

## lists.py

When working in the Linux lab, create a directory named `lab08` to store your files:

```
~$ cd files
files$ cd csc221
csc221$ mkdir lab08
csc221$ cd lab08
lab08$
```

Create a new program using `idle`:

```
lab08$ idle lists.py &
```

Create a file **lists.py** that contains the following functions and a conditional call to `main()`:

```
if __name__ == '__main__':
    main()
```

With this code, `main()` is executed only if the program file is run, as opposed to being used as a library module. Using a conditional call to `main` is important for unit-testing procedures associated with this lab, and a failure to satisfy this requirement will result in a penalty.

The program must have functions conforming to the following specification -- a failure to satisfy this requirement will result in a penalty.

This program has unit tests associated with it to test the accuracy of your functions. Be sure to copy this from the Moodle, or write your code directly there.

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**main()**

This function should call the other functions to test and demonstrate them. Design this function yourself.

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**sumOfOdd(intList)**

The parameter `intList` is supposed to be a list of integers.

The function returns the sum of the odd integers from `intList`, and leaves `intList` **not modified**.

For instance, given `[1,2,3,4]`, the function returns 4.

The function performs no I/O.

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**productOfEven(intList)**

The parameter `intList` is supposed to be a list of integers.

The function returns the product (multiplication) of the even integers from `intList`, and leaves `intList` **not modified**.

For instance, given `[1,2,3,4]`, the function returns 8.

The function performs no I/O.

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### **membersDivisibleBy3(intList)**

The parameter intList is supposed to be a list of integers.

The function **returns a new list** containing only the integers from the original list that are divisible by 3, in the same order, and leaves intList not modified.

For instance, given [1,2,3,4,2,3,6], the function returns [3,3,6].

The function performs no I/O.

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### **changeList(intList)**

The parameter intList is supposed to be a list of integers.

The function **modifies** intList:

- For odd integers 5 is added and then the result is divided by 2
- Even integers are divided by 2.

This function does not return anything. (void)

For instance, the parameter [1,2,3,4] should become [3,1,4,2].

The function performs no I/O.

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### **isReverse(intListOne, intListTwo)**

The parameters intListOne and intListTwo are supposed to be lists of integers.

The function will **return true** if intListTwo is the reversed version of intListOne.

The function will **return false** if intListTwo is NOT the reversed version of intListOne.

The function performs no I/O.

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If you need help with this, please make sure to see a TA before the due date!

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When your program is complete, ***you must submit your work!*** Submit your work to the designated Moodle dropbox.