## Problem 2. Art Gallery

Write a **class Art Gallery**, which supports the described functionality below.

**Functionality**

**Constructor**

Should have these **4** properties:

* **creator - string**
* **possibleArticles - { "picture":200,"photo":50,"item":250 }**
* **listOfArticles - empty array**
* **guests - empty array**

**At the initialization** of the **ArtGallery** class, the **constructor** accepts only the **creator!**

The **possibleArticles** is an **object**, and the **submitted values** are **by default** and represent the **available article models** **("picture", "photo", "item")**, whichwill be displayed in the gallery and the necessary points for purchasing a specific article.

**Methods**

**addArticle( articleModel, articleName, quantity )**

This method adds article to the art gallery. Methodaccepts 3 arguments:

* **articleModel (string)**;
* **articleName (string);**
* **quantity (number)**;
* If the **articleModel**, is not present in **possibleArticles** object with specified default models, an error with the following message should be thrown:

**"This article model is not included in this gallery!"**

**Note** that the resulting **articleModel** argument can be submitted in both **lowercase and uppercase letters** and will **be correct**, and no error should be thrown see the **example below**:

**articleModel - ("picture") ->correct**

**articleModel - ("Picture") ->correct**

**articleModel - ("PICTURE") ->correct**

* If the **articleName** already exists in **listOfArticles array** andthe **articleModel is the same** just add the new quantity to the old one.
* Otherwise, should **add** the **articleModel, articleName, quantity** to **listOfArticles** arrayinfollowing **format**: **{articleModel, articleName, quantity}.** The **articleModel** must be **toLowerCase().**
* **And finally**, return the following message**:**

**"Successfully added article {articleName} with a new quantity- {quantity}."**

**inviteGuest ( guestName, personality)**

Accept 2 arguments: **guestName (string), personality (string)**

* If the **guestName** is already present in the **guests array**, throw a new error:

**"{guestName} has already been invited."**

* Otherwise, **create a new record** in the **guests array** in **following format: {guestName, points, purchaseArticle: default 0}.** Where the **points** are the **points that the guest has.** With them he can buy an article. They are **determined depending on personality** (see the table below).

**Example- (**"**Ivan**"**,** "**Vip**"**)** -> **the points are 500 [** If you get a **personality** that is **not present in the table below**, **put 50 points (**"**Petar**"**,** "**Normal**"**)->50 points)];**

**The property purchaseArticle** will record the number of **customer purchases, initially** at the invitation of the guest **the value is zero**.

* Finally, return the message:

**"You have successfully invited {guestName}!"**

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| --- | --- |
| **Personality** | **Point** |
| **"Vip"** | **500** |
| **"Middle"** | **250** |

**buyArticle ( articleModel, articleName, guestName)**

Accept 3 arguments: **articleModel (string)**, **articleName (string)** and **guestName (string)**

* If the **articleName** is not found **in listOfArticles array or** the **articleModel doesn’t match**, throw a new error:

**"This article is not found."**

* If the **quantity** of the current **article is equal to 0,** return message:

**"The {articleName}** **is not available."**

* If the **guestName** is not present in the **guests array,** return message:

**"This guest is not invited."**

* Otherwise, you need to check if the **guest has the required number** of **points** to purchase the article. (The necessary points of the article are determined by the model in **possibleArticles array**)
  + If the **points** are **not enough to buy an article**, return the following message:

**"You need to more points to purchase the article."**

* + If **they are enough**, you need to **reduce the current points of the guest** by according to the points of model article in **possibleArticles array,** **reduce the quantity** of the current article and **increase the number of purchases** of the guest.
* Finally, return message:

**"{guestName} successfully purchased the article worth {articlePoint} points."**

The **articlePoint** is the value at which the article was purchased.

**showGalleryInfo (criteria)**

Accept 1 argument-**criteria.** This method **return gallery information** based on the criteria. Possible values for the **criterion** are two types:

* If the criterion is-**"article"-** then you need to **return** all the information about the articles saved in **listOfArticle** array in following format:
* On first line show the following message:

**"Articles information:"**

* On the lines, display information about each article:

**{articleModel} - {articleName} - {quantity}**

* If the criterion is-**"guest"-** then you need to **return** all the information about the guests saved in **guest** array in following format:
  + On first line show the following message:

**"Guests information:"**

* + On the lines, display information about each guest:

**{guestName} - {purchaseArticle}**

**Examples**

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| **Input 1** |
| **const *artGallery*** = **new** ArtGallery(**'Curtis Mayfield'**); ***console***.log(***artGallery*.addArticle**(**'picture', 'Mona Liza', 3**));  ***console***.log(***artGallery*.addArticle**(**'Item', 'Ancient vase', 2**));  ***console***.log(***artGallery*.addArticle**(**'PICTURE', 'Mona Liza', 1**)); |

