# My Personalized Fitness Tracker

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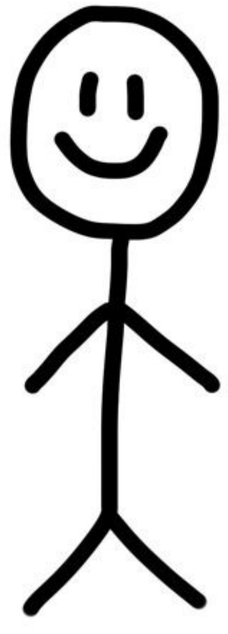
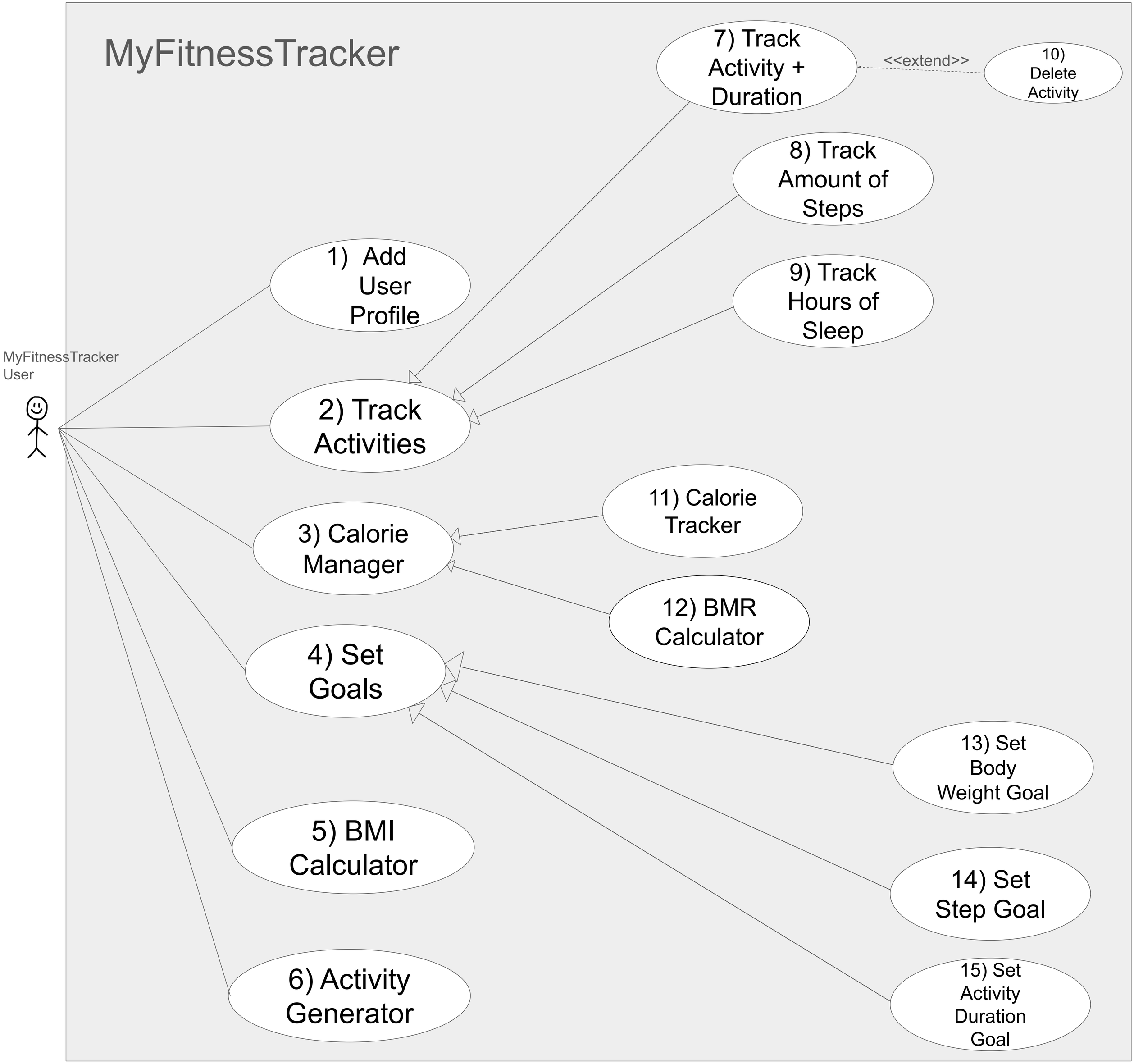


# Usecase Diagram



# Use Case Diagram Description (Part 1)

| 1: Add User Profile | |
|---|---|
| Overview | This creates a profile for the user, which includes their name, age, weight, and height. This information is stored in a text file. |
| Related use cases: | N/A |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 2: Track Activities | |
|---|---|
| Overview | Allows user to track activity+duration, step count, and hours slept. This information is stored in a text file. |
| Related use cases: | Generalization of:<br>(7) Track Activities + Duration<br>(8) Track Amount of Steps<br>(9) Track Hours of Sleep |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 3: Calorie Manager | |
|---|---|
| Overview | Manages both BMR Calculator and Calorie Tracker allowing the user to choose between these actions. |
| Related use cases: | Generalization of…<br>(11) Calorie Tracker<br>(12) BMR Calculator |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 4 Set Goals | |
|---|---|
| Overview | This allows the user to set their weight, step, and activity duration goals. All of this information is stored in a text file for the user's convenience and helps the user keep track of their fitness progress. |
| Related use cases: | Generalization of…<br>(12) Set Body Weight Goal<br>(13) Set Step Goal<br>(14) Set Activity Duration Goal |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 5: BMI Calculator | |
|---|---|
| Overview | Uses data based on user input or previously existing profile files and calculates BMI. Generates brief description along with BMI. |
| Related use cases: | N/A |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 6: Activity Generator | |
|---|---|
| Overview | Uses a random number generator to randomly generate an activity as a suggestion to the user from an array. The activity generated has three levels of difficulty: beginner, intermediate, and advanced. |
| Related use cases: | N/a |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 7: Track Activity + Duration | |
|---|---|
| Overview | Allows the user to record the name of the fitness activity that they did and the duration in minutes. Activities are assigned an id number. This information is saved to a text file. |
| Related use cases: | Generalized by:<br>(2) Track Activities<br><br>Extended by:<br>(10) Delete Activity |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 8: Track Amount of Steps | |
|---|---|
| Overview | Allows the user to record their step count. This also converts their step count to distance in miles. This information is saved in a text file. |
| Related use cases: | Generalized by:<br>(2) Track Activities |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 9: Track Hours of Sleep | |
|---|---|
| Overview | Allows the user to record the hours they slept by letting users enter their bedtime and awake time in military time format, which then calculates the hours slept. This information is then saved to a text file. |
| Related use cases: | Generalized by:<br>(2) Track Activities |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

# Use Case Diagram Description (Part 2)

| 10: Delete Activity | |
|---|---|
| Overview | Deletes the activity and duration saved by the user using the activity's id. Also updates the deletion in a text file. |
| Related use cases: | Extends:<br>(7) Track Activity and Duration |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 11: Calorie Tracker | |
|---|---|
| Overview | Allows user to input their caloric intakes and keeps track of their daily caloric intake. Updates/creates text file storing this information. |
| Related use cases: | Generalized by…<br>(3) Calorie Manager |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

