Use Case Document

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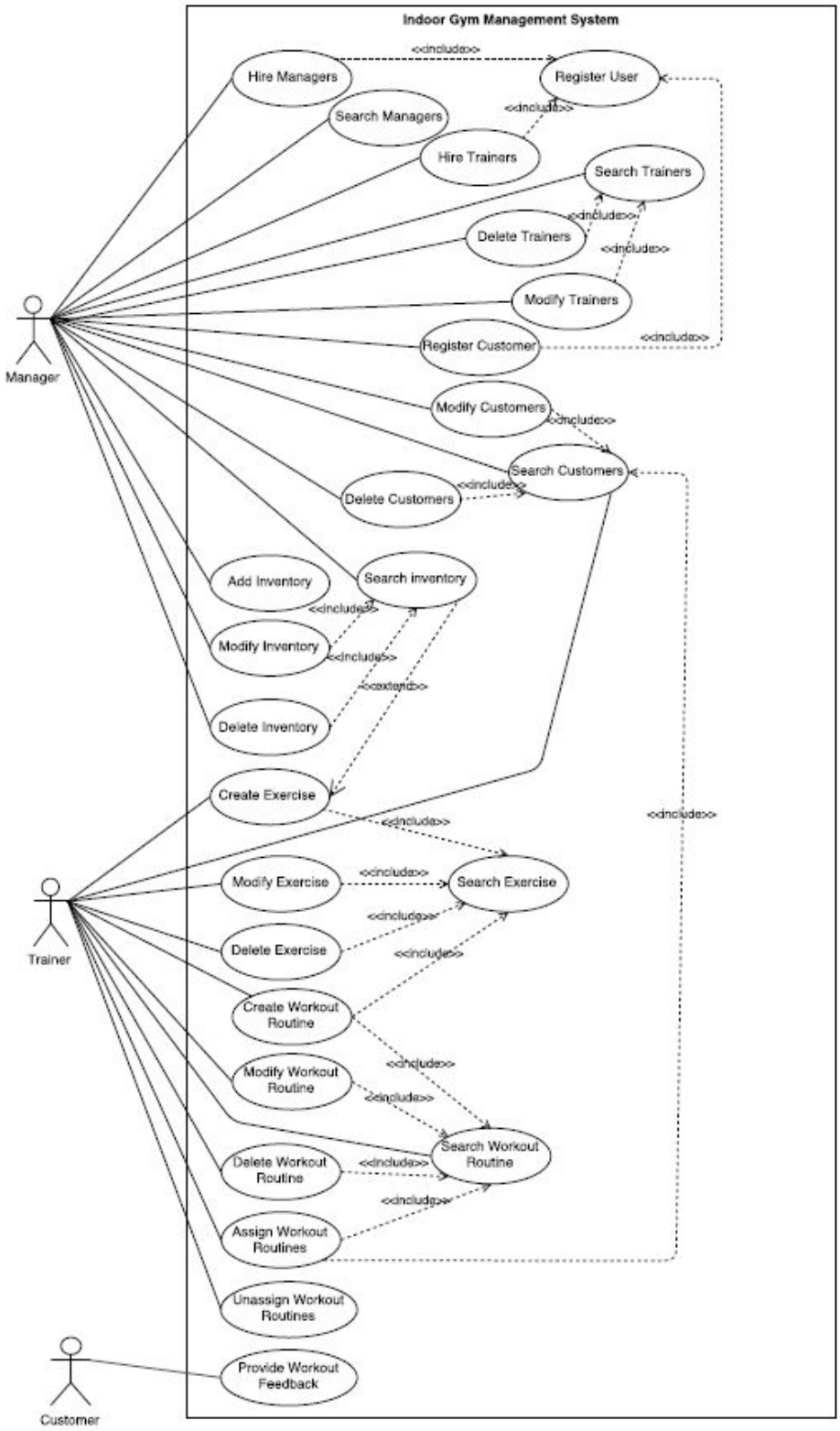
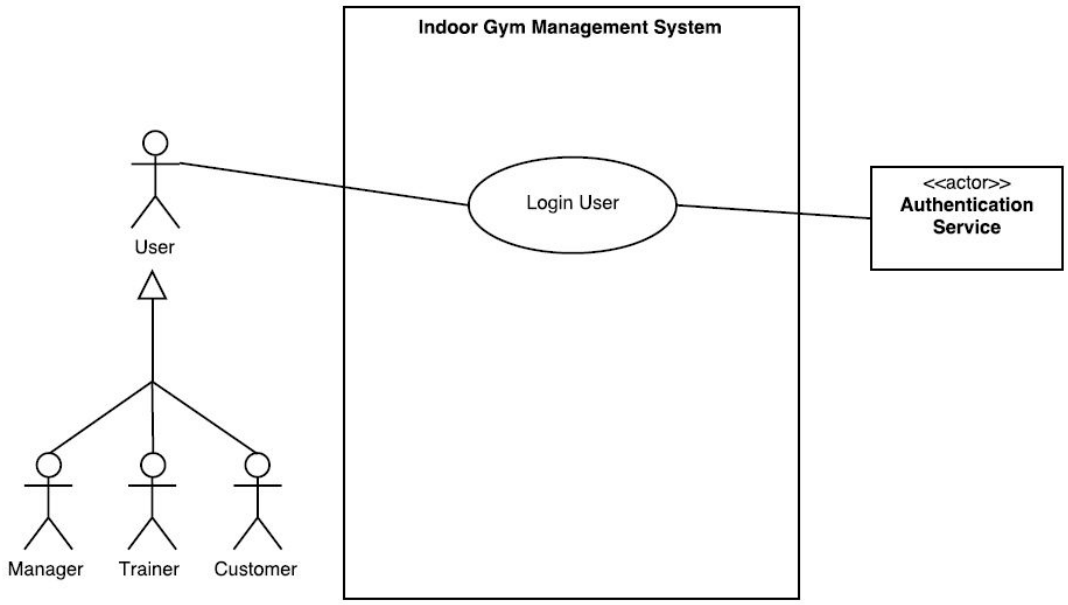
Use Case Diagram - Gym Management System 1



