

**HOW TO:**

# **PREPARE FOR FRONTEND DEVELOPER**

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# PREFACE

This contains instructions to prepare yourself as a front-end developer in Centilytics. Some topics can be skimmed if you're already familiar with them. Main focus is to develop basic level understanding in the technologies mentioned. Time estimation are mentioned for with each topic. Course will go at the speed mentioned and must take maximum of a month. Efforts must be made in order to keep up with the pace if you're lagging behind. Collect your doubts and consult with trainer during the session.

Some topics are highlighted in different colors to indicate criticality. So, pay attention according to it.

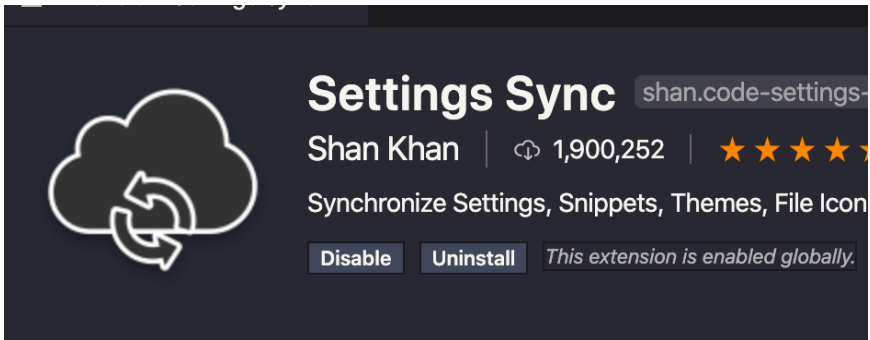
	Normal
	Critical
	Highly Critical

# 0.

## EDITOR SETUP

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1. Download VS Code
2. Install specific extension



3. Connect it with your GitHub / Microsoft account.
4. Use this [gist](#) for settings sync.
5. Change theme or font sizes that suits you but don't change the extensions or other critical settings.

# 1.

## PREPARING BASICS

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### TOPICS TO COVER IN HTML (5 HOURS)

1. Basics
2. Elements
3. Attributes
4. Headings
5. Paragraphs
6. Comments
7. Styles
8. Links
9. Images
10. Tables
11. Lists
12. Inline and Block Elements
13. Layouts
14. Id, Classes
15. Meta Tags
16. Embedding CSS and JS
17. Forms

**1 hour course to cover basics of HTML**

# HTML Crash Course

## Absolute Beginners



**2 hours deep-dive into concepts of HTML**



# HTML in 2 hours

## ***NO ADS***

Use W3 schools to read about concepts if any left  
<https://www.w3schools.com/html/>

# TOPICS TO COVER IN CSS (8 HOURS)

1. Basics
2. Syntax
3. Inline, Internal and External CSS
4. Comments
5. Selectors
6. Colors
7. Background
8. Border
9. Margins
10. Padding
11. Height / Width
12. Box Model
13. Text
14. Links
15. Fonts
16. Display ( Flex-box, Grid )
17. Position
18. Pseudo Classes
19. Pseudo Elements
20. Counters
21. Units
22. Specificity
23. Box Shadows
24. Gradients
25. Responsiveness
26. Properties / Variables
27. Animations / Keyframes
28. Viewport
29. Embedding External Fonts

**1.25 hour course to cover basics of CSS**



**2 hour in-depth course of CSS**



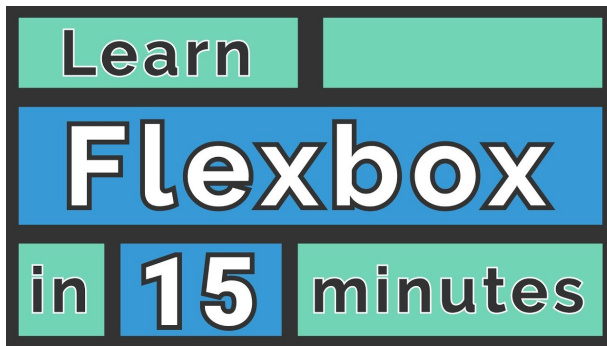
**Critical property of CSS I.e display explained ( 14min )**



Critical property of CSS I.e position explained ( 10min )



Critical property of CSS I.e position explained ( 15min )



Use W3 schools to read about concepts if any left  
<https://www.w3schools.com/css/>

**At this point, you must be proficient enough to build a basic responsive layout of any website.**

**For practice try building UI for whatsapp website using HTML, CSS**



# TOPICS TO COVER IN JS (40 HOURS)

1. Basics
2. Syntax
3. Comments
4. Variables
5. Operators
6. Data Types
7. Functions
8. Objects
9. Symbol
10. Strings, Arrays and Number Methods
11. JSON
12. Type Coercion
13. Looping
14. Conditional Statements
15. Scope
16. Arrow Functions
17. Let / Var / Const
18. High Order Functions
  1. ForEach
  2. Filter
  3. Map
  4. Reduce
  5. Every
  6. Find
  7. Sort
19. This
20. Try / Catch
21. SetTimeout, setInterval
22. DOM
23. Manipulating DOM

