**FLASHCARD QUIZ APP**

import random

import time

import tkinter as tk

from tkinter import messagebox

class Flashcard:

def \_\_init\_\_(self, question, answer, category):

self.question = question

self.answer = answer

self.category = category

class User:

def \_\_init\_\_(self, username, password):

self.username = username

self.password = password

self.scores = [] # List to store user scores

class FlashcardQuiz:

def \_\_init\_\_(self):

self.flashcards = []

self.users = []

self.current\_user = None

def add\_flashcard(self, question, answer, category):

flashcard = Flashcard(question, answer, category)

self.flashcards.append(flashcard)

def add\_user(self, username, password):

user = User(username, password)

self.users.append(user)

def get\_user(self, username):

for user in self.users:

if user.username == username:

return user

return None

def start\_quiz(self, category, time\_limit):

if self.current\_user is None:

raise Exception("No user logged in!")

# Filter flashcards by category

filtered\_flashcards = [card for card in self.flashcards if card.category == category]

if not filtered\_flashcards:

print("No flashcards in this category!")

return

score = 0

start\_time = time.time()

for flashcard in filtered\_flashcards:

if time.time() - start\_time >= time\_limit:

print("Time's up!")

break

user\_answer = input(f"Question: {flashcard.question} (Answer within {time\_limit - int(time.time() - start\_time)} seconds)\nYour answer: ")

if user\_answer.lower() == flashcard.answer.lower():

print("Correct!\n")

score += 1

else:

print(f"Wrong! The correct answer was: {flashcard.answer}\n “)

self.current\_user.scores.append(score)

print(f"Quiz Over! Your score: {score}/{len(filtered\_flashcards)}")

def view\_scores(self):

if self.current\_user is None:

print("No user logged in!")

return

print(f"{self.current\_user.username}'s scores:")

for score in self.current\_user.scores:

print(f"Score: {score}")

# Example of adding flashcards, users, and starting the quiz

quiz\_app = FlashcardQuiz()

# Add some flashcards

quiz\_app.add\_flashcard("What is the capital of France?", "Paris", "Geography")

quiz\_app.add\_flashcard("What is 2 + 2?", "4", "Math")

quiz\_app.add\_flashcard("Who wrote '1984'?", "George Orwell", "Literature")

# Add users

quiz\_app.add\_user("test\_user", "password123")

# Login example (simplified)

user = quiz\_app.get\_user("test\_user")

if user:

quiz\_app.current\_user = user

quiz\_app.start\_quiz("Geography", 30) # 30 seconds to answer each question

quiz\_app.view\_scores()