

Assignment :Exploring the `random` Module in Python

Question 1: Random Integer

Write a Python program that generates a random integer between 1 and 10 (inclusive) and prints the result.

Question 2: Random Floating-Point Number

Write a Python program that generates a random floating-point number between 0 and 1 and prints the result.

Question 3: Random Choice from a List

Write a Python program that randomly selects an item from the list `fruits = ["apple", "banana", "cherry", "date", "elderberry"]` and prints the chosen fruit.

Question 4: Randomly Shuffled List

Write a Python program that shuffles the given list of integers: `numbers = [1, 2, 3, 4, 5]` and prints the shuffled list.

Question 5: Random Password Generator

Write a Python program that generates a random password of 8 characters. The password should include a mix of uppercase letters, lowercase letters, and digits.

Question 6: Random Dice Roll Simulator

Write a Python program that simulates rolling a six-sided die and prints the result.

Question 7: Random Sampling

Write a Python program that selects 3 random elements from the list `colors = ["red", "blue", "green", "yellow", "orange"]` and prints the selected colors.

Question 8: Randomize a Deck of Cards

Write a Python program that creates a standard deck of 52 playing cards and shuffles them to randomize the order of the cards. Print the first 5 cards from the shuffled deck.

Question 9: Generating a Random Integer Within a Range

Write a Python program that prompts the user for a lower and upper bound and generates a random integer within that range (inclusive). Print the generated integer.