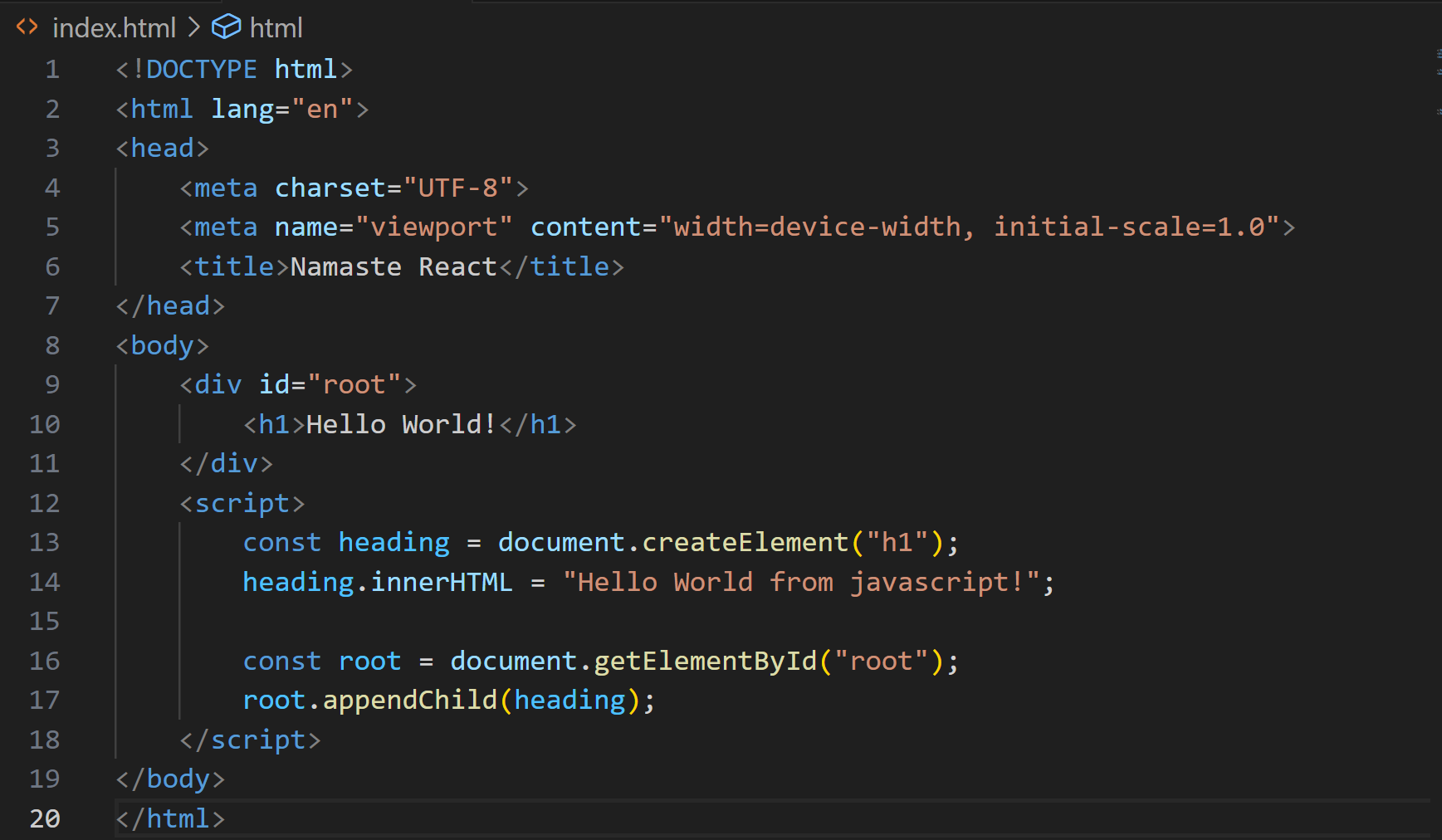
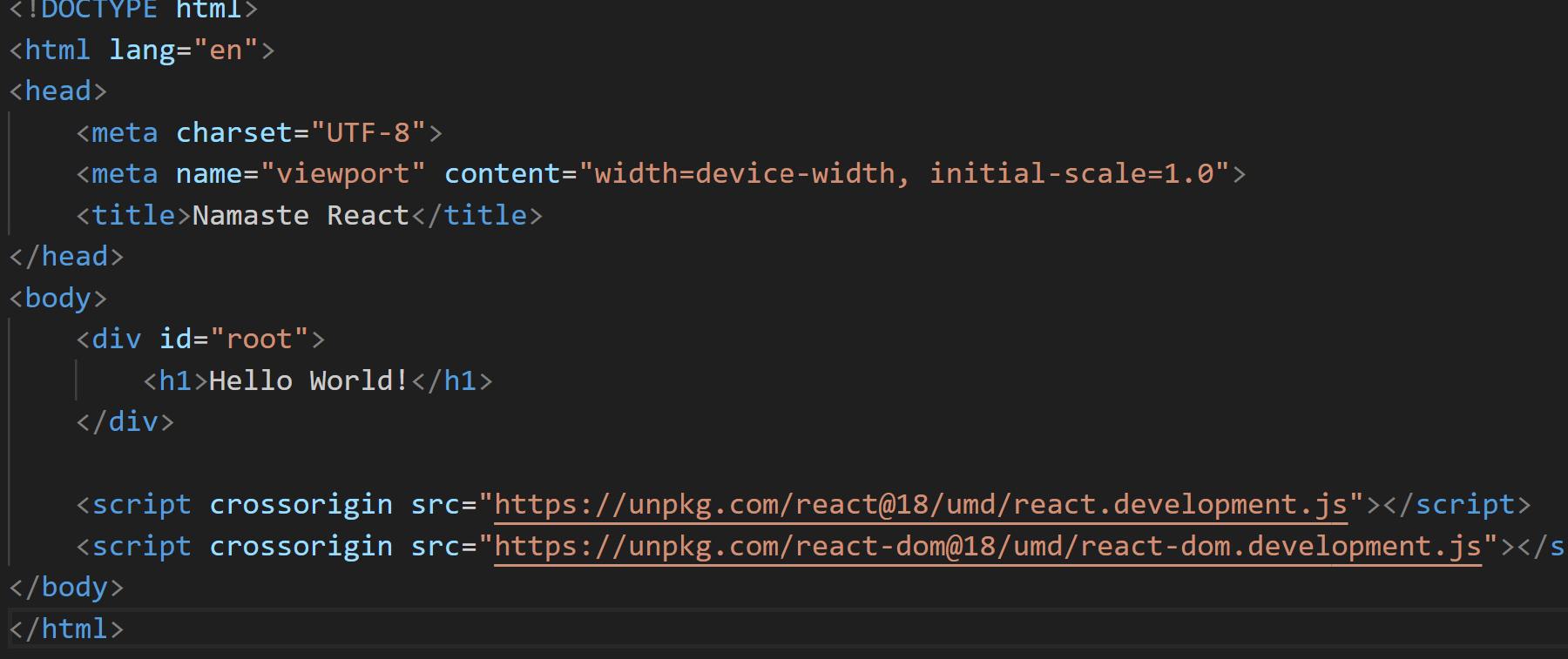
In visual Code editor if you write => Html:5 (Emmet Abbrevation) will give the basic skeleton for html.