Use Case Diagram - Gym Management System 2



UC1: Hire Trainers

Use Case Name	UC1: Hire Trainers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants employees for the gym Trainer: Wants employment at the gym
Preconditions	Manager logged into gym system.
Success Guarantee	Trainer is employed at the gym.
Main Success Scenario	1. Include (UC20: Register User) 2. A manager enters the personal information (first name, last name, phone number email, and health insurance) for a trainer. 3. A manager submits the trainer information into the gym system. 4. The system returns success.
Extensions	1. Missing Trainer Information. a. Trainer information is not registered with the system. b. An error is returned explaining why trainer information was not registered. 2. Invalid Trainer Information. a. Trainer information is not registered with the system. b. An error is returned explaining why trainer information was not registered. 3. Redundant Trainer a. Trainer information is not registered with the system. b. An error is returned explaining why trainer omer information was not registered.

UC2: Register Customer

Use Case Name	UC2: Register Customer
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants customers for the gym. Trainers: Wants customers for the gym.
Preconditions	Manager logged into gym system.
Success Guarantee	Customer is added to gym system.
Main Success Scenario	1. Include (UC20: Register User) 2. A manager enters the personal information (first name, last name, phone number email, and health insurance) for a customer. 3. A manager sets the status (active or inactive) of the customer's membership for the gym. 4. A manager submits the customer information into the gym system. 5. The system returns success.
Extensions	1. Missing Customer Information. a. Customer information is not registered with the system. b. An error is returned explaining why customer information was not registered. 2. Invalid Customer Information. a. Customer information is not registered with the system. b. An error is returned explaining why customer information was not registered. 3. Redundant Customer a. Customer information is not registered with the system. b. An error is returned explaining why customer information was not registered.

