CS 272 Project 1 due Tues 2/21

Submit:

1 Word doc w/ all classes and output – header for classes

3 zip files (1 for each part of project)

**UML** = Universal Modeling Language

Diagram for classes and their responsibilities

**Field** = member variable/instance variable (variable in the class for each object)

Static variable = one copy for all objects to share (i.e. total count of something, counters)

All fields are initialized (defaults): int = 0; Boolean = false; String = null (different from local variables, which are not initialized: scope within method, not class)

**Method** = Behavior or action that each object may do

**Field** = data; Method = behavior

**Parent/Superclass** = Abstract

**Child/Subclasses** = Concrete

**Abstract class** = cannot be instantiated; no objects can be made; no constructor, toString; used for inheritance purposes

Ellipses (“…”) = varargs = variable arguments (1 or more)

Treat like an array

**Week 3**

**Interfaces -**  Instead of using class … extends …, use class … implements…

Ex. public class Cat implements Comparable <Cat>

* Interface = set of empty methods – contract (guarantee) that another class will implement the methods
* No member variables!
* Can have static final constants
* All methods are public – no reason for private

Built in interface – Comparable

public interface Comparable<T>

{

Public int compareTo(T t);

}

Public class Cat implements Comparable<Cat>

{

Private String mName;

Private String mBreed;

Private int mAge;

@Override

Public int compareTo(Cat other) // returns negative num if object is less than other cat

//returns 0 if same as other cat; else returns positive num if this cat is greater than other cat

{

}

}