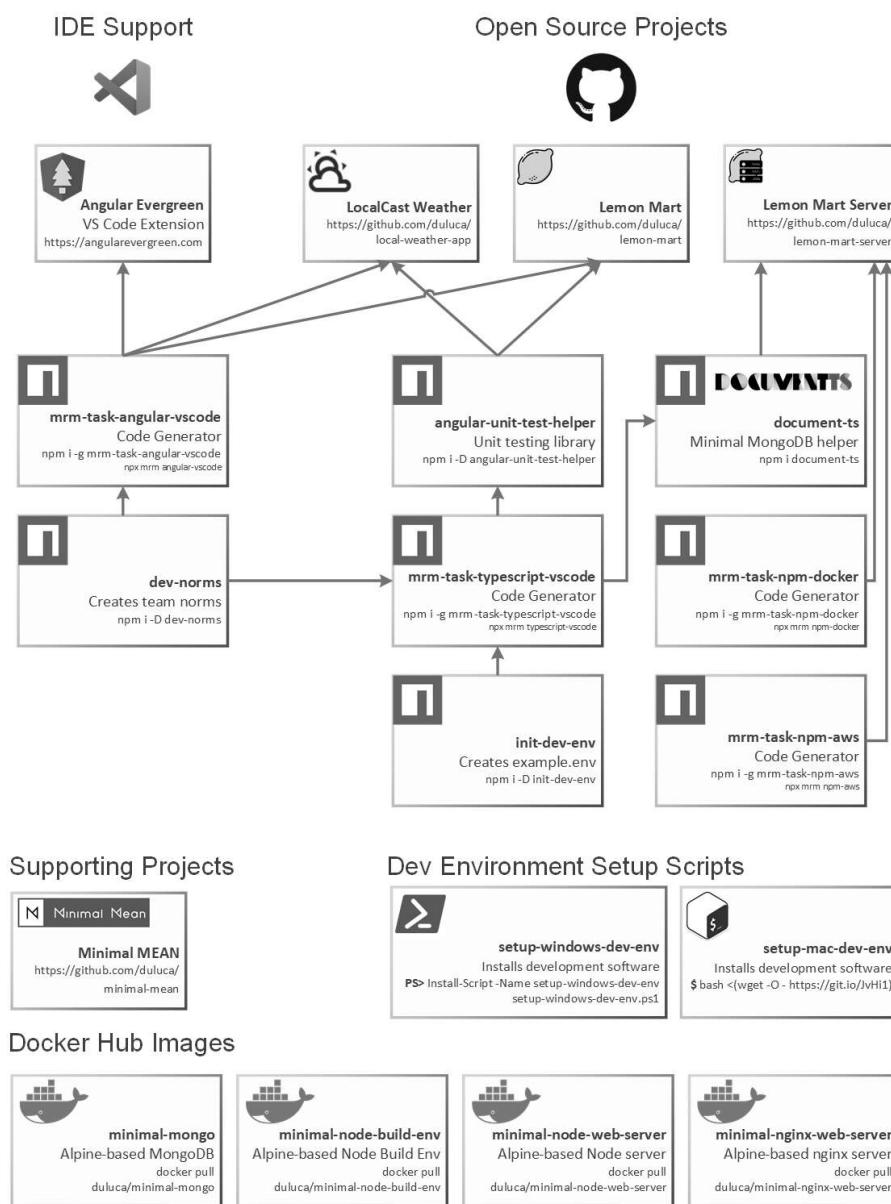
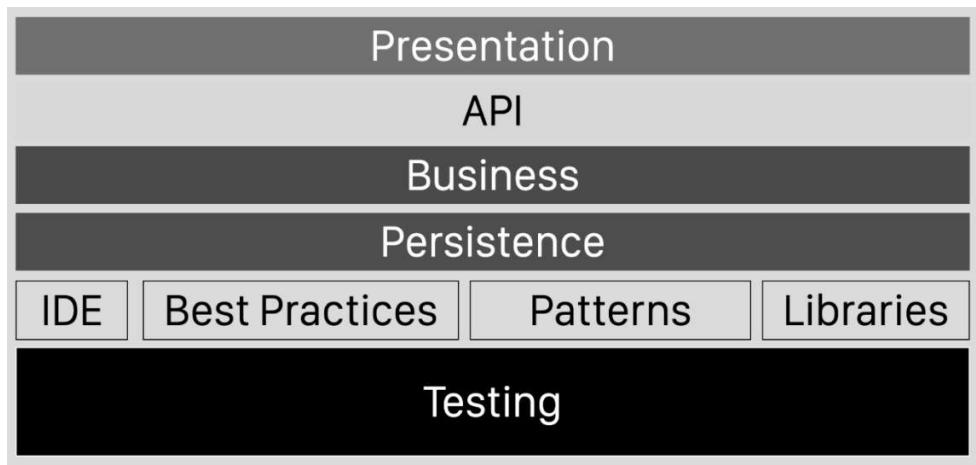
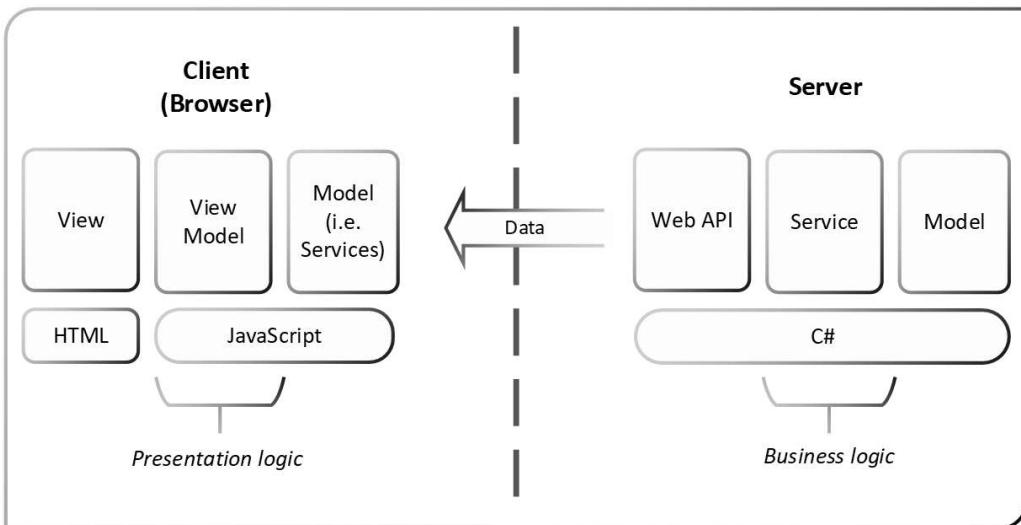
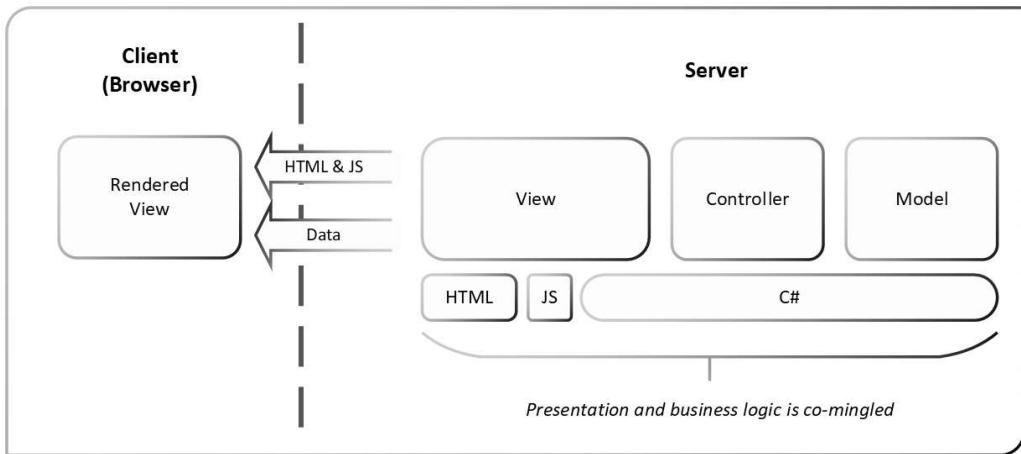