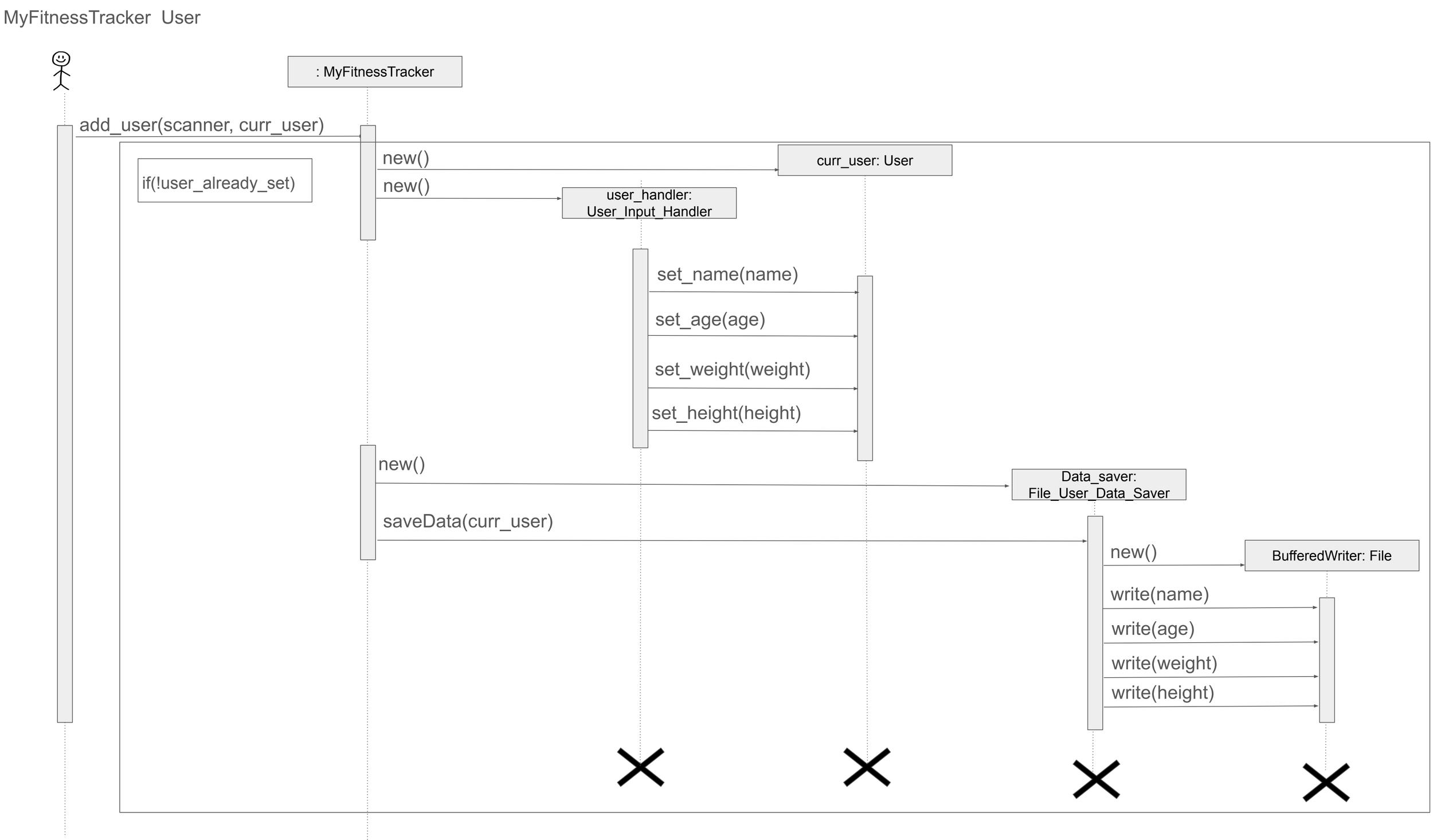
| 12: BMR Calculator | |
|---|---|
| Overview | Calculates the user's BMR and daily caloric intake goal to reach their goal weight. Requests user information and retrieves information that may be found in previously created text files. |
| Related use cases: | Generalized by…<br>(3) Calorie Manager |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 13: Set Body Weight Goal | |
|---|---|
| Overview | This stores the user's body weight goal (in pounds) in a text file and allows the user to record how they progress upon their body weight goals. |
| Related use cases: | Generalized by…<br>(4) Set Goals |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

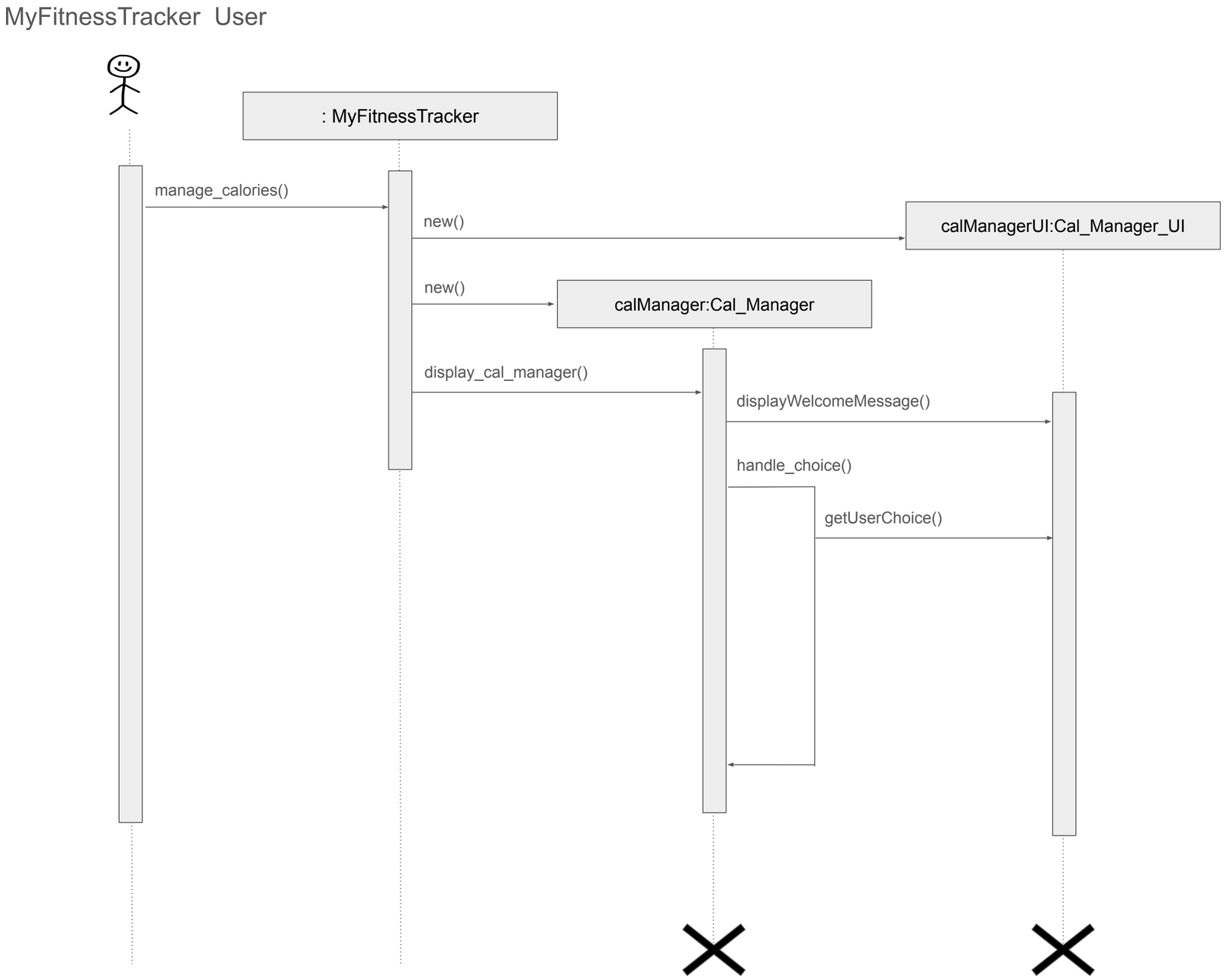
| 14: Set Step Goal | |
|---|---|
| Overview | This stores the user's goal step count in a text file and allows the user to record how they progress upon their step count goals. |
| Related use cases: | Generalized by…<br>(4) Set Goals |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

| 15: Set Activity Duration Goal | |
|---|---|
| Overview | This stores the user's activity duration goal in a text file. Activity duration is subdivided into three categories: move, stand, and exercise hours. This allows the user to record how they progress upon their activity duration goals. |
| Related use cases: | Generalized by…<br>(4) Set Goals |
| Actors | MyFitnessTracker User |
| Pre Conditions (Optional) | |
| Post Conditions (Optional) | |

