Project Directory Organization and Naming Convention Worksheet

Goals:

* Establish a system that can be replicated across projects/classes
* Leverage directory and file names as metadata to help discovery and re-use by others and future you
* Ensure directory and file names are both human and computer readable

Common naming conventions:

* CamelCase: capitalize first letter of each word to make more human readable without spaces
* snake\_case: all lowercase, uses ‘\_’ or ‘-‘ to separate words
* key-value pairs: a form of snake case for file naming that uses both ‘\_’ and ‘-‘ to pair metadata keys with specific values (e.g., key1-value\_key2-value\_key3-value)
  + Used more frequently for files than for directory names
  + Multiple key-value pairs: the information often becomes more specific the further into the name
  + Example: A study that uses multiple task assays and randomly assigns different task conditions to participants may want to have the following information represented in file name: subject ID, task used, and condition assigned
    - File 1: sub-001\_task-memory\_cond-face
    - File 2: sub-001\_task-recall\_cond-face
    - File 3: sub-001\_task-memory\_cond-tools

|  |  |  |  |
| --- | --- | --- | --- |
| Key | File 1 | File 2 | File 3 |
| sub = subject ID | 001 | 001 | 002 |
| task = task assay | memory | recall | memory |
| cond = task condition | face | face | tools |

* + Multiple key-value pairs: the information often becomes more specific further into the file name

Directory structure guidelines:

1. Start with abstract categories (e.g., data, code, analyses) so that the structure can be replicated across multiple projects
2. Aim to balance sub-directories and file counts — ideally, avoid hundreds of folders or thousands of files in one directory.
3. Decided on a naming convention for directories and files:
4. Identify a directory structure for a project you currently or previously worked on and start to apply the directory and naming conventions discussed previously:

Current/Old

+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Updated/New

+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Choose 1 folder that has files stored in it – identify the key pieces of information (metadata) you want to identify in the file name (chose no more than 5):
   * If using key-value pairs, name and define your keys (e.g., *Key 1: sub = subject ID)*
     + - Key 1:
       - Key 2:
       - Key 3:
       - Key 4:
       - Key 5:
2. Pick a few files and provide example file names following your chosen naming convention and the key pieces of information (metadata) you selected:
3. **Double Check:** try to replicate the directory and naming conventions you chose
   * pick a different folder or prior project/course or make a new directory for future/upcoming project

Directory Structure:

Goal: Replicate the first 2 levels with abstract categories (e.g., data, code)

+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (level 1)

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (level 2)

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (level 3)

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| | +\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

File-naming:

* Key pieces of information (won’t match necessarily match across project, but should follow same convention):
* Keys, if using key-value pairs (may be able to replicate/use similar keys across projects)
* Example file name(s):