

## **Day 2 Task 1**

1. Write a program that prompts the user to enter a number. Create a list of squares of all numbers from 1 to the user-entered number.
2. Write a program that prompts the user to enter two sets of numbers. Print the intersection and union of the two sets.
3. Develop a Python program for managing books in a library with the following functionalities:
  - 3.1 Book Inventory: Initialise an empty list to represent the library's book inventory.
  - 3.2 Help Message: Display a help message to the user explaining the available commands:
    - add -> add a book to the inventory
    - remove -> remove a book from the inventory
    - display -> display the current books in the inventory
    - exit -> exit the program
  - 3.3 Book Addition: Implement the ability to add a book to the inventory. When the user enters the add command, prompt them to enter the book title and author. Ensure that the same book cannot be added twice.
  - 3.4 Book Removal: Implement the ability to remove a book from the inventory. When the user enters the remove command, prompt them to enter the title of the book they want to remove. Display an appropriate message if the book is not found in the inventory.
  - 3.5 Inventory Display: Implement the display command to show the current books in the inventory. Display a message if the inventory is empty.
  - 3.6 Exit Confirmation: When the user enters exit, prompt them with "Are you sure you want to exit?" If the user inputs "yes," the program should stop. If the user inputs anything else, the program should continue.