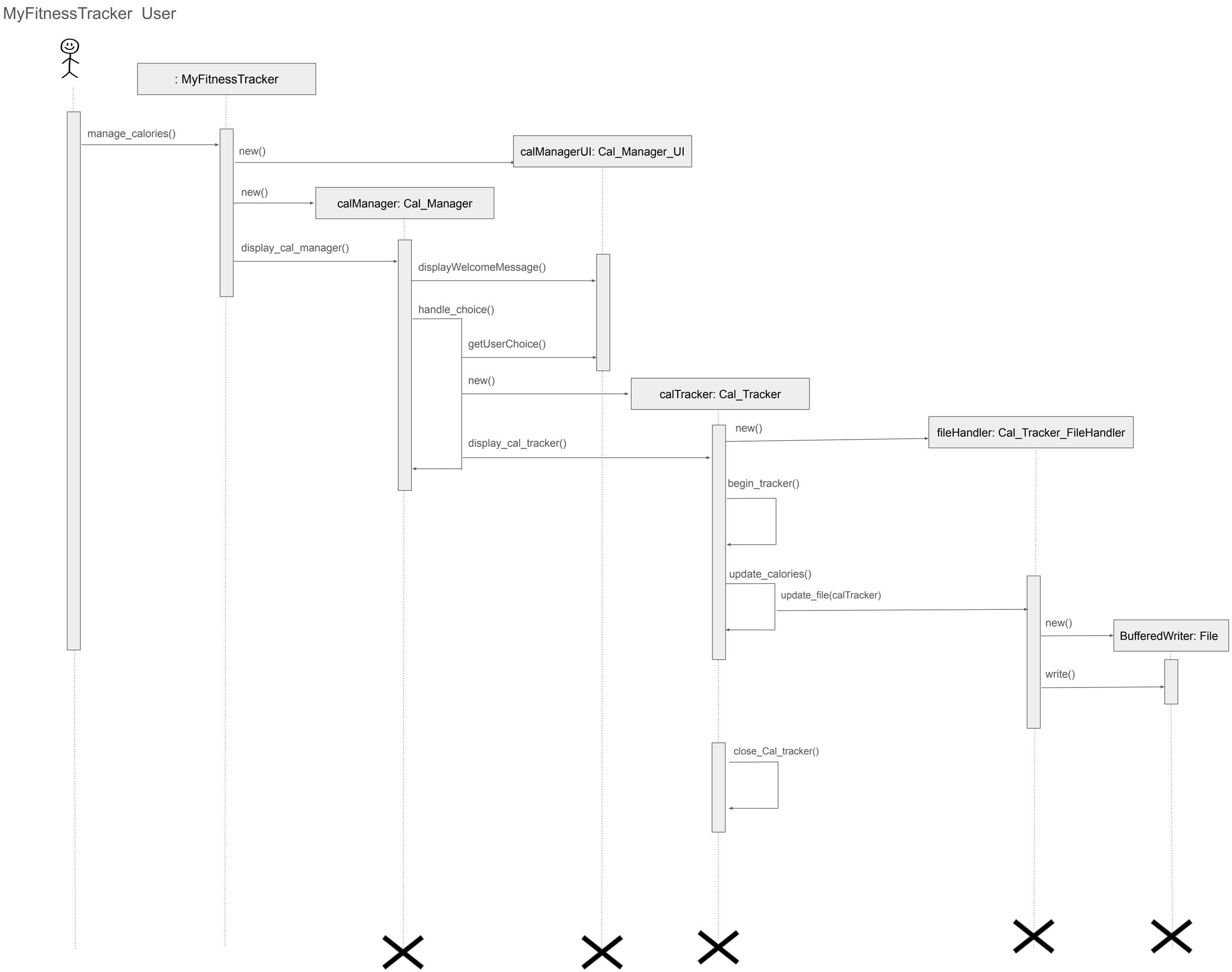
# Sequence Diagram: Add User Profile



# Sequence Diagram: Calorie Manager

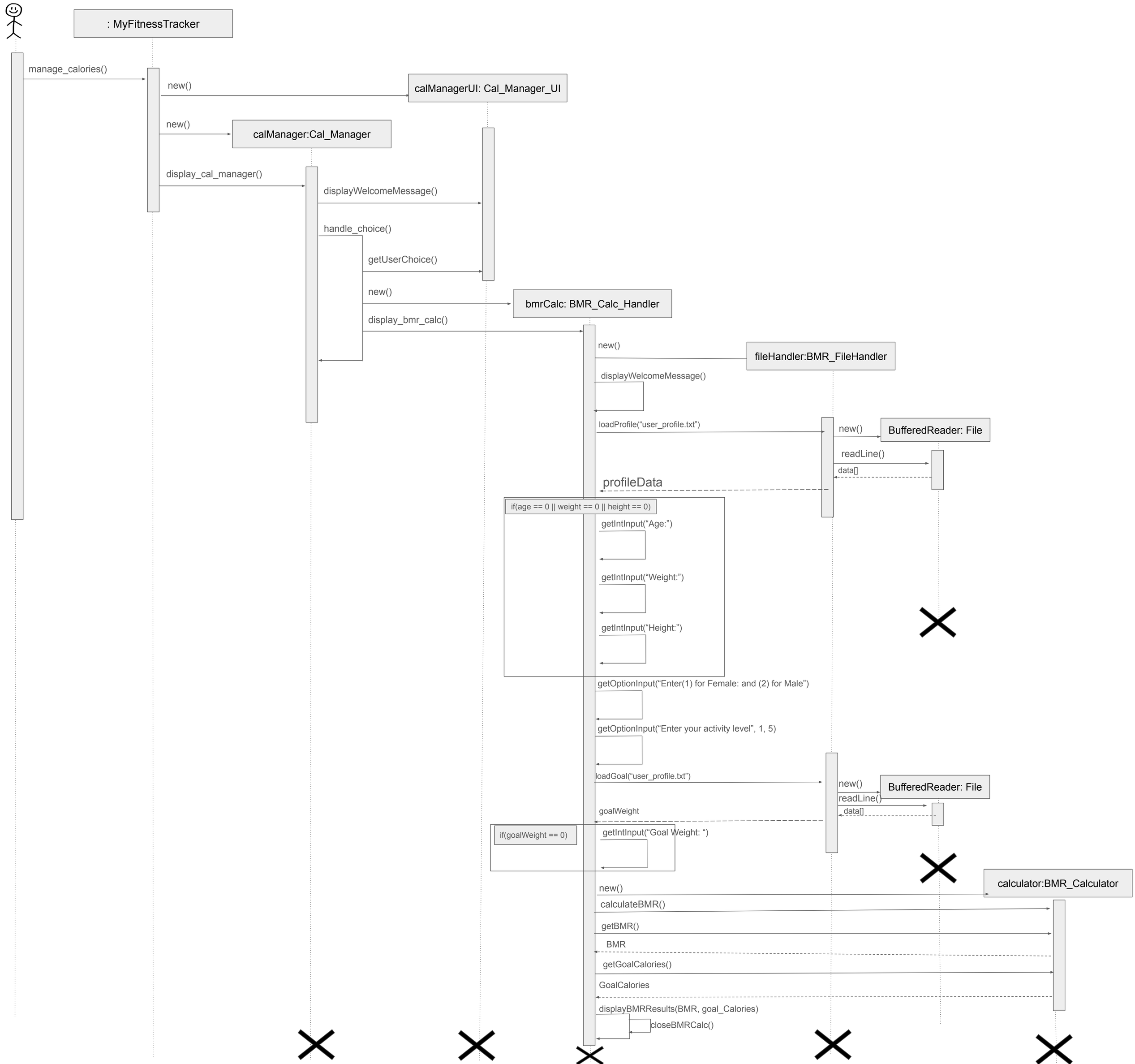


# Sequence Diagram: Calorie Tracker