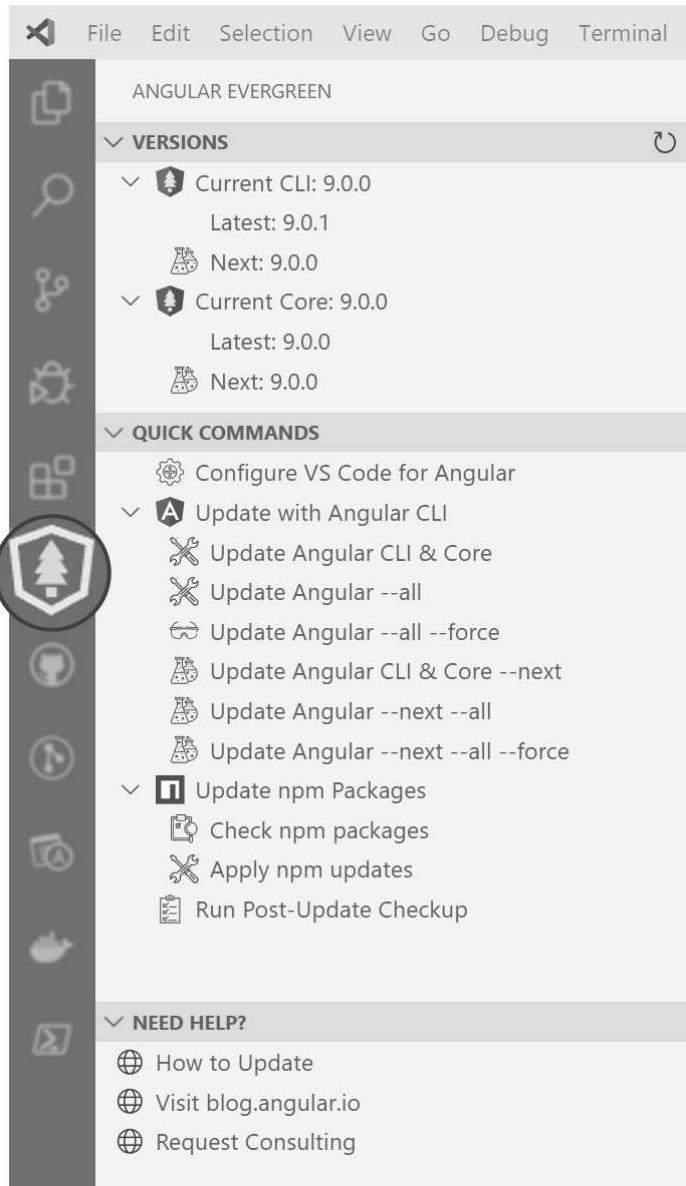
# Chapter 1: Introduction to Angular and Its Concepts



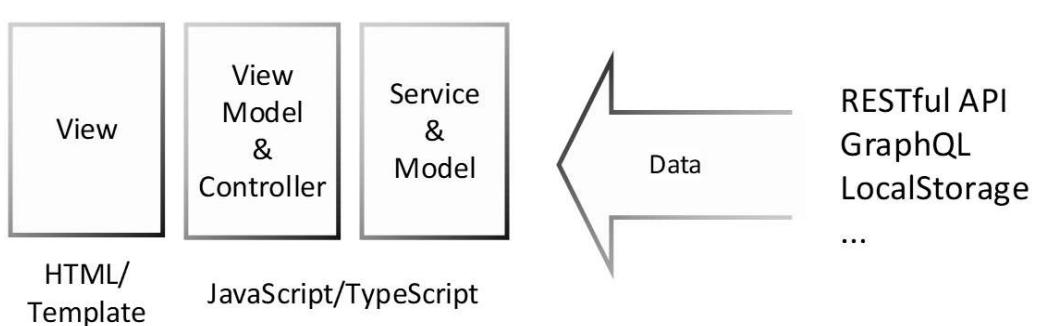
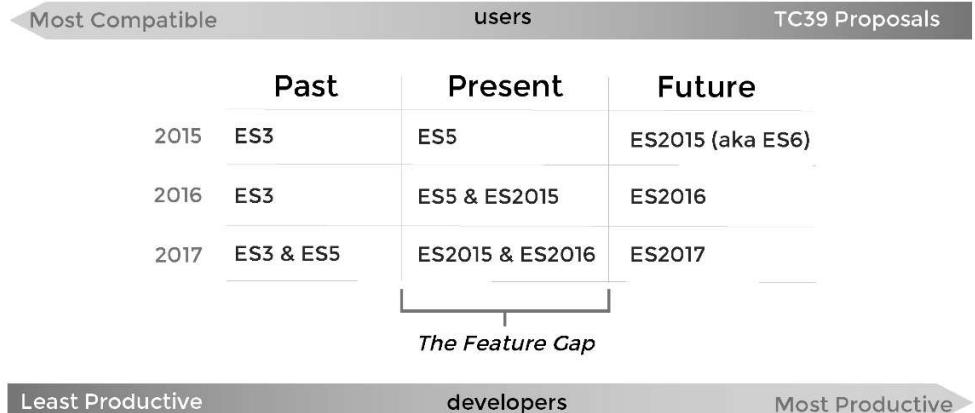




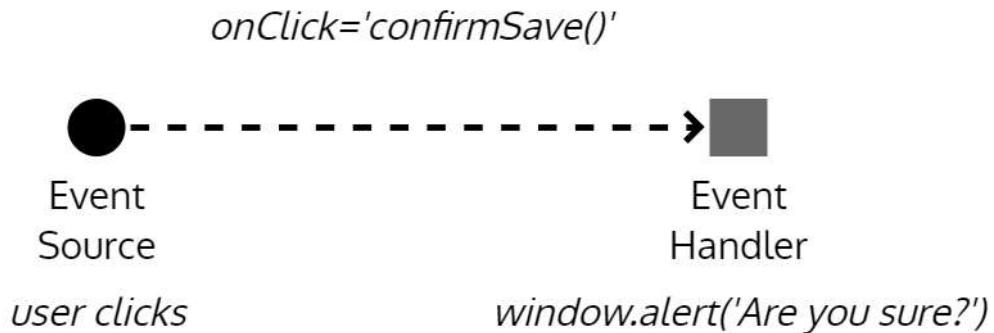
	Apr 2017	Oct 2017	Apr 2018	Oct 2018	Apr 2019	Oct 2019	Apr 2020	Oct 2020	Apr 2021	Oct 2021
AngularJS	Oct 2010								Jul 2021	
Angular 4	Apr 2017		Oct 2018							
Angular 5		Oct 2017		Apr 2019						
Angular 6			Apr 2018		Oct 2019					
Angular 7				Oct 2018		Apr 2020				
Angular 8					Apr 2019		Oct 2020			
Angular 9						Oct 2019		Apr 2021		
Angular 10							Apr 2020		Oct 2021	