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| **Output 1** |
| Successfully added article Mona Liza with a new quantity- 3.  Successfully added article Ancient vase with a new quantity- 2.  Successfully added article Mona Liza with a new quantity- 1. |

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| --- |
| **Input 2** |
| **const *artGallery*** = **new** ArtGallery(**'Curtis Mayfield'**); ***console***.log(***artGallery*.inviteGuest**(**'John', 'Vip'**));  ***console***.log(***artGallery*.inviteGuest**(**'Peter', 'Middle'**));  ***console***.log(***artGallery*.inviteGuest**(**'John', 'Middle'**)); |

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| --- |
| **Output 2** |
| You have successfully invited John!  You have successfully invited Peter!  John has already been invited. |

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| --- |
| **Input 3** |
| **const *artGallery*** = **new** ArtGallery(**'Curtis Mayfield'**);  ***artGallery*.addArticle**(**'picture', 'Mona Liza', 3**);  ***artGallery*.addArticle**(**'Item', 'Ancient vase', 2**);  ***artGallery*.addArticle**(**'picture', 'Mona Liza', 1**);  ***artGallery*.inviteGuest**(**'John', 'Vip'**);  ***artGallery*.inviteGuest**(**'Peter', 'Middle'**); ***console***.log(***artGallery*.buyArticle**(**'picture', 'Mona Liza', 'John'**));  ***console***.log(***artGallery*.buyArticle**(**'item', 'Ancient vase', 'Peter'**));  ***console***.log(***artGallery*.buyArticle**(**'item', 'Mona Liza', 'John'**)); |

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| **Output 3** |
| John successfully purchased the article worth 200 points.  Peter successfully purchased the article worth 250 points.  This article is not found. |

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| --- |
| **Input 4** |
| **const *artGallery*** = **new** ArtGallery(**'Curtis Mayfield'**);  ***artGallery*.addArticle**(**'picture', 'Mona Liza', 3**);  ***artGallery*.addArticle**(**'Item', 'Ancient vase', 2**);  ***artGallery*.addArticle**(**'picture', 'Mona Liza', 1**);  ***artGallery*.inviteGuest**(**'John', 'Vip'**);  ***artGallery*.inviteGuest**(**'Peter', 'Middle'**); ***artGallery*.buyArticle**(**'picture', 'Mona Liza', 'John'**);  ***artGallery*.buyArticle**(**'item', 'Ancient vase', 'Peter'**);  ***console***.log(***artGallery*.showGalleryInfo**(**'article'**));  ***console***.log(***artGallery*.showGalleryInfo**(**'guest'**)); |

|  |
| --- |
| **Output 4** |
| Articles information:  picture - Mona Liza - 3  item - Ancient vase - 1  Guests information:  John - 1  Peter - 1 |

class ArtGallery {

    constructor(creator) {

        this.creator = creator;

        this.possibleArticles = {

            picture: 200,

            photo: 50,

            item: 250,

        };

        this.listOfArticles = [];

        this.guests = [];

    }

    addArticle(articleModel, articleName, quantity) {

        let articleModelToLower = articleModel.toLowerCase();

        if (!this.possibleArticles[articleModelToLower]) {

            throw new Error('This article model is not included in this gallery!');

        }

        let article = {

            articleModel,

            articleName,

            quantity,

        }

        let existsArticle = this.listOfArticles.find(x => x.articleName === article.articleName && x.articleModel === article.articleModel);

        if (existsArticle) {

            existsArticle.quantity += quantity;

            return `Successfully added article ${articleName} with a new quantity- ${existsArticle.quantity}.`

        } else {

            this.listOfArticles.push(article);

            return `Successfully added article ${articleName} with a new quantity- ${quantity}.`

        }

    }

    inviteGuest ( guestName, personality) {

        if (this.guests.includes(guestName)) {

            throw new Error(`${guestName} has already been invited.`)

        }

        if (personality==='Vip') {

            let guest = {

                guestName: guestName,

                points: 500,

                purchaseArticle: 0,

            }

            this.guests.push(guest);

        } else if (personality==='Middle') {

            let guest = {

                guestName: guestName,

                points: 250,

                purchaseArticle: 0,

            }

            this.guests.push(guest);

        } else {

            let guest = {

                guestName: guestName,

                points: 50,

                purchaseArticle: 0,

            }

            this.guests.push(guest);

        }

        return `You have successfully invited ${guestName}!`

    }

}

const artGallery = new ArtGallery('Curtis Mayfield');

console.log(artGallery.addArticle('picture', 'Mona Liza', 3));

console.log(artGallery.addArticle('Item', 'Ancient vase', 2));

console.log(artGallery.addArticle('PICTURE', 'Mona Liza', 1));

console.log(artGallery.inviteGuest('John', 'Vip'));

console.log(artGallery.inviteGuest('Peter', 'Middle'));

console.log(artGallery.inviteGuest('John', 'Middle'));