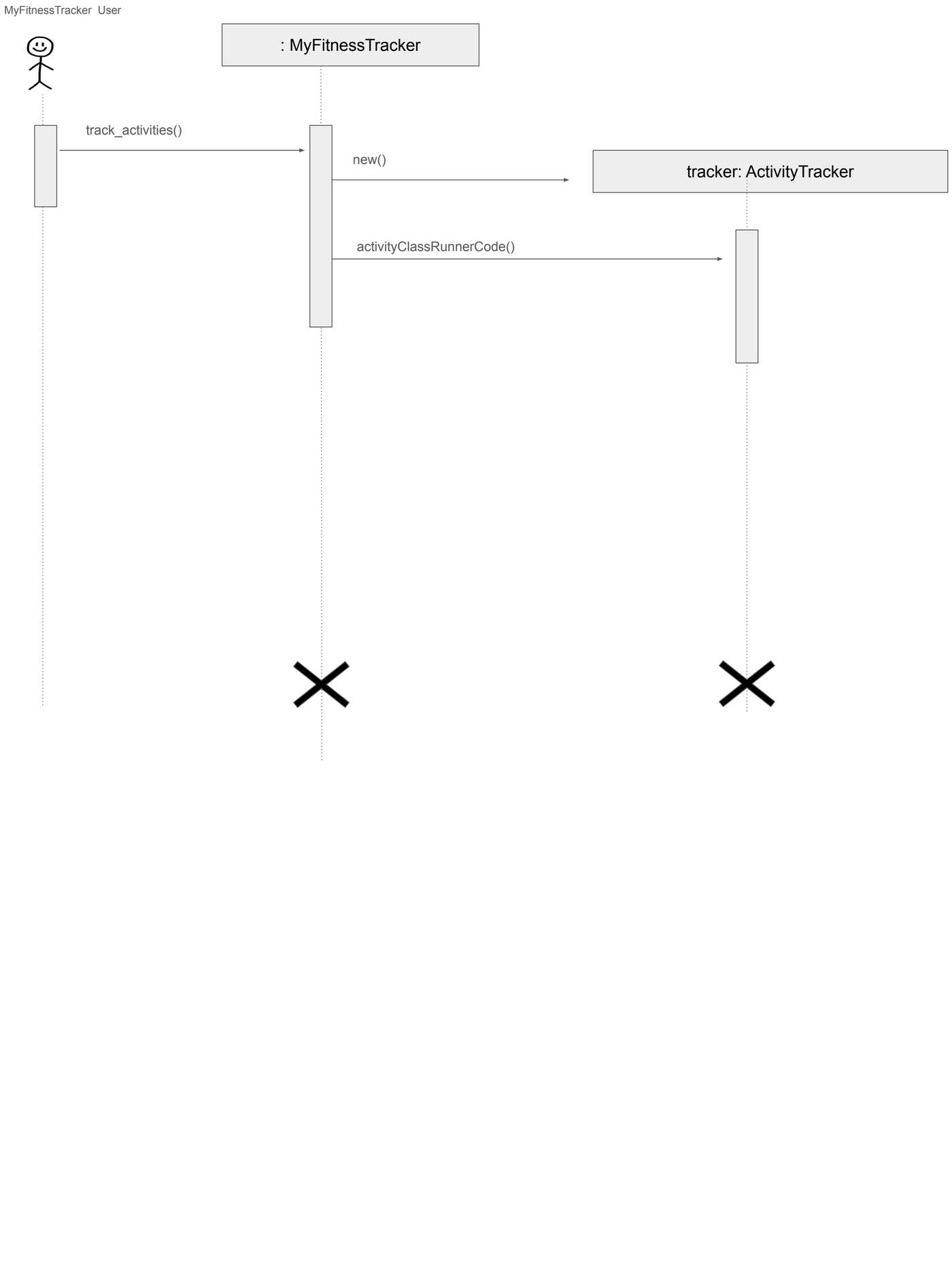


# Sequence Diagram: BMR Calculator

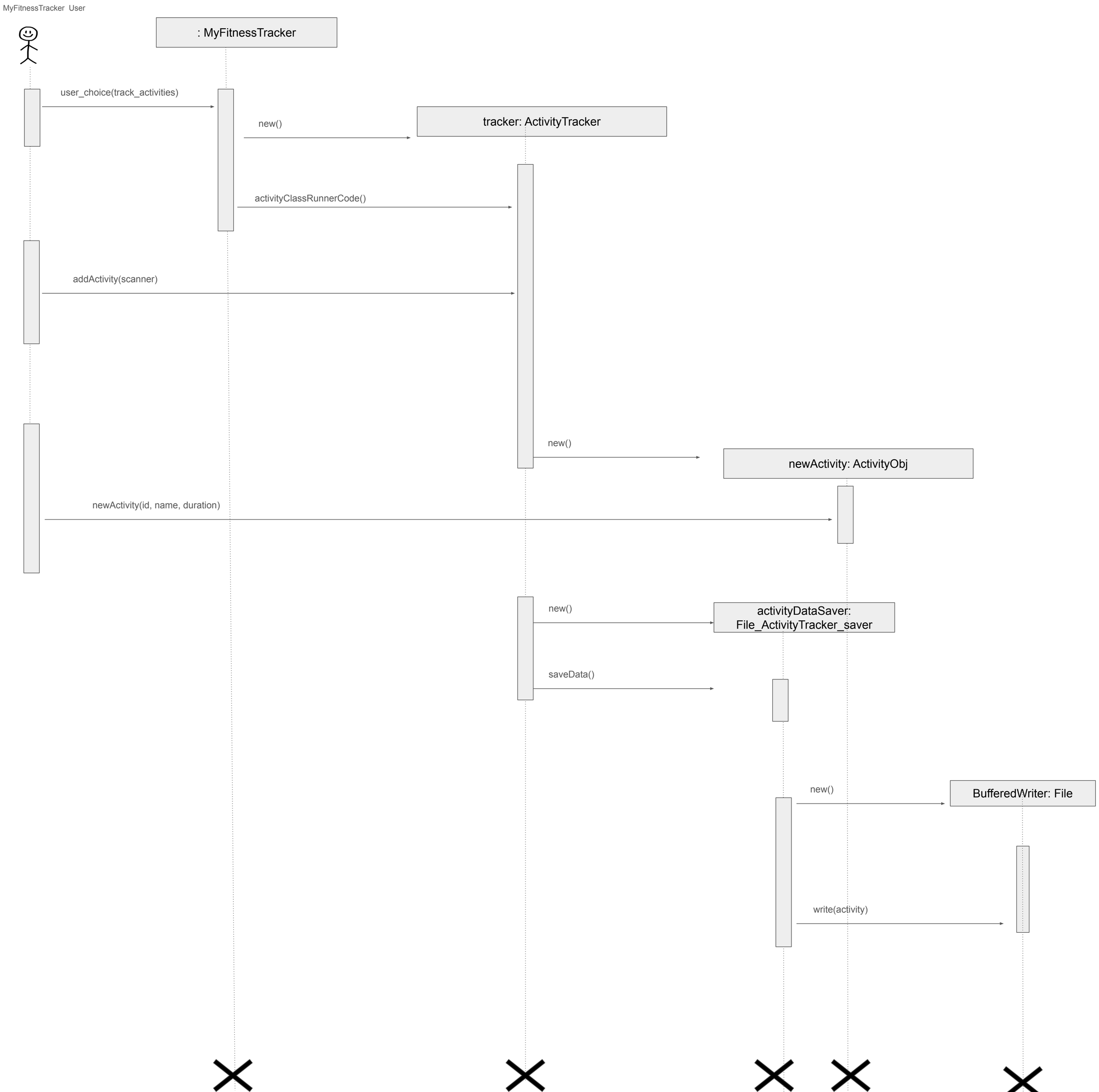
MyFitnessTracker User



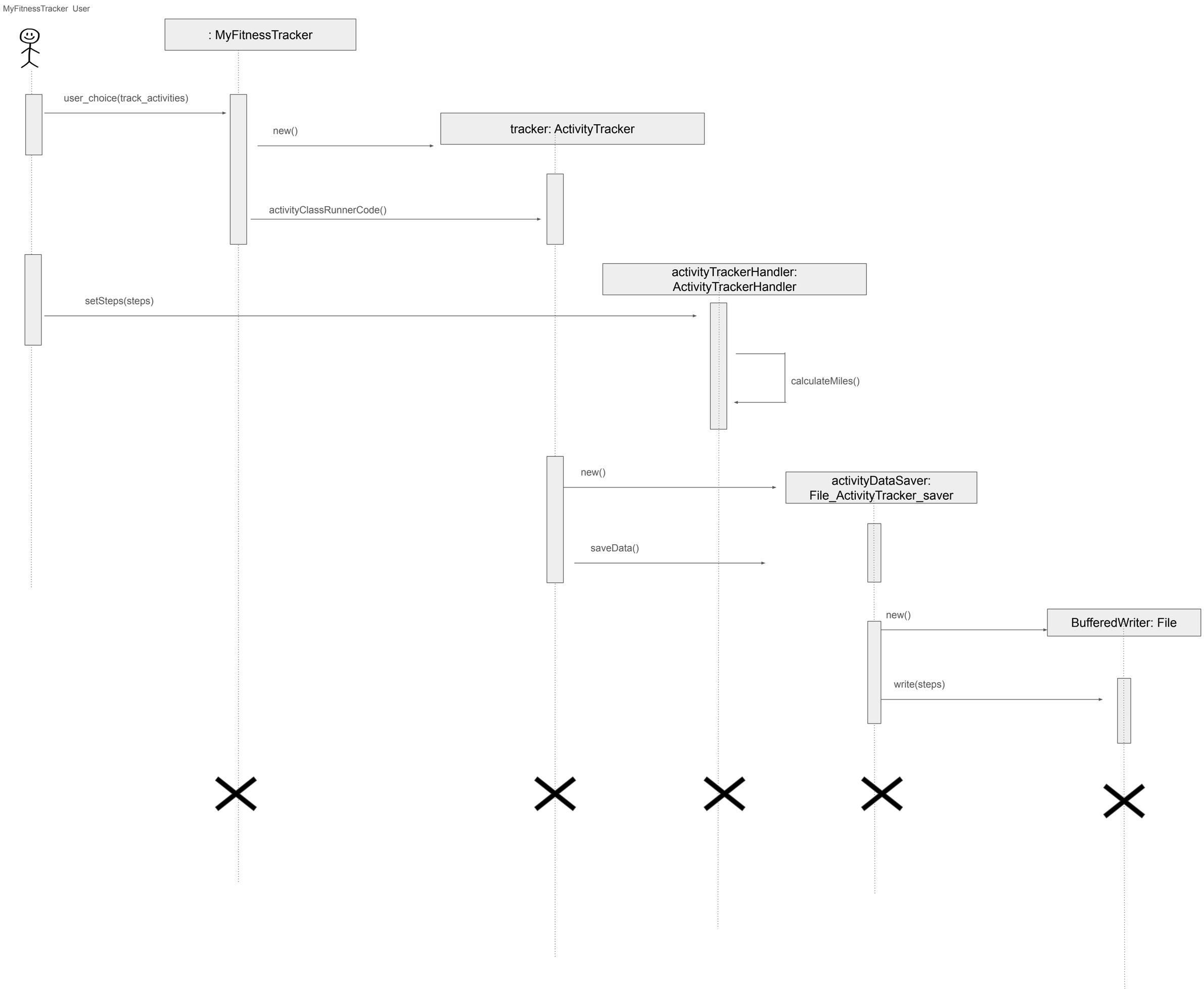