UC3: Add Inventory

Use Case Name	UC3: Add Inventory
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants equipment inventory for the gym. Trainers: Wants equipment inventory for the gym.
Preconditions	Manager logged into gym system.
Success Guarantee	Equipment is added to inventory.
Main Success Scenario	1. A manager enters the equipment (machine) information (name, picture, quantity). 2. A manager submits the equipment information into the gym system. 3. The system returns success.
Extensions	1. Missing Equipment Information. a. Equipment information is not registered with the system. b. An error is returned explaining why equipment information was not registered. 2. Invalid Equipment Information. a. Equipment information is not registered with the system. b. An error is returned explaining why equipment information was not registered. 3. Redundant Equipment a. Equipment information is not registered with the system. b. An error is returned explaining why equipment information was not registered.

UC4: Modify Trainers

Use Case Name	UC4: Modify Trainers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants correct trainer information. Trainers: Want correct trainer information.
Preconditions	Manager logged into gym system. Trainer must exist in gym system.
Success Guarantee	Trainer information is updated.
Main Success Scenario	1. Include(UC5: Search Trainers) 2. A manager updates the information for trainer(s). 3. A manager submits the updated trainer(s) information to the system. 4. The system returns success.
Extensions	1. Missing Trainer Information. a. Trainer information is not registered with the system. b. An error is returned explaining why trainer information was not registered. 2. Invalid Trainer Information. a. Trainer information is not registered with the system. b. An error is returned explaining why trainer information was not registered. 3. Redundant Trainer a. Trainer information is not registered with the system. b. An error is returned explaining why trainer information was not registered.

UC5: Search Trainers

Use Case Name	UC5: Search Trainers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants to get trainer information.
Preconditions	Manager logged into gym system.
Success Guarantee	Trainer(s) information is returned.
Main Success Scenario	1. A manager issues a query for trainer(s) information.The following are some of the queries: a. Trainer(s) working based on a range of days. b. Trainer with a specific username (usernames are unique). c. Trainer(s) with a specific personal information. d. Trainer with a specific id (ids are unique). 2. The system returns a list of trainers based on the given query information.
Extensions	1. Trainer(s) do not exist. a. The system returns an empty list.

UC6: Modify Customers

Use Case Name	UC6: Modify Customers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants correct customer information. Trainers: Want correct customer information.
Preconditions	Manager logged into gym system. Customer must exist in gym system.
Success Guarantee	Customer information is updated..
Main Success Scenario	1. Include(UC7: Search Customers) 2. A manager updates the information for customer(s). 3. A manager submits the updated customer(s) information to the system. 4. The system returns success.
Extensions	1. Missing Customer Information. a. Customer information is not registered with the system. b. An error is returned explaining why customer information was not registered. 2. Invalid Customer Information. a. Customer information is not registered with the system. b. An error is returned explaining why customer information was not registered.

UC7: Search Customers

Use Case Name	UC7: Search Customers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager, Trainer
Stakeholders and Interests	Manager: Wants to get customer information. Trainers: Want to get customer information.
Preconditions	User logged into gym system.
Success Guarantee	Customer information is returned.
Main Success Scenario	1. A manager or a trainer issues a query for customer(s) information.The following are some of the queries: a. Customer(s) based on membership status. b. Customer(s) with a specific personal information. c. Customer with a specific id (ids are unique). 2. The system returns a list of customers based on the given query information.
Extensions	1. Customer(s) do not exist. a. The system returns an empty list.

UC8: Modify Inventory

Use Case Name	UC8: Modify Inventory
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants correct inventory (equipment) information.
Preconditions	Manager logged into gym system. Inventory must exist in gym system.
Success Guarantee	Inventory is updated
Main Success Scenario	1. Include(UC7: Search Inventory) 2. A manager updates the information for equipment(s). 3. A manager submits the updated equipment(s) information to the system. 4. The system returns success.
Extensions	1. Missing Equipment Information. a. Equipment information is not registered with the system. b. An error is returned explaining why equipment information was not registered. 2. Invalid Equipment Information. a. Equipment information is not registered with the system. b. An error is returned explaining why equipment information was not registered. 3. Redundant Equipment a. Equipment information is not registered with the system. b. An error is returned explaining why equipment information was not registered.

