TITLE - HOMEWORK DISTRIBUTION AND SUBMISSION

TEAM MEMBERS

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ABSTRACT

In many of the developing countries like India, school students maintain the homework notebook, where students note their homework on daily basis. In such process the students could miss the submissions for not writing their homework properly and may miss the due dates. In addition, there are chances that some kids may not write anything in the homework notebook where parents are not aware of such homework. Such incidents not only affect the student grades but also may lag in academics. With student homework- notifier application we can digitalize the process by allowing the teachers/parents to follow up with students to complete the homework on time without any confusions. The aim of the project is to prepare a website application/android notifier for school students to distribute and notify the homework. The application makes the parents and students to access the homework easily from any place and time which avoids bookkeeping of the homework. Once the teacher posts homework, the parents/students should get the notification about the homework and parents should be able to update the status of the homework back in Application. So, this application allows parents/students to get the notification about their children homework where they can follow up on their kids in getting it completed.

EXISTING APPROACH

The students will maintain a separate homework paper book for each academic year. The students must carry that book every day to note all the Homework's which are given by each of his/her teacher. So, there are chances that students might not note the homework properly which causes the problem to complete the homework and may lag in academics. In some cases, if the student notes the homework incorrectly, he/she might not be able to complete it.

ALTERNATIVE APPROACH

Other approaches with which the homework can be distributed

1. Using Google Docs, teacher can share the google documents with students or their parents and notify them.
2. The other Approach we can visualize is that the teacher can share the homework using the social messenger networks like whatsapp or direct email.

CHOOSEN APPROACH & JUSTIFICATION

We have opted to build an application which distributes the homework to students and keeps track of all the homework's for a given course. With this approach we are eliminating the traditional way of homework distribution using a paper book thereby we overcome the problems associated with it. Additionally, the application allows the students to submit the homework on the platform and generates the notification for students when the new homework is uploaded for a course.

The platform will have following advantages over existing and alternative approaches.

1. Eliminates the paper-based homework book. [fun fact: eliminating use of books saves paper and paper saves tree and reduces global warming 😊]
2. Use of google docs will generate the multiple to and fro email every time a document is shared, teacher will be end up receiving many emails every time the student share back the submissions. If the teacher is taking courses to multiple sections, it will be hard for a teacher track them. But the homework distribution platform we developed helps teacher to distribute homework and receive submissions without any hassle.
3. Google docs has a free tier with limit of 15GB space. At one point, student or teacher might exceed this limit and will be forced to upgrade the account. But this won't be an issue with our platform.
4. Direct distribution of homework using social messenger platform will force the teachers maintain the contact of students but can't handle submission on the same platform. But our platform also handles and list the submissions for each homework.

FUTURE WORK

Currently our application is functionally working as expected but there are some stuffs like email verification on signup and forgot password functionalities needs to be added in future.

CONCLUSION

The homework distribution and submission application help kids to complete their homework without any confusion and avoids maintaining separate paper-book for noting homework's. The parents can track and guide them to complete kids' homework on time.

HOW TO USE APPLICATION

The application consists of two modules: Teacher Module and Student Module.

Teacher Module

The teacher will first signup into the application with all the basic details. After signup teacher logins into the application with email id and password.

The teacher screen is having Add Class option which allows teachers to add the classes by clicking on Add class button. Once the class is created a code will be generated for newly created class and it will be shared with students so that they can join the class.

On adding classes, the teacher can click on 'Eye' button which navigates to Add Homework's for that class.

Teachers will click on Add Homework button to create the homework by providing homework details and document to upload the questions.

Once the homework is added the student will get a notification about the homework's added for classes.

The teacher can also click on submissions to see the homework submissions done by the students in that class.

Student Module

Students must register for the application by selecting user type as student.

On registration students can login into the application.

For the first time, the students will be shared with invitation code manually by the teachers in school for first time to join the class.

The students can use that code to join the class.

Once students join the class, the students can see the homework's uploaded by the teacher. The students can receive the notifications once the new homework's are added by the teacher.

The students can also upload the homework submissions. Once student uploads the homework the student can view the status as "Submitted".

DETAILED INSTRUCTION ON HOW TO RUN THE MODULE.

Please follow below steps to run and launch the Application:

Technologies and Tools Required for running the module – nodeJs, npm and MySQL Database, visual code

Step 1: Download and Install visual code using the link - https://code.visualstudio.com/download

Step 2: Install Nodejs. For downloading and installing Nodejs with npm, please refer to https://nodejs.org/en/download/ link.

Step 3: Clone the repository from Command Line using cmd :

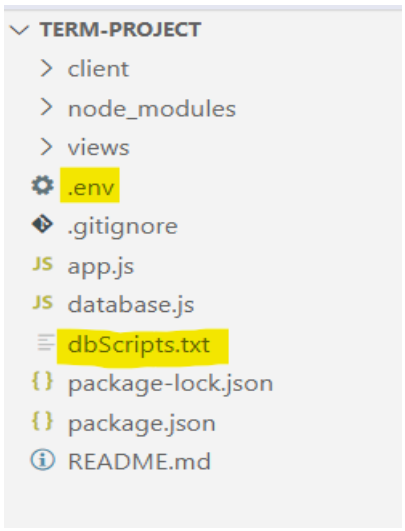
>> git clone https://github.com/SmitaYandigeri/Learning-Project.git

Step 4: CD to 'Term-Project', Launch the application on Visual Code using cmd – 'code .'

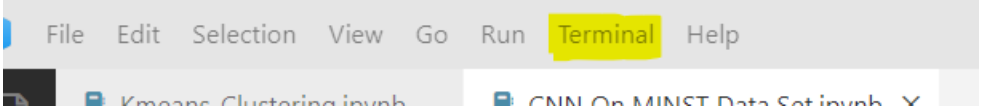
```
D:\Fall 2022\IWS Workspace\MY_GIT_REPOS\Term-Project>code .
```

Step 5: You might face issue with connecting to configured database as we are using AWS mysql free tire, so please change the configuration .env file to point it to Database of Your choice.

Step 6: If a new Connection are used in above step, please execute the DB scripts located in dbScripts.txt file in a order they are placed.



Step 7: Open New Terminal in Visual Code and CD to folder to 'Term-Project'.



Step 8: run 'npm install' from terminal in Visual code, this will download/update the packages required by the application. This step is optional as the node modules are part of git repository.

```
PS D:\Fall 2022\IWS Workspace\MY_GIT_REPOS\Term-Project> npm install
```

Step 9: launch the application by running command 'npm run start'.

```
PS D:\Fall 2022\IWS Workspace\MY_GIT_REPOS\Term-Project> npm run start
```

Step 10: After the above command, we should see the below logs indicating the server started on port 5000, because the application is configured to run on 5000 port.

```
> homework@1.0.0 start
> nodemon app.js

[nodemon] 2.0.20
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,json
[nodemon] starting `node app.js`
body-parser deprecated undefined extended: provide extended option app.js:13:26
Server Started On :: 5000
```

Step 11: Enjoy the application on localhost:5000.