# Sequence Diagram: Track Activities



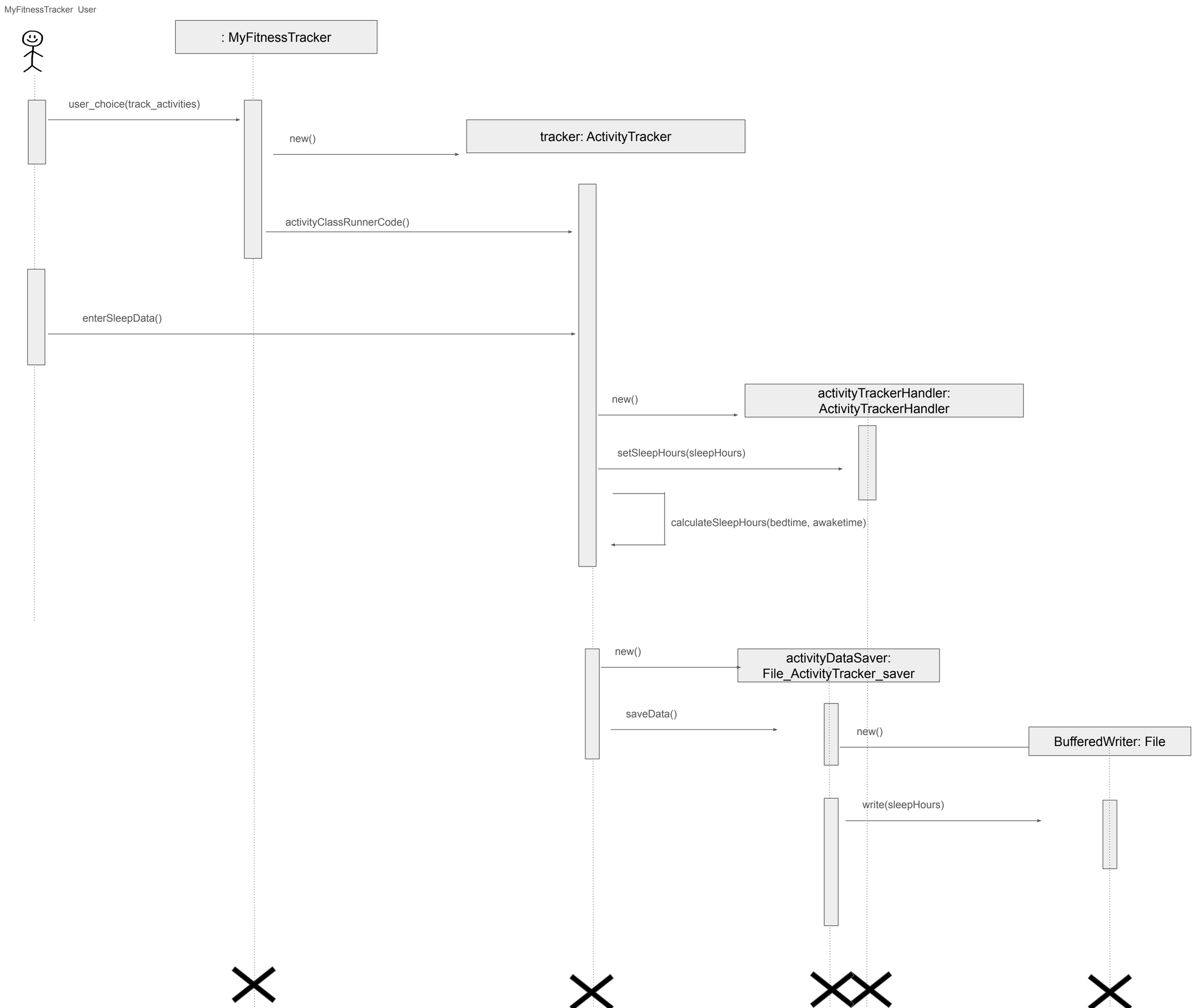
# Sequence Diagram: Track Activity + Duration



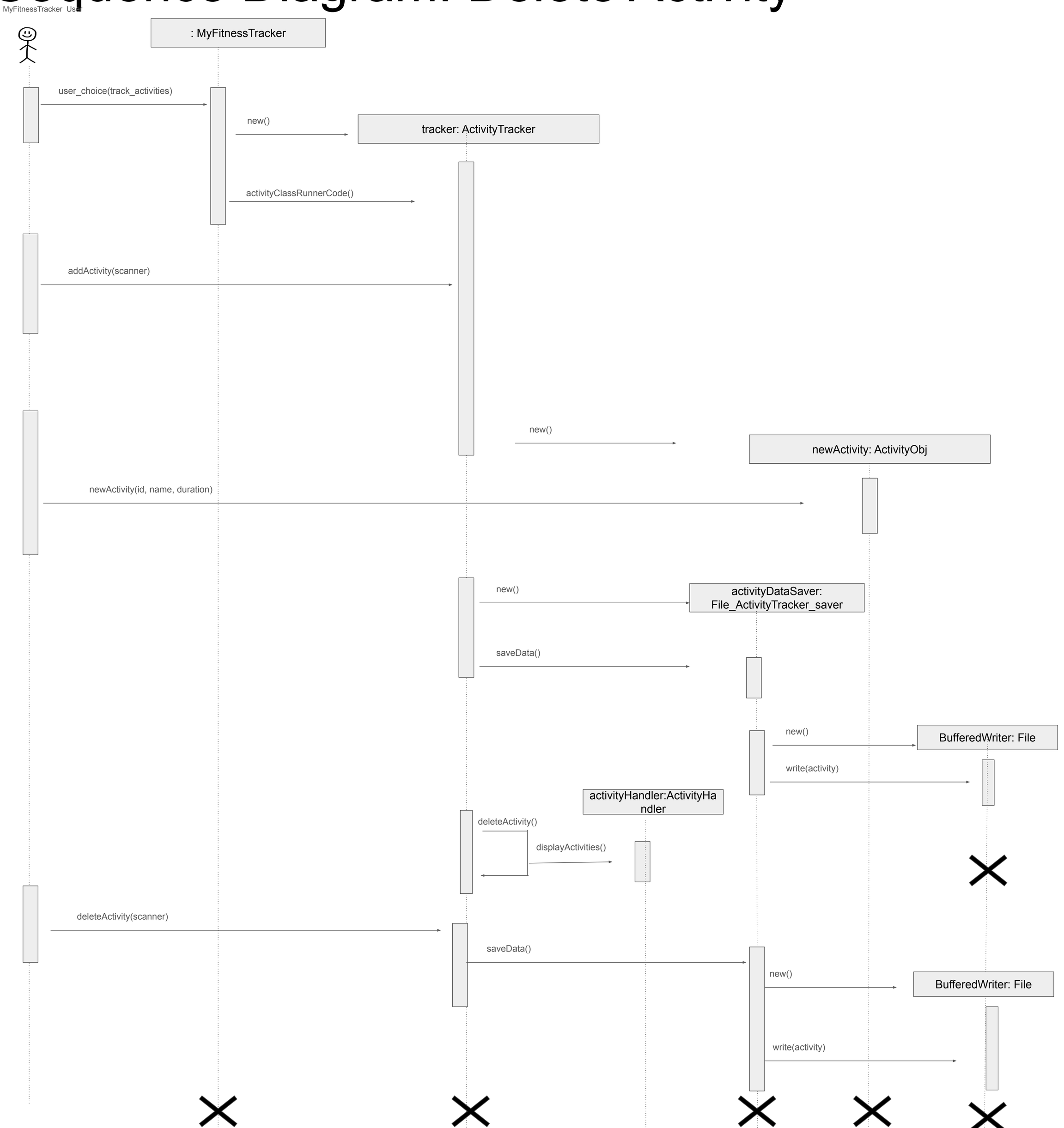
# Sequence Diagram: Track Amount of Steps



