Below is a series of questions and exercises to be completed and submitted prior to your interview. Please be prepared to discuss your answers and implementations in detail during the interview. Source code should be checked in to a publicly readable GitHub repository.

Open Ended Questions

Please answer the 2 questions from each of these 3 sections (and complete the 3 practical exercises below):

Section 1 - Design & Development

Q1
Could you outline what you would consider to be the important considerations If you were asked to develop a web application that could potentially be used by thousands of users?

Q2
What techniques do you employ to keep up-to-date with the rapid pace of progress in the field frontend development? How do you choose which technologies are worth taking the time to learn more about?

Section 2 - & Deployment

Q1
Describe the approach you take in testing your applications.

Q2
What do you value in a code base?

Section 3 - General

Q1
What do you find most exciting or interesting about working in the software development field?

Q2
In your career to date, what are you most proud of and why?

Practical Exercises

Exercise 1

Debug and fix the following code, and provide a unit test using mocha.js to verify it:

```javascript
function remoteMathService(cb) {
  var one, two;
  callOneService(function(err, num) {
    one = num;
  });
  callTwoService(function(err, num) {
    two = num;
  });
  return cb(undefined, one + two);
}


function callOneService(cb) {
  setTimeout(function() {
    return cb(undefined, 1);
  }, 1000);
}


function callTwoService(cb) {
  setTimeout(function() {
    return cb(undefined, 2);
  }, 1500);
}

remoteMathService(function(err, answer) {
  if (err) console.log("error ", err);
  if (answer !== 3) {
    console.log("wrong answer", answer);
  } else {
    console.log("correct");
  }
});
```
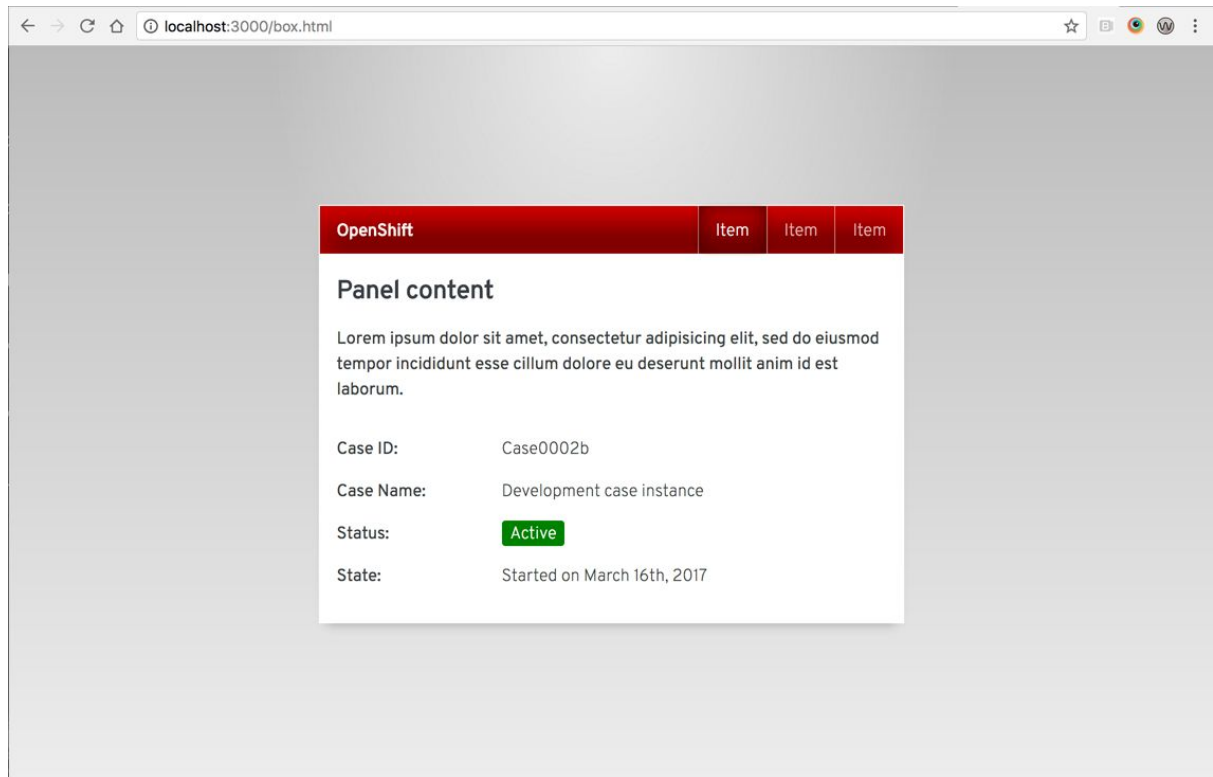
Exercise 2 - Vanilla CSS

Reproduce the following image according to the instructions below:

- Use vanilla CSS
- The hover state should look the same as the active.
- The component should be modular and expandable.
- It should be responsive.
- The font is Overpass
- Colors are:
  - red #c00 and #470000
  - gray #bbb and #ededed

Exercise 3 - Sample project

Please construct the following sample project

Step 1 – Create the Project

- Use your web framework of choice, applying current best practices for that framework
- Use an appropriate tool for dependency management
- Use a build tool to run/develop/deploy the application

Step 2 – Add a List page

- Load data from: http://jsonplaceholder.typicode.com/users
- Show a list of all users ordered by Name descending
  - Include name, username, e-mail and address formatted to look like the following.

Name	Username	E-mail	Address
Name	Username	name@email.com	Address City, State Zip

- Structure your code to optimize for reuse, testing, and maintenance

Step 3 – Add a detail page

- Add a link so if the user clicks on the Name entry, they can navigate to a second page with detailed information for the user
- The detail page should be "bookmarkable"

Step 4 - Testing

- Provide an automated test for the above functionality