



WORKSHOP-1

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Scope

The system will provide a RESTful API for managing **trainees**, **trainers**, and **training sessions**.

It will allow user registration, authentication, profile management, and training scheduling through a Spring Boot–based backend connected to a relational database Postgresql.

Objectives

- Enable registration and authentication of trainees and trainers.
- Manage user profiles and relationships between trainees and trainers.
- Record and retrieve training sessions based on filters.
- Allow activation and deactivation of users.
- Enforce data validation, error handling, and logging for all operations.
- Document all endpoints using Swagger 3 annotations.

Functional Requirements

ID	Requirement	Description
FR1	Trainee registration	Allow registering a trainee with personal details such as first name, last name, date of birth, and address.
FR2	Trainer registration	Allow registering a trainer with first name, last name, and specialization.
FR3	Login	Validate username and password for authentication.
FR4	Change password	Allow an authenticated user to update their password.

FR5	Get trainee profile	Retrieve a trainee's profile and their assigned trainers.
FR6	Update trainee profile	Modify personal information and active status.
FR7	Delete trainee profile	Permanently remove a trainee and all related training records.
FR8	Get trainer profile	Retrieve trainer information and the list of assigned trainees.
FR9	Update trainer profile	Update trainer details except for specialization (read-only).
FR10	Get available trainers	Retrieve all active trainers not yet assigned to a specific trainee.
FR11	Update trainee's trainer list	Assign or modify the trainers linked to a trainee.
FR12	Get trainee trainings	List all training sessions of a trainee, optionally filtered by date, type, or trainer.
FR13	Get trainer trainings	List all training sessions of a trainer, optionally filtered by date or trainee.
FR14	Add training	Register a new training session between a trainee and a trainer.
FR15	Activate/Deactivate trainee/trainer	Toggle user activity status.

FR16	Get training types	Retrieve a constant list of available training types.
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Non-Functional Requirements

ID	Requirement	Description
NFR1	Architecture	The system must follow a RESTful architecture built with Spring Boot.
NFR2	Database	Use a relational database (e.g., PostgreSQL) for persistence with JPA.
NFR3	Security	Sensitive operations must require authentication.
NFR4	Documentation	All endpoints must be documented using Swagger 3.
NFR5	Validation	Input validation must be implemented for required fields.
NFR6	Logging	Implement two logging levels: transaction-level and request-level logs.
NFR7	Testing	Provide unit test coverage for main functionalities.
NFR8	Maintainability	Follow layered architecture (Controller, Service, Repository).
NFR9	Performance	API requests should complete within 2 seconds.

NFR10	Scalability	The design must allow adding new user types or modules easily.
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-Trainee User Stories

-User Story 1 — Trainee Registration

As a trainee, I want to register with my personal information so that I can access the training system.

Acceptance Criteria:

- **Given** the trainee is on the registration form,
When they provide their first name, last name, date of birth, and address,
Then the system generates a unique username and password and saves their profile.

-User Story 2 — Trainee Login

As a trainee, I want to log in with my username and password so that I can access my personal account and training information.

Acceptance Criteria:

- **Given** a registered trainee with valid credentials,
When they enter their username and password,
Then the system authenticates them and grants access to their dashboard.

-User Story 3 — Update Trainee Profile

As a trainee, I want to update my profile information so that my personal details remain accurate.

Acceptance Criteria:

- **Given** the trainee is logged in,
When they update their name, date of birth, address, or active status,
Then the system validates the data and updates the profile successfully.

-User Story 4 — Delete Trainee Profile

As a trainee, I want to delete my profile so that I can permanently remove my account and data from the system.

Acceptance Criteria:

- **Given** the trainee is logged in and requests deletion,
When they confirm account removal,
Then the system permanently deletes their profile and related training records.

-User Story 5 — View Available Trainers

As a trainee, I want to view a list of active trainers not yet assigned to me so that I can choose which trainers to connect with.

Acceptance Criteria:

- **Given** the trainee is logged in,
When they request a list of available trainers,
Then the system displays all active trainers not yet linked to that trainee.

