

Konzept: OLD MAC DONALD'S FARM

- INHERITANCE

* Animals : species: string / sound: string / food: string /
special Action: string / amount Per Day: number

↳ constructor (- species, - sound, - food, - special Action,
- amount Per Day) {

sing(): void

eat(): number

doSpecialAction(): void

* = superclass

= subclass: "export,..."

pig
← smellLevel: number
get Muddy(): void

horse
← jumpOver Fence(): void

dog
← fetch Stick(): void

chicken
lay Egg(): void

~~sheep~~ donkey
ran Away: number;
climbs On Tree(): void

cow
gives Milk(): void

cat
catch Mouse(): void

constructor | -species, -sound, -food,
-specialAction, -amountPerDay,
-animal



set this animal to -animal



set this species to -species



set this sound to -sound



set this food to -food



set this specialAction to -specialAction



set this amountPerDay to -amountPerDay



Sing



```
console.log(this animal + "Old MacDon..."  
"... his farm he had some" + this.species  
"s E i e i oh..." with  
a " + this.sound + " " + this.sound +  
"here And a" + this.sound * 2 + "there,  
Here a" + this.sound * 4 + "there a" + this.  
sound + "Everywhere a" + this.sound +  
" " + this.sound + "Old MacDon..."
```



eat



console.log("Food type: " + this.food)



console.log("The " + this.species + " ate " + this.amountPerDay + "kg today.")



let remainingFood: number = foodAmount[food] - this.amountPerDay



console.log("Remainings" + this.food + ": " + remainingFood + "kg")



Req.:

special Action
Fetch Stick();



console.log("special action of the: " + this.species)



console.log("The dog goes to fetch a stick. Upon return, it wags it's tail at the speed of " + this.tailWagSpeed + "km/h.")



main



create foodAmount as array of
[key: string, value: number] - pairs
(e.g. {key: "hay", value: 12})



let animals: Animal[] = [];



let cow: Animal = new Cow("cow",
"moo", "grass", 20); push into animals
array: repeat for left over animals



let i: number = 0;

i++



[i < animals.length]



this[i].sing();
this[i].eat();
this[i].doSpecialAction();