

In Zusammenarbeit:
• Anna-Dena Jörger
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Old MacDonald's Heritage: Use-Case-Diagram & UI-Sketch



System

Animal are singing song "old MacDonald" with their typical sounds

Animal is eating and remaining is displayed

Animals are performing special action

<h1>

Old MacDonald's Farm

DAY: 1

ANIMAL: Cow Benita

<h2>

SONG:

old MacDonald had
a farm...
Cow Benita eats...

<div>

<rp>

STOCK:

Old MacDonald has... kg grass left
Old MacDonald has... kg meat left

Next Day

<click>

<button>

<div>

Old MacDonald's Heritage: Class Diagram

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Animal

name: String;
food: Number;
sound: String;

constructor (-name: string,
-food: number, -sound: string)

eat(): void;

sing(): void;

Cow

Chicken

Pig

doSpecialAction(): void

doSpecialAction(): void

Dog

Alpaca

doSpecialAction(): void

doSpecialAction(): void

Old MacDonald's Heritage: Activity Diagram

Farm

main

```

Counter: number = 0;
let stockAmount: Stock[] =
let maxGrass: number = 100;
let maxMeat: number = 20;
let maxCompost: number = 60;
let maxGrains: number = 20;
let day: number = 1;
let specialAction: HTMLElement;

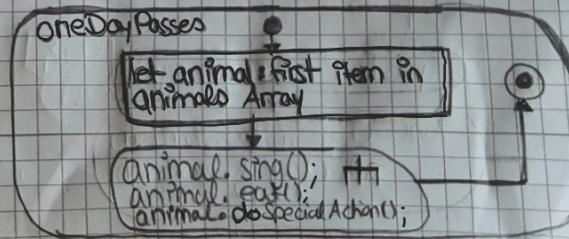
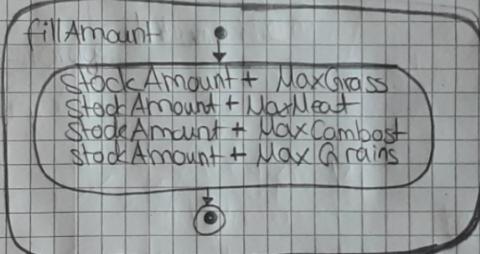
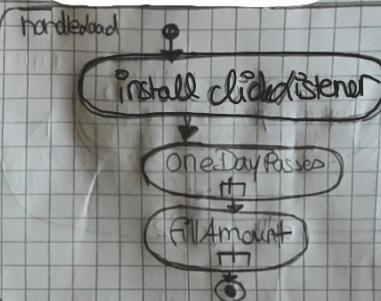
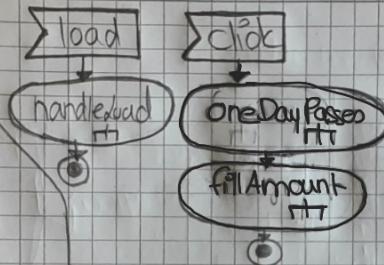
```

```

let animals: Animal[] = [];
let chicken: Chicken = new Chicken("Berta", "grains", "gack", "1kg");
let cow: Cow = new Cow("Benita", "grass", "muuh", "10kg");
let pig: Pig = new Pig("Pragy", "compost", "oink", "5kg");
let dog: Dog = new Dog("Rex", "meat", "woof", "2kg");
let alpaca: Alpaca = new Alpaca("Inka", "grass", "mumh", "4kg");

```

push chicken, cow, pig, dog
and alpaca in animals array



Animal

constructor

```

name: String;
food: number;
sound: string;
specialAction: string;

```

```

this.name = name;
this.food = food;
this.sound = sound;
this.specialAction = specialAction;

```

sing

Create new div-Element and set class of div-Element to Song

set innerHTML of div to:

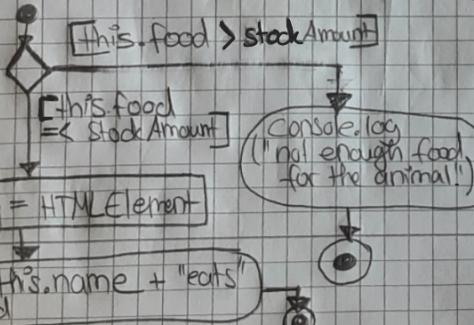
```

<p>"old MacDonald had a farm<br>
" Ee i ee i oh !<br>
" And on his farm he had "<br>
+ this.name<br>
" Ee i ee i oh !<br>
" With a " + this.sound + "-" +<br>
this.sound + here<br>
" And a " + this.sound + "-" + this.sound +<br>
+ there<br>
" Tere a " + this.sound + "-" +<br>
this.sound<br>
" Everywhere a " + this.sound + "-" +<br>
+ this.sound<br>
" And " + this.specialAction<br>
" Old MacDonald had a farm "<br>
" Ee i ee i oh !</p>

```

append div to body

eat



$this.food > stockAmount$

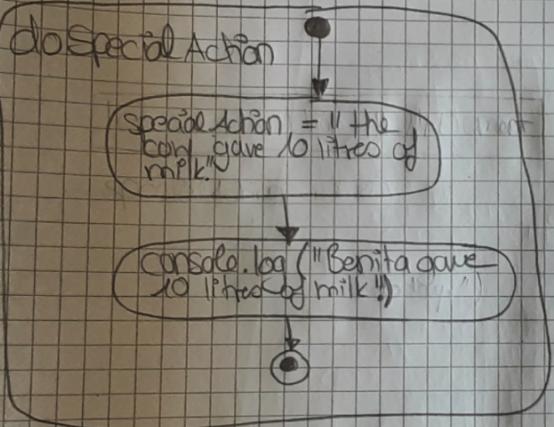
$this.food < stockAmount$

Console.log
("not enough food
for the animal!")

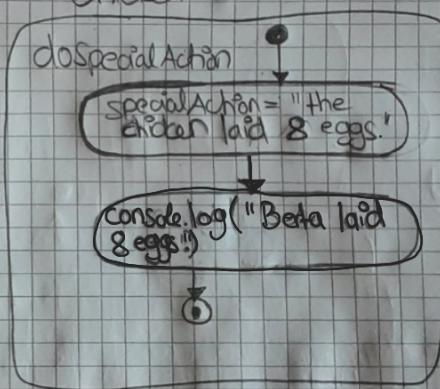
let eating = HTMLElement

eating = this.name + " eats"
+ food

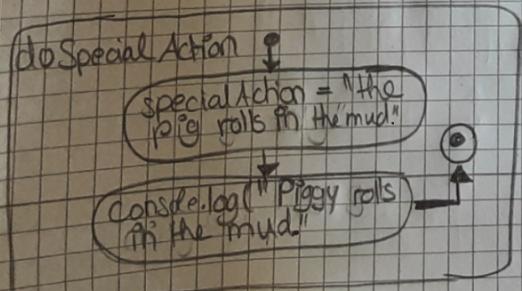
Cow



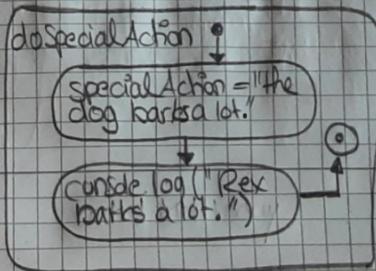
Chicken



Pig



Dog



Alpaca

