

**Problem:** We need a way to automatically integrate doctor's calendars from their existing systems of records with the Notable platform. The task is to build a web back-end that supports the following functionality via HTTP requests:

- Get a list of all doctors
- Get a list of all appointments for a particular doctor and particular day
- Delete an existing appointment from a doctor's calendar
- Add a new appointment to a doctor's calendar
  - New appointments can only start at 15 minute intervals (ie, 8:15AM is a valid time but 8:20AM is not)
  - A doctor can have multiple appointments with the same time, but no more than 3 appointments can be added with the same time for a given doctor

An example web UI that would be built on top of this backend is shown below. Doctors should have a unique ID, a first name, and a last name. Appointments should have a unique ID, patient first name, patient last name, date & time, and kind (New Patient or Follow-up). The backend must respond to HTTP requests (ie GET, POST, DELETE).

The screenshot shows a web interface for a medical scheduling system. On the left is a sidebar with the 'notable' logo and a 'PHYSICIANS' list containing 'Hibbert, Julius', 'Krieger, Algernop' (selected), and 'Riviera, Nick'. Below the list is a 'Logout' button. The main content area is titled 'Dr. Algernop Krieger' with the email 'krieger@notablehealth.com' and a date selector set to '05/09/2018'. Below this is a table of appointments. The table has columns for '#', 'Name', 'Time', 'Kind', and a status icon. It lists five appointments, each with a red 'X' icon. At the bottom of the table is a form to add a new appointment, with fields for 'First name', 'Last name', 'Time' (set to '09:00 AM'), 'Kind' (set to 'New Patient'), and a blue '+' button.

#	Name	Time	Kind	
1	Sterling Archer	8:00AM	New Patient	X
2	Cyril Figis	8:30AM	Follow-up	X
3	Ray Gilette	9:00AM	Follow-up	X
4	Lana Kane	9:30AM	New Patient	X
5	Pam Poovey	10:00AM	New Patient	X
6	<input type="text" value="First name"/> <input type="text" value="Last name"/>	<input type="text" value="09:00 AM"/>	<input type="text" value="New Patient"/>	<input type="button" value="+"/>

For this exercise, the data can just be kept in memory (such that any changes will be reset on server restarts), though you're welcome to use a database if you prefer. You are free to use any languages, frameworks, libraries, scaffolding, starter packs, etc that you'd like. With your response, please include a zip file with your source code (preferably in a git repository), and instructions for how to run the application locally.