CS 150 Lecture 28 Exercises

Complete each of the exercises below and upload to Canvas before the deadline.

# Exercise 1 - Applying Polymorphism

The code supplied consists of an inheritance hierarchy of different classes representing different kinds of cards you might want to store in a wallet. The **Billfold** class implements the wallet. If you build and run the project, you'll see that it leaks memory and doesn't work correctly. Use what you've learned about **virtual** functions and destructors to fix the program. Show me the output of the program running correctly below.

| Copy and paste a screenshot of the source code here. |
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| Copy and paste a screenshot of the program with make check |
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# Exercise 2 - Class Relationships

Open **rpn.cpp** which implements a RPN calculator using the standard library **stack<double>** class. Run it and evaluate some expressions, such as **2.5 7.3 \* .03 / p** so you can see how it works.

During lecture, follow along with your instructor to implement three versions of the **DStack** class using **public** inheritance, layering and **private** inheritance. Shoot a screenshot of the source code for each version. Make sure it compiles and runs.

| Copy and paste a screenshot of the public inheritance version of DStack |
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| Copy and paste a screenshot of the layering or composition version of DStack |
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| Copy and paste a screenshot of the private inheritance version of DStack |
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