CIS 22B Lab 3 Itty Bitty Airfreight (IBA)

#### Lab 3

#### 500 Points

Topics:

Friend functions

Copy constructor

The anti AI constraints:

Any C++ terms, constructs and/or methodologies covered in CIS 22A are available for your use.

You may only use additional C++ constructs or terms covered in lecture or zyBook (ebook) reading

assignments found in In modules 1, 2, 3, 4, 5, 6 and 7. Deviation from these constraints lose points.

Utilizing your Lab 2 code as a starting point, move both the input and output functions declarations outside the class. They will no longer be able to directly access your private data (you’ll need to use both mutators and accessors for private data access).

We have added a new load type, **Combo Flat**. Your code will need to handle this as a string.

Create your objects **on the stack** (not on the heap).

Add a friend function, **kilotopound**, which will convert kilograms to pounds. Change your weight mutator to ask whether weight is input in kilograms or pounds. If it is kilograms, call the friend function kilotopound to convert it to pounds and return pounds. There are 2.2 pounds in one kilogram.

Add a copy constructor.

Create an object on the stack with the following information (or appropriate data of your choice):

uld – Container

abbreviation - AYK

uldid – AYK68943IB

aircraft - 737

weight – 1654 **Kilograms**

destination – PDX

Copy the object using a copy constructor. Output the contents of both objects. Your code must

include both the friend function and the copy constructor.

Your code will be tested with both pounds and kilograms as inputs. Submit your .cpp file

via Canvas. Remember, late labs lose points.