

LAB 1 — Range & Loops (Numbers and Iteration)

Create a program that:

1. Prints all **odd numbers** from 1–20
2. Calculates and prints the **sum** of numbers from 1–100
3. Asks the user for a number and prints its **multiplication table (1–10)**

Goal: Practice range(), loops, and numeric iteration.

LAB 2 — Lists & Comprehensions

Create a program that:

1. Takes a given list of numbers
2. Generates and prints:
 - o A list of **squares** using a loop
 - o A list of **squares** using a list comprehension
 - o A list of **positive numbers** using a comprehension

Goal: Practice list operations, loops, and list comprehensions.

LAB 3 — Functions & Conditionals

Create functions that:

1. Return a **greeting** with a name
2. Return a default greeting if no name is given
3. Check if a number is **even**
4. Add two numbers **only if both are even**, otherwise return 0

Goal: Practice function creation, return values, and conditional logic.

LAB 4 — Filter & Lambda Functions

Create programs that:

1. Use filter() + a function to keep only **even numbers**
2. Use filter() + lambda to keep only **even numbers**
3. Filter names that have **3 or more characters**
4. Filter words that contain the letter "a"

Goal: Practice the filter() function and lambda expressions.

****LAB 5 — *args and kwargs**

Create functions that:

1. Accept any number of values using *args and return their **sum**
2. Accept any number of values using *args and return the **maximum**
3. Accept any number of keyword arguments using **kwargs and print them
4. Combine a, *args, and **kwargs and print all arguments in a readable way

Goal: Practice flexible function parameters and argument unpacking.

LAB 6 — Even Number Filter Tool (Mini Project)

Create a program that:

1. Accepts a line of numbers from the user
2. Converts the input into a list of integers
3. Uses filter() + lambda to keep only **even numbers**
4. Prints:
 - o The **list of even numbers**
 - o The **count** of even numbers

Goal: Practice input handling, list processing, and the filter() function.
