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Assignment 8.2

Advanced Python CSD-325

# Joel Atkinson June 26,2025 Assignment 8.2 Advanced Python CSD-325  
# The goal of this code is to use JSON load() to load the JSON file into a Python class list  
  
#Import JSON module  
import json  
  
#Define function to load json data  
def load\_json\_data(filename):  
 #Create try-except block to error handle opening .json file  
 try:  
 with open(filename, 'r') as file:  
 data = json.load(file)  
 return data  
 except FileNotFoundError:  
 print(f'Error: The file "{filename}", was not found.')  
 return []  
 except json.JSONDecodeError:  
 print(f'Error: The file "{filename}" contains invalid JSON.')  
 return []  
  
  
#Define function to save the data in the .json file  
def save\_json\_data(filename, data):  
 try:  
 with open(filename, 'w') as file:  
 json.dump(data, file, indent=4)  
 print(f'\nAttention: The {filename} file has been updated. Would you like to save? (yes/no)')  
 choice = input().lower()  
 #Offer user an input choice of whether they would like to save the updated file or not  
 if choice == 'yes':  
 print('File saved successfully.')  
 else: print('Changes not saved.')  
 #Add error handling when saving file  
 except Exception as e:  
 print(f'Error saving file: {e}')  
  
#Define the function to print the student list  
def print\_students(student\_list):  
 for student in student\_list:  
 print(f"{student['F\_Name']}, {student['L\_Name']} : ID = {student['Student\_ID']}, Email = {student['Email']}")  
  
#Deefine the main() function that will run the program  
def main():  
 filename = 'student\_list.json'  
 #Load original data  
 student\_list = load\_json\_data(filename)  
  
 #print original list  
 print('\nAttention: This Is The Student List')  
 print\_students(student\_list)  
  
 #Add new student  
 new\_student = {  
 "F\_Name": "Joel",  
 "L\_Name": "Atkinson",  
 "Student\_ID": 324143,  
 "Email": "Jatkinson@fake.com"  
 }  
 student\_list.append(new\_student)  
 print('\nAttention: New Student Added to List')  
  
 #Print updated list  
 print('\nAttention: This Is The Updated Student List.')  
 print\_students(student\_list)  
  
 #Save updated data  
 save\_json\_data(filename, student\_list)  
  
#Run the main() function  
if \_\_name\_\_ == "\_\_main\_\_":  
 main()

A screenshot of a computer

AI-generated content may be incorrect.