

Problem 2. Summer camp

```
class SummerCamp {  
|   //TODO: implement this class  
}
```

Write a **class Summer camp**, which supports the described functionality below.

Functionality

Constructor

Should have these **4** properties:

- **organizer** - **string**
- **location** - **string**
- **priceForTheCamp** - {"child": 150, "student": 300, "collegian": 500}
- **listOfParticipants** - empty array

At the **initialization** of the **SummerCamp** class, the **constructor** accepts the **organizer** and **location**.

The **priceForTheCamp** is an **object**, the **submitted values** are by **default** and represent the price for the stay in the camp depending on the **condition** of the participant (**"child"**, **"student"**, **"collegian"**).

registerParticipant (name, condition, money)

This method register participant to the camping. The method accepts 3 arguments:

- **name** (**string**);
- **condition** (**string**);
- **money** (**number**);
- If the given **condition** of participants, is not present in **priceForTheCamp** object with the specified default values (**"child"**, **"student"**, **"collegian"**), an error with the following message should be **thrown**:

"Unsuccessful registration at the camp."

- If the **name** of the current participant is already present in **listOfParticipants** array, **return** the following message:

`The {name} is already registered at the camp.`

- If the submitted **money** is less than the **price** for the stay in the camp (the **price** is determined by the **priceForTheCamp** object, depending on the **condition** of the participant), **return** the following message:
``The money is not enough to pay the stay at the camp.``
- Otherwise, should **add** the participant, with properties: **{name, condition, power: default 100, wins: default 0}** to the **listOfParticipants** array and **return**:
``The {name} was successfully registered.``

unregisterParticipant (name)

This method removes a participant from the camping. The method accepts 1 argument:

- **name (string);**
- If the **name** of the current participant is not present in **listOfParticipants** array, an error with the following message should be **thrown**:
``The {name} is not registered in the camp.``
- **Otherwise**, this function should **remove** the participant from the **listOfParticipants** array and **return**:
``The {name} removed successfully.``

timeToPlay (typeOfGame, participant1, participant2)

Method can take 2 or 3 arguments depending on the type of game:

- **typeOfGame (string);**
- **participant1 - name(string);**
- **participant2 - name(string) - optional;**
- There are two possible types of games:
 - **WaterBalloonFights** -> you will get **two** players.
 Example -> `timeToPlay ("WaterBalloonFights", "Petar", "John")`
Note: The **condition** of the participants must match (Example: "Petar" - "child" and "John" - "child")
 - **Battleship** -> you will get **one** player.
 Example -> `timeToPlay ("Battleship", "Petar")`

- If any of the submitted participants **names** are not present in **listOfParticipants** array, an error with the following message should be **thrown**:

``Invalid entered name/s.``

- If two names are submitted, check that the participants' **condition** matches, if not matched, an error with the following message should be **thrown**:

``Choose players with equal condition.``

- If the type of game is **Battleship** increase the **power** property of the **participant** by a **value** of **20**, and **return** the message:

``The {name} successfully completed the game {typeOfGame}.``

- If the type of game is **WaterBalloonFights**, you must check whether the value of the **power** of one participant is **greater** than the value of the **power** of the **other** participant, and in this case increase the value of the **wins** property **by one** per **winner** (with the **bigger power**), and **return** the following message:

``The {name} is winner in the game {typeOfGame}.``

Note: The **{name}** is the name of the winner in this game.

- Otherwise, the function **returns** the message:

``There is no winner.``

toString ()

- At the first line return:

``{organizer} will take {numberOfParticipants} participants on camping to {location}``

- On the lines, display information about each **participant**, **sorted** in **descending** order by their **wins** in the following format:

``{name} - {condition} - {power} - {wins}``

Examples

Input 1

```
const summerCamp = new SummerCamp("Jane Austen", "Pancharevo Sofia 1137, Bulgaria");
console.log(summerCamp.registerParticipant("Petar Petarson", "student", 200));
console.log(summerCamp.registerParticipant("Petar Petarson", "student", 300));
console.log(summerCamp.registerParticipant("Petar Petarson", "student", 300));
console.log(summerCamp.registerParticipant("Leila Wolfe", "child", 200));
```

Output 1

The money is not enough to pay the stay at the camp.
The Petar Petarson was successfully registered.
The Petar Petarson is already registered at the camp.
Uncaught Error: Unsuccessful registration at the camp.

Input 2

```
const summerCamp = new SummerCamp("Jane Austen", "Pancharevo Sofia 1137, Bulgaria");
console.log(summerCamp.registerParticipant("Petar Petarson", "student", 300));
console.log(summerCamp.unregisterParticipant("Petar"));
console.log(summerCamp.unregisterParticipant("Petar Petarson"));
```

Output 2

The Petar Petarson was successfully registered.
Uncaught Error: The Petar is not registered in the camp.
The Petar Petarson removed successfully.

Input 3

```
const summerCamp = new SummerCamp("Jane Austen", "Pancharevo Sofia 1137, Bulgaria");
console.log(summerCamp.registerParticipant("Petar Petarson", "student", 300));
console.log(summerCamp.timeToPlay("Battleship", "Petar Petarson"));
console.log(summerCamp.registerParticipant("Sara Dickinson", "child", 200));
console.log(summerCamp.timeToPlay("WaterBalloonFights", "Petar Petarson", "Sara Dickinson"));
console.log(summerCamp.registerParticipant("Dimitur Kostov", "student", 300));
console.log(summerCamp.timeToPlay("WaterBalloonFights", "Petar Petarson", "Dimitur Kostov"));
```

Output 3

The Petar Petarson was successfully registered.
The Petar Petarson successfully completed the game Battleship.
The Sara Dickinson was successfully registered.
Uncaught Error: Choose players with equal condition.
The Dimitur Kostov was successfully registered.
The Petar Petarson is winner in the game WaterBalloonFights.

Input 4

```
const summerCamp = new SummerCamp("Jane Austen", "Pancharevo Sofia 1137, Bulgaria");  
console.log(summerCamp.registerParticipant("Petar Petarson", "student", 300));  
console.log(summerCamp.timeToPlay("Battleship", "Petar Petarson"));  
console.log(summerCamp.registerParticipant("Sara Dickinson", "child", 200));  
console.log(summerCamp.timeToPlay("WaterBalloonFights", "Petar Petarson", "Sara Dickinson"));  
console.log(summerCamp.registerParticipant("Dimitur Kostov", "student", 300));  
console.log(summerCamp.timeToPlay("WaterBalloonFights", "Petar Petarson", "Dimitur Kostov"));  
  
console.log(summerCamp.toString());
```

Output 4

The Petar Petarson was successfully registered.
The Petar Petarson successfully completed the game Battleship.
The Sara Dickinson was successfully registered.
Uncaught Error: Choose players with equal condition.
The Dimitur Kostov was successfully registered.
The Petar Petarson is winner in the game WaterBalloonFights.
Jane Austen will take 3 participants on camping to Pancharevo Sofia 1137, Bulgaria
Petar Petarson - student - 120 - 1
Sara Dickinson - child - 100 - 0
Dimitur Kostov - student - 100 - 0