# **YakShop**

## **Problem Statement**

* Your task is to help a Yak shepherd to manage their stocks. Stocks are goods that Yaks can produce (wool and milk).
* **The solution is to be implemented in NodeJS**
* **No frontend is required for this task**
* **Also you need to document the HTTP endpoints.**
* We know the following about Yaks
  + Each day a female yak produces 50-D\*0.03 liters of milk (D = age in days).
  + At most every 8+D\*0.01 days you can again shave a yak (D = age in days).
  + A yak year consists of 100 days
  + A yak can be first shaved when he is 1 year old
  + A yak dies the day he turns 10 year old

## **Assumptions**

* The moment you open up the YakShop webshop will be day 0, and all yaks are eligible to be shaved
* Each morning the shepherd milks and shaves his yaks. Yaks which aren’t eligible to be shaven on the exact day, cannot be shaved today.
* **Example: A yak who started out on day 0 as 4 years, can be shaved again on day 13.**
* **Input JSON from file:**

**{**

**"herd": [**

**{**

**"name": "Betty-1",**

**"age": 4,**

**"sex": "f"**

**},**

**{**

**"name": "Betty-2",**

**"age": 8,**

**"sex": "f"**

**},**

**{**

**"name": "Betty-3",**

**"age": 9.5,**

**"sex": "f"**

**}**

**]**

**}**

* 1. **The age is given in standard Yak years**
  2. **Your program should take 1 parameter**
     1. **The JSON file to read and then start a web server**

## **Endpoints and Examples**

### **As a Yak Shepherd I want to be able to query my herd and my current stock using Http REST services which output JSON data**

* The following are the requests you wish to make.
  + 1. **GET** **/yak-shop/stock/T** Which returns a view of your stock after T days
    2. **GET /yak-shop/herd/T** Which returns a view of your herd after T days

### **Sample Responses**

* 1. **Request:** **GET /yak-shop/stock/13**
  2. **Response:**

**{**

**"milk": 1104.48,**

**"skins": 3**

**}**

* 1. **Request:** **GET /yak-shop/herd/13**
  2. **Response:**

**{**

**"herd": [**

**{**

**"name": "Betty-1",**

**"age": 4.13,**

**"age-last-shaved": 4.0**

**},**

**{**

**"name": "Betty-2",**

**"age": 8.13,**

**"age-last-shaved": 8.0**

**},**

**{**

**"name": "Betty-3",**

**"age": 9.63,**

**"age-last-shaved": 9.5**

**}**

**]**

}