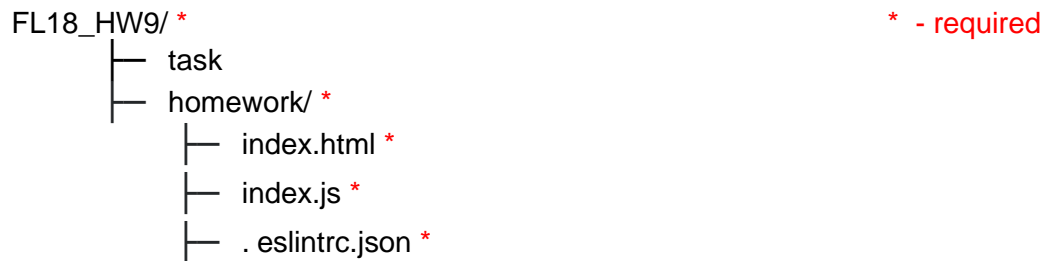


JS Patterns

DEADLINE: 12/02/2022

FOLDER STRUCTURE



TASK

You should create a tool to manage magazines.

1. Magazine
 - a. A magazine should have possible 4 states: "ReadyForPushNotification", "ReadyForApprove", "ReadyForPublish", "PublishInProgress".
 - b. Default state is "ReadyForPushNotification"
 - c. a magazine will have staff, a list of articles for followers, and a list of followers.
2. Staff
 - a. Should be at least one manager
 - b. Only the manager can approve notifications
 - c. Other employees can have different types. For instance, they can be responsible for "sport", "info", etc. Only they can add articles.
 - d. Once the number of articles reached at least 5, the magazine's state becomes "ReadyForApprove" and a manager can approve the articles
 - e. After approval, the magazine's state will become "ReadyForPublish", and each employee can publish the changes
 - f. Once changes were published, the state becomes "PublishInProgress", and Followers will receive notifications from a magazine
 - g. In 60 seconds the state will become again as default, and we will return to the start
3. Followers
 - a. A follower should have a possibility to subscribe to the magazine and choose a topic (i.e. 'sport', 'info'), the topic might be the same as types of employee (see 2.c)
 - b. A follower should have the possibility to unsubscribe from the changes

- c. For each object that represents a follower `onUpdate(data)` method should be present, where for `data` will be passed text of the notification.
- 4. For each magazine's state we will have different validations for method `approve` and `publish` (of course only if the employee has permissions to do it, otherwise in console should be `you do not have permissions to do it`)
 - a. "ReadyForPushNotification"
 - i. Publish: `Hello ${name}. You can't publish. We are creating publications now.`
 - ii. Approve: `Hello ${name}. You can't approve. We don't have enough of publications.`
 - b. "ReadyForApprove"
 - i. Publish: `Hello ${name} You can't publish. We don't have a manager's approval.`
 - ii. Approve: no validation, only `Hello ${name} You've approved the changes` in the console, and state must be changed
 - c. "ReadyForPublish"
 - i. Publish: no validation, only `Hello ${name} You've recently published publications.` in the console and state must be changed
 - ii. Approve: `Hello ${name} Publications have been already approved by you.`
 - d. "PublishInProgress"
 - i. Publish: `Hello ${name}. While we are publishing we can't do any actions.`
 - ii. Approve: `Hello ${name}. While we are publishing we can't do any actions`

USAGE:

```
const magazine = new Magazine();
const manager = new MagazineEmployee('Andrii', 'manager', magazine);
const sport = new MagazineEmployee('Serhii', 'sport', magazine);
const politics = new MagazineEmployee('Volodymyr', 'politics', magazine);
const general = new MagazineEmployee('Olha', 'general', magazine);

const iryna = new Follower('Iryna');
const maksym = new Follower('Maksym');
const mariya = new Follower('Mariya');

iryna.subscribeTo(magazine, 'sport');
maksym.subscribeTo(magazine, 'politics');
mariya.subscribeTo(magazine, 'politics');
mariya.subscribeTo(magazine, 'general');
```

```

sport.addArticle('something about sport');
politics.addArticle('something about politics');
general.addArticle('some general information');
politics.addArticle('something about politics again');
sport.approve() //you do not have permissions to do it
manager.approve();//Hello Andrii. You can't approve. We don't have enough of publications
politics.publish(); //Hello Volodymyr. You can't publish. We are creating publications now.
sport.addArticle('news about sport');
manager.approve(); //Hello Andrii. You've approved the changes
sport.publish(); //Hello Serhii. You've recently published publications.

/*
something about sport Iryna
news about sport Iryna
something about politics Maksym
something about politics Mariya
something about politics again Maksym
something about politics again Mariya
some general information Mariya
*/
manager.approve('news about sport'); //Hello Andrii. While we are publishing we can't do any actions

```

HINTS:

- Use [State design pattern](#) to manage magazine's states
- Use [Observer \(PubSub\) pattern](#) for notification part
- Don't need to implement any UI changes, everything can be tested in the console

RESTRICTIONS

- Adding **task/** folder is forbidden. Do not push it to repository. (Only **homework/** folder should be pushed)
- Do not use any external libraries

BEFORE SUBMIT

- Code should be clean, without comments, readable, and tested



- Make sure your GitLab folder structure meets folder structure from this document (without **task** folder)
- Use linter :
 - In order to use npm package manager you should install nodejs (<https://nodejs.org/>)
 - Install eslint to check your code (npm install -g eslint)
 - open a terminal (or cmd)
 - run eslint (i.e. eslint ./js/task1.js)

Code should be without 'errors'

SUBMIT

- The **FL18_HW9** folder without **task** folder should be uploaded to GitLab repository "**FL-18**" into **main** branch.