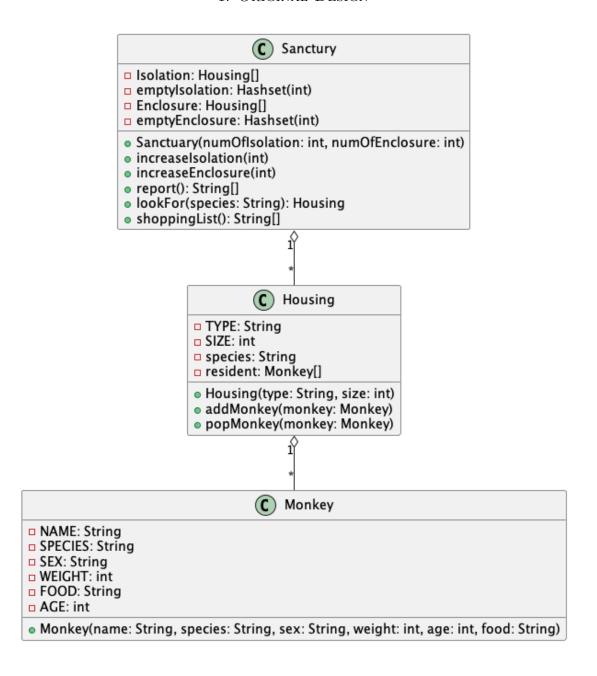
1. Original Design



2. Monkey

Testing construction				
Constructor with invalid name				
Constructor with invalid species				
Constructor with invalid sex				
Constructor with invalid weight				
Constructor with invalid age				
Constructor with invalid food				
Constructor with valid input				

Input
Monkey("", "drill", "Male", 80, 12, "eggs")
Monkey("good", "ok", "Male", 80, 12, "eggs")
Monkey("good", "drill", "ok", 80, 12, "eggs")
Monkey("good", "drill", "Male", -80, 12, "eggs")
Monkey("good", "drill", "Male", 80, -12, "eggs")
Monkey("good", "drill", "Male", 80, 12, "apples")
Monkey("good", "drill", "Male", 80, 12, "eggs")

IllegalArg IllegalArg IllegalArg IllegalArg IllegalArg

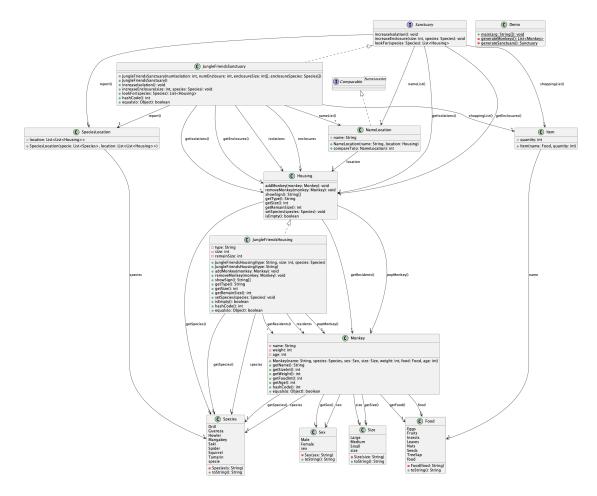
3. Housing

Testing construction Constructor with invalid type Constructor with invalid size Constructor with valid type and size Constructor with valid type and size	Input Housing("ok", 10) Housing("Isolation", -1) Housing("Isolation", 10) Housing("Enclosure", 10)	Expected IllegalArgumentException IllegalArgumentException None None
Testing addMonkey() Add a monkey	$\begin{array}{c} \text{Input} \\ \text{addMonkey(monkeyA)} \end{array}$	Expected None
Testing popMonkey() Pop a monkey	$\begin{array}{c} \text{Input} \\ \text{popMonkey(monkeyA)} \end{array}$	Expected None

4. Sanctuary

Testing construction Constructor with invalid input Constructor with invalid input Constructor with valid input	Input Sanctuary(-1, 1) Sanctuary(1, -1) Sanctuary(1, 1)	
Testing increaseIsolation() increase one each time	$\begin{array}{c} \text{Input} \\ \text{increaseIsolation()} \end{array}$	Expected None
Testing increaseEnclosure() increase one each time	$\begin{array}{c} \text{Input} \\ \text{increaseEnclosure()} \end{array}$	Expected None
Testing report() report species housed	$\begin{array}{c} \text{Input} \\ \text{report}() \end{array}$	Expected String[] in alphabetical order
Testing lookFor() look up for a special species	Input lookFor("species name")	Expected a Housing object
Testing shoppingList() print a list for favorite food	$\begin{array}{c} \text{Input} \\ \text{shoppingList()} \end{array}$	Expected String[]

5. Final Design



6. Monkey

Testing construction Constructor with invalid name Constructor with invalid species Constructor with invalid sex Input
Monkey("", Species.Drill, Sex.Female, Size.Large, 10, Food
Monkey("name", Species.Drill, Sex.Female, Size.Large, 0, Fo
Monkey("name", Species.Drill, Sex.Female, Size.Large, 10, Fo

7. Housing

Method Tested Constructor with invalid type Constructor with incompatible type and species Constructor with incompatible type Constructor with incompatible type and species Input
JungleFriendsHousing("any", 1, Species.Drill);
JungleFriendsHousing("Isolation", 1, Species.Drill);
JungleFriendsHousing("Enclosure");
JungleFriendsHousing("Enclosure", -1, Species.Drill)

testAddMonkey

tmp.addMonkey(this.monkey);

testRemoveMonkey testPopMonkey testPopMonkey this.iso.removeMonkey(this.monkey); if the poped is equal to the entered It's empty after pop

 ${\it testShowSign} \\ {\it testShowSign}$

Test on empty house Test on nonempty house

8. Sanctuary

Method Tested Constructor with invalid input Constructor with invalid input Constructor with invalid input	Input Negative number of isolation Negative number of enclosure Incompatible enclosure size species length	IllegalArgument IllegalArgument IllegalArgument
testIncreaseIsolation	tmp.increase I solution();	
$test Increase Enclosure \\ test Increase Enclosure$	tmp.increaseEnclosure(5, Species.Drill); tmp.increaseEnclosure(-1, Species.Drill);	IllegalArgument
testReport	$SpeciesLocation\ report = tmp.report();$	A SpeciesLocati
testLookFor	tmp.lookFor(this.monkey.getSpecies()).get(0)	List
testShoppingList	List;Item; shopList = tmp.shoppingList();	List of Ite