Assignment for Advanced Dictionaries Operators

Instructions:

Solve the following exercises related to advanced dictionary operations in Python.

Write the solution code for each exercise.

Include comments to explain your code where necessary.

Test your functions with sample inputs to ensure correctness.

Write the answers in a Python script file or a Jupyter Notebook.

Exercises:

Dictionary Comprehension:

Create a dictionary named square_dict that contains the squares of numbers from 1 to 5 as key-value pairs using dictionary comprehension.

Merging Dictionaries:

Merge the dictionaries classA and classB into a new dictionary totalStudents using dictionary comprehension.

Nested Dictionaries:

Create a nested dictionary <code>employee_info</code> to store information about employees. Include keys for "name", "department", and "salary". The "department" key should contain another dictionary with "designation" as key and "manager" as value.