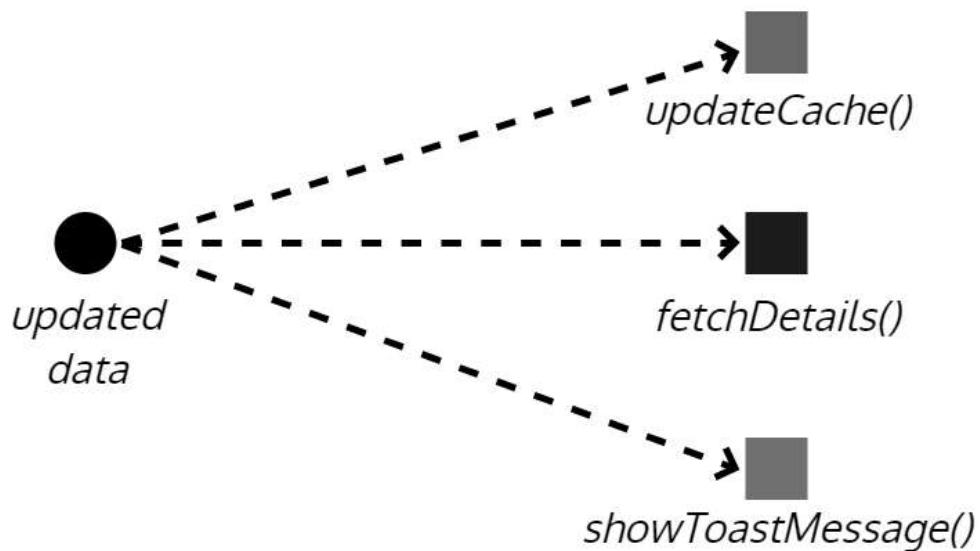
# The JavaScript Feature Gap



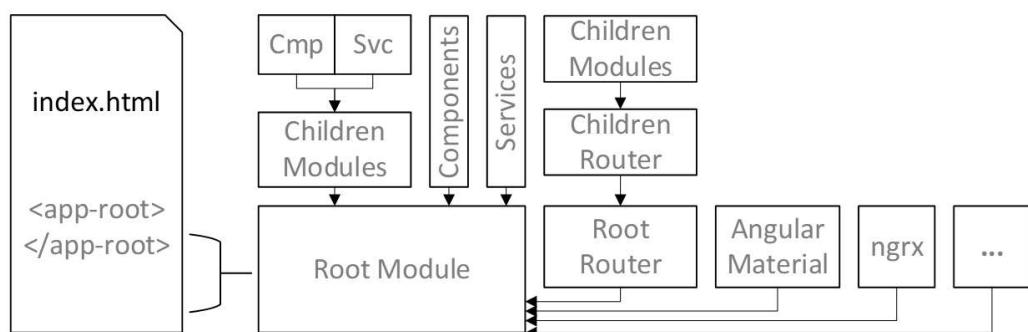
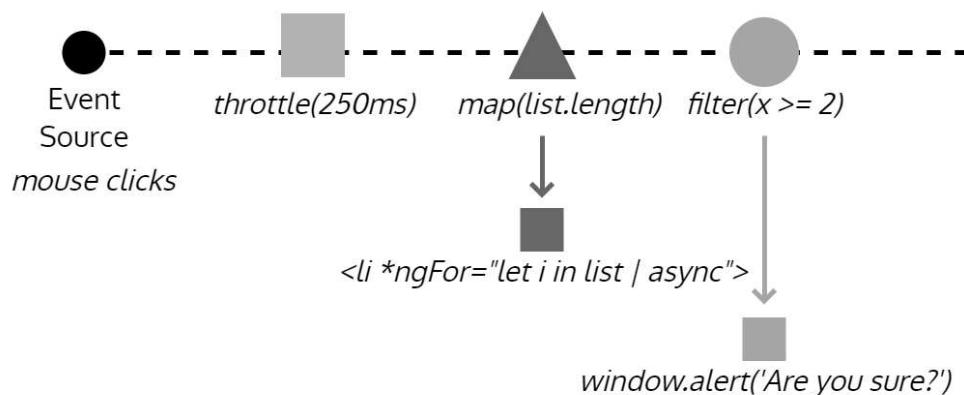
## Event-Driven

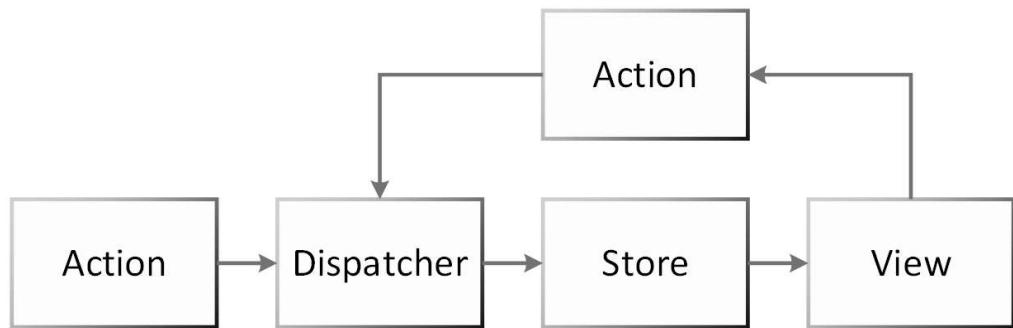
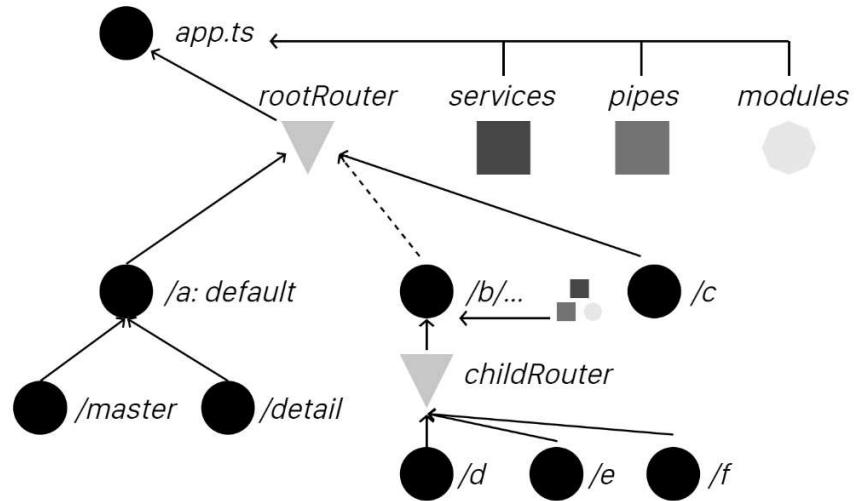


## Publish-Subscribe Pattern

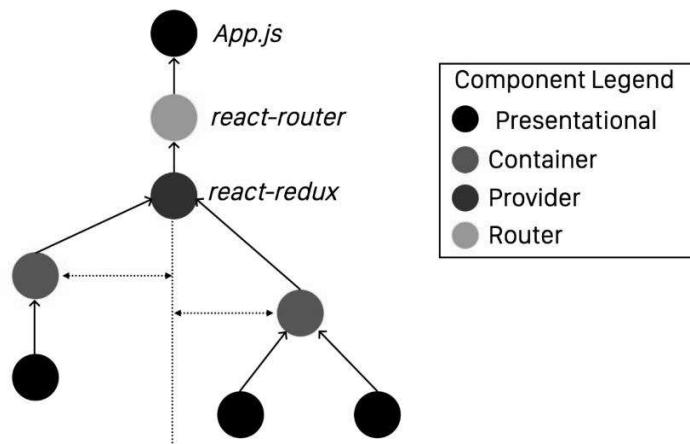
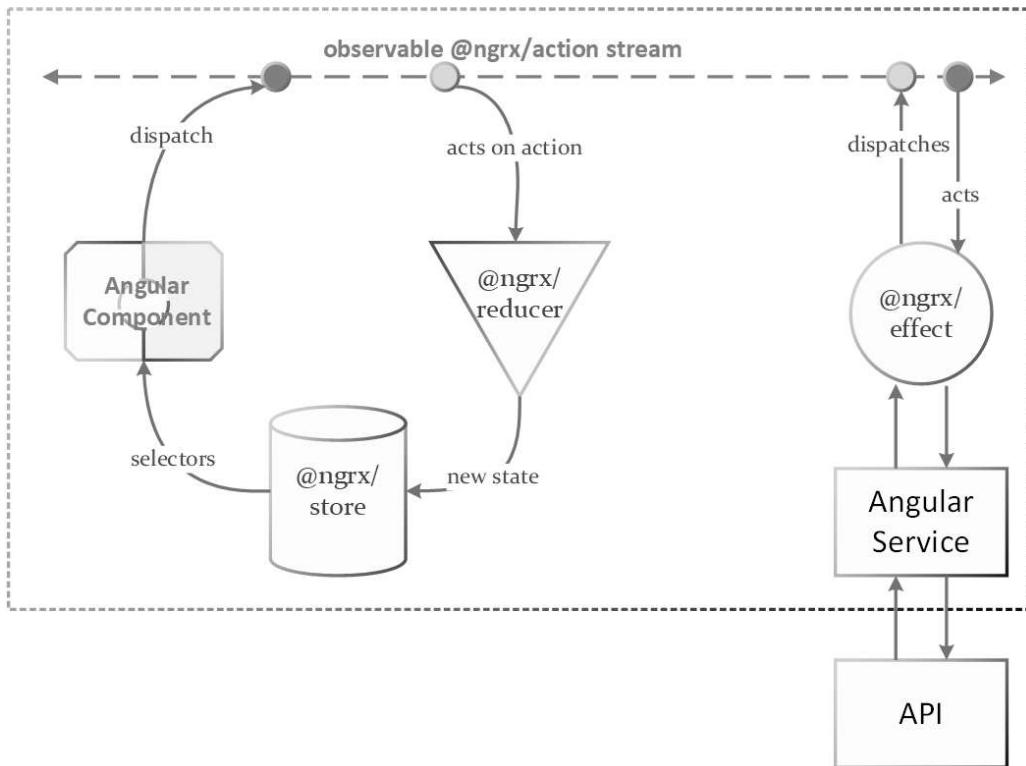


## Reactive Streams





## Angular Application



## Chapter 2: Setting Up Your Development Environment

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\WINDOWS\system32> choco
Chocolatey v0.10.8
Please run 'choco -?' or 'choco <command> -?' for help menu.
PS C:\WINDOWS\system32>
```

```
du — du@dougi-mbp13 — ~ — zsh — 80x24
du@dougi-mbp13 ~> brew
Example usage:
  brew search [TEXT|/REGEX/]
  brew (info|home|options) [FORMULA...]
  brew install FORMULA...
  brew update
  brew upgrade [FORMULA...]
  brew uninstall FORMULA...
  brew list [FORMULA...]
```

▲ Try this:

539

```
git reset --hard HEAD
git pull
```

▼ Should do what you want.

The screenshot shows the GitHub Desktop application interface. At the top, there's a menu bar with File, Edit, View, Repository, Branch, Help, and a notification badge '6'. Below the menu is a toolbar with icons for repository status, current branch (master), and publish to GitHub. The main area has tabs for Changes and History, with History selected. It displays a commit titled 'initial commit' by 'Doguhan Uluca' (ccf7ee6) made 3 minutes ago. The commit message is 'initial commit'. The commit details show 30 changed files, including .editorconfig, .gitignore, README.md, angular.json, browserslist, e2e\protractor.conf.js, e2e\src\app.e2e-spec.ts, e2e\src\app.po.ts, e2e\tsconfig.json, karma.conf.js, package-lock.json, package.json, and several files in the src\app directory. The right side of the screen shows the detailed diff for the .editorconfig file.

