Question set 1

1. Subclass and Superclass
2. Superclass and objects
3. UMF Diagram

|  |
| --- |
| Class Species: |
| * speciesName :: String ; * Species(String S, String g) * setSpeciesName(String s):: void ; * getSpeciesName()::String; * toString() :: String; * equals(Species S) :: boolean ; |

1. 1. They can make more Species from their parent class, Genus

2. They can make more Specimen from their parent class, Species

1. I. Because the toString() method returns a statement(String data type), with a function that is used to call a function to return the instance variable, s, which is the species and the g, which is initialized in the species class that should’ve been retrieved from the superclass.
2. Assessors

Question set 2

1. A method of making certain variables or methods private or hiding the variables and functions from other classes, so the only class that is able to access those methods are the ones, which they are in, or any class that was inherited. Hiding the implementation details of an object from the clients of the object.
2. 1. Encapsulation allows modifying implemented code without breaking other code who have implemented the code.

2. No other class can access the private fields of the class

1. getCage()
2. cageNumber
3. Inside the java file
4. Disadvantage: You must initialize the species constructor inside the Specimen Class, which can damage or obstruct the Specimen Class’ general purpose, which is to make data from different species.

Advantage: you can access their methods and variables

Question set 3

1. I created a driver class, with an array named database, that keeps data of specimens.

c.

General:

public void listSpecies(Specimen[] animals)

{

Initialize the list ;

For(Specimen i traverse in the animal array):

{

If their Species value have been visited before:

{

continue(skip the process);

}

Else:

{

Append the data to the list;

}

}

}

Question Set 4:

1. 1. Their functions are the only ones the user can access. Such as(getter, setter functions, or traversal functions)

2. It exports a type.