

Python Basics Final Exercise – 23/02/2024

Instructions –

- *Solve the following exercises in 80 minutes.*
- *You can take the help of hints to solve the problems.*
- *Take a screenshot and make a pdf file for the screenshots.*

Exercise 1: Greet the User

Task: Write a program that asks the user for their name and then prints a greeting message.

Hint: Use `input()` to get user input and `print()` to display the greeting.

Exercise 2: Add Two Numbers

Task: Create a program that takes four numbers as input and prints their sum.

Hint: Convert the input to integers using `int()` and then add them.

Exercise 3: List Manipulation

Task: Given the list `fruits = ["apple", "banana", "cherry"]`, add a new fruit `"orange"` to the end of the list and print the list.

Hint: Use the `.append()` method to add an item to a list.

Exercise 4: Loop Through a List

Task: Loop through the list `fruits` from the previous exercise and print each fruit in the list.

Hint: Use a `for` loop to iterate over the list items.

Exercise 5: Check Even or Odd

Task: Ask the user to enter a number and print whether the number is even or odd.

Hint: Use the modulo operator `%` to check if the number is divisible by 2.

Exercise 6: String Length

Task: Write a program that asks the user to enter a word and then prints the length of the word.

Hint: Use the `len()` function to find the length of a string.

Exercise 7: Using Functions

Task: Define a function named **multiply** that takes two parameters and returns their product. Then, call this function with two numbers and print the result.

Hint: Define the function with **def** and remember to **return** the product.

Exercise 8: For Loop - Sum of Numbers

Task: Write a program using a for loop that calculates the sum of all numbers from 1 to 10 and prints the result.

Hint: Initialize a variable to 0 before the loop, and add each number to this variable inside the loop.

Exercise 9: While Loop – Animal Name Printer

Task: Write a program that prints out the names of animals from a list, one by one, using a while loop. The list of animals is ["cat", "dog", "rabbit", "parrot"].

Hint: Initialize a counter variable to 0. Use a while loop to access and print each animal's name in the list by its index. Increment the counter in each iteration of the loop.

Exercise 10: Local Variable in a Function

Task: Define a function named **calculate_area** that takes the length and width of a rectangle as parameters, calculates the area, and returns it. Then, call this function with specific length and width values, and print the result.

Hint: Inside the function, define a local variable for the area (**area = length * width**) and return this variable.