UC9: Search Inventory

Use Case Name	UC9: Search Inventory
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants to get inventory information. Trainers: Want to get inventory information.
Preconditions	Manager logged into gym system.
Success Guarantee	Inventory information is returned.
Main Success Scenario	1. A manager issues a query for inventory information.The following are some of the queries: a. Equipment with a specific name. b. Equipment with a specific id (ids are unique). 2. The system returns a list of equipment based on the given query information..
Extensions	1. Equipment does not exist. a. The system returns an empty list..

UC10: Create Exercise

Use Case Name	UC10: Create Exercise
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to enter a new exercise into the system
Preconditions	User logged into gym system.
Success Guarantee	New exercise is created
Main Success Scenario	1. Include: UC11 Search exercise 2. If exercise is not found trainer starts an entry for a new exercise. 3. If exercise needs equipment: Extension point: UC9 Search Inventory a. Equipment details are displayed b. Trainer assigns equipment to exercise 4. Trainer enters exercise name, duration or number of sets and repetitions per set. 5. Trainer saves new exercise. 6. A success message is displayed to the trainer
Extensions	1. Missing exercise information a. Trainer is not able to create exercise because he does not enter either: i. Name ii. Duration or number or sets b. An error message is displayed explaining why the exercise was not created. 2. Duplicate exercise name a. Trainer is not able to create exercise because the exercise name already exists in the system. b. An error message is displayed explaining why the exercise was not created.

UC11: Search Exercise

Use Case Name	UC11: Search Exercise
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to search for an exercise in the system
Preconditions	User logged into gym system
Success Guarantee	The exercise is found
Main Success Scenario	1. Trainer starts a search for an exercise 2. Following are some of the search parameters: a. Exercise name b. Machine name 3. Exercise is found 4. Exercise details are displayed
Extensions	1. Exercise is not found. 2. System returns an empty list.

UC12: Modify Exercise

Use Case Name	UC12: Modify Exercise
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to modify an exercise
Preconditions	1. User logged into gym system. 2. Exercise exists in the system
Success Guarantee	Exercise is modified
Main Success Scenario	1. Include: UC11 Search Exercise 2. Exercise is found 3. Trainer modifies the exercise 4. Trainer saves modifications. 5. A success message is displayed to the trainer.
Extensions	1. Missing exercise information a. Trainer is not able to create exercise because he does not enter either: i. Name ii. Duration or number or sets b. An error message is displayed explaining why the exercise was not modified. 2. Duplicate exercise name a. Trainer is not able to create exercise because the exercise name already exists in the system. b. An error message is displayed explaining why the exercise was not created.

UC13: Create Workout Routine

Use Case Name	UC13: Create Workout Routine
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to create workout routine
Preconditions	1. User logged into gym system. 2. At least one exercise exists in the system
Success Guarantee	Workout routine is created
Main Success Scenario	1. Include UC14: Search Workout Routine 2. If routine is not found trainer starts an entry for a new workout routine 3. Include: UC11 Search Exercise 4. Exercise details are displayed 5. Trainer assigns exercise to workout routine 6. Trainer repeats steps 3-5 till he addes all the exercises to the routine 7. Trainer saves workout routine
Extensions	1. Missing workout routine information a. Trainer is not able to create workout routine because i. He does not add any exercise to the routine ii. He does not enter the name b. An error message is displayed explaining why the exercise was not created.

UC14: Search Workout Routine

Use Case Name	UC14: Search Workout Routine
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to search workout routines
Preconditions	User logged into gym system
Success Guarantee	Workout routine is found
Main Success Scenario	1. Trainer starts a search for workout routine 2. Trainer uses the following search parameters to search the workout routine a. Name b. exercise 3. Workout routine is found 4. Workout routine details are displayed
Extensions	1. Workout routine is not found. 2. System returns empty list.

