**Individual HW 1: CD Catalog**

Your mission will be to do the following:

1. Download the **cd\_catalog.xml** file. This XML document contains records for CDs. The root element is *CATALOG* and contains a series of *CD* elements, each of which has a number of child elements such as *TITLE*, *PRICE* and so on.
2. Write a program that will read the file and print out the following information with an appropriate message:

a. (10 points) The total number of CDs in the file and the total price of purchasing one of each.

b. (10 points) The minimum, maximum, and average price for the CDs in the file.

c. (10 points) The total number of CDs released in the year 1990.

d. (10 points) Print the names of all artists who are from America (USA).

e. (10 points) Use list comprehensions to minimize the code required in parts a – d.

**Individual HW 2: Book Catalog**

Your mission will be to do the following:

1. Download the **books.xml** file. The root element is *CATALOG* and contains a series of *BOOK* elements, each of which represents a single BOOK. Each *BOOK* element has a number of child elements such as *AUTHOR, TITLE, GENRE, PRICE* and so on.
2. Write a program to read the file and print out the following information with an appropriate message:

a. (15 points) Write a function called **book\_info** that prints the title, author, and price of the book with a certain id (passed as a parameter). Build a list of all book ids in the XML file and call this function on each of them. Example call: b**ook\_info(“bk111”)**

b. (10 points) Print the total cost of buying all the books in the “Computer” genre.

c. (15 points) Print the **unique** genres in the file.

e. (10 points) Use list comprehensions to minimize the code required in parts a – c.

**Submission**

Upload your programs (.py) to Oncourse under Assignments -> Assignment 5 (Individual) as two ***.py files***. Name your files ***YourUsername\_A5\_1.py,*** and ***YourUsername\_A5\_2.py***

e.g. If I were to upload, it would be johfdunc\_A5 \_1.py and johfdunc\_A5 \_2.py

Include the following information as a comment at the top of the file you submit:

 Your name

 Your group number

Test your code on a wide range of inputs!