**24.Forms**

**25.Hoisting**

**26.Closures**

**27.DOM Events and Event Listeners**

**28.DOM Navigation**

**29.Classes**

**30.Bind, Call, Apply**

**31.Event Loop**

**32.LocalStorage**

**33.SessionStorage**

**34.IndexDB Storage**

**35.Async / Defer**

**36.Callbacks**

**37.XHR**

**38.Promises**

**39.Async / Await**

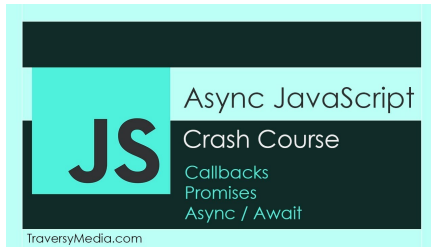
**1.40 hour course to cover  
basics of JavaScript**



**3 hour in-depth course**



**25min course for  
explanation of critical topic**



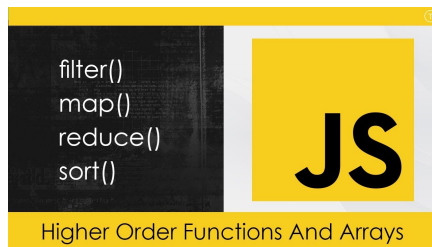
**15min course for  
explanation of browser  
storages**



**10min course for  
explanation of critical topic  
i.e. Promises**



**35min course for  
explanation of important  
high order functions**



**Use W3 schools to read about concepts if any left  
<https://www.w3schools.com/js/>**

**Now, Try to make the WhatsApp website created  
more responsive and interactive using javascript**

**Another thing to try is to create a calculator  
which performs all necessary operations.**

# TOPICS TO COVER IN JQUERY

## (3 HOURS)

1. Basics
2. Syntax
3. Selectors
4. Events
5. DOM Manipulation / Traversing
6. Effects and Animations
7. AJAX

1.5 hour playlist to cover core of JQuery

[https://www.youtube.com/playlist?  
list=PLJD6gfc9HLM-3\\_ybpsFSshK52mQ64IJmP](https://www.youtube.com/playlist?list=PLJD6gfc9HLM-3_ybpsFSshK52mQ64IJmP)

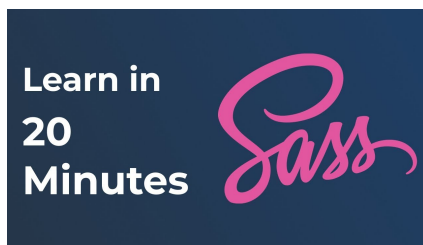
Use W3 schools to read about concepts if any left

<https://www.w3schools.com/jquery/>

# TOPICS TO COVER IN SASS (4 HOURS)

1. Basics
2. Syntax
3. Variables
4. Nesting
5. Imports
6. Mixins
7. Functions

**20 mins overall wrap up of Sass**



**45 mins crash course to cover basics**



**2 hour in-depth course for  
Sass**



**Use W3 schools to read about concepts if any left**  
**<https://www.w3schools.com/sass>**

# TOPICS TO COVER IN ANGULAR ( 56 HOURS )

1. Basics
2. Syntax
3. Typescript
4. Components
5. Services
6. Events
7. Forms
8. HTTP
9. Input, Output
10. Bindings
11. Pipes
12. Directives
13. Router
14. Change Detection
15. NgZone
16. Observables
17. Subject, BehaviorSubject
18. Rest of rxjs
19. Lazy Loading

Complete the lectures discussed with your trainer of this course on priority.

<https://www.udemy.com/course/angular-4-front-to-back/>

Ask for credentials to access this course



# 2.

## PROJECT SETUP

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(2 HOURS)

1. Setting up **Git Account**.
2. Fetching project.
3. Installing dependencies.
4. Serving project.
5. Basic understanding of git branches and naming conventions followed.
6. Branch pushing and pull requests creation explanation.

# 3.

## PROJECT UNDERSTANDING

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( 16 HOURS )

1. Explain about Centilytics.
2. Goals and vision behind **Centilytics**.
3. Project architecture explanation.
4. Project code flow explanation.
5. Followed practices, standards and todos explain.
6. HTTP and Cache Wrappers overview.
7. Modules breakdown overview.
8. Widgets explanation and its lifecycle.
9. Dynamic loading of widgets and view and widget JSON overview.
- 10.HTTP, Modal, Notifications etc. Services overview.
- 11.Modules, Pipes, Classes, Interfaces, Directives, Enums, Sass Partialss etc. explanation.
- 12.Modals generation overview.
- 13.New widgets testing overview.
- 14.White-labeling, theming overview.
- 15.Sessions and IOT explanation.
- 16.Libraries used like AgGrid, AmCharts etc. overview.
- 17.Creation of dummy widget from start to end explanation.

# 4.

## WRAPPING UP

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There will be a final test to check overall understanding of project and technologies involved.

### Youtube links for enhancing skills

- [Traversy Media](#)
- [Web Dev Simplified](#)
- [Fun Fun Function](#)
- [The Coding Train](#)
- [DevTips](#)