UC15: Modify Workout Routines

Use Case Name	UC15: Modify Workout Routines
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to modify workout routines
Preconditions	1. User logged into gym system. 2. Workout routine exists in the system
Success Guarantee	Workout is modified successfully
Main Success Scenario	1. Include: UC14 Search Workout Routine 2. Workout routine results are displayed 3. Trainer modifies workout routine 4. Trainer saves the modifications. 5. A success message is displayed to the trainer.
Extensions	1. Missing workout routine information a. Missing workout routine information i. Trainer is not able to create workout routine because 1. He does not add any exercise to the routine 2. He does not enter the name b. An error message is displayed explaining why the exercise was not modified.

UC16: Assign Workout Routines

Use Case Name	UC16: Assign Workout Routines
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to assign workout routine(s) to a customer
Preconditions	1. User logged into gym system. 2. At least one workout routine exists in the system 3. At least one customer exists in the system
Success Guarantee	Workout is assigned successfully
Main Success Scenario	1. Include UC7: Search Customers 2. Customer details are displayed 3. Include UC 14: Search Workout Routine 4. Workout routine details are displayed 5. Trainer assigns workout routine to customer. 6. Trainer repeats steps 4-5 till all the desired workout routines are assigned to the customer.
Extensions	1. Workout routine is not assigned successfully a. An error message is returned explaining why the workout routine was not assigned.

UC17: Login User

Use Case Name	UC17: Login User
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Users
Supporting actor	Authentication service
Stakeholders and Interests	Users: Want to access to the gym system.
Preconditions	User exists in system.
Success Guarantee	User is logged into the gym system
Main Success Scenario	1. User enters credentials into the gym system. 2. The gym system uses the authentication service to verify user's credentials. 3. Authentication service returns success or failure. 4. On success, user is logged into the gym system. 5. If the user is a trainer, user is directed to the trainer portal. 6. If the user is a manager, user is directed to the manager portal. 7. If the user is a customer, user is directed to the customer portal.
Extensions	1. System returns authentication error. a. The user is not able to log in and is redirected to the login page

UC18: Hire Managers

Use Case Name	UC18: Hire Managers (Create Manager)
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants managers to run the gym system.
Preconditions	At least one manager (admin user) must exist in system. Manager is logged into gym system.
Success Guarantee	The new manager is employed at the gym and information is recorded in the gym system.
Main Success Scenario	1. Include (UC20: Register User) 2. A manager enters the personal information (first name, last name, phone number email, and health insurance) for a manager. 3. A manager submits the manager information into the gym system. 4. The system returns success.
Extensions	1. Missing Manager Information. a. Manager information is not registered with the system. b. An error is returned explaining why manager information was not registered. 2. Invalid Manager Information. a. Manager information is not registered with the system. b. An error is returned explaining why manager information was not registered. 3. Redundant Manager a. Manager information is not registered with the system. b. An error is returned explaining why manager information was not registered.

UC19: Search Managers

Use Case Name	UC19: Search Managers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants to get manager information.
Preconditions	User is logged into gym system.
Success Guarantee	Manager information is returned.
Main Success Scenario	1. A manager issues a query for manager information.The following are some of the queries: a. Manager(s) with a specific personal information. b. Manager with a specific id (ids are unique). 2. The system returns a list of managers based on the given query information..
Extensions	1. Manager does not exist. a. The system returns an empty list..

UC20: Register User

Use Case Name	UC20: Register User
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Users: Want to be register with gym system.
Preconditions	At least one manager must exist in the system. User is logged into the gym system.
Success Guarantee	New user can log into the gym system.
Main Success Scenario	1. Manager enters new user username and password into the gym system. 2. The gym system registers the new credentials with the authentication system.
Extensions	1. User is not registered a. Error is returned explaining why the user is not registered.

