

COSC 1336 – Programming Fundamentals I

Program 9 – Files, Lists, and Functions

The results of a survey of the households in your township are available for public scrutiny. Each record contains data for one household, including a four-digit integer identification number, the annual income for the household, and the number of household members. Write a program to read the survey results into three lists and perform the following analysis.

- Count the number of households included in the survey and print it in a three-column format.
- Calculate the average household income, and list the identification number and income of each household that exceeds the average.
- Determine the percentage of households that have incomes below the 2011 poverty level. Compute the poverty level income using the formula

$$\text{povertyLevel} = 15130.00 + 3960.00 * (m - 2)$$

where m is the number of members of each household. This formula shows that the poverty level depends on the number of family members, m , and the poverty level income increases as m gets larger.

The input data is available in **Program9.txt** on the I: drive and has the format of identification number, annual income for the household, and the number of household members.

No input, processing or output should happen in the main function. All work should be delegated to other functions. The program should have at least **5 functions** and the output sent to an output file, **Program9-out.txt**.

Turn in the following:

- A hardcopy of your source code (Program9.py)
- A hardcopy of your output (Program9-out.txt)