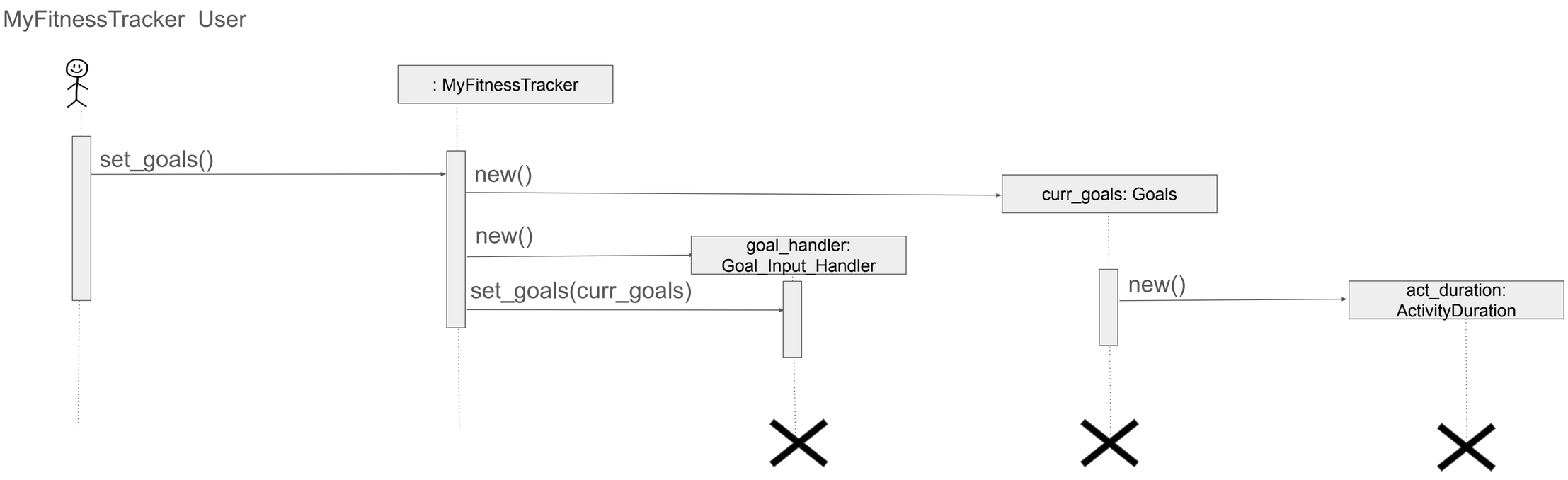
# Sequence Diagram: Track Hours of Sleep



