

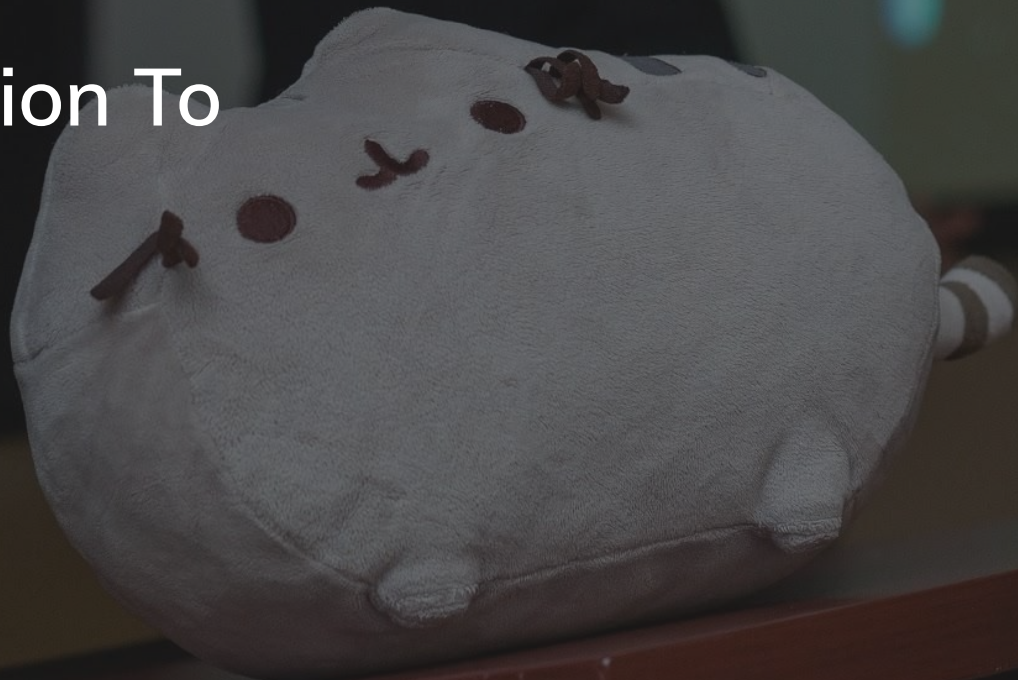


Computer Science
Enrichment Club

Introduction To Gatsby

Intro to Projects
Workshop

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Content Outline

What are we going to learn?

What is Gatsby?

My first Gatsby App

Getting to know the environment

Navigation and Pages

Data in Gatsby

Dynamic Pages





What is Gatsby?

Why do we use it?

Gatsby is a static page generator which runs on React.

It works by “pre-rendering” the site by having a snapshot of each page on their own HTML file.

Then all the content and JavaScript is added later.

(This process is called hydrating)

As a result, we have lightning fast web applications





My First Gatsby App

One small step for web apps...

```
npm install -g gatsby-cli
```

Installs the cli tool on your computer to use in terminal

```
gatsby new [name of project]
```

Creates a new gatsby project (You can use our [starter code](#) alternatively)

```
cd [name of project]
```

Change our directory to the new project

```
npm start
```

Starts development server via the command 'gatsby developer'





Getting to know the environment

The key players of the Gatsby application

/src

Where the web application application resides

/src/pages

The pages of the Gatsby application. The name of the file and folders they are in, represents the url for the page.

gatsby-config.js

Configures the plugins being used in the project

gatsby-browser.js / gatsby-node.js / gatsby-ssr.js

These are files for extending how Gatsby generates pages, loads data in GraphQL, etc. (You can learn more [here](#))





Navigation and Pages

Getting from point A to point B

Routing in Gatsby is handled by Link from the 'gatsby' package.

For routing programmatically, you can import navigate instead.

All the pages reside the src/pages folder and Gatsby automatically handles switching between pages.

As well as the generation of HTML files and pre-rendering on build

The filename dictates the url of the page. The exception is 404.js and index.js.





Data in Gatsby

How content works in Gatsby

Gatsby runs GraphQL during development to act as a proxy for fetching static data.

This allows for significantly lower time to first paint.

The data can be added to GraphQL using source and transformer plugins as nodes.

Source plugins simply “source” data from local locations. As transformers actually transform the data first.

The data is then fetched later as a GraphQL query.

Note this only queries from Gatsby, not from actual API servers.





Dynamic Pages

From data to content

We want to be able to automatically generate pages from data.

It's impossible to have url queries for pages in Gatsby

To do this, we have to use `node-gatsby.js` to find specific nodes and create pages from it.

Note that `node-gatsby` handles the build process of the application. Therefore, as data nodes are added, we want to make page nodes out of them.

We would go over how it is done in the starter code.

