# Title: Pokemon Team Management System

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## Trainer:

- Registers and manages their profile
- Can create, view, update, or delete teams
- Can view teams they own and the Pokemon in those teams

## Team:

- Belongs to a specific trainer via ID
- Contains up to six Pokemons
- Can be created, viewed, updated, or deleted by the trainer
- Stores Team name and Trainer

## Pokemon:

- Contains Pokemon information (name, type)
- Belongs to a specific team
- Can be added, viewed, updated, or removed from teams
- Can exist independently – can be unassigned or reassigned to different teams
- Core entity in the system

## Basic Workflow:

- Trainer registers and creates their profile
- Trainer creates teams to organize their Pokemon
- Trainer adds Pokemon to their teams
- Trainer views, updates, and manages their teams and Pokemon
- System tracks team ownership and Pokemon assignments

## Detailed Workflow:

1. Trainer Registration & Management

- Trainer registers in the system (POST /trainers)
- System creates trainer profile with unique trainer_id
- Trainer can view their profile (GET /trainers/:id)
- Trainer can update their information (PUT /trainers/:id)

2. Team Creation

- Trainer creates a new team (POST /teams)
- Provides team name and their trainer_id
- System assigns unique team_id to the new team
- Team is now linked to the trainer

3. Adding Pokemon to Team

- Trainer adds Pokemon to their team (POST /pokemon)
- Provides Pokemon details (name, type) and the team_id
- Pokemon is now linked to the specific team
- Trainer can add multiple Pokemon to the team

4. View & Update Operations

- Trainer views all their teams (GET /teams/trainer/:trainer_id)
- Trainer views specific team details (GET /teams/:id)
- Trainer views Pokemon in a team (through team details)
- Trainer updates team name (PUT /teams/:id)
- Trainer updates Pokemon information (PUT /pokemon/:id)
- Trainer can reassign Pokemon to different teams (PUT /pokemon/:id - update team_id)

5. Removal Operations

- Trainer removes Pokemon from team (DELETE /pokemon/:id)
- Trainer deletes entire team (DELETE /teams/:id)
- When team is deleted, Pokemon remain in the system (either unassigned or moved to other teams)
- Trainer can delete Pokemon permanently (DELETE /pokemon/:id)
- Trainer can delete their profile (DELETE /trainers/:id)

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+-------------------+        +-------------------+        +-------------------+
|     Trainer       |        |      Team         |        |     Pokemon       |
+-------------------+        +-------------------+        +-------------------+
| - trainer_id      |        | - team_id         |        | - pokemon_id      |
| - trainer_name    |        | - team_name       |        | - name            |
| - region          |        | - trainer_id      |        | - type            |
+-------------------+        +-------------------+        | - team_id         |
| + getAllTrainers()|        | + getAllTeams()   |        +-------------------+
| + getTrainerById()|        | + getTeamById()   |        | + getAllPokemon() |
| + addTrainer()    |        | + getTeamsByTrainer()|     | + getPokemonById()|
| + updateTrainer() |        | + addTeam()       |        | + addPokemon()    |
| + deleteTrainer() |        | + updateTeam()    |        | + updatePokemon() |
+-------------------+        | + deleteTeam()    |        | + deletePokemon() |
         |                   +-------------------+        +-------------------+
         |                            |                           |
         |                            |                           |
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```