[*PLAYER, NAME*]

Team

$players: \mathbb{P}\ PLAYER$

$name: NAME$

League

$teams: \mathbb{P}\ Team$

$\forall t1, t2: teams \mid t1 \neq t2 \bullet t1 . players \cap t2 . players = \varnothing$

$\forall t1, t2: teams \bullet t1 . name = t2 . name \Leftrightarrow t1 = t2$

AddTeam

$\Delta League$

$team?: Team$

$\forall t: teams \bullet t . players \cap team? . players = \varnothing$

$team? \notin teams$

$teams' = teams \cup \{team?\}$

DeleteTeam

$\Delta League$

$team?: Team$

$teams' = teams \setminus \{team?\}$

```
┌─ DeletePlayer ─────────────────────────────────────
│ ΔLeague
│ player?: PLAYER
├────────────────────────────
│ ∃t: teams | player? ∈ t . players
│   • teams'
│     = teams \ {t}
│      ∪ { n: Team
│          | n . name = t . name
│            ∧ n . players = t . players \ {player?} }
└─────────────────────────────────────────────────────
```

```
┌─ GetPlayerCountForTeam ────────────────────────────
│ ΔLeague
│ teamname: NAME
│ count!: ℕ
├────────────────────────────
│ ∃t: teams | t . name = teamname • count! = # t . players
└─────────────────────────────────────────────────────
```

```
┌─ GetPlayerCount ───────────────────────────────────
│ ΔLeague
│ count!: ℕ
├────────────────────────────
│ count! = # { p: PLAYER; t: teams | p ∈ t . players • p }
└─────────────────────────────────────────────────────
```