```
@@ -0,0 +1,16 @@
+## Editor configuration, see https://editorconfig.org
+root = true
+
+[*]
+charset = utf-8
+indent_style = space
+indent_size = 2
+insert_final_newline = true
+trim_trailing whitespace = true
+
+*.ts
+quote_type = single
+
+*.md
+max_line_length = off
+trim_trailing whitespace = false
```

package.json - web-app - Visual Studio Code

File Edit Selection View Go Debug Help

SOURCE CONTROL: GIT

Change app name 3

1

CHANGES

2 package.json M

2 package-lock.json M

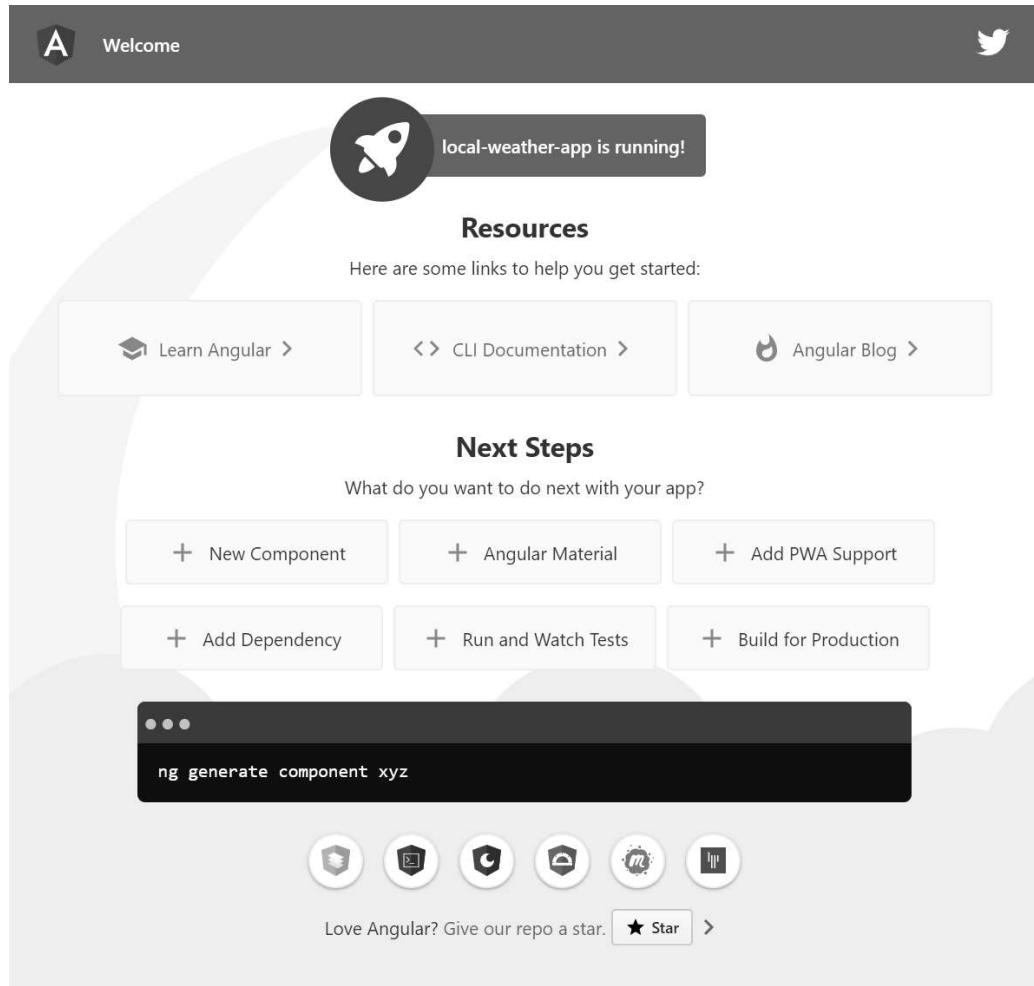
4

packagejson

You, a few seconds ago | 2 authors (Angular CLI and others)

```
1 {  
2   "name": "localcast-weather",  
3   "version": "1.0.0",  
4   "license": "MIT",  
5   "scripts": {  
6     "ng": "ng",  
7     "start": "ng serve",  
8     "build": "ng build --prod",  
9     "test": "ng test",  
10    "lint": "ng lint",  
11    "e2e": "ng e2e"  
12  },  
13  "private": true,  
14  "dependencies": {  
15    "@angular/animations": "^5.2.0",  
16    "@angular/common": "^5.2.0",  
17    "@angular/compiler": "^5.2.0",  
18    "@angular/core": "^5.2.0",  
19    "@angular/forms": "^5.2.0",  
20    "@angular/http": "^5.2.0",  
21    "@angular/platform-browser": "^5.2.0",  
22    "@angular/platform-browser-dynamic": "^5.2.0",  
23    "@angular/router": "^5.2.0",  
24    "core-js": "^2.4.1",  
25    "rxjs": "^5.5.6",  
}
```

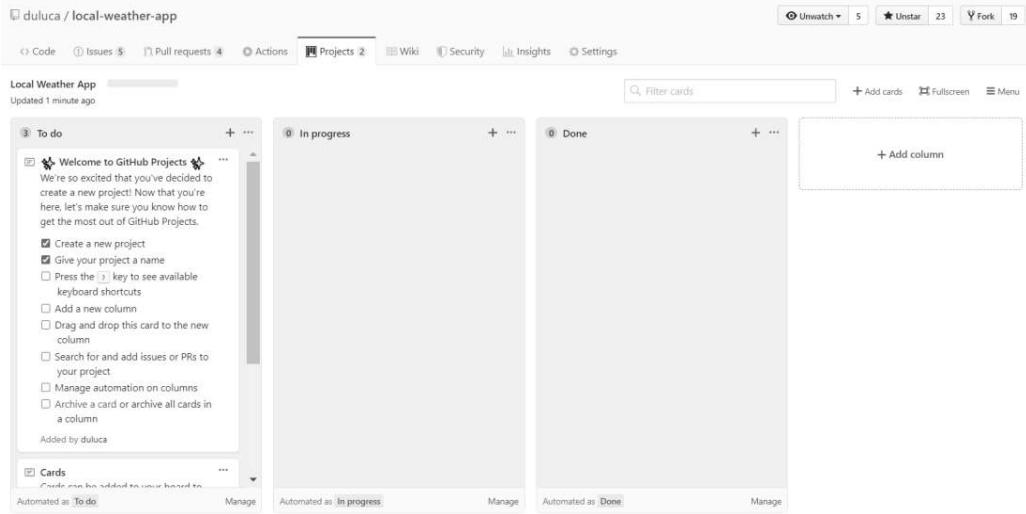
master\* 0 0 ▲ 0 Angular CLI, 17 hours ago Ln 27, Col 5 Spaces: 2 UTF-8 LF JSON Prettier 🎉



