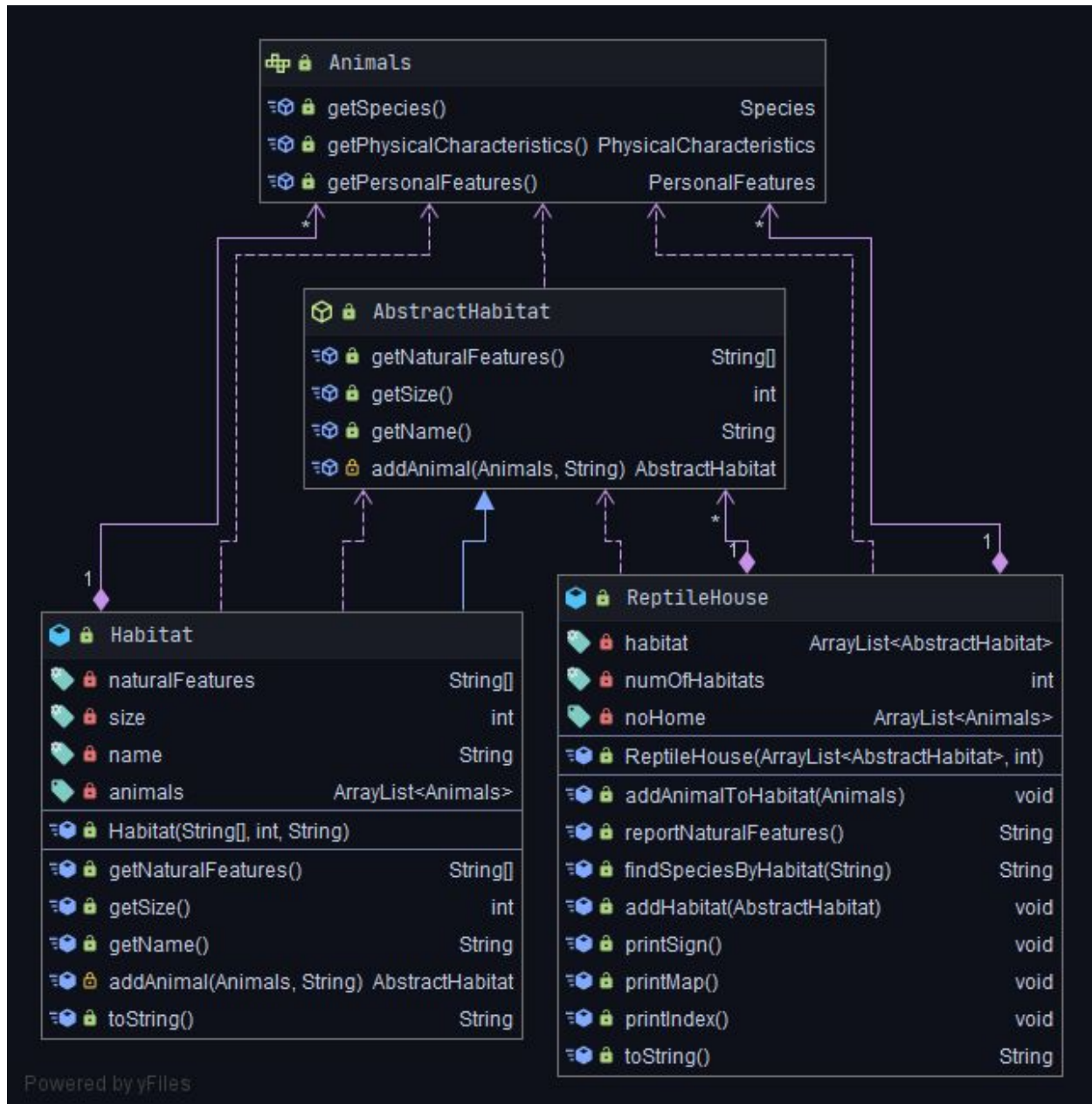
