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Domain: Python

Fourth Week Task

Hands-On Practice:

- 1. Create a program that saves user data to a text file.**

CODE:

```
print()  
print("*"*90)  
print("\t\t\t Saves user data into Text File")  
print("*"*90,"\\n")  
print("\t","="*70)  
print("\t\t\tEnter User Data")  
print("\t","="*70)  
print()  
id = input("\t Enter User ID: ")  
name = input("\t Enter User Name: ")  
phone_number = input("\t Enter Phone Number: ")  
address = input("\t Enter Address: ")  
print("\\n\t user data saved in text file successfully.")  
# to cerate file and save data in text file.  
f=open("userdata.txt","a")  
f.write(id + "\\t" + name + "\\t" + phone_number + "\\t" + address + "\\n")  
f.close()  
print("-"*90)  
print("\t\t\tThanks for looking my python code.")  
print("-"*90,"\\n")
```

OUTPUT:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Development\we
●
*****
Saves user data into Text File
*****



=====
Enter User Data
=====

Enter User ID: 101
Enter User Name: HP
Enter Phone Number: 9676767567
Enter Address: Pune

user data saved in text file successfully.

-----
Thanks for looking my python code.

-----
```

```
PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Development\we
●
*****
Saves user data into Text File
*****



=====
Enter User Data
=====

Enter User ID: 102
Enter User Name: DEL
Enter Phone Number: 7686789067
Enter Address: mumbai

user data saved in text file successfully.

-----
Thanks for looking my python code.

-----
```

```
PS V:\Python Web Development\week4\Hands_On_Practice> []
```

```
save_userdata_textfile.py  userdata.txt X
userdata.txt
1 101 HP 9676767567 Pune
2 102 DEL 7686789067 mumbai
3
```

2. Build a simple diary/notes application with file storage.

CODE:

```
print()
print("*"*90)
print("\t\t\t\tDiary/notes Application")
print("*"*90,"n")
while True:
    print("----- Menu -----n")
    print("1. Add note ")
    print("2. View all notes")
    print("3. Exitn")
    diary_info = {}
    ch= int(input("Enter your choice: "))
    if(ch == 1):
        print("\n\n===== Welcome To My Diary
Application =====\n\n")
        print("\tFirst give your note a unique title, then write your thoughts or information\n")
        date = input("Enter Date (ex. 01-01-2026): ")
        title = input("Enter Title: ")
        description = input("Enter Your Description Here: ")

        diary_info[title] = {
            "date" : date,
            "description" : description }

        import os
        if not os.path.exists("diary.txt") or os.path.getsize("diary.txt")==0:
            with open("diary.txt","w") as f:
                f.write(" Date\t\t\t + \t Title\t\t\t + \t Description\n")

        with open("diary.txt","a") as f:
            for title, info in diary_info.items():
                f.write(info["date"] + "\t\t\t + \t" + title + "\t\t\t + \t" + info["description"] + "\n")
            print("\n note addded succsufullly.\n")

    elif(ch == 2):
        try:
            with open("diary.txt", "r") as f:
                print("\n===== Notes =====\n")
                for line in f:
                    print(line.strip())
        except FileNotFoundError:
            print("No diary found. Add notes first.\n")
```



View

All

```
print("\n=====-----\n=====-----\n")
print("\n")
elif(ch == 3):
    break
else:
    print("Invalid choice.. please try again.")
    print()
    print("*"*90)
    print("\t\t\ttx-x-x-x Thanks for looking my code x-x-x-x")
    print("*"*90,"\\n")
```

OUTPUT:

```
PS V:\Python Web Development\week4\Hands_On_Practice> & C:/Users/Pallavi/AppData/Local/Pro
=====
Diary/notes Application
=====

----- Menu -----
1. Add note
2. View all notes
3. Exit

Enter your choice: 1

=====
Welcome To My Diary Application =====

First give your note a unique title, then write your thoughts or information

Enter Date (ex. 01-01-2026): 01-02-2026
Enter Title: life
Enter Your Description Here: This is life to describe how to live.

note added successfully.

