Front End at Facebook

Lydarose McCoy <lydarose@fb.com>   Tue, Jul 15, 2014 at 3:23 PM
To: Lizz Bartos <lizz.bartos@u.northwestern.edu>

Hey Lizz,

Thanks for your time today - it was great chatting with you and I'm excited to send you this next step in this process!

Our team reviews all submissions closely and it's been very helpful for us to gain insight into a candidate's problem solving and coding abilities. (The best way to send this back when completed is through a file-sharing, i.e. dropbox). Send us a zip file that contains a single folder. In that folder should be an index.html file and all the scripts / css files that index.html file needs.

Included below are the details for the challenge, along with one attachment. Your solution will be run through a suite of test cases and evaluated on correctness, elegance, and readability.

Materials
Given a set of events, render the events on a single day calendar (similar to Outlook, Calendar.app, and Google Calendar). There are several properties of the layout:

1. No events may visually overlap.
2. If two events collide in time, they must have the same width.
3. An event should utilize the maximum width available, but constraint 2) takes precedence over this constraint.

Each event is represented by a JS object with a start and end attribute. The value of these attributes is the number of minutes since 9am. So {start:30, end:90) represents an event from 9:30am to 10:30am. The events should be rendered in a container that is 620px wide (600px + 10px padding on the left/right) and 720px (the day will end at 9pm). The styling of the events should match the attached screenshot.

You may structure your code however you like, but you must implement the following function in the global namespace. The function takes in an array of events and will lay out the events according to the above description.

function layOutDay(events) {}
This function will be invoked from the console for testing purposes. If it cannot be invoked, the submission will be rejected.

In your submission, please implement the calendar with the following input:

[{start: 30, end: 150}, {start: 540, end: 600}, {start: 560, end: 620}, {start: 610, end: 670}];

A screenshot of the expected output is attached.

FAQ
Are frameworks such as JQuery, MooTools, etc. allowed? Yes, but please include the file with your source code.
Is there a maximum bound on the number of events? You can assume a maximum of 100 events for rendering reasons, but your solution should be generalized.
What browsers need to be supported? Your solution should work in all modern standards-compliant browsers.

Does my solution need to match the image pixel for pixel? No, we will not be testing for pixel matching.
How will you be testing my solution? We will be running tests from the browser console by invoking the layOutDay() function. Your solution should not require a local web server (e.g. run from localhost) or have any other dependencies besides your html/css/js.

As we discussed, feel free to reach out to me with any questions – looking forward to hearing back from you soon! Also, please keep this coding challenge confidential as we'd like to keep the interview process fair for all.

Best,
Lydarose Mccoy
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From: Lizz Bartos <lizz.bartos@u.northwestern.edu>
Date: Tuesday, July 15, 2014 at 10:48 AM
To: Lydarose McCoy <lydarose@fb.com>
Subject: Re: Front End at Facebook

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