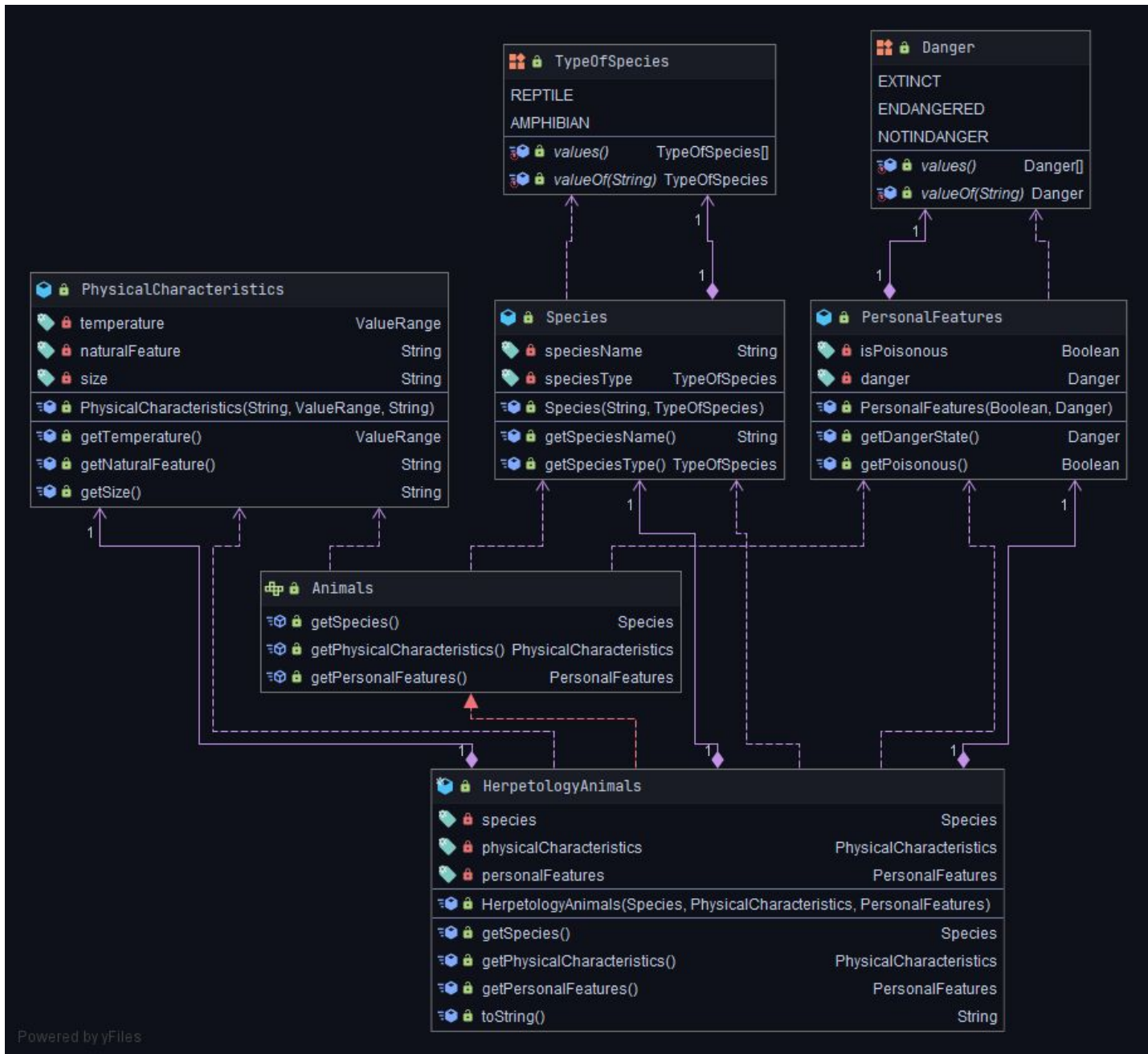


