Smart Hike

As you are training for an ambitious goal – to hike all mountains in the country, you need a program to track your progress and records.

Smart Hike Class

```
class SmartHike {
   //TODO: implement this class
```

Implement a class SmartHike, which supports the functionality described below.

Functionality

Constructor

The constructor has 4 properties:

- username a string
- goals an empty object
- listOfHikes an empty array
- resources 100

At the initialization of the SmartHike class, the constructor accepts only the username!

The **goals** property is an **object**, representing a key-value pair of a peak's name and its altitude.

Methods

addGoal (peak, altitude)

This method adds a new goal to the goals object. The method accepts 2 arguments:

- peak a string
- altitude a number

If the goal exists in the goals object, return the following message:

```
`${peak} has already been added to your goals`
```

Otherwise, add the new goal to the goals object and return the following message:

`You have successfully added a new goal - \${peak}`

















hike (peak, time, difficultyLevel)

Accept 3 arguments:

peak - a string

time – a number

difficultyLevel - "hard" or "easy"

If the peak doesn't exist in the goals object, **throw new Error**:

`\${peak} is not in your current goals`

If the peak exists in the goals object but the resources are already 0, throw new Error:

"You don't have enough resources to start the hike"

Afterwards, find the difference between the current resources and the time, multiplied by 10. If the difference is a negative number, return the following message:

"You don't have enough resources to complete the hike"

Otherwise extract the used resources from all resources and add the hike to the **list of hikes** in the following format: { peak, time, difficultyLevel }

Return the following message:

`You hiked \${peak} peak for \${time} hours and you have \${resources}% resources left` rest (time)

Accept 1 argument:

time - a number

Add the time for rest multiplied by 10 to the resources.

If the resources are more than or equal to 100, set them to 100 and return the following message:

`Your resources are fully recharged. Time for hiking!`

Otherwise, return the following message:

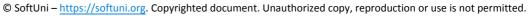
`You have rested for \${time} hours and gained \${time*10}% resources`

showRecord (criteria)

Accept 1 argument:

• criteria - a string





















This method **returns information** based on the criteria. The three possible types of criteria are: **"hard"**, **"easy"**, **"all"**.

If the **list of hikes is empty**, return the following message:

```
`${username} has not done any hiking yet`
```

Find all hikes from the **list of hikes** depending on the given criterion **"hard" or "easy"** and find the best hike - the hike with the shortest time. If there are more than one hike with the same amount of time, list the **first** one added in the **list of hikes**.

Return the following message:

```
`${username}'s best ${criteria} hike is ${peak} peak, for ${time} hours`

If there is no hike with the given difficulty level, return:
```

```
`${username} has not done any ${criteria} hiking yet`
```

If the criterion is "all", return all hikes from the list of hikes array in following format:

• On first line show the following message:

```
"All hiking records:"
```

On the following lines, display information about each hike:

```
`${username} hiked ${peak} for ${time} hours`
```

Examples

```
Input 1

const user = new SmartHike('Vili');
console.log(user.addGoal('Musala', 2925));
console.log(user.addGoal('Rui', 1706));
console.log(user.addGoal('Musala', 2925));
```

```
Output 1

You have successfully added a new goal - Musala

You have successfully added a new goal - Rui

Musala has already been added to your goals
```











Input 2 const user = new SmartHike('Vili'); console.log(user.addGoal('Musala', 2925)); console.log(user.addGoal('Rui', 1706)); console.log(user.hike('Musala', 8, 'hard')); console.log(user.hike('Rui', 3, 'easy')); console.log(user.hike('Everest', 12, 'hard'));

```
Output 2

You have successfully added a new goal - Musala

You have successfully added a new goal - Rui

You hiked Musala peak for 8 hours and you have 20% resources left

You don't have enough resources to complete the hike

Uncaught Error: Everest is not in your current goals
```

```
Input 3

const user = new SmartHike('Vili');
console.log(user.addGoal('Musala', 2925));
console.log(user.hike('Musala', 8, 'hard'));
console.log(user.rest(4));
console.log(user.rest(5));
```

```
Output 3

You have successfully added a new goal - Musala
```



```
You hiked Musala peak for 8 hours and you have 20% resources left
You have rested for 4 hours and gained 40% resources
Your resources are fully recharged. Time for hiking!
```

```
Input 4
const user = new SmartHike('Vili');
console.log(user.showRecord('all'));
```

```
Output 4
Vili has not done any hiking yet
```

```
Input 5
const user = new SmartHike('Vili');
user.addGoal('Musala', 2925);
user.hike('Musala', 8, 'hard');
console.log(user.showRecord('easy'));
user.addGoal('Vihren', 2914);
user.hike('Vihren', 4, 'hard');
console.log(user.showRecord('hard'));
user.addGoal('Rui', 1706);
user.hike('Rui', 3, 'easy');
console.log(user.showRecord('all'));
```

```
Output 5
```

Vili has not done any easy hiking yet

Vili's best hard hike is Musala peak, for 8 hours



















