

Technical assignment for a candidate for an internship developer position at the IDT team

Task Description

Create a web application for booking shared desks.
Have functionality to reserve, cancel reservations.
Profile page to see reservation history.

Functional requirements

1. Statuses

Behavior of each status 3 statuses in total:

- Open – open for reservation
- Reserved – already reserved
- Maintenance – is under maintenance

2. Shared desks display page

Page to view all desks and see their statuses.

- Date range selection
- Every desk should have its own number.
- Desks should be shown in different colors based on their status.

3. Profile page

- Show first and last name
- Display all of current users reserved desks with dates
- Display list of previous reservations

4. Business logic

- If desk is reserved – display reserver's first and last name on hover.
- If desk is reserved by current user – show button to cancel reservation
 - For this day
 - Whole reservation date range
- If desk is disabled – display message with information on hover
- If desk is open – show button to reserve it, after you press on it - show date range picker to select start and end dates

Technical requirements

- The **back end** should be built using ASP.NET and an EF Core in-memory database to store information
- The **front end** should be built using React and can use a modern UI library such as Bootstrap, Material UI, Tailwind, etc.
- All calculation logic must be implemented in the back-end
- Code must be shared via GitHub
- No authentication and authorization is needed

Nice to have (optional)

- User friendly visualization of tables
- Unit tests in the backend
- Dependency injection
- Mapper package or custom solution
- TypeScript
- Database seeders

Evaluation criteria

- Functionality of the web app (could not be 100% finished)
- Clean code
- Decisions on architecture for both the back end and front end
- Tools used to build this app
- Design patterns