Project 1

**Project setup:**

You will complete this project in several phases.  This project will emphasize design somewhat less than future projects and have a smaller presentation component.

1. Design (10%): Gathering design requirements, Sketching design alternatives, Sketching design prototype

2. Implementation (60%): The implemented application

3. Documentation and Video Demo (25%) : Your project

4: Presentation (5%) - mini presentation

**Project requirements:**

**Design:**

1. Interview 2 people about journaling and tracking, with a focus on your chosen set of themes.

* What do you hope to learn from these interviews?
  + By interviewing potential users, I hope to learn their needs and goals for tracking instrument practice.
* What questions did you ask?
  + How do you usually keep track of your goals?
  + What type of metrics do you want to record about each practice session?
  + What historical practice data would you like to view to observe your progress?
  + What goals do you focus on in music practice?
* What did your interview participants tell you?  What did you learn from them?
  + One person said they wanted to get a score for how well they played the music by tracking the percent of correct notes.
  + Another interviewee wanted to be able to record and save their final music piece and be able retrieve it.
  + Both participants stated that it would be beneficial to measure practice time per day.
  + They want to set time frames for when a piece should be proficiently played.

2. Design requirements:  Create a written list of design goals and requirements for the user interface.  You can address some of these in your implementation or leave some as 'future work', outside the scope of the class.

* Users want to view their progress
* User should be able to view a historical entry and edit it
* User needs to view the date and time
* User needs to add today’s entry with length of time practiced, what they practiced on, which instrument, etc.
* How to concentrate on what the user wants to do immediately (enter a practice session) while being able to view their progress and goals.

3. Sketching design alternatives (we will discuss and practice in class Week 2)

* Choose 3 interesting design challenges to explore.
  + How to concentrate on what the user wants to do immediately (enter a practice session) while being able to view their progress and goals.
  + Users want to view their progress
  + User needs to add today’s entry with length of time practiced, what they practiced on, which instrument, etc.
* We will follow a protocol for exploring design alternatives called '10-plus-10'.  See in-class notes
  + If you are having trouble generating 10-plus-10 sketches, try sketching 10-plus-10 MINUTES.  Sketch design alternatives for 10 minutes, select from these alternatives and sketch variations on these for 10 minutes.

4. Create a prototype sketch of your envisioned interface (we will discuss and practice in class Week 2).

5. Show your prototype sketches to 2 people (friends, family members, classmates).  Record the feedback.

6. Create a user profile for a mock user.  This mock user will be the test case for your application.  Write a brief description of them and how they would use this application.

# Level 1 Implementation Goals:  Creating an entry (Start here)

For this first set of implementation goals, create a basic and minimally interactive interface, that shows a snapshot of a mock user's journaling or interface for one day.

1.  A section of your page should include overview information about your user and the current date/time.

* Their name
* The current date/time
* How long they have used the interface and how much they have used the interface (X days since beginning, Y days active)

2. This interface should include the ability to track or log or record at least 6 different activities.  You can do more, if you choose

* One activity means:  Tracking feelings for the day, by selecting from 12 options (12 checkboxes).  One activity means: Uploading an image and writing a caption about the image.  One activity means: Checking off whether you did yoga, and recording for how long.
* These activities should include at least 4 different kinds of entries- e.g., long text, short text, check boxes, entering a number, selecting from a range, choosing from a list of options, uploading an image...  This means don't have all 6 activities involve writing free text- Diversify.

3. There should be some way for the user to save or submit their entries for the day.  Provide visual feedback to indicate that user has successfully saved their entries.

4. Consider your interviews- did the participants identify particular needs for entering data into their log?  You can choose to address these here, if feasible.

# Level 2 Implementation Goals: Viewing previous entries (do this next)

Allow the user to move from entering their activities for the day, to viewing previous entries. To support this task, you will likely need to create a set of mock entries for the user and store these in a json file or as an array of objects in your code.

1. Previous entries should be cleanly presented in an organized format.  You can choose a navigation approach.  The user has to be able to get to previous entries easily.  Some ideas include:

* Sequential, stepping back and forward from day to day
* An infinite scrolling blog.
* A clickable calendar

2. The user should have the ability to edit a previous entry- such as if they forgot to log something, or made a mistake.

* Enable the user to edit the entry and save the changed result.
* Provide clear visual feedback to signal to the user that they have entered these different modes.

