**Week 4 algorithm**

1. **Import Modules:**
   * Import the **random** and **string** modules for generating random passwords.
2. **Define generate\_password Function:**
   * Generates a random password of a specified length.
   * Uses a combination of uppercase letters, lowercase letters, digits, and punctuation characters.
3. **Define generate\_multiple\_passwords Function:**
   * Generates a specified number of random passwords using the **generate\_password** function.
4. **Define main Function:**
   * The main entry point of the program.
   * Asks the user for the desired password length and the number of passwords to generate.
   * Handles invalid input by displaying an error message and exiting the program if necessary.
   * Calls the **generate\_multiple\_passwords** function with user-specified parameters.
   * Prints the generated passwords along with their indices.
5. **Execute the Program:**
   * Checks if the script is run directly (not imported as a module).
   * Calls the **main** function to start the program.
6. **User Interaction:**
   * The program prompts the user to enter the desired password length and the number of passwords to generate.
   * Handles invalid input, such as non-numeric input or non-positive values.
7. **Note:**
   * The password generation logic ensures a mix of uppercase letters, lowercase letters, digits, and special characters.