

Object Oriented Programming Exercise

Define a class that represents a Pet.

Unit tests should be written to test all methods including standard methods.

Attributes:

Attribute	Definition / Description	Notes / Comments
Name	Name of the pet	
Type	Type of pet	Dog, Cat, Bird, Mouse, Snake, Hamster
Primary Color	Color most prominent of pet	Null if unknown
Secondary Color	Second most prominent color of pet	Null if unknown
Gender	Gender of the animal	Female, Male, null (if unknown)
Date Of Birth	Pet's date of birth	mm/dd/yyyy ; null (if unknown)
Weight	Weight of Pet	In pounds with one decimal place
Spayed?	Whether Pet has been spayed or neutered	Null if unknown
Typical Sound	Typical sound animal makes	Dog: Arf! Arf! Arf!! Cat: Purr! Purr! Purr! Bird: Tweet! Tweet! Any other: null
Feeding Interval	Maximum time to pass between feeding	In hours; default 8; must be between 1 and 12
When last fed	Most recent time Pet was fed	mm/dd/yyyy hh:mm - null if in known
Watering Interval	Maximum time to pass between drinking water	In hours; default 4; must be between 1 and 8
When last given water	Most recent time Pet has drunk some water	mm/dd/yyyy hh:mm - null if unknown

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Behaviors:

Behavior	Definition / Description	Notes / Comments
MakeSound()	Returns typical sound made by Pet	
Feed()	Feed pet	Update most recent feeding time
Drink()	Give pet water	Update most recent drank water time
NourishmentCheck()	Return hunger and thirsty status based on current time and feeding and watering interval	Return true if pet has been fed and watered within the feeding and watering interval; Return false if pet has not been fed or watered within the feeding and watering interval.
NourishmentCheck("Fed")	Return hunger status based on current time and feeding interval	Return true if pet has been fed within the feeding interval; Return false if pet has not been fed within the feeding interval.
NourishmentCheck("Drank")	Return thirsty status based on current time and watering interval	Return true if pet has been given water within the drinking interval; Return false if pet has not been given water within the watering interval.
GetAge	Return the age of the Pet based on the current date and Pet birth date	Whole number value rounded
Standard Methods	Getters, setters, appropriate constructors, equals(), toString()	Appropriate constructors are one required based on the class designers expected use of their class. toString() should return a ready to display String containing all attributes of the in a Human understandable form. I.e "unknown" instead of null; "Spayed" or "Not Spayed" instead of true/false or yes/n