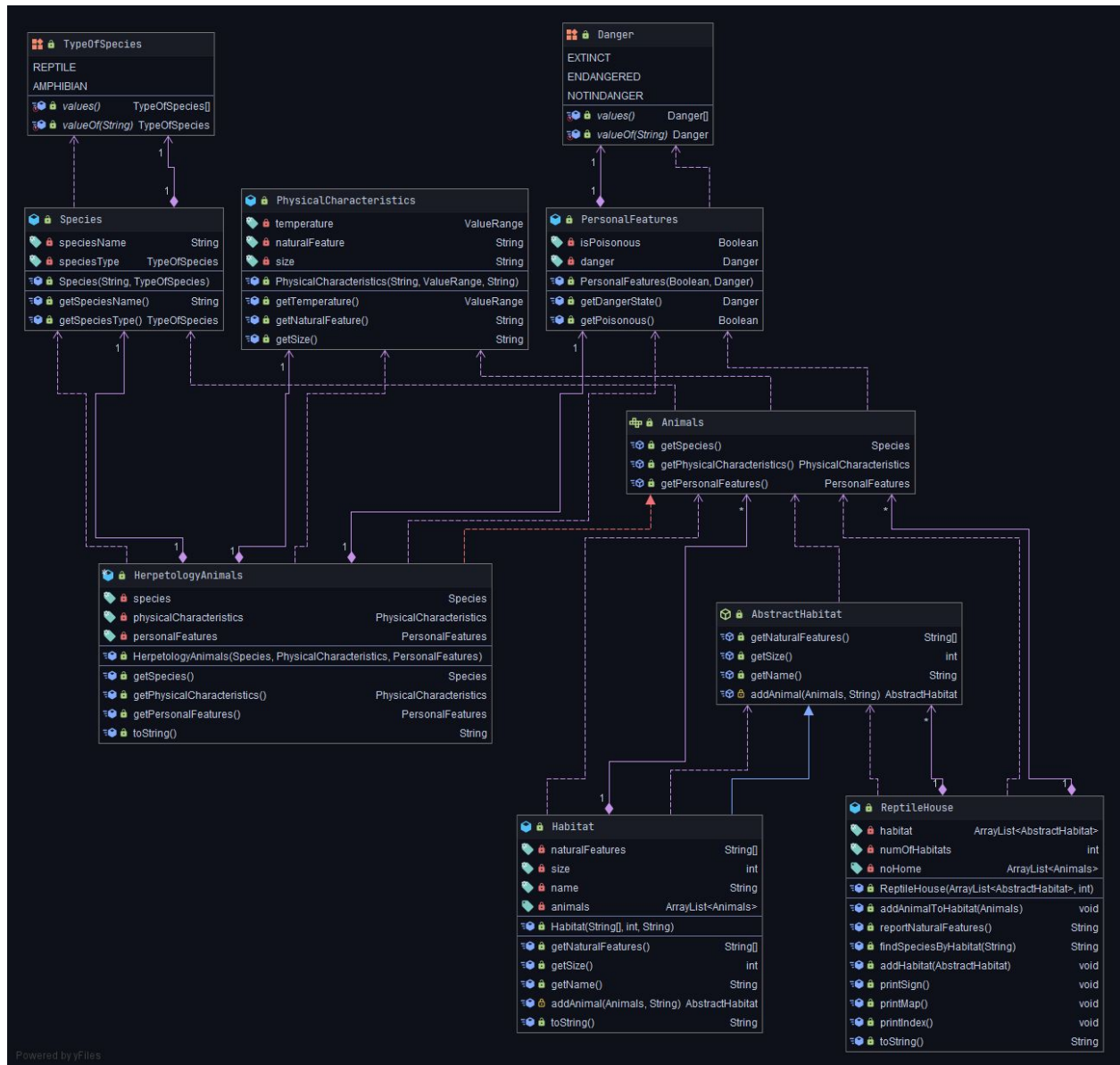
UML DIAGRAM



House Package Class Diagram



Animal Package Diagram



Combined Diagram

Testing

Testing Species Class		Expected Value
Species Name	getSpeciesName()	"frog"
Species Type	getSpeciesType()	REPTILE
Constructor disallows type not defined in enum	Species("frog",Mammal)	IllegalArgument Exception

Species species = new Species("frog", TypeOfSpecies.REPTILE)

Testing Physical Char Class		Expected Value
Temperature Range	getTemperature()	0 - 123
Natural Feature	getNaturalFeature()	"water"
Size	getSize()	"small"

PhysicalCharacteristics physical = new
PhysicalCharacteristics(ValueRange.of(0,123),"water","small");

Testing Personal Feat Class		Expected Value
Get Danger Level	getDangerState()	EXTINCT
Check Poisonous	getPoisonous()	false
Constructor disallows true on cohabitable if extinct and poisonous is true	PersonalFeatures(true,true,true)	IllegalArgumentException

PersonalFeatures pf = new PersonalFeatures(true,false,false)

Testing HerpetologyAnimals Class		Expected Value
Test toString Method	toString()	"frog,reptile,small,water,true,false"

HerpetologyAnimals hAnimals = new HerpetologyAnimals(Species species,
PhysicalCharacteristics physical, PersonalFeatures pf)

Testing Habitat		Expected Value
Natural Features	getNaturalFeatures()	["water","grass","beach"]
Check Size	getSize()	20
Habitat Name	getName()	"Loc A"
Add animal to Habitat	addAnimal(hAnimals,hAnimals.getPhysicalCharacteristics .getSize())	"frog"
Constructor disallows negative values	Habitat(["water","grass","beach",-20,"Loc A"))	IllegalArgumentException
Constructor disallows array length less than 1	Habitat([],-20,"Loc A"))	IllegalArgumentException

AbstractHabitat habitat = new Habitat(["water","grass","beach"],20,"Loc A")

Reptile House		Expected Value
Add animal to habitat	addAnimalToHabitat(hAnimals)	"frog"
Generate Natural Features	reportNaturalFeatures()	"water,grass,beach,LocA"
Find By Habitat	findSpeciesByHabitat("frog")	"Loc A"
Test species not in habitat	findSpeciesByHabitat("snake")	"Not currently in a habitat"
Test species not found	findSpeciesByHabitat("lion")	"Not in reptile house"

Add Habitat	addHabitat(AbstractHabitat habitat2)	2
Constructor disallows negative value	ReptileHouse([habitat],-1)	IllegalArgumentException
Constructor disallows length of array > num Of Habitats	ReptileHouse([habitat,habitat-2],1)	IllegalArgumentException
Constructor disallows length of array < 1	ReptileHouse([],2)	IllegalArgumentException

ReptileHouseInterface rHouse = new ReptileHouse([habitat],2)