**Mindfulness Program Design**

1. What does the program do?

The program guides a user in completing chosen activities from a list of available activities within a timeframe indicated by the user.

1. What user inputs does it have?

* Menu item number (1-4)
* Duration for an activity
* Answers to prompts for the ‘listing’ activity

1. What outputs does it produce?

* Menu
* Prompt for activity duration
* Standard activity starting and ending messages
* Activity guides
* Countdown timer/slider

1. How does the program end?

- User types ‘quit’

**Classes**

* **BreathingActivity**

Responsibilities:

* Keeps track of the activity name
* Keeps track of the description
* Keeps track of the duration in seconds (total time spent on an activity)
* Keeps track of spinner duration
* Interval (represents the total time between each set of breathing in and breathing out)
* Breathe in duration (duration of breathing in e.g 60% of interval)
* Breathe out duration (duration of breathing in e.g 40% of interval)

Behaviours:

* Displaying the starting message
* Displaying the ending message
* Pausing while showing a spinner
* Pausing while showing a countdown timer
* Run the activity
* Initialize the name, description, and duration attributes (contstructor)
* **ReflectionActivity**

Responsibilities:

* Keeps track of the activity name
* Keeps track of the description
* Keeps track of the duration in seconds (total time spent on an activity)
* Keeps track of spinner duration
* Interval (represents the total time between each set of breathing in and breathing out)
* Breathe in duration (duration of breathing in e.g 60% of interval)
* Breathe out duration (duration of breathing in e.g 40% of interval)

Behaviours:

* Displaying the starting message
* Displaying the ending message
* Pausing while showing a spinner
* Pausing while showing a countdown timer
* Run the activity
* Initialize the name, description, and duration attributes (contstructor)
* **ListingActivity**

Responsibilities:

* Keeps track of a book name/title
* Keeps track of a chapter in that book
* Keeps track of a starting verse in that chapter
* Keeps track of ending verse in that chapter

Behaviours

* A picture containing text, screenshot, font, diagram

  Description automatically generatedReturns a formatted reference in book chapter:startverse-endingverse format

**Activity**

**ListingActivity**

**BreathingActivity**

**ReflectingActivity**