

PRACTICAL 8

8	<p>Modules and File Handling</p> <p>Develop a small file-based quiz game.</p> <ul style="list-style-type: none">• Use the random module to shuffle questions stored in a text file.• Write a program to read the quiz data from a file, present questions to the user, and store the user's responses in another file.• Use the pickle module to save and retrieve quiz results.
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```
import random
```

```
import pickle
```

```
# Function to load questions from file
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```
def load_questions(filename):
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```
    with open(filename, "r") as f:
```

```
        lines = f.readlines()
```

```
    questions = []
```

```
    for line in lines:
```

```
        parts = line.strip().split("|")
```

```
        if len(parts) == 6:
```

```
            question, op1, op2, op3, op4, correct = parts
```

```
            questions.append({
```

```
                "question": question,
```

```
                "options": [op1, op2, op3, op4],
```

```
                "answer": correct
```

```
            })
```

```
    return questions
```

```
# Function to save results using pickle
```

```
def save_results(results, filename="results.pkl"):
```

```
    with open(filename, "wb") as f:
```

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```
pickle.dump(results, f)

# Function to load results using pickle
def load_results(filename="results.pkl"):
    try:
        with open(filename, "rb") as f:
            return pickle.load(f)
    except FileNotFoundError:
        return []

def quiz_game():
    questions = load_questions("quiz.txt")
    random.shuffle(questions) # shuffle questions

    user_answers = []
    score = 0

    print("\n==== QUIZ GAME ==== \n")

    for i, q in enumerate(questions, 1):
        print(f"Q{i}. {q['question']}")
        for j, opt in enumerate(q["options"], 1):
            print(f" {j}. {opt}")
        choice = input("Enter your answer: ")
        user_choice = q["options"][int(choice)-1] if choice.isdigit() and 1 <= int(choice) <= 4 else None
```

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```
user_answers.append((q['question'], user_choice))

if user_choice == q["answer"]:
    score += 1

print(f"\nYour Score: {score}/{len(questions)}")

# Save user responses in a file
with open("user_responses.txt", "w") as f:
    for q, ans in user_answers:
        f.write(f"{q} -> {ans}\n")

# Save results using pickle
results = load_results()
results.append({"score": score, "total": len(questions), "answers": user_answers})
save_results(results)

print("\n✅ Responses saved to 'user_responses.txt'")
print("✅ Results saved using pickle in 'results.pkl'")

# Run the quiz
quiz_game()
```





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```
==== QUIZ GAME ====

Q1. What is the capital of India?
1. Delhi
2. Mumbai
3. Kolkata
4. Chennai
Enter your answer: 1
Q2. Which language is this quiz written in?
1. Python
2. C
3. Java
4. HTML
Enter your answer: 1
Q3. 2 + 2 = ?
1. 2
2. 3
3. 4
4. 5
Enter your answer: 2

Your Score: 2/3

☒ Responses saved to 'user_responses.txt'
☒ Results saved using pickle in 'results.pkl'
```

Name	Date modified	Type	Size
 quiz	9/6/2025 2:37 AM	Text Document	1 KB
 quiz_game	9/6/2025 2:38 AM	Python Source File	3 KB
 results.pkl	9/6/2025 2:43 AM	PKL File	1 KB
 user_responses	9/6/2025 2:43 AM	Text Document	1 KB