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Software Architecture and Design

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Use Cases

***Use Case (UC1):***

View Graphs

**Scope:**

The current User using the activity tracker software

**Level:**

To allow a user to view their graphs in real time

**Actor:**

User, System

**Stakeholders:**

User: Wants to be able to view their graphs accordingly and properly.

**Preconditions:**

Data exists for system to display graphs

**Postconditions:**

System displays graphs for user, then returns to default screen when user exits.

**Main Success Scenario:**

(UC1main):

1.) User chooses view graphs

2.) System collects necessary data

3.)  System generates live graphs

4.)   User can easily select which graph to view

5.)  User can swap graphs with a single button press

6.) System updates charts as new data is retrieved

**Extensions:**

(UC1a): UI does not allow for easy graph selection during exercise

(UC1b): System generates graphs with incorrect data

(UC1c): Graphs are not easily readable (unlabeled axes, bad scale, etc.)

(UC1d): Graphs do not update with live data

**Special Requirements:**

None

**Variations in Tech and Data:**

Users all have unique data, tech is consistent

**Frequency of Occurrence:\**

Many times a day

**Miscellaneous:**

N/A

***Use Case (UC2):***

Set Activity Goal

**Scope:**

The current User using the activity tracker software

**Level:**

User chooses a new goal value and timeline on which to achieve said goal

**Actor:**

User, System

**Stakeholders:**

User: Wants to be able to set a new activity goal

**Preconditions:**

User must know the goal and timeline to enter the data

**Postconditions:**

System must graph goal line based on input values

**Main Success Scenario:**

(UC2main):

1. User selects “Set New Goal”
2. System prompts user to choose which category to set a new goal in
3. User selects a category (Sleep, steps, heart rate, etc.)
4. System asks user what the new goal should be
5. System asks user when the user wants to achieve this goal by
6. User selects a timeline on which to complete the goal
7. System records new goal and timeline
8. System displays live chart with goal line graphed

**Extensions:**

(UC2a): System does not allow for goal setting

(UC2b): System fails to capture necessary data to graph goal line

(UC2c): Graph is cluttered, incorrect, or unreadable

(UC2d): Goal line is not distinguished from actual values

(UC2e): System does not update live charts with goal line

**Special Requirements:**

User must have a goal in mind and timeline

**Variations in Tech and Data:**

All data is unique to users, tech is consistent

**Frequency of Occurrence:**

Varies, infrequently to multiple times per day

**Miscellaneous:**

N/A