UC21: Delete Trainers

Use Case Name	UC4: Delete Trainers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants to remove trainer information.
Preconditions	Manager logged into gym system. Trainer must exist in gym system.

Success Guarantee	Trainer information is deleted.
Main Success Scenario	1. Include(UC5: Search Trainers) 2. A manager deletes the trainer information 3. The system returns success.
Extensions	1. Trainer information is not deleted a. Error is returned explaining why the information was not deleted

UC22: Delete Customers

Use Case Name	UC21: Delete Trainers
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants to remove customer information. Trainer: Wants correct customer information in the system.
Preconditions	Manager logged into gym system. Trainer must exist in gym system.
Success Guarantee	Trainer information is deleted.
Main Success Scenario	1. Include(UC7: Search Customers) 2. A manager deletes the customer information 3. The system returns success.
Extensions	1. Trainer information is not deleted a. Error is returned explaining why the information was not deleted

UC23: Delete Inventory

Use Case Name	UC21: Delete Inventory

Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Manager: Wants to remove an equipment from the inventory. Trainer: Wants correct inventory information in the system.
Preconditions	Manager logged into gym system. Equipment must exist in the gym system
Success Guarantee	Equipment is deleted
Main Success Scenario	1. Include(UC9: Search Inventory) 2. A manager deletes the equipment from the inventory 3. The system returns success.
Extensions	1. Equipment information is not deleted b. Error is returned explaining why the equipment was not deleted

UC24: Delete Exercise

Use Case Name	UC24: Delete Exercise
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Trainer: Wants to remove an exercise from the system
Preconditions	Trainer logged into gym system. Exercise must exist in the system.
Success Guarantee	Exercise is deleted
Main Success Scenario	1. Include(U11: Search Exercise) 2. A trainer deletes the exercise from the system. 3. The system returns success.
Extensions	2. Exercise information is not deleted

	a. Error is returned explaining why the exercise was not deleted.

UC25: Delete Workout Routine

Use Case Name	UC24: Delete Workout Routine
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Manager
Stakeholders and Interests	Trainer: Wants to remove a workout routine from the system
Preconditions	Trainer logged into gym system. Workout routine must exist in the system.
Success Guarantee	Workout routine is deleted.
Main Success Scenario	1. Include(U14: Search Workout Routine) 2. A trainer deletes the workout routine from the system. 3. The system returns success.
Extensions	1. Workout routine is not deleted b. Error is returned explaining why the exercise was not deleted.

UC26: Unassign Workout Routines

Use Case Name	UC26: Unassign Workout Routines
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Trainer
Stakeholders and Interests	Trainer: Wants to unassign workout routine(s) from a customer

Preconditions	1. User logged into gym system. 2. At least one workout routine is assigned to one customer 3. At least one customer exists in the system
Success Guarantee	Workout is unassigned successfully
Main Success Scenario	1. Trainer selects the customer from which he wants to unassign workout routine 2. Trainer un-assigns workout routine from the customer. 3. Trainer repeats step 2 till all the desired workout routines are unassigned from the customer.
Extensions	1. Workout routine is not unassigned successfully a. An error message is returned explaining why the workout routine was not unassigned.

UC27: Provide Workout Feedback

Use Case Name	UC27: Provide Workout feedback
Scope	Indoor Gym Management System
Level	User goal
Primary Actor	Customer
Stakeholders and Interests	Customer: Wants to be able to give feedback about the workout assigned to him. Trainer: Want to know customers' feedback about the workout assigned to them.
Preconditions	1. User logged into gym system. 2. At least one workout routine is assigned to one customer 4. At least one customer exists in the system
Success Guarantee	Feedback for a workout is a saved successfully
Main Success Scenario	1. Customer starts an entry for a new feedback and enters feedback description 2. Customer chooses the workout. 3. Customer saves the feedback

Extensions	1. Feedback is not saved a. Error message is displayed showing why the feedback was not saved.