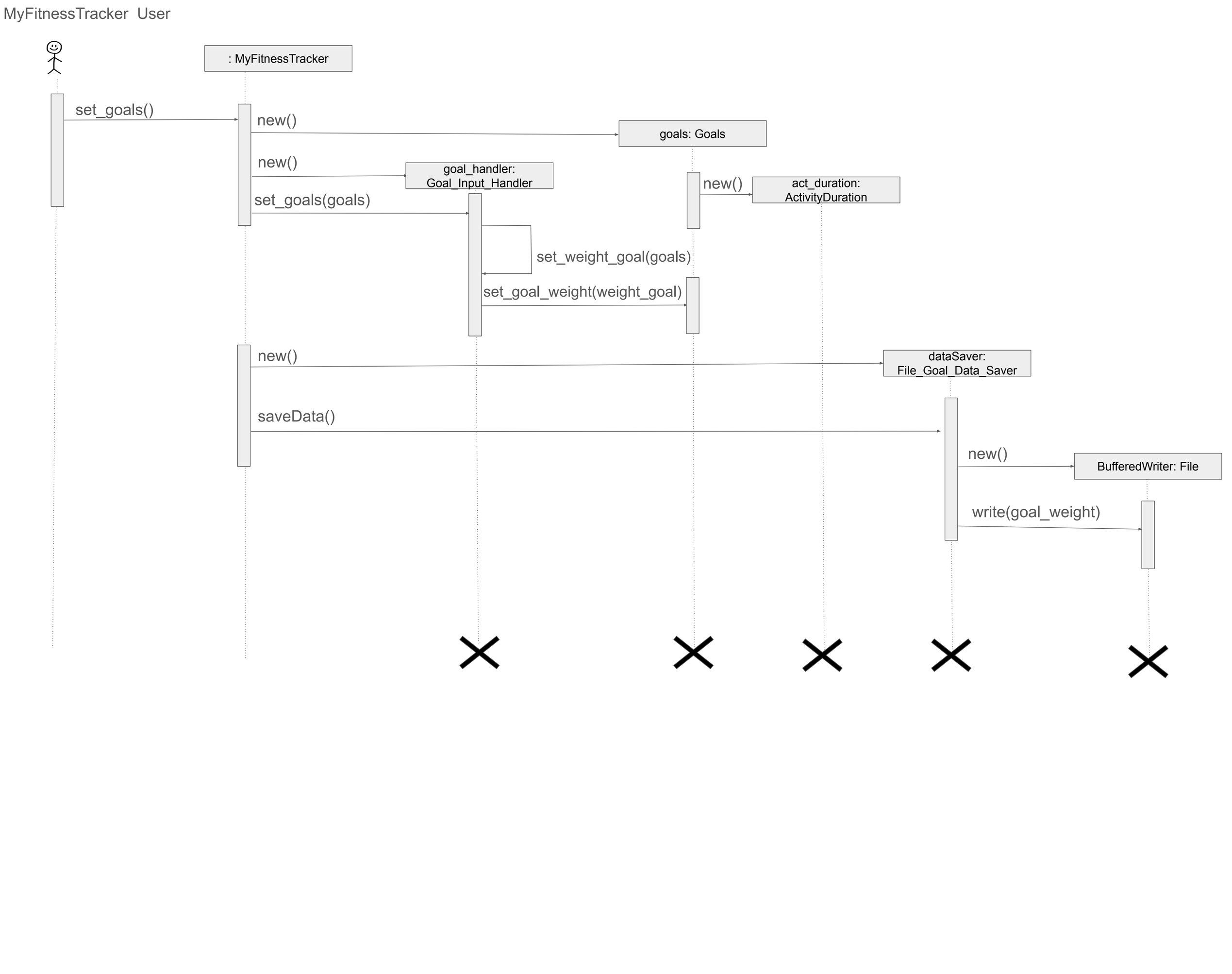
# Sequence Diagram: Delete Activity



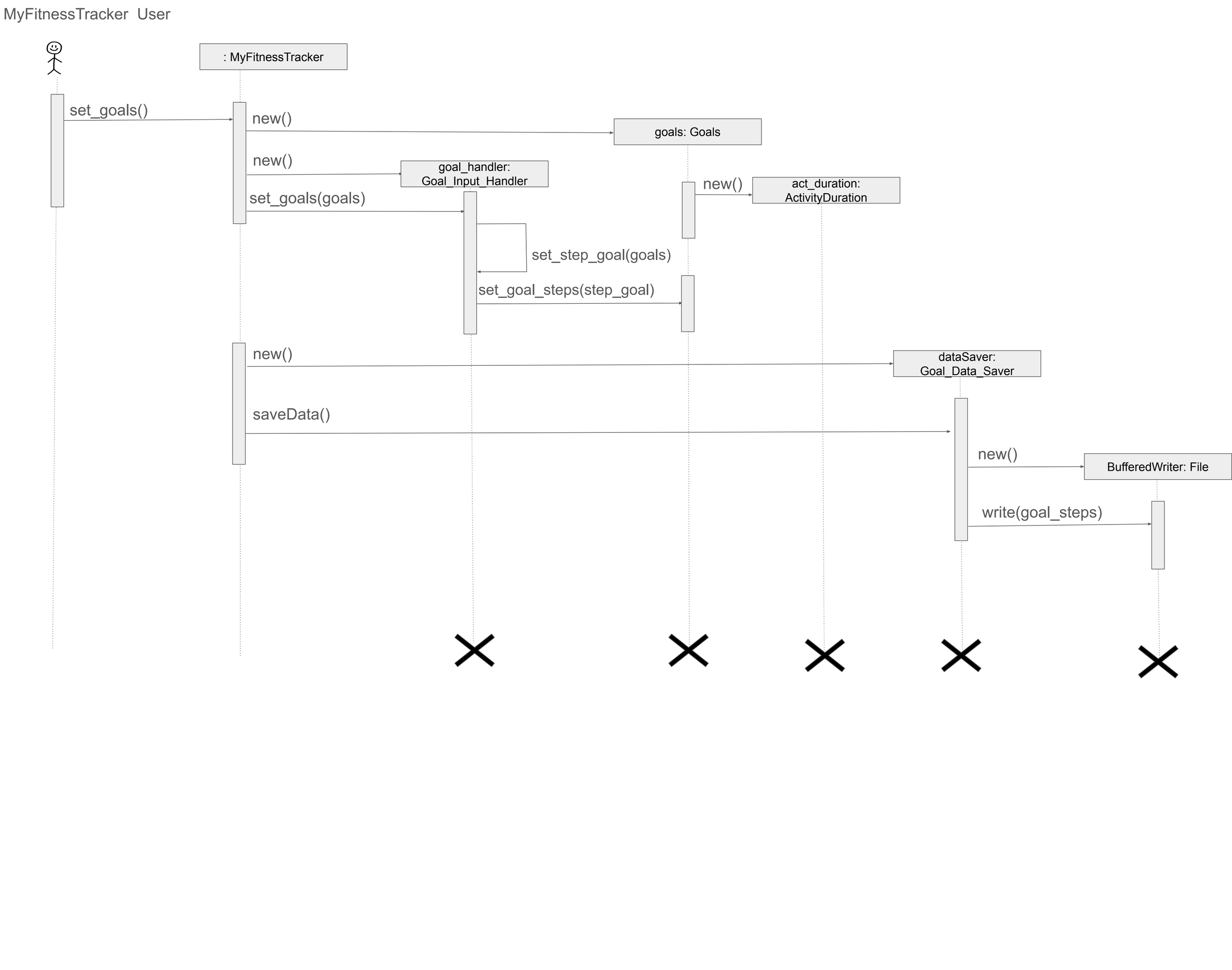
# Sequence Diagram: Set Goals



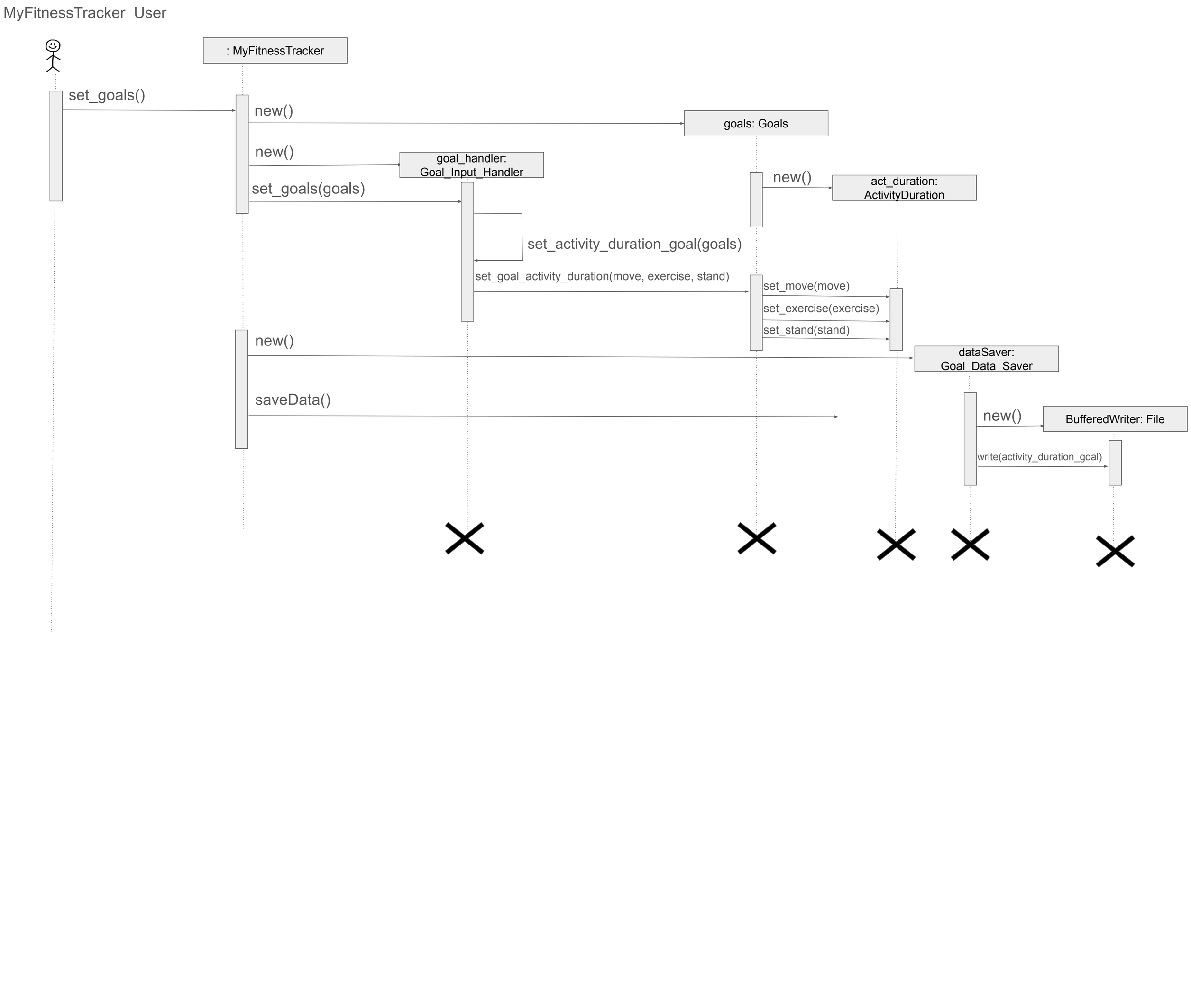
# Sequence Diagram: Set Body Weight Goal



