﻿**CS 171**

**Lab Assignment 3**

**Collection Data Types**

This lab assignment uses many elements provided in the main bibliographic reference for these lectures:

Programming in Python 3

A Complete Introduction to the Python Language,

2nd Edition,

Mark Summerfield

﻿1 Exercises

**Exercise 2** *Write a Python program to sort a tuple by its float element.*

**Sample data: [('item1', '12.20'), ('item2', '15.10'), ('item3', '24.5')]**

**Expected Output: [('item3', '24.5'), ('item2', '15.10'), ('item1', '12.20')]**

**Exercise 3** *Write a Python program to sort a given matrix in ascending order according to the sum of its rows.*

**Original Matrix:**

**[[1, 2, 3], [2, 4, 5], [1, 1, 1]]**

**Sort the said matrix in ascending order according to the sum of its rows**

**[[1, 1, 1], [1, 2, 3], [2, 4, 5]]**

**Original Matrix:**

**[[1, 2, 3], [-2, 4, -5], [1, -1, 1]]**

**Sort the said matrix in ascending order according to the sum of its rows**

**[[-2, 4, -5], [1, -1, 1], [1, 2, 3]]**