```
8  export class AppComponent {  
9 |   title = 'app';} You, a few seconds ago * Uncommitted change  
Fix: Unnecessary semicolon  
Disable rule "semicolon"  
Show documentation for "semicolon"
```

# Chapter 3: Creating a Basic Angular App

The screenshot shows a GitHub repository page for 'dulca/local-weather-app'. At the top, there's a navigation bar with links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. Below the navigation bar, the repository name 'dulca / local-weather-app' is displayed, along with statistics: 4 Watchers, 16 Stars, and 16 Forks. A 'Create a new project' section is visible, prompting the user to coordinate, track, and update work in one place. It includes fields for 'Project board name' (set to 'Local Weather App'), 'Description (optional)', and a dropdown for 'Project template' (set to 'Automated kanban'). A large 'Create project' button is at the bottom of this section. At the very bottom of the page, there's a footer with links for 'Contact GitHub', 'Pricing', 'API', 'Training', 'Blog', and 'About', along with the GitHub logo.



## Add a column

X

### Column name

Backlog

### Automation

Choose a preset to enable progress tracking, automation, and better context sharing across your project.

Preset: To do ▾

### Move issues here when...

**Newly added**

The To do column is already using this rule.

**Reopened**

The In progress column is already using this rule.

### Move pull requests here when...

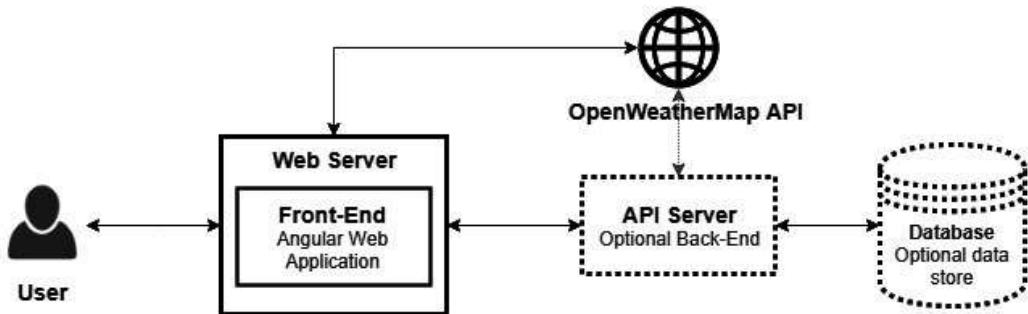
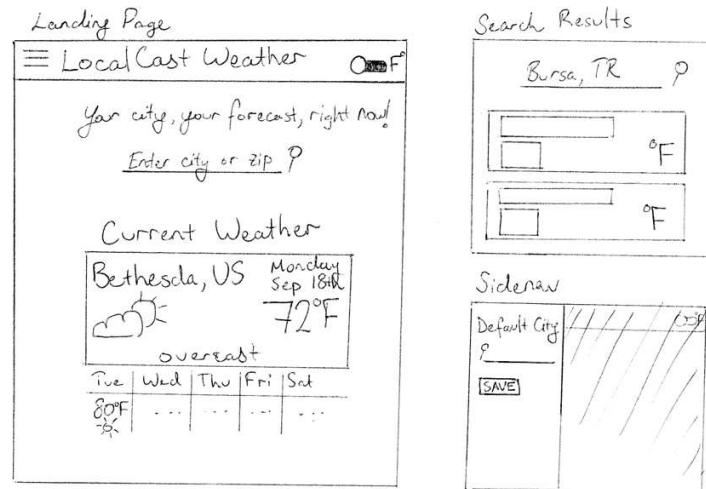
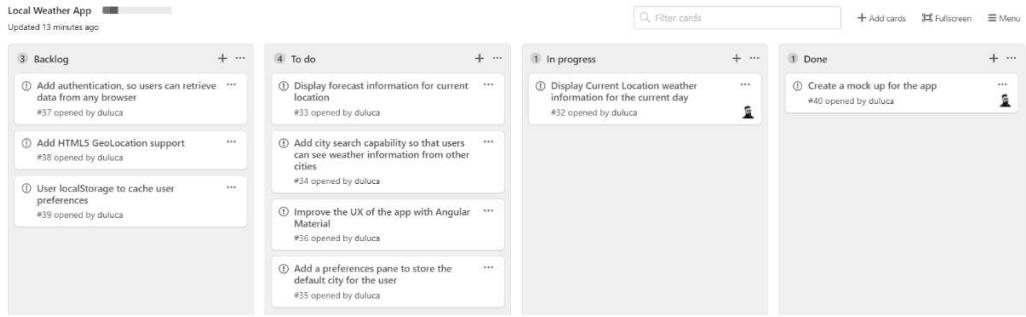
**Newly added**

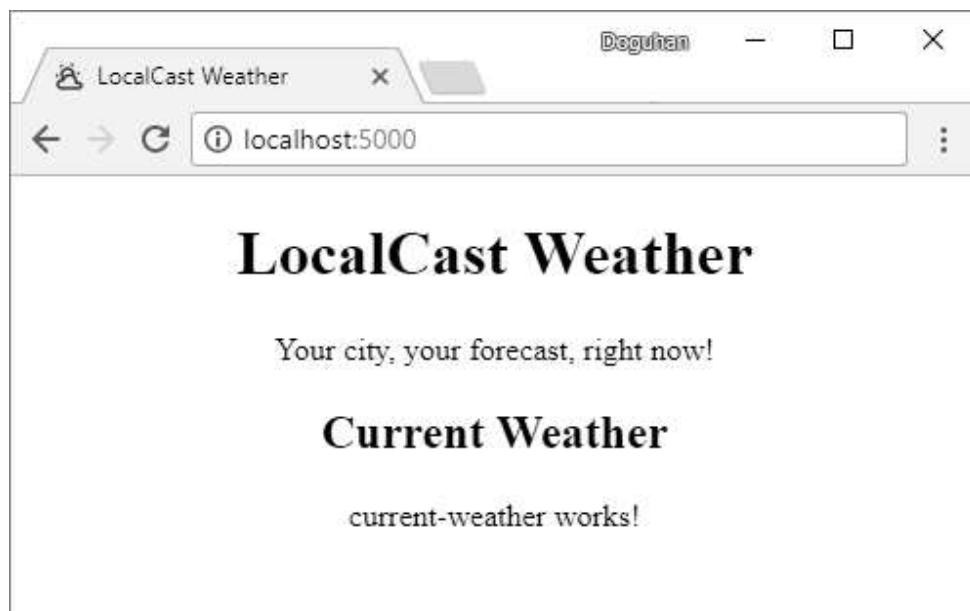
The In progress column is already using this rule.

**Reopened**

The In progress column is already using this rule.

**Create column**





