## 📝 Python Practice – Chapters 2 & 3

**Instructions:**  
Use your Google Colab **notebook** to write your answers. You can access your notebook here ([colab.google](https://colab.research.google.com/?authuser=0" \l "create=true)). Try your best to guess what the code will do before you run it. Then test it out in your notebook and see what happens!

**Variable Assignment and String Formatting**

**Question 1:**

Create two variables. One for your name and one for your age. Now use the print() function to print your name and age using variables in the print function. Only use one print() function to do this.

*Hint: Use the class example where we used {} and* ***.****format() function.*

**Question 2:**

Create a variable called apples which equals 10. Create a variable called oranges which equal 5. Create another variable called total\_fruit which adds apples and oranges together.

Then print all your variables in one line and make the output identical to:

**“There are 10 apples and 5 oranges and 15 fruit all together!”**

*Hint: Use the class example where we used {} and* ***.****format() function.*

**User Input Questions**

**Question 3:**

Use the input function to store two variables – name and date of birth. Then, print out the user’s name and date of birth on one line using the print function.

**Question 4:**

Use the input function to store three variables – name, pet, and pet\_name. Then, print out the user’s name, type of pet (like dog or cat), and the name of their pet. Use the print function and ensure that the final output is only on one line of code.

**Question 5: My Fruit Basket**

Use the input function to store three variables. First, ask the user for their name. Then, ask the user how many apples they have. Then ask how many bananas they have. Then create a variable called total\_fruit which adds the user’s total apples and bananas. Finally, use the print function to write the following message: “Bob has 5 apples and 10 bananas and a total of 15 pieces of fruit!”.

*Hint: When you ask user’s for input of numbers, it is stored as a string. You must convert this input to an int using the int() function. How do we do this? When you create your total\_fruit variable, make sure you use int(apples) and int(bananas) to add the two together.*

### **Question 6: The Allowance Calculator**

Ask the user how much weekly allowance they get. Then ask them how many weeks they’ve saved it for. Multiply the two numbers and print a message like:

“If you save $5 per week for 4 weeks, you’ll have $20!”

***Hint:*** *Remember to use int() to convert the user’s input into numbers before doing the math.*

### **Question 7: My Dream Road Trip**

Ask the user to input:

1. The distance (in kilometers) to their dream destination
2. Their car's average speed (in km/h)
3. Their name

Then calculate how many hours the trip would take using: time = distance / speed

Finally, print:

“Alex’s road trip will take 4.5 hours to reach their destination!”

*Bonus: Round the result to 1 decimal place using round(time,1).*

### **Question 8: Class Party Planner**

Ask the user:

1. How many friends are coming to the party?
2. How many slices of pizza each person will eat?
3. The user’s name

Then calculate the total number of slices needed and print:  
"Jasmine is inviting 6 friends and needs 48 slices of pizza in total!"

***Hint:*** *Remember to calculate:*

*total\_slices = number\_of\_friends \* slices\_per\_person*

**Functions Questions**

### **Question 9: Say Hello**

Write a function called say\_hello() that prints:

Hello!

Welcome to my Python program.

Then call the function.

### **Question 10: Greet Someone**

Create a function called greet(name) that takes one argument (name) and prints:

Hi, [name]! Nice to meet you.

Call the function with your own name.

Example output:

Hi, Sarah! Nice to meet you.

### **Question 11: Add Numbers**

Write a function called add\_numbers(a, b) that takes two numbers as arguments and prints their sum.

Call the function using two numbers of your choice.

Example output:

The sum is: 17

**Bonus:** Instead of just printing the sum, use a sentence like:

print("The sum of {} and {} is {}".format(a,b,a+b))

### **Question 12: Party Planner**

Write a function called party\_items(friends, snacks) that takes in two numbers:

* friends: how many friends are coming
* snacks: how many snacks each person gets

Your function should **calculate the total snacks needed** and print a message like:

For 5 friends, you need 25 snacks.

Then call the function with your own numbers.

***Hint:*** *Multiply friends \* snacks.*