----- Menu -----
1. Add note
2. View all notes
3. Exit

Enter your choice: 1
```

```
PS V:\Python Web Development\week4\Hands_On_Practice> & C:/Users/Pallavi/AppData/Local/Programs  
===== Welcome To My Diary Application =====  
  
First give your note a unique title, then write your thoughts or information  
Enter Date (ex. 01-01-2026): 02-02-2026  
Enter Title: Engineering  
Enter Your Description Here: this is a engineering.  
note added successfully.  
----- Menu -----  
1. Add note  
2. View all notes  
3. Exit  
Enter your choice: 2  
----- View All Notes -----  


| Date       | Title       | Description                           |
|------------|-------------|---------------------------------------|
| 01-02-2026 | life        | This is life to describe how to live. |
| 02-02-2026 | Engineering | this is a engineering.                |

  
----- Menu -----  
1. Add note  
2. View all notes  
3. Exit  
Enter your choice: 3
```

```
----- Menu -----  
1. Add note  
2. View all notes  
3. Exit  
Enter your choice: 3  
*****  
x-x-x-x Thanks for looking my code x-x-x-x  
*****  
○ PS V:\Python Web Development\week4\Hands_On_Practice>
```

```
diary_onnotes.py  diary.txt  X  
diary.txt  
1 | Date          Title          Description  
2  
3  
4 01-02-2026      life           This is life to describe how to live.  
5 02-02-2026      Engineering    this is a engineering.  
6 |
```

3. Read and process data from CSV files.

CODE:

```
print()  
print("*"*90)  
print("\t\t\tRead and process data from CSV files")  
print("*"*90,"\\n")  
import csv  
total =0  
count =0  
with open('student.csv', mode ='r')as file:  
    csvFile = csv.reader(file)  
    print("----- Student Data -----\\n\\n")  
    print("1. Read Data From student.csv files.\\n")  
    for lines in csvFile:  
        print(lines)  
    print("\\n\\n2. Process data from CSV file.")  
    print("\\n===== To calculate student marks Avg =====\\n")  
    with open('student.csv', mode ='r')as file:  
        csvFile = csv.reader(file)  
        for row in csvFile:  
            marks = int(row[3])  
            total += marks  
            count +=1  
        avg = total/count  
        print("Average Marks =", avg)  
        print()  
        print("-"*90)  
        print("\t\t\tThanks for looking my code")
```

```
print("*"*90,"\\n")
```

OUTPUT:

```
PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Development\we
*****
          Read and process data from CSV files
*****  
----- Student Data -----  
  
1. Read Data From student.csv files.  
  
['1', ' pallavi', 'TE', '99']  
['2', ' hp', 'BE', '100']  
['3', 'del', 'SE', '89']  
  
2. Process data from CSV file.  
  
===== To calculate student marks Avg =====  
  
Average Marks = 96.0  
  
-----  
          Thanks for looking my code  
*****  
○ PS V:\Python Web Development\week4\Hands_On_Practice>
```

4. Create a quiz game that saves scores to a file.

CODE:

```
print()
print("*"*90)
print("\t\t\tQuiz Game")
print("*"*90, "\n")
quiz = {
    "What does CPU stand for? " : "Central Processing Unit",
    "Which symbol is used for comments in Python?" : "#",
    "Which data type stores True or False in Python?" : "bool",
    "What function is used to take input from the user in Python?" : "input()",
    "Which keyword is used to create a loop that runs while a condition is true?" : "while"
}

def display_menu():
    print("----- Selection Menu -----\\n")
    print("1. Start Quiz")
    print("2. View All Questions and Answers")
    print("3. Add a New Question")
    print("4. Delete a Question")
    print("5. Exit\\n")

def star_quiz():
    score=0
    i=1

    print("\\n===== Starting Quiz =====\\n")
    name = input("Enter your Name: ")
    for question, ans in quiz.items():
        print("\\nQuestion",i)
        print(question)
        i +=1
        user_ans = input("Enter Your Answer: ").strip()

