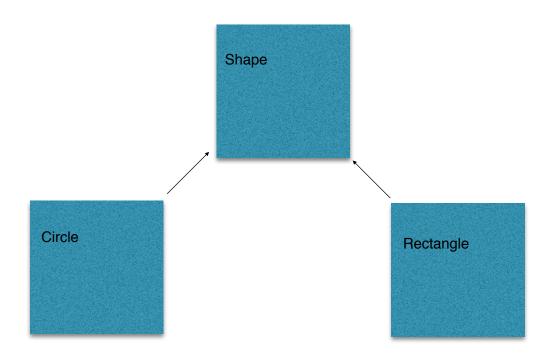
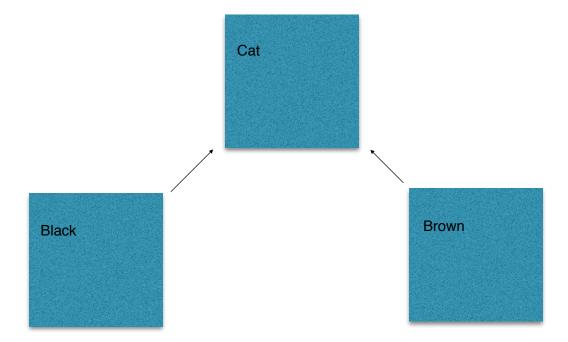
- 1. The linked list could be swapped for an ArrayList without affecting the public interface. Because the only way to interact with the destinations lists is through the AirportNetwork interface and all the methods return airports (none return the actual data structure) how the airports are stored can be easily changed.
- 2. generalizing AirportNetwork would entail replacing Airport with a generic "Node" class and Traveler with a generic "Cursor" class (something to allow us to walk around the network). the network would need to support getting nodes, adding nodes, getting the cursor/current node, and moving the cursor/to a new node. generalizing the AirportNetwork gives more flexibility overall (perhaps we want a BusNetwork, or TrainNetwork too). Also it keeps the code clean and reusable, which is always nice.
- 3. ArrayLists are superior when quick random access is needed it can jump directly to the index without walking the whole List. LinkedLists are superior when quick insertion throughout the list is needed if you know the object you want to insert, and the object you want to insert that object after its just a matter of updating the relevant references.
- 4. Assuming .clone() is valid on the unspecified objects, you would iterate the list and call .clone() on the elements. A deep clone is preferable any time you want to maintain two entirely separate lists, i.e. you have a list of Enemies, but you want to send multiple waves of the same *amount* and *type* but with different values (say, increasing difficulty).
- 5. The Shape hierarchy is a good hierarchy because while both circle and rectangle are shapes, and have property and methods similar to all shapes, they both have other unique properties and methods. The Cat hierarchy is a poor hierarchy because it's subclasses simply describe attributes, theres no reason to want to specifically insatiate a black cat as a whole separate class.





6.

