**Jar Files**

**What is a Jar File?**

* A **jar** file contains class files that are packaged together
  + Can contain sources as well, but not as common
* Useful for various things
  + Software developers who are selling software
  + Sites that do remote development
* Eclipse makes it easy to export a **jar** file

**Concept Notes**

**Interface** – subclasses can have unlimited interfaces, but only one super/parent class

* interfaces **only contain abstract methods**

**Comparable** – must have compareTo method, is part of the class you’re working with

*public class Pet implements Comparable<Pet>*

*@Override*

*public int compareTo(Pet obOther)*

*}*

*return (int) (this.fPrice – obOther.fPrice);*

*}*

* Used to replace **Array.Sort** or **Collections.Sort**

**Comparator** – similar to Comparable, replaces the **compare** method. This is defined **separately** from the class you’re working with

*public class SortByName implements Comparator<Pet>*

*{*

*public int compare(Pet obPet1, Pet obPet2)*

*{*

*return (obPet1.getName().compareTo(obPet2.getName()));*

*}*

*}*

*Array.Sort(obListPets, new SortByname);*

*Collections.Sort(obListPets, new SortByName);*

**Cloning** – process of duplicating another class by using a cloneable interface

***Look into Cloning, missed day***

**Wrapper Classes** – each primitive data type has corresponding Wrapper class. Allows handling of primitives as objects, and objects as primitives

*ArrayList<int> obList = new ArrayList<>();*

* Throws an error, ArrayLists only handle **objects**

*ArrayList<Integer> obList = new ArrayList<>();*

*obList.add(new Integer(12));*

* does not throw an error on creation, adds new Integer object with value 12

**Check over Circular Queues**

Linear Search

* element exists, O = n/2
* Element does not exist, O = n

Binary Search

* Requires sorted
* logn^2
* Maximum of 9

**Written Section Closed Book** – Roughly 29 Marks

* No multiple choice
* True or False
* Short Answer

**Programming Section** – Roughly 70 Marks

* Open book
* Bring in anything for reference materials
* No internet access