        if user_ans.lower() == ans.lower():
            print("\\nCorrect.!\\n")
            score +=1
        else:
            print("\\nwrong! correct Answer: ",ans,"\\n")
    print("\\n===== Quiz Complete =====\\n")
    print("Name: ",name)
    print("\\nYour Score: ",score , "out of ",len(quiz))
    with open("score.txt","a") as f:
        f.write(name +"\t\t\t"+ str(score) + "\\n")
    print()

    print()
```

```

print("*"*90)
print("\t\t\t Thanks for visiting my quiz game")
print("*"*90,"\\n")
def view_quiz():
print("\n===== Quiz Questions & Answers =====\n")
i=1
for question, ans in quiz.items():
print("Q ",i,question)
print("A:",ans,"\\n")
i+=1
print("=*60,"\\n")
def add_new_question():
question = input("Enter the new Question: ").strip()
ans = input("Enter the new answer: ").strip()
if question in quiz:
print("Question Already Exists!")
else:
quiz[question] = ans
print("Question Added Successfully!")
def delete_quenction():
question = input("Enter the Question: ").strip()
if question in quiz:
del quiz[question]
print("\nQuestion Deleted Succsufully\\n")
else:
print("\nQuestion not Found\\n")
while True:
display_menu()
ch = int(input("Enter your choice: "))
if(ch == 1):
star_quiz()
elif(ch == 2):
view_quiz()
elif(ch == 3):
add_new_question()
elif(ch == 4):
delete_quenction()
elif(ch == 5):
break
else:
print("\n Invalid choice.. plese try again. \\n")
print()
print("*"*90)
print("\t\t\t Thanks for visiting my quiz game")
print("*"*90,"\\n")

```

OUTPUT:

```
● PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Development\Quiz Game.py"
*****
          Quiz Game
*****
----- Selection Menu -----
1. Start Quiz
2. View All Questions and Answers
3. Add a New Question
4. Delete a Question
5. Exit

Enter your choice: 1
=====
      Starting Quiz
=====

Enter your Name: pallavi

Question 1
What does CPU stand for?
Enter Your Answer: central processing unit

Correct.!

Question 2
Which symbol is used for comments in Python?
Enter Your Answer: #

Correct.!

Question 3
Which data type stores True or False in Python?
Enter Your Answer: bool

Correct.!
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Development\Quiz Game.py"
Question 4
What function is used to take input from the user in Python?
Enter Your Answer: input()

Correct.!

Question 5
Which keyword is used to create a loop that runs while a condition is true?
Enter Your Answer: while

Correct.!

=====
      Quiz Complete
=====

Name: pallavi
Your Score: 5 out of 5

*****
          Thanks for visiting my quiz game
*****
----- Selection Menu -----
1. Start Quiz
2. View All Questions and Answers
3. Add a New Question
4. Delete a Question
5. Exit

Enter your choice: 2
```

```
PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Dev  
===== Quiz Questions & Answers =====  
Q 1 What does CPU stand for?  
A: Central Processing Unit  
Q 2 Which symbol is used for comments in Python?  
A: #  
Q 3 Which data type stores True or False in Python?  
A: bool  
Q 4 What function is used to take input from the user in Python?  
A: input()  
Q 5 Which keyword is used to create a loop that runs while a condition is true?  
A: while  
=====  
----- Selection Menu -----  
1. Start Quiz  
2. View All Questions and Answers  
3. Add a New Question  
4. Delete a Question  
5. Exit  
Enter your choice: 3  
Enter the new Question: abc  
Enter the new answer: del  
Question Added Successfully!  
----- Selection Menu -----  
1. Start Quiz  
2. View All Questions and Answers  
3. Add a New Question  
4. Delete a Question  
5. Exit
```

