# HackerYou Course Syllabus
## Intro to Full Stack

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**CLASS 1**     **Front-End Framworks (Overview)**

Welcome to Introduction to Full-Stack Web Application Development! Today we'll do an overview of JavaScript frameworks – JQuery, Ember, Backbone, Angular, and React. We'll also talk about "Single-Page Applications" and why they're useful.

**CLASS 2**     **Adding Interactivity to React**

In this class, you'll learn about adding interactivity to your applications. We'll talk about the philosophy behind React, and how to deal with application state.

**CLASS 3**     **Multiple Components in React**

We'll continue our discussion of React, and learn how to identify when to use state vs props in a React component. Students will be asked to take an HTML mockup and break it into subcomponents.

**CLASS 4**     **Webpack**

Today we will dive into the JS tooling ecosystem and learn how to build your application using Webpack. We will also introduce ES6 and SCSS.

**CLASS 5**     **Intro to Firebase**

Why do you need a backend? Today's class will introduce Backend As a Service (BaaS) Platforms, and the importance of saving and retrieving data.

**CLASS 6**     **Firebase - Structuring Data**

Building on last class, we'll talk about storing more complex data. Today we'll introduce Project One where students will begin to design data models.

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**CLASS 7**

### Firebase - Querying Data

Students will practice querying data from a sample application, and we will learn about the difference between embedding vs linking data in a NoSQL database.

**CLASS 8**

### Firebase - Authentication

Today we're building a login for our application. Students will add authentication to a chat application, including the ability for some users to moderate.

**CLASS 9**

### React Router

In this class, we'll talk about single page applications vs. traditional applications, and how we can use routing in single page applications to get around their limitations.

**CLASS 10**

### Putting it all Together

Now that we're almost through the introductory course, we'll review everything we've learned. We'll look at analytics, error reporting and tracking on applications, and students will begin to design Project One.

**CLASS 11**

### Review and Project One

Students will have the opportunity to work with the instructor and mentors on their first project to get feedback and make adjustments before submitting. Students will also learn how to deploy a web app.

**CLASS 12**

### Project One Presentations

It's time for project presentations! Students will demonstrate the full-stack applications they've built using BaaS and other tools we've learned over the last 12 classes.

PROJECT ONE

**PROJECT ONE**

Students will build a front-end component using React, backed by a Firebase database. Examples might include an image gallery, product checkout component, or an article commenting system.