In above hello world created using javascript.

Injecting react into project:

**Method 1 of injecting react into html**



A cross-origin request is a request for a resource (e.g. style sheets, iframes, images, fonts, or scripts) from another domain.

CORS is used to manage cross-origin requests.

CORS stands for Cross-Origin Resource Sharing, and is a mechanism that allows resources on a web page to be requested from another domain outside their own domain. It defines a way of how a browser and server can interact to determine whether it is safe to allow the cross-origin request. CORS allows servers to specify who can access the assets on the server, among many other things.

* Why we have two react files above?  
  First is the core react file which can be used in browser and mobile app.  
  Second file react dom is only used in browser to have dom operations.   
  So react is used at multiple places that’s why we have two different files here.

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Description automatically generated

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Description automatically generated

React comes with a philosophy to manipulate DOM which is most expensive operation in Web Pages , is to do it with javascript. It optimizes dom manipulation.

Segreagate code into js and css.



A screenshot of a computer program

Description automatically generated

**Create Nested Elements in react:**

Note: React cannot only be written in JSX, it can also be written in javascript only like we are doing right now. But this makes code unreadable and complex. So we use JSX.



As you can see that so much needs to be written to get simple nested structure. So here JSX comes into picture.   
Also in above console will throw error below which we will get rid of in future:  
A screenshot of a computer

Description automatically generated

Root.render **replaces** the existing content inside root element.

React only works inside your root element. So above and below portion of html will works the same. That’s why we call react as a library. Since it can be applied to a small portion of page. It is not a fully fledged framework.. its some piece of javascript code.

**NPM:** is a package manager. Packages are also called as dependency on which our project depends on.  
Package.json has a configuration required in our project

**Bundler:** helps us bundle our code together(html,css,js), minified code, compress the code so that it can push to production. Eg webpack, parcel, wheat etc.

Two types of dependency which we can install using npm.  
1)Dev dependency: required only for development phase  
2) Normal dependency: used in production as well.

"devDependencies": {

    "parcel": "^2.11.0"

  }

Carrot ^ is used to upgrade the minor version automatically but not the major version  
tilde ~ is used to upgrade the major version automatically. So its not advisable.

Package-lock.json keeps track of exact version which installed. And verifies whatever installed on local machine should be present on production as well.

Transitive dependency: project’s direct dependency may have multiple dependencies further. These indirect dependencies called transitive dependency.

So here parcel has dependency on babel etc.. babel is transitive dependency here for us.

If we have package and package-lock.json then we can re install our nodeModules again.  
using npm install. It will check the package.json and install all the dependencies.  
  
So whatever we can regenerate then don’t put things on github.   
NPM command mostly used for installation

Npx command used to execut a package  
  
CDN links are not a perfect way to bring react /react dom into ur project:  
-> It will always make a cdn network request and makes sites slower each time.

**Method 2 of adding react into html:**  
  
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A screen shot of a computer program

Description automatically generated

Above throws error since script tag in html cannot have import or exports. It only understands normal javascript. It has to be module. Normal javascript cannot have import or export

A screenshot of a computer error

Description automatically generated

 parcel uses a file watching algorithm written in c++.

- HMR: Hot Module Replacement (make the change in any file and save it. Will reflect automatically on browser)

- Local Server

- Provides faster build because it does caching

- Image optimization (Showing image on browser is very expensive, parcel does optimization for us)

- Production build: do minification of files and bundling, compress as well

- Content Hashing

- Code splitting

- Differential bundling - support older browsers

- Diagnostic, Error Handling

- Https

- Tree SHaking - remove unused code automatically

Dist folder in parcel: parcel generates a dev build and put code in dist folder. Similarly prod build will also generated in dist folder

Autogenerated folders like dist, .parcel-cache shud not push in git repo. So add them in gitignore

To support older browsers we need to add browserList to package.json



GO to documentation.. Must read.  
  
  
**Now we will start REACT:**