This is a script that I’m using to create a youtube video to talk through and execute code using jupyter notebooks. Parentheses tell me to do the action on the computer. Could you please make it better:

(start in an empty jupyter notebooks file). In this video, we’ll talk about how to use lists in python and how they can be used in pandas. We’ll go over some basic methods like append, and remove. Python lists are like ordered containers that store collections of items.

Imagine our friend gave us a list of exercises to perform for the week before we go to the gym. (I’m going to open up a CSV file that has a list of exercises that we plan on performing once we’re in the gym.) Here we see in the top cell, the title of the column which is exercises, and a list of 18 exercises for the week. (now going back to our jupyter notebook, let’s write some code).

import pandas as pd

import os

file\_name = 'exercises.csv'

if os.path.exists(file\_name):

exercises\_df = pd.read\_csv(file\_name)

exercises = exercises\_df['exercises'].tolist()

print(exercises)

else:

print(f"Error: The file '{file\_name}' was not found in the current directory.")

here we import pandas and os. We know pandas is used in data analysis, but OS is a module that offers functions for file and directory manipulation. Then we define a variable “file\_name” which is the name of the file in the same directory as this jupyter notebook. We write a conditional to see if the path exists and if it does, we’ll create a data frame using the read\_csv function, create a list variable from the dataframe and then print out the list. If the path doesn’t exist, we’ll print an f string saying that it’s not found in the current directory. (let’s go ahead and run this). And in the output we see the list from the CSV file.

Maybe we want to add a few more exercises to our list and there’s a way to do that using the append function. (let’s create a new cell and write the following)

exercises\_to\_add = ['lat pulldown', 'planks']

for exercise in exercises\_to\_add:

exercises.append(exercise)

print(exercises)

here we define a new list with two exercises and then perform a for loop to add each of the exercises to the overall exercises list and we print it to show that the two exercises have been added. (let’s go ahead and run it to see the new list). And here we see that lat pulldown and planks are added.

We can also prompt the user to add any exercise that they would want to add, (so let’s create a new cell and write:)

new\_exercise = input("Enter an exercise to add to your exercises list: ")

exercises.append(new\_exercise)

print("Updated list:", exercises)

here we request the user to input an exercise and that exercise will be added to the overall list. (let’s go ahead and run this) (I’ll type in calf raises and press enter). Here we see that calf raises were added to the list.

We may not be a fan of leg workouts and we want to remove lunges and squats from the list. Let’s see how we can do that (create new cell):

exercises.remove("lunges")

exercises.remove("squat")

print("\nYour Updated Exercise List (after removing exercises):")

print(exercises)

here we use the remove method to take out those two exercises and we print out the updated list to see the results. (let’s run this). And we here see that lunges and squat were removed from the list.

To recap, we demonstrated how to create and manage lists, add and remove items, and use list manipulation techniques