CS2321 Lab 9

Lab Instructions:
Save the code you write for each exercise in this lab as a *library* -- that is, a textfile with a .py extension containing only executable python code (i.e. no angle-bracket prompts, etc). Name each file according to the exercise number (e.g. ex1.py, ex2.py, etc.) and save them to a directory containing the report file (in PDF), when completed, compress them together in a single zip file to be submitted on D2L.

Each function should have a docstring explaining what the function does.
Any Follow-up Questions and their Answers should be included in a **docstring** following the `main()` function.

e.g. the structure for a Python module should look like:

```
'''
   modulename.py
   Doc-string explaining what this module does
'''
# imports, such as math, random, etc., as needed

# Your code, includes definitions of classes, functions, etc.
def ...
def ...
.
.
.
def main():
   # Do what is needed.


if __name__ == "__main__":
      main()

'''
   Doc-string answering follow up questions
'''
```

Lab Deliverable: Once all your programs run correctly, collect their code and the results of their test-cases in a nicely-formatted **PDF** file exported from Word Processing document (e.g. MS Word or LibreOffice) to be included in the submission on D2L.

This **report** should consist of each lab exercise, clearly **labeled** in order, consisting of code, then copy/pasted text output, or, for GUI, screen-captured, of its four test-cases.
In this lab, take series of screen captures of your GUIs and insert them into the report.

Exercise

1. From page 146, #22: Implement a stack using linked lists.
2. From page 146, #23: Implement a queue using linked lists.
3. From page 146, #24: Implement a deque using linked lists.
4. From page 147, #25: Design and implement an experiment that will compare the performance of a Python list with a list implmentd as a linked list.