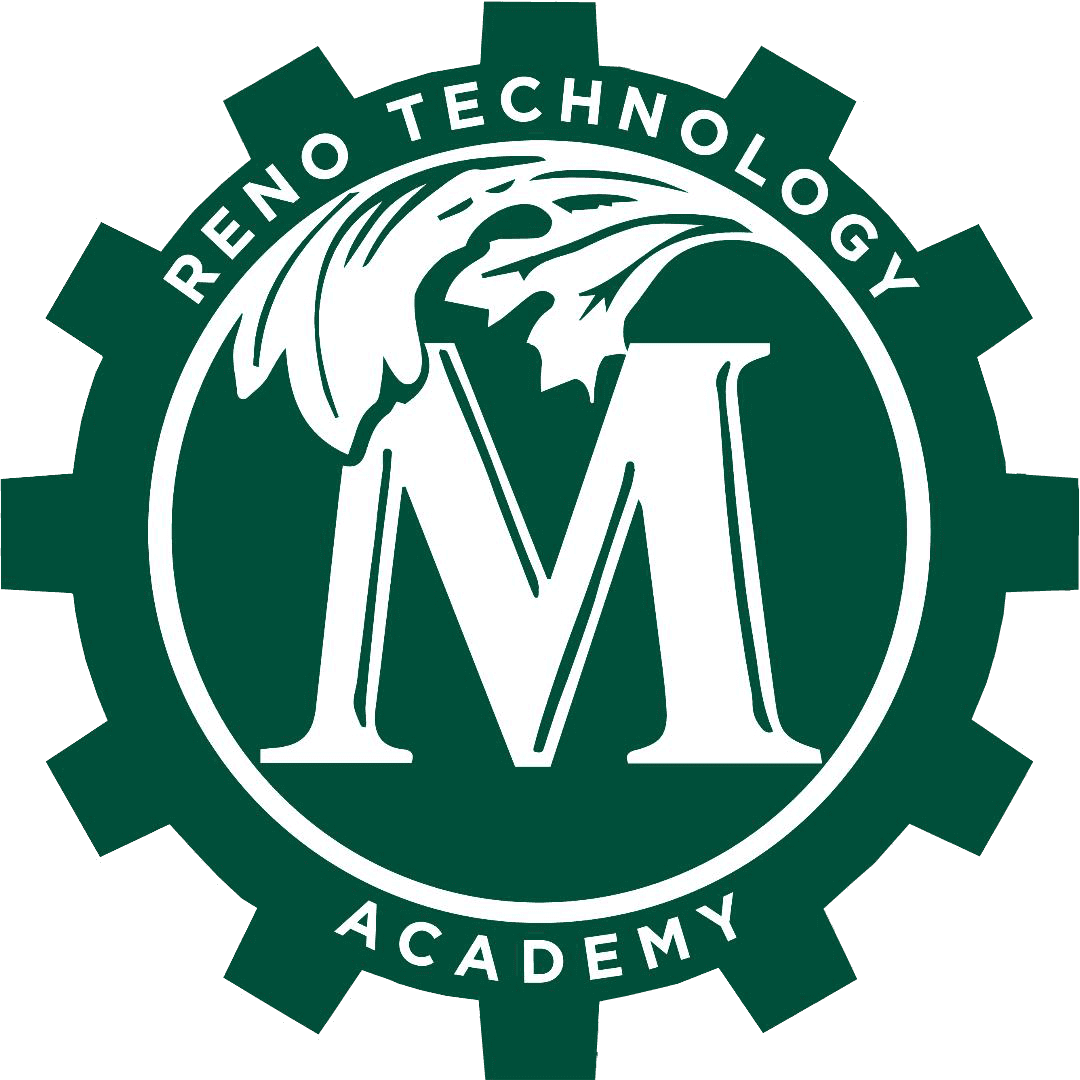
**Reno Technology Academy**

Multnomah University Reno/Tahoe  
CIS104: Coding in Python

# Lesson 7

# Readings:

*Learning Python*

Revisit

Chapter 5: Numeric Types pp.137-179

Chapter 7: String Fundamentals pp. 195-246

Chapter 8: Lists and Dictionaries pp. 247-282

Chapter 9: Tuples, Files, and Everything Else

Tuples pp. 284-291

Files pp. 291-305

# Lab/Homework (10 points)

## Exercise #1: Music Database Reloaded

In this project, we will be modifying your music database application from lab assignment #5 to add support for sorting the database by song title, artist, or release year.

1. Copy the files from Lab #5 into a folder named Lab 7. Rename H5.py to H7P1.py, if needed. Main.py can still be used.
2. Update your program to add a new menu item called ListBy. When the user enters this choice:
   1. Ask the user how they want to list/sort the database:
      1. Sort by song title
      2. Sort by artist
      3. Sort by release year
   2. Print out the list of the user’s preference (e.g. all song titles) sorted alphabetically.

## Exercise #2: Divide by Seven

1. Create a Python file called H7P2.py.
2. Create a list of integers and add to it every number from 1 to 1,000. Do this using a for loop.
3. Create an algorithm to count the numbers in the vector that are evenly divisible by 7. Display the count as a message to the user on the console.

## Extra Credit: Shazam!

1. Modify your music database program to add a new menu item called find. When the user enters this choice:
   1. Ask the user to enter the song title to find
   2. Create an algorithm to find the song
   3. Make sure that the search ignores the case of the strings!
   4. Display the first song that matches, and if none are found display a message saying “Song not found”