

Full Stack Development Screening Assignment

Assignment Description:

Create a full-stack classroom website.

Backend Side

Types of Users in our App:

1. Principal
2. Teacher
3. Student

User Functionality

- **Principal**
 - Can create classrooms and assign teachers to those classrooms.
 - Can assign students to teachers.
- **Teacher**
 - Can be assigned to a single classroom.
 - Can create a timetable for their classroom
- **Student**
 - Multiple students belong to a single classroom.

Login/Signup Process

- On app start, a principal account is already created with (Email: principal@classroom.com, Password: “Admin”).
- The principal can create accounts for teachers using an email and password. Teachers can then log in to the app.
- Similarly, the principal or teachers can create accounts for students using the same process.

Classroom

- When creating a classroom, the principal will add the name, start time, end time, and the days the classroom will be in session (e.g., Monday to Saturday).
 - For example, on Monday, the classroom will run from 12 PM to 6 PM, and on Saturday from 12 PM to 4 PM.
- (The teacher can then create a timetable for each subject in that classroom with the following rules:
 - Each period on the timetable must be within the classroom's start and end time.
 - No two periods should overlap.) (OPTIONAL)

Frontend Side

Create a dashboard with scoped functionality. (different for with user)


Principal view:

- See the list of Teachers and Students in table form.
- Principal can change the detail of Student and Teacher or delete them as well
- Can Create a Classroom
- Assign a class room to a teacher (Note: A teacher can only assign to one class room only)
- See and edit the time table of different classrooms. (OPTIONAL)

Teacher view:

- See the list of Students in their classroom in table form.
- Teacher can change the detail of Student or delete them as well
- Can create time table for their classroom within time period of the classroom (set by principal) (OPTIONAL)

Student View:

- They can see other students in classroom
 - They can see the time table of there class room added by the teacher (OPTIONAL)
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Tech Stack

Frontend

- Any React.js Framework e.g. (Vite , NextJs , Simple React JS)
- Free to use any template and design framework like Material-UI, Tailwind CSS, Bootstrap, etc.

Backend

- Nest.js, Node.js, Express.js
- MongoDB, PostgreSQL, MySQL

Deliverables

- Make a Github repository and share it to hr@heliverse.com
- Provide the deployed links for both the frontend and backend. **(IMPORTANT)**

To deploy the website, you can use various free deployment services like Vercel, OnRender, Railway etc.

Contact Information

For any concerns or questions, you can reach out via email at hr@heliverse.com.

Note: This is a test assignment, and the purpose is to assess your ability to create a full-stack web application using the specified tech stack and requirements.