```
current: ICurrentWeather
  construct
    this.cu
      city:
      count
    }
  }
  export interface ICurrentWeather {
    city: string
    country: string
    date: Date
    image: string
    temperature: string
    description: string
  }
  import ICurrentWeather
```



 OpenWeatherMap

Weather Maps ▾ API Price Partners Stations Widgets News About ▾

## Current weather data

[Home](#) / [API](#) / Current weather

Access current weather data for any location on Earth including over 200,000 cities! Current weather is frequently updated based on global models and data from more than 40,000 weather stations. Data is available in JSON, XML, or HTML format.

### Call current weather data for one location

Please remember that all Examples of API calls that listed on this page are just samples and do not have any connection to the real API service!

#### By city name

##### Description:

You can call by city name or city name and country code. API responds with a list of results that match a searching word.

There is a possibility to receive a central district of the city/town with its own parameters (geographic coordinates/lid/name) in API response. Example:

##### API call:

[api.openweathermap.org/data/2.5/weather?q=\(city name\)](http://api.openweathermap.org/data/2.5/weather?q=(city name))

[api.openweathermap.org/data/2.5/weather?q=\(city name\),\(country code\)](http://api.openweathermap.org/data/2.5/weather?q=(city name),(country code))

##### Parameters:

q city name and country code divided by comma, use ISO 3166 country codes

##### Examples of API calls:

[api.openweathermap.org/data/2.5/weather?q=London](http://api.openweathermap.org/data/2.5/weather?q=London)

[api.openweathermap.org/data/2.5/weather?q=London,uk](http://api.openweathermap.org/data/2.5/weather?q=London,uk)

- Call current weather data for one location
  - By city name
  - By city ID
  - By geographic coordinates
  - By ZIP code
- Call current weather data for several cities
  - Cities within a rectangle zone
  - Cities in cycle
  - Call for several city IDs
- Bulk downloading
- Parameters of API respond
  - JSON
  - XML
  - List of condition codes
  - Min/max temperature in current weather API and forecast API
- Other features
  - Format
  - Search accuracy
  - Units format
  - Multilingual support
  - Call back function for JavaScript code

# LocalCast Weather

Your city, your forecast, right now!

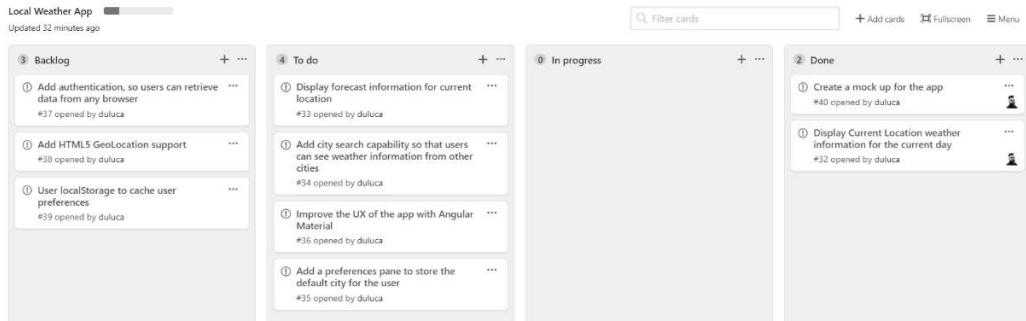
## Current Weather

Bethesda, US Friday, September 22, 2017



67°F

mist



# LocalCast Weather

Your city, your forecast, right now!

## Current Weather

, Wednesday, December 31, 1969  
0°F

# LocalCast Weather

Your city, your forecast, right now!

## Current Weather

°F

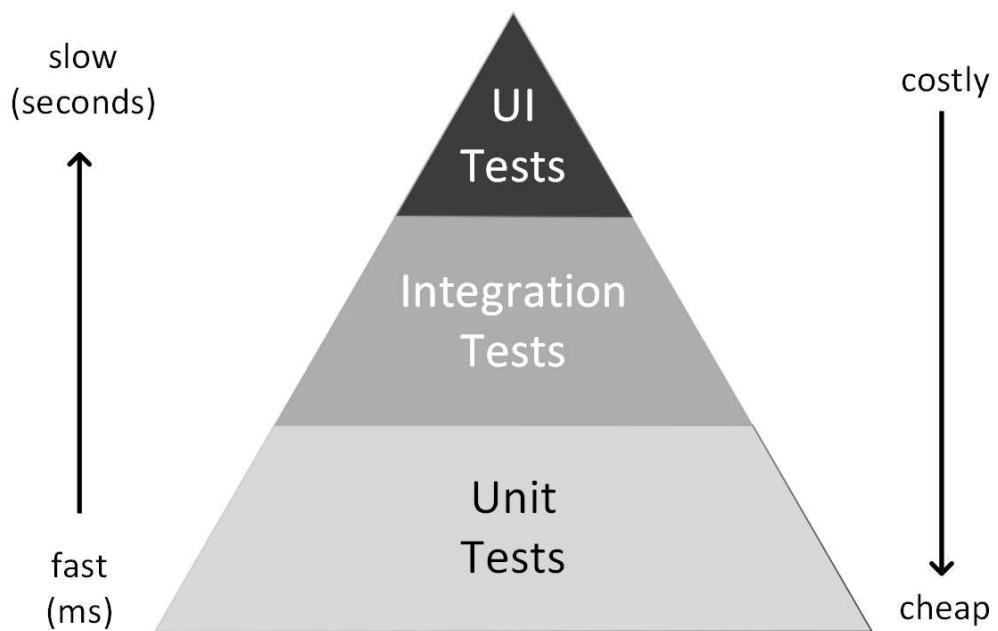
# **LocalCast Weather**

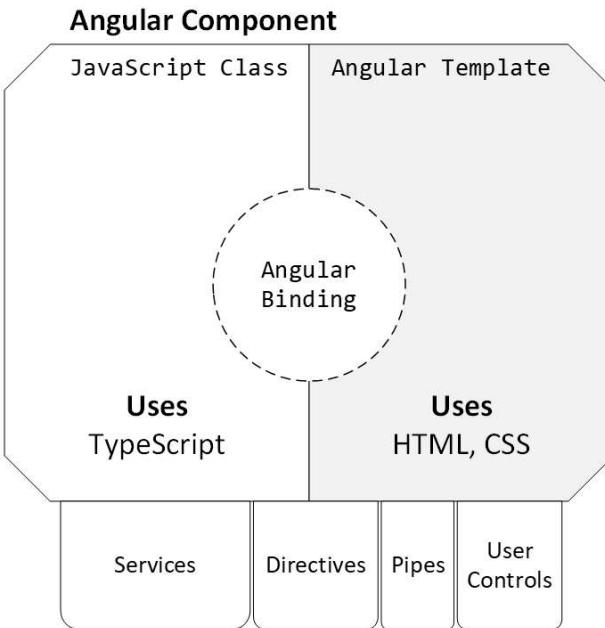
Your city, your forecast, right now!

## **Current Weather**

no data

## Chapter 4: Automated Testing, CI, and Release to Production





Karma v4.4.1 - connected

Chrome 80.0.3987 (Windows 10.0.0) is idle

Jasmine 3.5.0

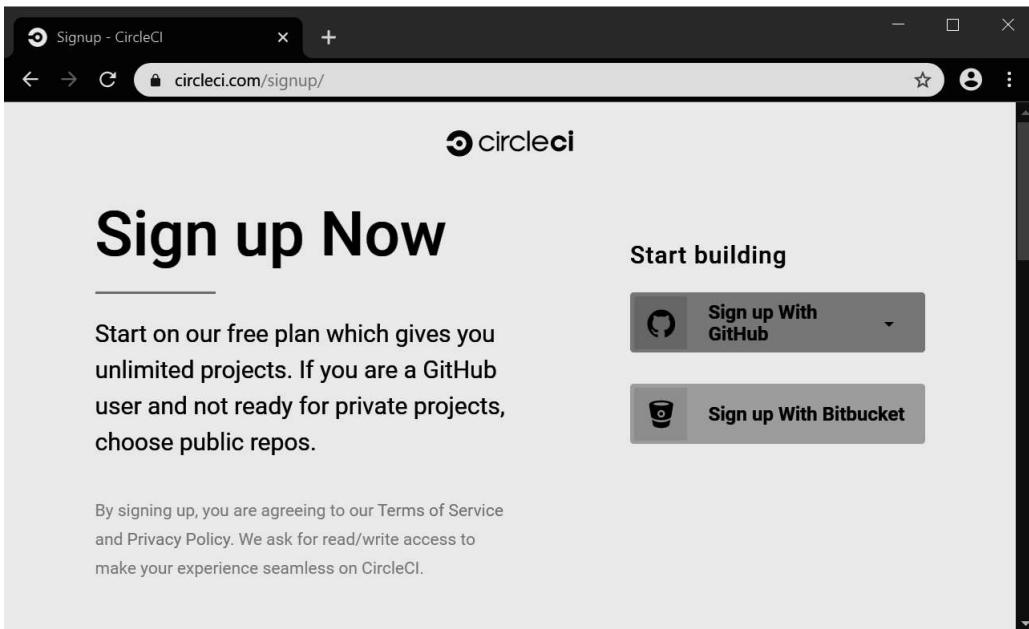
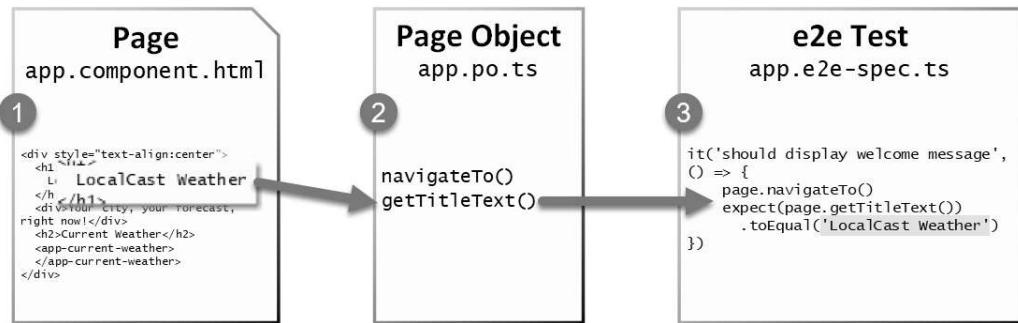
Spec List | Failures

**weatherService > should be created**

```
nullInjectorError: R3InjectorError(DynamicTestingModule)[WeatherService -> HttpClient]:  
  NullInjectorError: No provider for HttpClient!
```

error properties: Object{[ngTempTokenPath: null, ngTokenPath: ['WeatherService', 'HttpClient', 'HttpClient']]}