```
PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Development\Hands_On_Practice\Quiz.py"  
Enter your choice: 2  
===== Quiz Questions & Answers =====  
Q 1 What does CPU stand for?  
A: Central Processing Unit  
Q 2 Which symbol is used for comments in Python?  
A: #  
Q 3 Which data type stores True or False in Python?  
A: bool  
Q 4 What function is used to take input from the user in Python?  
A: input()  
Q 5 Which keyword is used to create a loop that runs while a condition is true?  
A: while  
Q 6 abc  
A: del  
=====  
----- Selection Menu -----  
1. Start Quiz  
2. View All Questions and Answers  
3. Add a New Question  
4. Delete a Question  
5. Exit  
Enter your choice: 4  
Enter the question: abc  
Question Deleted Succsfully
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS V:\Python Web Development\week4\Hands_On_Practice> python -u "v:\Python Web Development\wee
----- Selection Menu -----
1. Start Quiz
2. View All Questions and Answers
3. Add a New Question
4. Delete a Question
5. Exit

Enter your choice: 2

===== Quiz Questions & Answers =====

Q 1 What does CPU stand for?
A: Central Processing Unit

Q 2 Which symbol is used for comments in Python?
A: #

Q 3 Which data type stores True or False in Python?
A: bool

Q 4 What function is used to take input from the user in Python?
A: input()

Q 5 Which keyword is used to create a loop that runs while a condition is true?
A: while

=====
----- Selection Menu -----
1. Start Quiz
2. View All Questions and Answers
3. Add a New Question
4. Delete a Question
5. Exit

Enter your choice: 5
```

```
Enter your choice: 5
```

```
*****
Thanks for visiting my quiz game
*****
```

```
○ PS V:\Python Web Development\week4\Hands_On_Practice> █
```

score.txt		
	Name	Score
1		
2		
3		
4	pallavi	5
5		

5. Build a to-do list that persists between program runs.

CODE:

```
print()
print("*"*90)
print("\t\t\t\tTo-do List")
print("*"*90,"\\n")

def display_menu():
    print("----- Selection Menu -----\\n")
    print("1. Add Task")
    print("2. View Tasks")
    print("3. Exit\\n")

def add_task():
    print("\\n===== Start Adding Task =====\\n")
    title = input("Enter Task title: ")
    task_num = int(input("Enter how many task: "))
    tasks = []
    for i in range(1,task_num+1):
        task=input(f"Enter Task {i}: ")
        tasks.append(task)
    with open("todo.txt","a") as f:
        f.write("\\nTask Title: "+ title + "\\n")
    for i, task in enumerate(tasks,start=1):
        f.write(f"{i}. {task}\\n")
    print("\\nTask added successfully.\\n")
    def view_task():
        print("\\n\\n===== View all To Do List tasks =====\\n")
        try:
            with open("todo.txt","r") as f:
                data = f.read()
                if data.strip() == "":
                    print("\\nNo task found.\\n")
                else:
                    print("\\n===== Your To Do List =====")
                    print(data)
                    print("\\n=====\\n")
        except FileNotFoundError:
            print("No to-do list found.")

while True:

    display_menu()
    ch = int(input("Enter your choice: "))
    if(ch == 1):
        add_task()
```

```
elif(ch == 2):
    view_task()
elif(ch == 3):
    break
else:
    print("\n Invalid choice.. please try again. \n")
print()
print("*"*90)
print("\t\t\t Thanks for visiting my quiz game")
print("*"*90,"\n")
```

OUTPUT:

```
PS V:\Python Web Development\week4\Hands_On_Practice> & C:/Users/Pallavi/AppData/Local/Prog
● **** To-do List ****
----- Selection Menu -----
1. Add Task
2. View Tasks
3. Exit

Enter your choice: 1

===== Start Adding Task =====

Enter Task title: Python Web development Roadmap
Enter how many task: 4
Enter Task 1: Core Python
Enter Task 2: Advanced Python
Enter Task 3: HTML
Enter Task 4: CSS

Task added successfully.

