

Index

A

addComment() function, 195
add.image() method, 273
addMarker() function, 193, 194
add.sprite() method, 264
allMarkdownRemark, 175
Amazon AWS, 203, 222
animations.create() method, 262
animations.generateFrameNumbers()
 method, 262
app.createNavBar() method, 28, 29
app.firstMouseEventDone property, 33
app.js files, 23, 24
Application programming interfaces
 (APIs), 7
app.mouseMoveHandler()
 method, 31, 32, 35
app.resizeHandler(), 31, 33, 35
app.slideIn() method, 33, 34
app.slideVal property, 35
app.start() function, 24, 27, 31
Async/await, 219
attach() method, 110
Axios, 217–221

B

Babel, 130–134
Backdrop component, 226
BitKeeper, 48

Branches, 47

Button component, 160

C

Cascading Style Sheets (CSS), 3
client.query(), 233
Collection index, 210
collection() method, 233
Command-line interface (CLI) tool, 63
componentDidMount() method,
 148, 181, 215, 217
componentDidUpdate() method, 148
Components, React, 112–119
contentInner class, 26, 43
Content Management System (CMS), 10
Continuous deployment model, 8
create() method, 261
createPage() function, 174
Cross-origin request sharing (CORS), 296
CSS Grid, 40–42
currentMarkerText variable, 187, 192, 237

D, E

defaultProps, 142, 143, 146
descriptionValidator() function, 146
destroy() method, 270
Developer experience, 12
Dialog component, 164
DialogActions component, 166

INDEX

DialogTitle component, 166
dialogVisible property, 162, 163, 167
document.createRange(), 191
documentDiv style, 169
document.getElementById(), 36
Document Object Model (DOM), 109

- JavaScript API, 109
- JavaScript API methods, 111
- virtual, 110

documentTemplate.js, 236
Dynamic content, 6

F

Facebook, 105
familyContainer style class, 37
FaunaDB, 199

- authentication, 228
- collection, creation, 209
- collection index, 210
- dashboard page, 208
- GraphQL queries, 207
- key requirements, 227
- NoSQL database, 206
- package.json, 210, 230

FaxJs, 106

fetch(), 17

File Transfer Protocol (FTP), 3

filter() method, 17

firstName property, 210

forEach() function, 174

Form submission handling, 202

G

gameCore.js file

- basic structure, 252
- create() method

- astronaut, 261–263
- fire, 264, 265
- keyboard input, 266
- sounds, 266
- spatial rupture, 267, 268
- stone track, 266
- createTrack() function
 - coding, 270–273
 - level data, 268–270
- init() function, 257
- load.spritesheet() function, 260, 261
- module-level variables, 253–256
- preload() method, 257–259
- update() method, 280, 281, 283–286
- startLevel() function, 277–279

gameOver() function, 281, 286–289

gameState.gameRunning, 289

gameState.trackMoveCount, 281

Gatsby

- Babel, 134

- build process, 70

- code

 - configuration file, 73–75

 - header.js, 83–85

 - image.js, 85–87

 - index.js, 75, 77–79

 - 404.js file, 92

 - layout.js file, 79–83

 - page-2.js, 90, 91

 - seo.js, 87–90

 - typescript.tsx, 91, 92

- command-line tool, 61

- generated website, 64

- GraphQL (*see* GraphQL)

- installation, 62–64

- plugins, 61, 67, 68

- project structure, 65–67

- react websites, 61

- starter, 67
- themes, 69
- Webpack, 70–72
 - Webpack configuration, 274
- gatsby build, 211, 214, 216
- ggatsby-config.json file, 82, 156
- gatsby develop, 216, 296
- gatsby-node.js file, 274
- gatsby-plugin-manifest plugin, 296
- gatsby-plugin-offline, 296
- gatsby-transformer-remark plugin, 170
- Get() method, 233
- getAllMarkerKeysFromStorage()
 - function, 189, 221–223
- getAllMarkerKeysFromStorage.js, 232–234
- getDerivedStateFromProps()
 - method, 147, 148
- getMarkerFromStorage() method, 223, 237
- getSnapshotBeforeUpdate(), 148
- Git flow, 47
- GitHub, 53, 54
- GitHub pages, 56, 57
- Git repo, 56, 206
- global.showComments(), 213
- GraphQL, 61, 85
 - arguments and filtering, 96–99
 - execute queries, 94
 - explorer, 95
 - getCrewmembers, 94
 - limiting/skipping, 100
 - query, 93–95
 - query operation type, 94
 - server, 101
 - sorting, 101
 - types, queries, 102, 103
- GraphQL query, 158, 250
- Grid component, 185
- Material-UI Grid component, 184, 188

