Q4:

- This program contains an example of a Python dictionary which contains list and tuples.
- The purpose of the dictionary is to store information about an apartment building.
- The program demonstrates various operations that can be performed on a python dictionary and lists and tuples embedded inside of the them.
- This program uses the PrettyPrint library. If it is not on your system, then the program will not run.

Q5:

- "HW1-Q5.py" file contains a function definition called "find_median" which takes two arrays as arguments and finds the median between them.
- "HW1-Q5-TESTCODE.py" is the testbench for the "find_median" function.
    - It imports the "find_median" function so the "HW1-Q5.py" file must be in the same directory as the testbench code.
    - When run, the testbench code will prompt you to enter how many tests you want to run.
    - Each test uses a pseudo-random number generator to generate one large array of random length (0-2000 items) and randomly populates it with integers in the range -10^6 to 10^6. This array is sorted and its median is determined.
    - The generated array is then split into two sorted arrays.
    - The sorted arrays are passed to the "find_median" function.
    - The median determined by the "find_median" function is compared to the known value of the median determined when the test array was generated.
    - The test details and the result of the test, "PASS" or "FAIL", is printed to the console.