```
at <jasmine>
at NullInjector.get (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:1076:1)
at R3Injector.get (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:16626:1)
at R3Injector.get (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:16626:1)
at InjectorInjectorOnly (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:931:1)
at _injject (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:941:1)
at Object.weatherService_factory [as factory] (ng:////weatherService/fac.js:5:42)
at R3Injector.hydrate (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:16862:42)
at R3Injector.get (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:16614:1)
at NgModuleDefS1.get (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/core.js:36034:1)
at TestBedRenderer3.inject (http://localhost:9876/_karma_webpack_/C:/dev/local-weather-app/node_modules/@angular/core/_ivy_ngcc_/fesm2015/testing.js:3110:1)
```



The screenshot shows the CircleCI web interface with the user 'duluca' logged in. The left sidebar has a dark theme with icons for JOBS, WORKFLOWS, INSIGHTS (highlighted with a red circle containing the number 1), ADD PROJECTS (selected), TEAM, and SETTINGS.

The main area is titled 'Add Projects' and contains the following text:

CircleCI helps you ship better code, faster. Let's add some projects on CircleCI.

To kick things off, you'll need to choose a project to build. We'll start a new build for you each time someone pushes a new commit.

Below this, there are two tabs: 'Linux / Windows' (selected) and 'macOS'. A 'Filter projects...' input field and a 'Show Forks' checkbox are also present.

A list of projects is shown:

- lemon-mart
- web-dev-environment-setup
- lemon-mart-server
- document-ts
- local-weather-app

For each project, there are three buttons:

- 'Unfollow Project'
- 'Set Up Project' (highlighted with a red circle containing the number 2)
- 'Unfollow Project'

Screenshot of a CI/CD pipeline interface showing a list of jobs and their status.

The interface includes a sidebar with navigation links: JOBS, WORKFLOWS, INSIGHTS, ADD PROJECTS, TEAM, and SETTINGS.

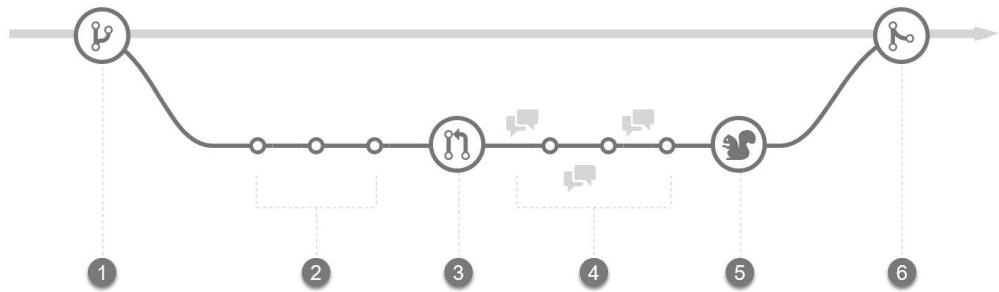
The main area shows a list of projects:

Project	Status
lemon-mart	SUCCESS
document-ts	SUCCESS
lemon-mart-server	SUCCESS
local-weather-app	SUCCESS
angular-unit-test-helper	SUCCESS
init-dev-env	SUCCESS
minimal-mean	SUCCESS

Below this, there are two sections for failed jobs:

Job	Description	Time	Commit	Type
upgrade-to-ng8 #98	fixed tslint error	11 days ago	02:55	build
#28			d17a4b0	
build-test-and-approval-deploy				build

Job	Description	Time	Commit	Type
upgrade-to-ng8 #97	Merge branch 'master' into upgrade-to-ng8	11 days ago	00:58	build
#28			11a0704	
build-test-and-approval-deploy				build



## Branch protection rule

<b>Branch name pattern</b> master
Applies to 1 branch master
<b>Rule settings</b>
<b>Protect matching branches</b> Disables force-pushes to all matching branches and prevents them from being deleted.
<input type="checkbox"/> <b>Require pull request reviews before merging</b> When enabled, all commits must be made to a non-protected branch and submitted via a pull request with the required number of approving reviews and no changes requested before it can be merged into a branch that matches this rule.
<input checked="" type="checkbox"/> <b>Require status checks to pass before merging</b> Choose which status checks must pass before branches can be merged into a branch that matches this rule. When enabled, commits must first be pushed to another branch, then merged or pushed directly to a branch that matches this rule after status checks have passed.