H

- handleDialogClose() function, 182, 195
- handleDialogSave() function,
 - 166, 182, 195, 196
- Header component, 80, 83
- Hello-world starter
 - index.js file, 246–250
 - JSON-level data, 250, 251
- Helmet component, 87
- hrStyle object, 248, 249
- HTML5 games, 244

I

- Image component, 778, 787
- images.astronaut.anims.resume(), 263
- index.html file, 22, 24–36
- IndexPage component,
 - 161, 166, 215, 216
- IndexPage React
 - component, 161, 162
- inEvent object, 33
- init() function, 247
- innerContent style class, 36

J, K

- JAMboard app
 - document list page, 152
 - Gatsby, 155
 - home/document list page
 - coding, 169–171
 - gatsby-node.js, 172–174
 - IndexPage component, 158
 - IndexPage React
 - component, 161, 162
 - markdown support, 160, 161
 - Material-UI Toolkit, 159, 160

INDEX

JAMboard app (*cont.*)

- prompting for username, 163, 165–167
- querying for data, 174, 175
- rendering, component, 162, 163
- site metadata, 167, 168

home page, 151

trimmed down

- gatsby-config.json file, 156
- index.js, 157
- 404.js page, 157

Whiteboard Page (*see*
Whiteboard Page)

JAMJumper, 243, 246

JAMstack

- advanced app, 15–17
- advantages, 11–13
- build, website, 10, 11
- continuous deployment model, 8
- description, 5, 6
- disadvantages, 13, 14
- dynamic content, 6
- history, 2–5
- HTML, CSS, and JavaScript, 6
- misconceptions, 14, 15
- oriented services, 8
- pillars, 6
- website, 6, 7, 15
- workflow, 8, 9

JavaScript, 3, 7, 15

JavaScript DOM API

methods, 109, 111

JavaScript Object Notation (JSON), 74

JavaScript XML (JSX), 128

json() method, 17

JSON.parse(), 252

JSX, 136–140

jumpData.isJumping, 282, 284

jumpData.jumpTicks, 284

jumpData.phase, 283

L

Lambda functions, 203, 222

Layout component, 77–80

Library/framework, 4

Link component, 78, 79

linkifyMarker() function, 189

Linux, Apache, MySQL,
PHP (LAMP) stack, 6

ListItem components, 188

ListItemText component, 188

loadMarkers() function, 181, 188

Local storage, 215

Long-term support (LTS), 62

M

Manifest file, 290, 291

map() method, 169

MarkdownRemark(), 197

markdownRemark object, 185

maskScreen() function, 225, 226

Match() function, 231

MaterialButton, 140

MaterialButton class, 135

MaterialButton

component, 129, 140

Material-UI, 161, 225

Material-UI library, 160

Material-UI toolkit, 159, 160

maxWidth prop, 164

metaDescription variable, 89

MongoDB, Express, Angular, Node
(MEAN) stack, 6

mousemove events, 34

myFamily.html file, 36–42
myWork style class, 30

N

Netlify

- account dashboard, 204
- Amazon AWS, 203
- Amazon's AWS, 203
- common services, 202
- continuous integration/continuous deployment, 202
- deploy, site, 205
- functions, 206, 226, 227
- GitHub account, 203, 204
- history, 202
- resource optimization functions, 202
- static sites, 201
- web hosting company, 202

netlify.toml file, 226, 228

node.frontmatter property, 170

node_modules directory, 132

Node Package Manager (NPM), 62

NoSQL database, 207

npx command, 132

O

onMouseOut event handler, 171

P

Paginate() function, 231

Paper component, 184, 185

particles.createEmitter() method, 268

Phaser, 244, 274

PHP stack, 106

physics.add.sprite() method, 263

placeholderImage property, 86

Plain Old JavaScript Objects (POJOs), 110

Plugins, Gatsby, 67, 68

Polyfill, 74, 131

preload() method, 257–259, 261, 266

Progressive Web App

- description, 289
- history and perspective, 293, 294
- HTTPS, 293
- JAMJumper, 290, 295, 296
- manifest file, 290, 291
- Netlify hosting, 296–298
- Service Worker, 291–293
- vs.* standard webapp, 292