----- Selection Menu -----
1. Add Task
2. View Tasks
3. Exit

Enter your choice: 2
```

```
PS V:\Python Web Development\week4\Hands_On_Practice> & C:/Users/Pallavi/AppData/Local/Programs/Python/Python38-32/todo.txt
=====
      View all To Do List tasks
=====

=====
      Your To Do List
=====

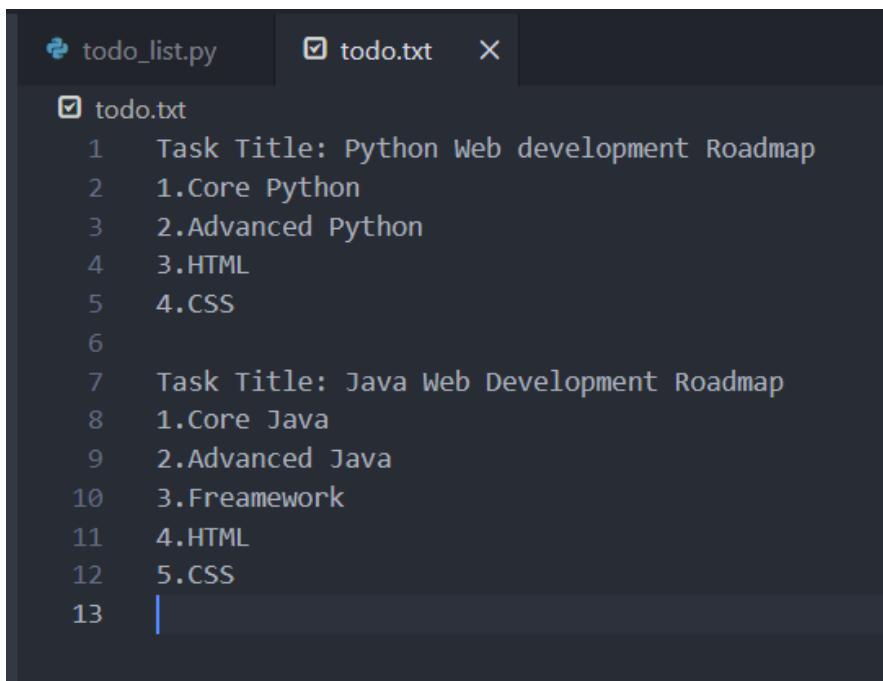
Task Title: Python Web development Roadmap
1.Core Python
2.Advanced Python
3.HTML
4.CSS

Task Title: Java Web Development Roadmap
1.Core Java
2.Advanced Java
3.Freamework
4.HTML
5.CSS

=====
----- Selection Menu -----
1. Add Task
2. View Tasks
3. Exit

Enter your choice: 3
*****
Thanks for visiting my quiz game
*****
```

ps v:\Python Web Development\week4\Hands_On_Practice> []



The screenshot shows a terminal window with three tabs at the top: 'todo_list.py' (disabled), 'todo.txt' (selected), and 'X'. The 'todo.txt' tab contains the following text:

```
todo.txt
1 Task Title: Python Web development Roadmap
2 1.Core Python
3 2.Advanced Python
4 3.HTML
5 4.CSS
6
7 Task Title: Java Web Development Roadmap
8 1.Core Java
9 2.Advanced Java
10 3.Freamework
11 4.HTML
12 5.CSS
13 |
```

6. Practice handling different file-related errors.

CODE:

```
# File Not Found Error

try:
    f = open("data1.txt", "r")
    print(f.read())
    f.close()
except FileNotFoundError:
    print("Error: File does not exist.")
```

```
# Permission Error

try:
    f = open("data1.txt", "w")
    f.write("Hello")
    f.close()
except PermissionError:
    print("Error: Permission denied.")
```

7. Organize code into multiple modules.

OUTPUT:

```
● PS V:\Python Web Development\week4\Hands_On_Practice> & C:/U:  
Enter student name: pallavi  
Enter marks: 99  
  
===== Student Result =====  
Name : pallavi  
Marks : 99.0  
Grade : A  
○ PS V:\Python Web Development\week4\Hands_On_Practice> █
```