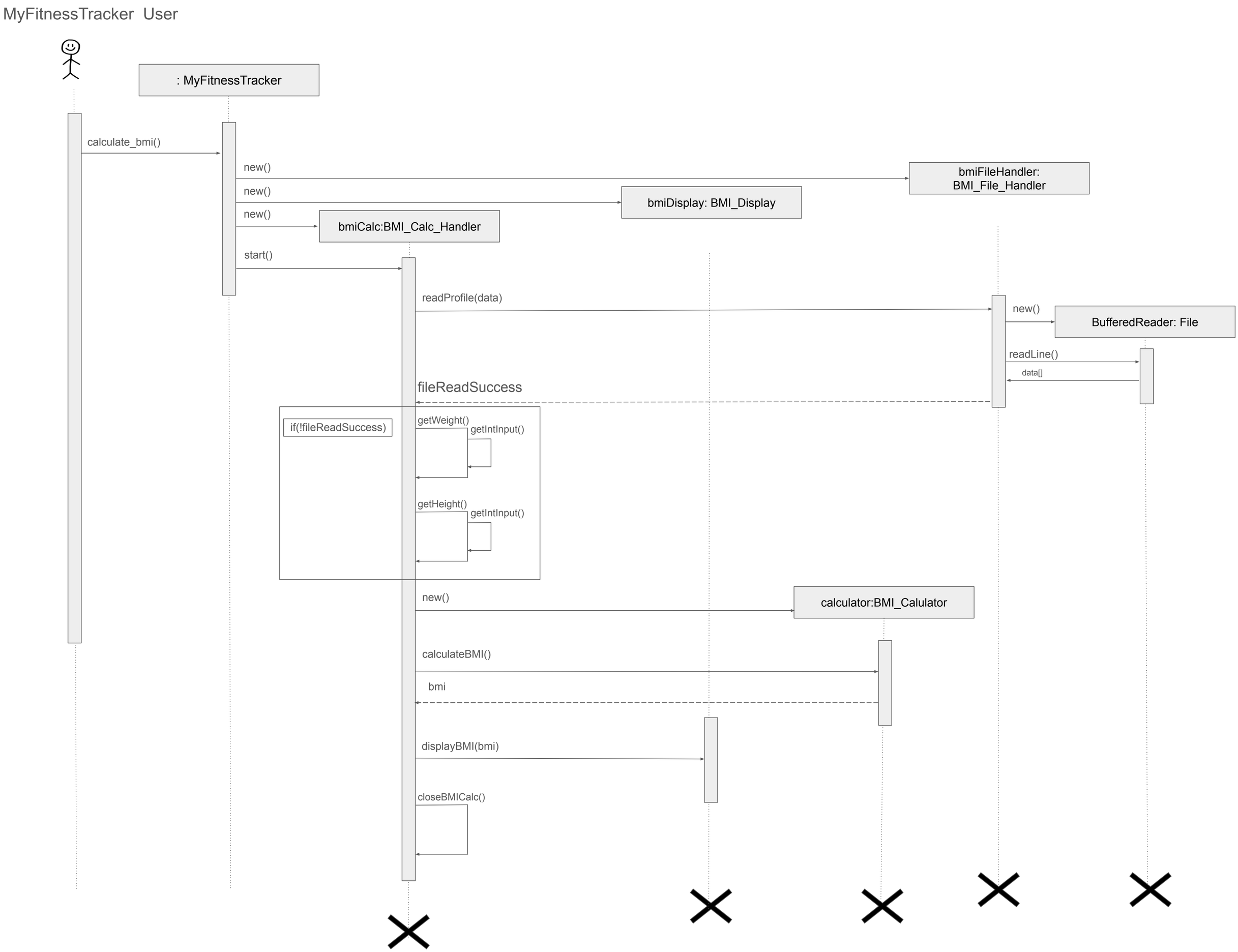
# Sequence Diagram: Set Step Goal



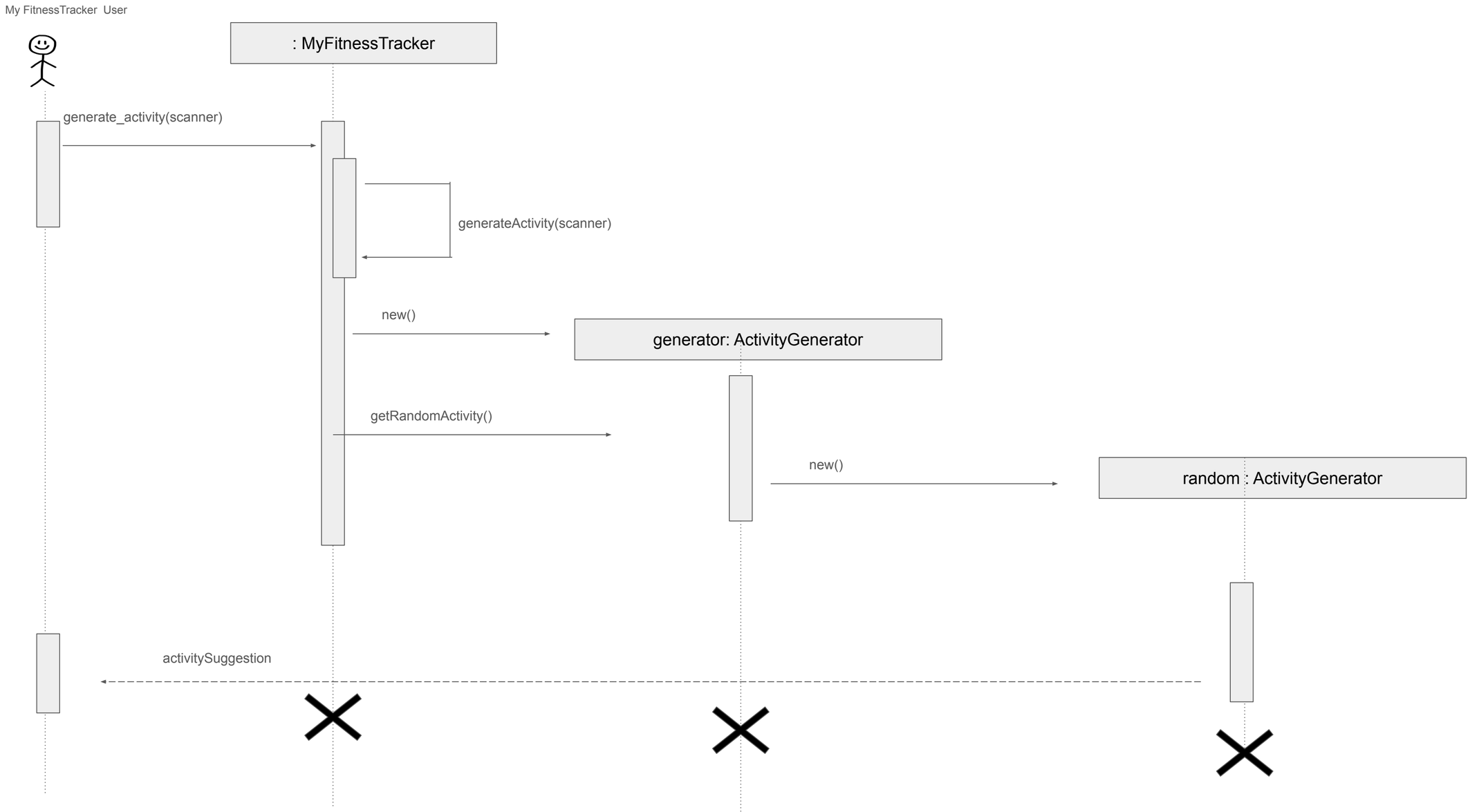
# Sequence Diagram: Set Activity Duration Goal



# Sequence Diagram: BMI Calculator



# Sequence Diagram: Activity Generator



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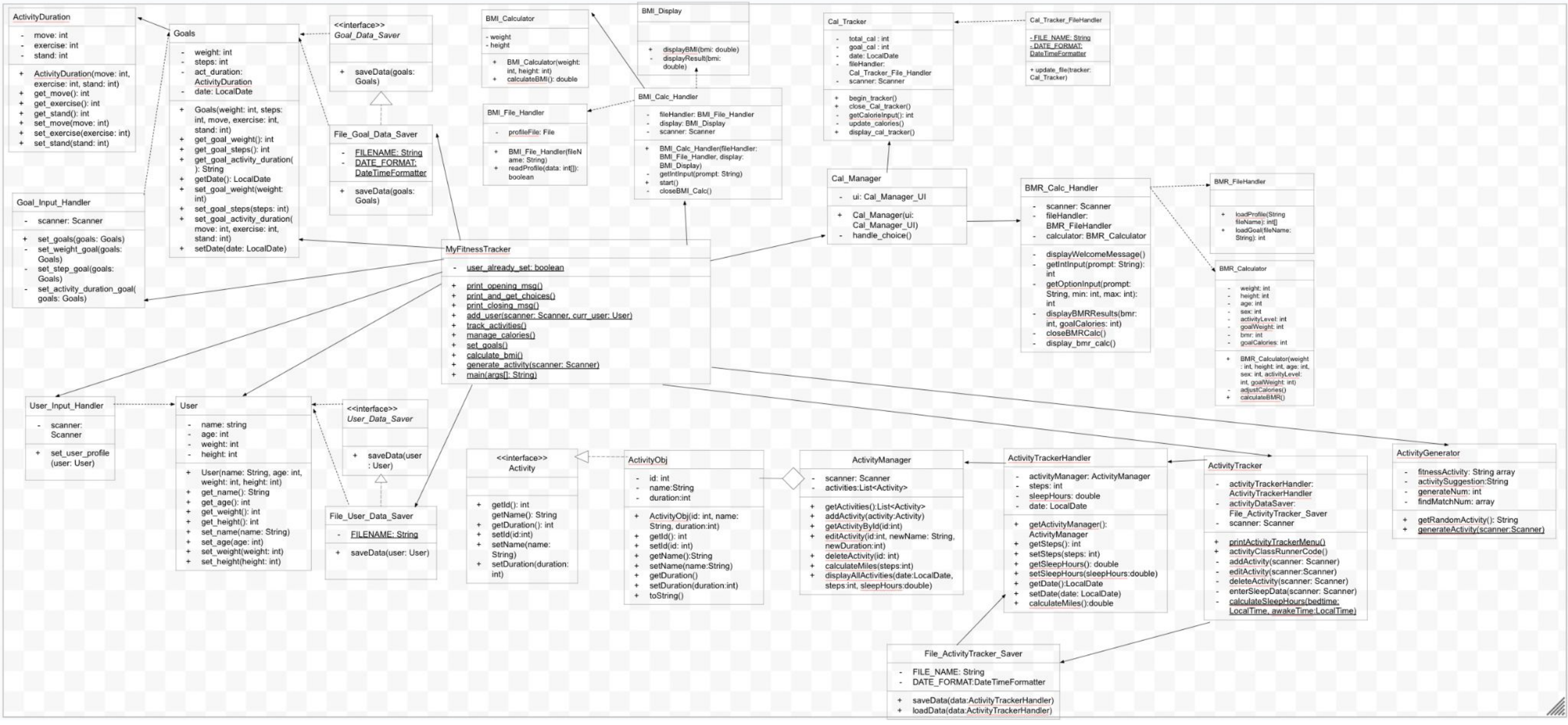
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