-User Story 6 — Update Trainer List

As a trainee, I want to update my list of assigned trainers so that I can manage who provides my training sessions.

Acceptance Criteria:

- **Given** the trainee is authenticated,
When they select one or more trainers from the available list,
Then the system updates the trainee–trainer relationship accordingly.

-User Story 7 — View Trainee Trainings

As a trainee, I want to view my training sessions filtered by date, type, or trainer so that I can track my progress efficiently.

Acceptance Criteria:

- **Given** the trainee is authenticated,
When they filter trainings by date range, type, or trainer,
Then the system returns only the matching training sessions.

User Story 8 — Create Training Session

As a trainee, I want to create a training session with a selected trainer, date, and type so that I can schedule and track my workouts.

Acceptance Criteria:

- **Given** the trainee is authenticated,
- **When** they provide the training type, date, duration, and select a trainer from their assigned list,
- **Then** the system validates the input and creates a new training session linked to their profile

User Story 9 — Activate Trainee Profile

As a trainee, I want to activate my profile so that I can resume access to my account and training sessions.

Acceptance Criteria:

- **Given** the trainee is logged in and previously deactivated,
- **When** they request profile activation,
- **Then** the system updates their status to active and restores access to their training data.

User Story 10 — Deactivate Trainee Profile

As a trainee, I want to deactivate my profile temporarily so that I can pause my training without losing my data.

Acceptance Criteria:

- **Given** the trainee is logged in,
- **When** they request profile deactivation,
- **Then** the system updates their status to inactive and restricts access until reactivated.

Trainer User Stories

-User Story 11 — Trainer Registration

As a trainer, I want to register with my name, last name, and specialization so that I can be available to train trainees.

Acceptance Criteria:

- **Given** the trainer is on the registration page,
When they provide all required information,
Then the system generates a username and password and saves their profile.

-User Story 12 — Trainer Login

As a trainer, I want to log in with my username and password so that I can access my trainee and training data.

Acceptance Criteria:

- **Given** a registered trainer,
When they enter valid credentials,
Then the system authenticates them and allows access to their dashboard.

-User Story 13 — View Trainer Profile

As a trainer, I want to view my profile and assigned trainees so that I can monitor my training relationships.

Acceptance Criteria:

- **Given** the trainer is logged in,
When they request their profile,
Then the system displays their name, specialization, and list of assigned trainees.

-User Story 14 — Update Trainer Profile

As a trainer, I want to update my profile details so that my information remains current.

Acceptance Criteria:

- **Given** the trainer is authenticated,
When they update their name, last name, or active status (but not specialization),
Then the system validates and saves the updated data.

-User Story 15 — View Trainer Trainings

As a trainer, I want to view the list of trainings I've conducted so that I can keep track of my work with each trainee.

Acceptance Criteria:

- **Given** the trainer is authenticated,
When they request their training history,
Then the system displays training sessions filtered by date or trainee name.

User Story 16 — Create Training Session for Assigned Trainee

As a trainer, I want to create a training session for one of my assigned trainees so that I can plan and record their progress.

Acceptance Criteria:

- **Given** the trainer is authenticated and has assigned trainees,
- **When** they select a trainee, specify the training type, date, and duration,
- **Then** the system validates the input and creates a new training session linked to both profiles

User Story 17 — Activate Trainer Profile

As a trainer, I want to activate my profile so that trainees can view and assign me for training sessions.

Acceptance Criteria:

- **Given** the trainer is logged in and previously deactivated,
- **When** they request profile activation,
- **Then** the system updates their status to active and makes them visible to trainees.

User Story 18 — Deactivate Trainer Profile

As a trainer, I want to deactivate my profile temporarily so that I can take a break from training without deleting my account.

Acceptance Criteria:

- **Given** the trainer is logged in,
- **When** they request profile deactivation,
- **Then** the system updates their status to inactive and hides them from trainee searches.

User Story Mapping



https://lucid.app/lucidspark/333a0a4c-cd5f-486d-9a78-d7843a342d88/edit?viewport_loc=-1252%2C-93%2C4145%2C1765%2C0_0&invitationId=inv_8370d9d8-d727-4df3-b5d8-1a21cabb2e80