

## **Practice Lab Exam Summer 2017**

### ***Exam Instructions:***

- The exam is open book, and open notes.
- You are not allow to talk to anybody or contact anybody.
- The time for the exam is 55 minutes.
- Submit your file using CANVAS at the link for the lab.
- In case you did not finish your work submit whatever you had done for partial credit.

**When you have completed the lab and submitted on CANVAS make sure you do the following:**

- **Have the instructor verify that you have successfully submitted your solution**

**Problem Steps:**

1. Inside the **main function**, define the following two lists:
  - a. A list of strings called **StoresNames** which contains 5 furniture stores names:  
**Wayfair, Ashley, Ford Furniture, Value City, and American Freight.**
  
  - b. A list of floats called **StorePrices** which contains the prices of queen mattresses offered by the stores above – respectively- :  
**199, 399, 499, 249, and 217.**
  
2. Now, define the following four functions:
  - a. Define a function called **BelowThreeHundreds** which **receives 2 parameters** -the two lists defined above- and it returns back **a List** of all the stores names that sell mattresses with price below \$300. The returned list should contain the names of all the stores in an upper case format only.
  
  - b. Define a function called **long\_names** which **receives 2 parameters** (the two lists defined above) and it returns back **a List** of integers that represents the mattresses' prices of stores that have long name (more than 10 characters).
  
  - c. Define a function called **avg\_price** which **receives 1 parameter** (the StorePrices) and it returns back the average price.
  
  - d. Define a **main** function which defines the two lists above (in step 1) then it calls the three functions above (step 2 a,b,c) and finally it prints the results of the functions' call as in the sample output below.

**Sample run of the program:**

```
*****  
Stores which offer queen mattresses less than $300:  
*****  
WAYFAIR  
VALUE CITY  
AMERICAN FREIGHT  
*****  
The prices of stores which has a long name:  
*****  
499  
217  
*****  
The average price: 312.6  
*****
```