL,
    team_id REAL NOT NULL,
    FOREIGN KEY (username) REFERENCES PLAYER(username) ON DELETE CASCADE
ON UPDATE CASCADE,
    FOREIGN KEY (team_id) REFERENCES TEAM(team_id) ON DELETE CASCADE ON
UPDATE CASCADE,
    PRIMARY KEY (username, team_id)
)

```

- Like in the ER model, I was unable to restrain a jury rate a match only once. I could not figure a way out to do that.
- I prevented a match from happening at the same at the same stadium by using UNIQUE key for match day and stadium, and CHECK method for time slots. I did this in the VOLLEYBALL\_MATCH\_STADIUM table.
- A player plays only one position in the match by making username and position id a primary key in player position table.
- Player list can be different than the whole squad, because I have another table for it, player list, and its primary key is session id and username. So, only registered players name can be added to that table.
- By making both coach username and team id the primary key, a coach directs only one team.
- A jury rates only one session, by making session id and username a primary key.
- Coaches and juries have only one nationality, because they have a single value for corresponding attributes.