Prop expressions, 140

Props, react, 119, 120

propTypes, 80, 143, 145, 146

Pushing, 49

Q

query() function, 231

query.Collection() method, 235

R

React, 61, 76

- Babel, 130–134
- compile JSX, 134
- components, 112–119
- critical points, 127
- DOM methods, 111
- FaxJs, 106
- history, 105–107
- interface, 108
- JSX, 128, 129, 136–140
- MaterialButton component, 129, 130
- pillars, 109

INDEX

React (*cont.*)

- props, 119, 120
 - state, 121, 122, 124
 - style, 124–126
- React components, 78, 102
- class, 118, 122
 - default props, 141–143
 - library, 159
 - lifecycle events, 147, 148
 - typing props, 143–146
- React.createElement(), 115, 116, 119, 122, 125, 129, 138, 140
- react-dom package, 112
- ReactDOM.render(), 116, 138
- RealMedia video streams, 2
- Ref() method, 233
- Remote repo, 50–52
- removeAllRanges() function, 192
- render() method, 78, 81–83, 88, 103, 118, 126, 146, 148, 163
- Representational state transfer (REST), 93
- requestAnimationFrame(), 254
- restartGame argument, 278
- RESTful interface, 4
- Robust toolkits, 108

S

- saveMarkerToStorage() function, 196, 224
- saveMarkerToStorage.js, 234, 235
- Scalability, 11
- Search engine optimization (SEO), 1, 77
- Security, 12
- SEO component, 87–90
- Server-Side Rendering, 211
- Service Worker, 291–293
- setState() method, 122, 123
- setTimeout(), 254

- shouldComponentUpdate(), 148
- showComments() function, 181, 191–193, 213
- Sift library, 96
- Single-page apps (SPAs), 105
- siteMetadata branch, 74
- Source Code Management (SCM), 4
- basic operations
 - checking repo status, 52
 - commit message, 52
 - local Git repo, 50
 - pulling, 53
 - remote repo, 52
 - staging and committing, 51
- BitKeeper, 48
- branches, notion of, 47
- conflicts, 46
- distributed, 49
- Git, 48, 49
- GitHub, 53, 54
- repository, 47
- spinnerVisible property, 225
- spinnerVisible state object property, 226
- Splash page, 20
- spritesheets, 259, 260
- start() function, 23, 116
- startLevel() function, 250, 277–279, 287
- startsWith(), 228, 232
- State, react, 121, 122, 124
- Static site generator, 211
- Static HTML page, 6
- Static site generator, 59, 60
- Static web, 5
- Steep learning curve, 14
- StorageManager module, 203
- StorageManager, remote storage
 - Axios, 217–221
 - coding

- getAllMarkerKeysFromStorage()
 - function, 221, 222
 - getMarkerFromStorage()
 - method, 223
 - saveMarkerToStorage()
 - function, 224
 - Style, react, 124–126
 - styles.css file, 22–24
 - surroundContents() method, 192

T

- Template component, 225
- TextField component, 196
- textNodes array, 191
- then() function, 233
- this.props, 119
- tickCount, 286
- trackMoveCount attribute, 255
- tweens.add() method, 265
- typescript.tsx, 91, 92

U

- update() method, 280, 281, 283–286
- useStaticQuery and GraphQL, 80, 85

V

- Vanity website
 - coding
 - contactMe.html file, 45
 - index.html, 24–36
 - myFamily.html, 36–42
 - myHobbies.html file, 44, 45

- myWork.html file, 43
 - styles.css and app.js, 23, 24
 - directory structure/constituent files, 22
 - GitHub pages, 56
 - home page, 20
 - hosting, 55
 - my work life page, 21
- Virtual COM approach, 111
- Virtual DOM, 110

W

- Web-based game, 244
- WebGL, 244
- Webpack, 70–72, 274
- Whiteboard Page
 - coding, 178, 179
 - addComment() function, 195
 - addMarker() function, 193, 194
 - component, building, 180, 181
 - component, rendering,
 - 181, 183–186, 188
 - data querying, 197
 - handleDialogSave()
 - function, 195, 196
 - linkify marker, 189–192
 - loading markers, 188
 - showing marker
 - comments, 192, 193
 - StorageManager, 177
 - window.showComments() function, 191

X, Y, Z

- XMLHttpRequest object, 217, 218