3. Consider your interviews- did your participants mention needs around seeing their previous entries?  How can you address them?   You can choose to address these here, if feasible.

# Level 3 Implementation Goals:  Customization, goal setting and seeing an overview (do this next)

1. Enable the user to set goals for their activities:

* For some of the activities, allow the user to set a goal for that entry.  Perhaps the goal is reaching a particular target (e.g., 7 hours of sleep, 8 cups of water, running 3 miles).  Perhaps the goal is doing the activity and logging it.    Add to your interface the ability to set these goals

2. Overview of performance

* Show a visual overview of the user's log and journaling activities.  This can be added to the main interface, or included in another tab or window, depending on what you think will be a better experience.
* For each activity, decide what the user would want to see.  Do they want to see averages?  How often they get above a certain threshold?  How often they log the activity at all?
* If you have worked on goal setting, consider how to show whether the user has reached their goals on average and in recent entries.
  + When the user enters new data for the day, these summaries should update, with clear visual feedback on the update
  + You can use text, simple svg graphics, visualizations to convey the user's activities.

3. Customization Allow the user to customize their journaling and logging experience in your application.

* Give your user the ability to decide which activities to log.  This could mean removing an activity (suppose they don't want to log sleep anymore).  This could mean adding a new activity- perhaps choosing from a list of prepared activities that are not included as a default (e.g., suppose they want to add daily yoga to their routine).
  + Provide clear visual feedback to signal successful completion of these changes.
  + Ensure that the user doesn't lose the previous information they tracked.  Once they do this, these different options should be available going forward in the daily log.
  + Ensure the new activities are included in the overview.  Should activities that are removed be also removed from the overview? Decide how to handle these changes.
* Allow the user to customize the colors or themes in the UI.  Provide a way to 'undo' and reverse these changes.

4. Consider your interviews- did your participants mention needs around customization, overview of activites and goal setting?  How can you address them?   You can choose to address these here, if feasible.

# Level 4 Implementation Goals:

* Do your interviews yield design goals and requirements not addressed in Levels 1-3.  Go after it here.  Describe in your documentation what these requirements are and how you chose to pursue them.
  + Examples may include syncing with a mock secondary device- simulate this synchronization-, sharing with peers- add a place to see friends and add friends.

 \*\*\* Like a recording of your practice session?

**All levels- design principles:**

Elements should be presented in a clear and consistent layout, using good graphic design principles.

Responsive design is not a requirement for this project- you can design your interface for a specific window width/height.  Please include this information in your documentation.

**Implementation note on incomplete and broken features**

We understand that there may be features at different goal levels you attempt, but cannot get fully working by the deadline.  As you approach the deadline, you may find yourself with a choice between:

1. submitting a version of the application with broken features and sections that are poorly presented and laid out OR
2. reverting to a version of the application that has fewer features but everything works and looks professional.

If you have the choice, we suggest submitting a version of the application that looks professional and has working features, even if it accomplishes fewer of the above goals.  You can take screenshots of your attempted work and discuss the incomplete features under 'future work' in the documentation, below.   We will take into consideration attempted work that is not completed, even if it is not in the submitted project.

**Documentation:**

For documentation: assume that someone is encountering your project for the first time. This documentation must be publicly available through your portfolio page.

* Describe the project
* Present your design work-
  + Interviewing
  + Sketching
  + Feedback
* Describe your interface in detail:
  + Explain the features and controls
  + Include plenty of screenshots to illustrate your interface and different actions users can perform within it
* Explain how you implemented this application (libraries, code structure....)
* Optional- Use of AI-  If you used AI, describe how.  Did you identify strengths/limitations of using AI for your application.
* Future work- No project is ever fully done. What would you do next?  This is also a place to discuss the work you attempted but could not fully complete before the project deadline- include screenshots to illustrate and document your progress.
* Include a 2-3 minute demo video, showing your interface in action.
  + The easiest way to record this is with a screen capture tool, which also captures audio- such as Quicktime.  Use a voiceover to explain your application.  Include the name of the project, your name, the project components, and how your application works.  You can present it on your webpage or on youtube, but it must be linked on your webpage.
* Include a link to your source code on github and a link to the publicly hosted application.

**Presentation:**

We will do either 1-minute lightning talks or small group discussions, depending on class size.  Details to follow.