Python Practice Tasks with Hints (Advanced & Creative)

# 50 More Python Practice Questions with Hints

1. 1. Write a program to find the sum of digits of a number  
   Hint: Use a loop and modulus (%) operator.
2. 2. Reverse a number using while loop  
   Hint: Use modulus and integer division.
3. 3. Count frequency of each character in a string  
   Hint: Use a dictionary to store character counts.
4. 4. Remove all punctuation from a string  
   Hint: Use string module or define a set of punctuations.
5. 5. Convert binary to decimal  
   Hint: Use int() with base 2 or manually calculate.
6. 6. Convert decimal to binary  
   Hint: Use bin() or a while loop with division by 2.
7. 7. Generate Fibonacci sequence up to n terms  
   Hint: Use a loop or recursion.
8. 8. Find common elements in two lists  
   Hint: Use set intersection or loops.
9. 9. Merge two dictionaries  
   Hint: Use the update() method or dictionary unpacking.
10. 10. Remove duplicate values from a list  
    Hint: Use set() or a loop with a check.
11. 11. Check if a number is an Armstrong number  
    Hint: Use power and digit extraction.
12. 12. Find all prime numbers in a range  
    Hint: Use a loop and prime checking function.
13. 13. Find GCD of two numbers  
    Hint: Use Euclidean algorithm or math.gcd().
14. 14. Check if a string is an anagram  
    Hint: Sort both strings and compare or use counters.
15. 15. Convert Celsius to Fahrenheit  
    Hint: Use the formula: F = C \* 9/5 + 32
16. 16. Simulate a basic ATM  
    Hint: Use functions for deposit, withdraw, and check balance.
17. 17. Build a simple login system  
    Hint: Store usernames and passwords in a dictionary.
18. 18. Write a number guessing game  
    Hint: Use random module and loop until correct guess.
19. 19. Build a timer in Python  
    Hint: Use time module and sleep().
20. 20. Create a countdown from a given number  
    Hint: Use a loop and time.sleep().
21. 21. Display current date and time  
    Hint: Use datetime module.
22. 22. List all files in a directory  
    Hint: Use os.listdir() or pathlib.
23. 23. Check if a file exists  
    Hint: Use os.path.exists() or pathlib.
24. 24. Count lines, words and characters in a file  
    Hint: Use file reading and split methods.
25. 25. Create a CSV file and write data  
    Hint: Use csv module.
26. 26. Read data from a CSV file  
    Hint: Use csv.reader().
27. 27. Create a simple chatbot  
    Hint: Use if-else logic for keywords.
28. 28. Build a contact manager app  
    Hint: Store contacts in a dictionary or file.
29. 29. Simulate a dice roll  
    Hint: Use random.randint().
30. 30. Create a password generator  
    Hint: Use random and string module.
31. 31. Create a rock-paper-scissors game  
    Hint: Use input and random choice.
32. 32. Make a BMI calculator  
    Hint: Use the formula: BMI = weight / (height \* height)
33. 33. Convert string to title case  
    Hint: Use title() method.
34. 34. Remove whitespace from a string  
    Hint: Use strip(), lstrip(), or rstrip().
35. 35. Find the longest word in a sentence  
    Hint: Split string and use max().
36. 36. Print a pattern using nested loops  
    Hint: Use two for-loops.
37. 37. Implement a simple stack using list  
    Hint: Use append() and pop().
38. 38. Implement a simple queue using list  
    Hint: Use append() and pop(0).
39. 39. Implement a basic calculator using class  
    Hint: Define methods for add, subtract, etc.
40. 40. Read and parse a JSON file  
    Hint: Use json.load().
41. 41. Write data to a JSON file  
    Hint: Use json.dump().
42. 42. Build a reminder app (console-based)  
    Hint: Store reminders and check due time using datetime.
43. 43. Create a stop-watch timer  
    Hint: Use time and input to start/stop.
44. 44. Display calendar for a month  
    Hint: Use calendar module.
45. 45. Check internet connection  
    Hint: Try opening a site using requests or socket.
46. 46. Create a text-based menu system  
    Hint: Use while loop and if-else blocks.
47. 47. Simulate a bank transaction system  
    Hint: Handle user accounts with a dictionary.
48. 48. Generate a random password  
    Hint: Use random.choices() and string module.
49. 49. Create a simple voting system  
    Hint: Use input and dictionary to count votes.
50. 50. Create a weather report mock (static)  
    Hint: Use dictionary with city names and weather info.