**Exercise Set**

1. **Print Student Details**

   Use nested loops to print each student's first and last name along with both email addresses formatted as:

   ```
   Name: First Last
   Email 1: email1@example.com
   Email 2: email2@example.com
   ```

   - Use a nested `for` loop to print each email address.
2. **Search for Students in a Specific Homeroom**
   - Ask the user for a homeroom code (e.g., "B211") and use a loop with nested `if` conditions to print the names and email addresses of students in that homeroom.
   - If no students are found in the provided homeroom, print a message: "No students found in this homeroom."
3. **Check if a Student is in a List**
   - Ask the user to input a first name.
   - Use a loop and nested `if` statements to find and print the details (name and homeroom) of the student with that first name.
   - Ensure that the search is case-insensitive.
4. **Filter Students by Grade Level**
   - Print all students who are in grade 10, with details such as their full name and CPS ID.
   - Use a loop and a nested `if` statement to filter and format the output.
5. **Format Email List for Newsletter**
   - Create a loop that formats and prints the email addresses of all students in a comma-separated list.
   - Use a nested `for` loop to ensure both primary and secondary emails are included.
6. **Find Students with Common Last Names**
   - Write a loop that counts and lists students with last names that occur more than once in the dataset.
   - Use nested loops to compare last names and display students with common last names in a formatted list.
7. **Count Students by Homeroom**
   - Create a program that counts how many students are in each homeroom and prints the homeroom and student count.
   - Use nested loops and a dictionary for counting.
8. **Validate Email Patterns**
   - Write a loop that checks if each student's primary and secondary emails have the format of an email address (i.e., contains "@" and a domain).
   - Print any email addresses that do not meet this format.