<input checked="" type="checkbox"/> <b>Require branches to be up to date before merging</b> This ensures pull requests targeting a matching branch have been tested with the latest code. This setting will not take effect unless at least one status check is enabled (see below).
<p>Sorry, we couldn't find any status checks in the last week for this repository. <a href="#">Learn more about status checks on GitHub.</a></p>
<input type="checkbox"/> <b>Require signed commits</b> Commits pushed to matching branches must have verified signatures.
<input checked="" type="checkbox"/> <b>Include administrators</b> Enforce all configured restrictions for administrators.
<b>Save changes</b>

**Default branch**

The default branch is considered the "base" branch in your repository, against which all pull requests and code commits are automatically made, unless you specify a different branch.

master **Update**

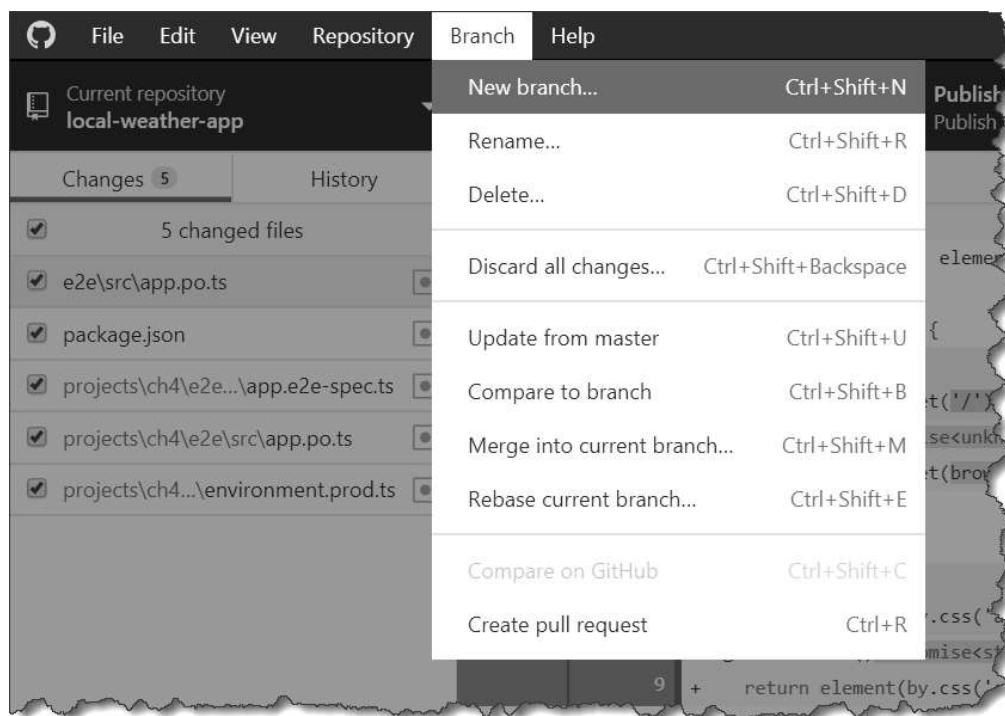
**Branch protection rules** **Add rule**

Define branch protection rules to disable force pushing, prevent branches from being deleted, and optionally require status checks before merging. New to branch protection rules? Learn more.

master	Currently applies to 1 branch	<b>Edit</b>	<b>Delete</b>
--------	-------------------------------	-------------	---------------

**Previous** **Next**

This screenshot shows the GitHub repository settings page for a repository named 'local-weather-app'. The left sidebar contains links for Options, Collaborators, Branches (which is selected), Webhooks, Notifications, Integrations & services, Deploy keys, Moderation, and Interaction limits. The main content area has two sections: 'Default branch' and 'Branch protection rules'. The 'Default branch' section shows 'master' as the selected branch. The 'Branch protection rules' section shows one rule applied to the 'master' branch, with options to 'Edit' or 'Delete' it. Navigation buttons 'Previous' and 'Next' are at the bottom.



 All checks have passed  
3 successful checks

 This branch has no conflicts with the base branch  
Merging can be performed automatically.

**Merge pull request** You can also open this in GitHub Desktop or view command line instructions.

 Some checks were not successful  
1 failing and 1 successful checks

 DeepScan — 21 new and 6 fixed issues

 ci/circleci: build — Your tests passed on CircleCI!

 This branch has conflicts that must be resolved  
Use the web editor or the command line to resolve conflicts.

**Conflict files**  
README.md  
package-lock.json

**Resolve conflicts**

**Merge pull request** You can also open this in GitHub Desktop or view command line instructions.



# LocalCast Weather

Your city, your forecast, right now!

## Current Weather

Bethesda, USMonday, March 23, 2020



44°F  
overcast clouds

## Chapter 5: Delivering High-Quality UX with Material

Email address

We'll never share your email with anyone else

Password



Please include an '@' in the email address. 'test' is missing an '@'.

Check me out

**Submit**

Enter your email \*

We'll never share your email with anyone else

Enter your password



Check me!

**Submit**

Enter your email \*

test

Not a valid email

Enter your password

\*\*\*\*



Check me!

Submit

Submit

Submit

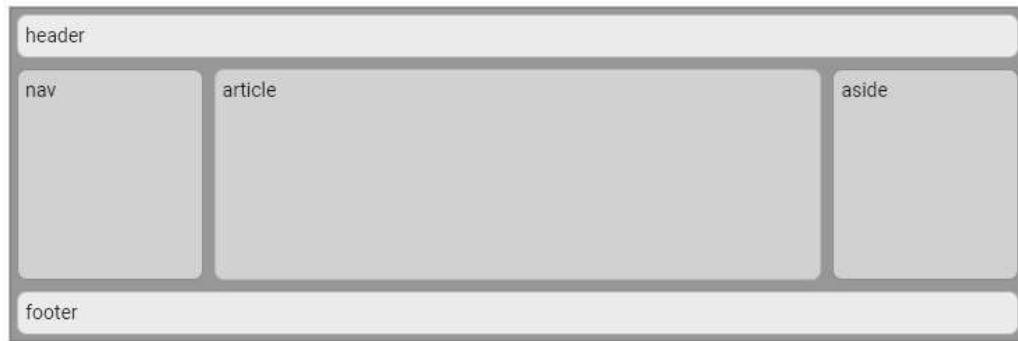
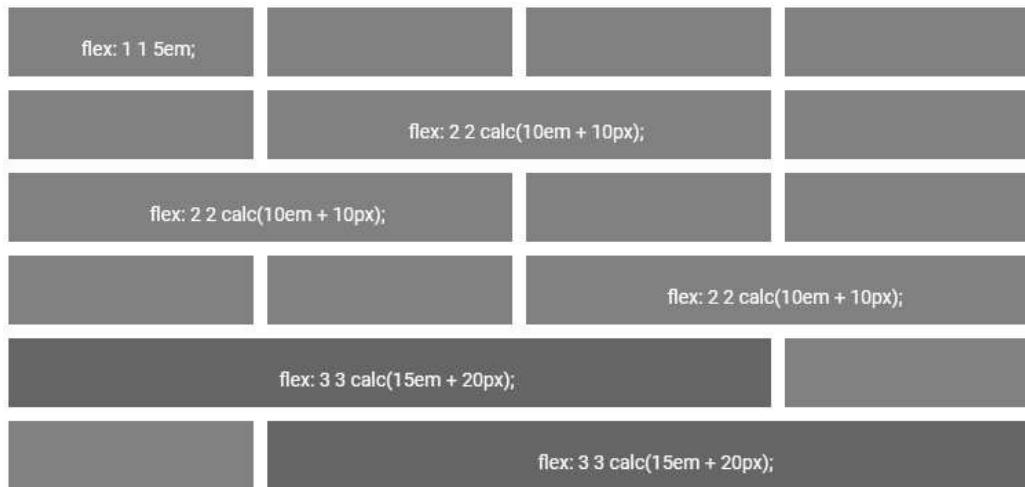
Submit

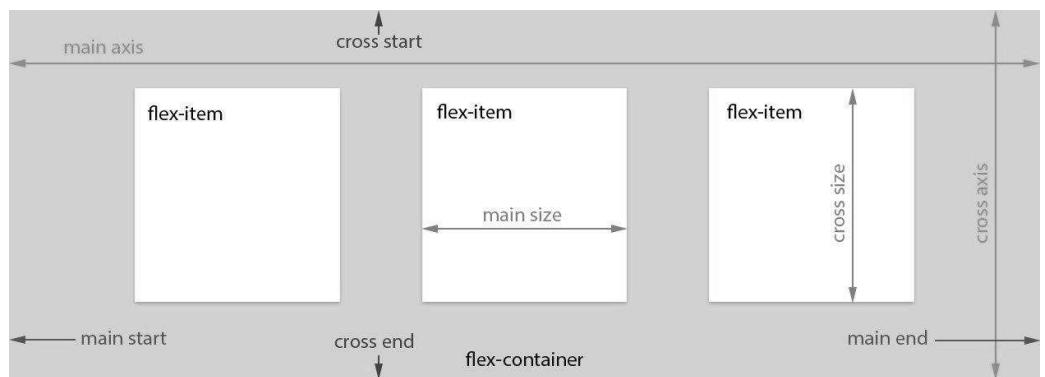
Local Weather App Updated 4 days ago

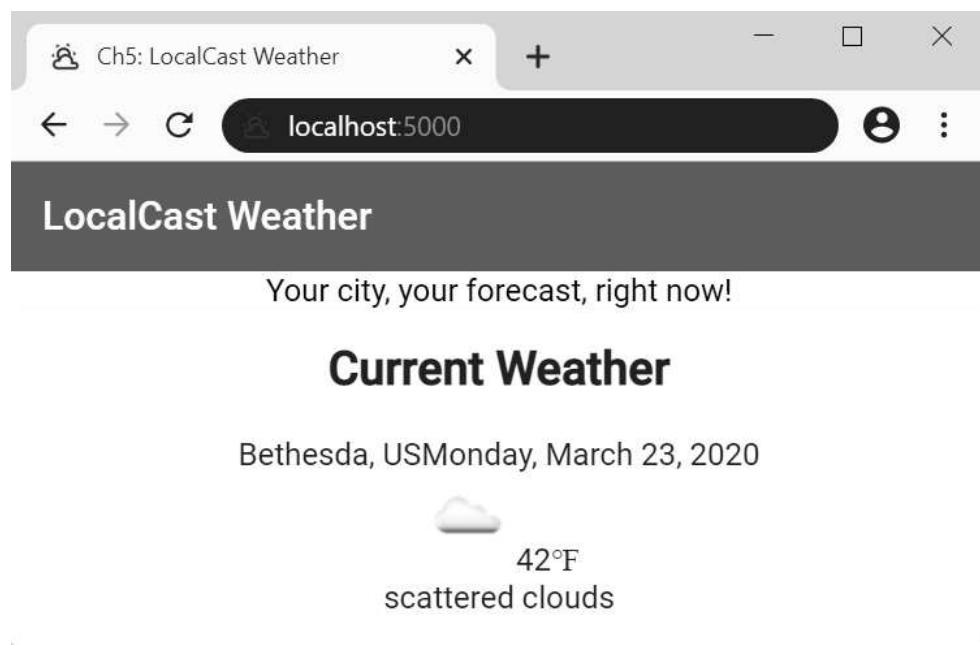
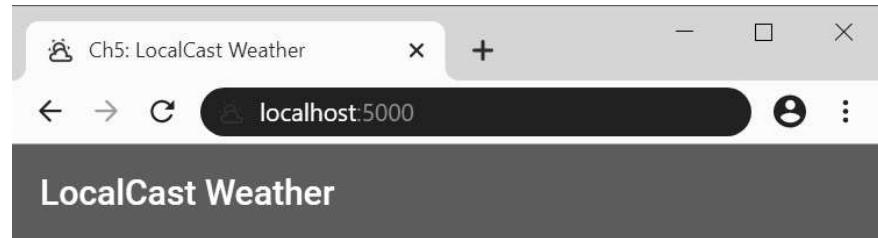
Filter cards + Add cards Fullscreen Menu

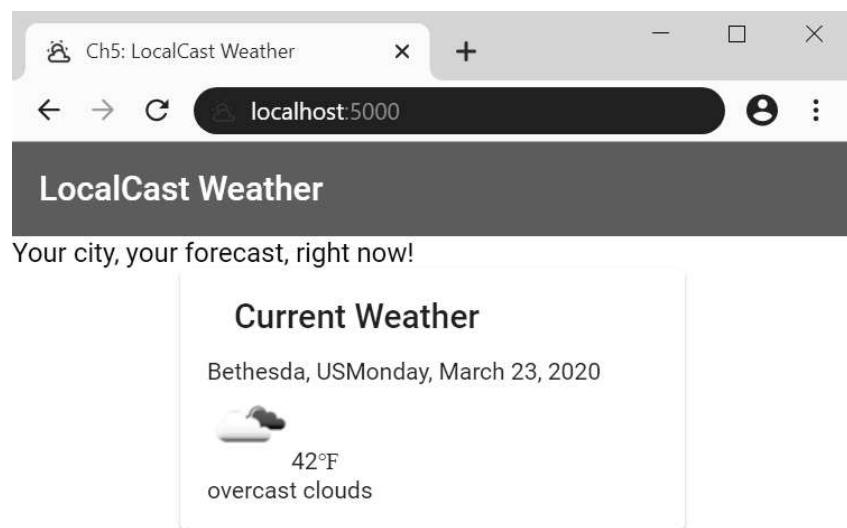
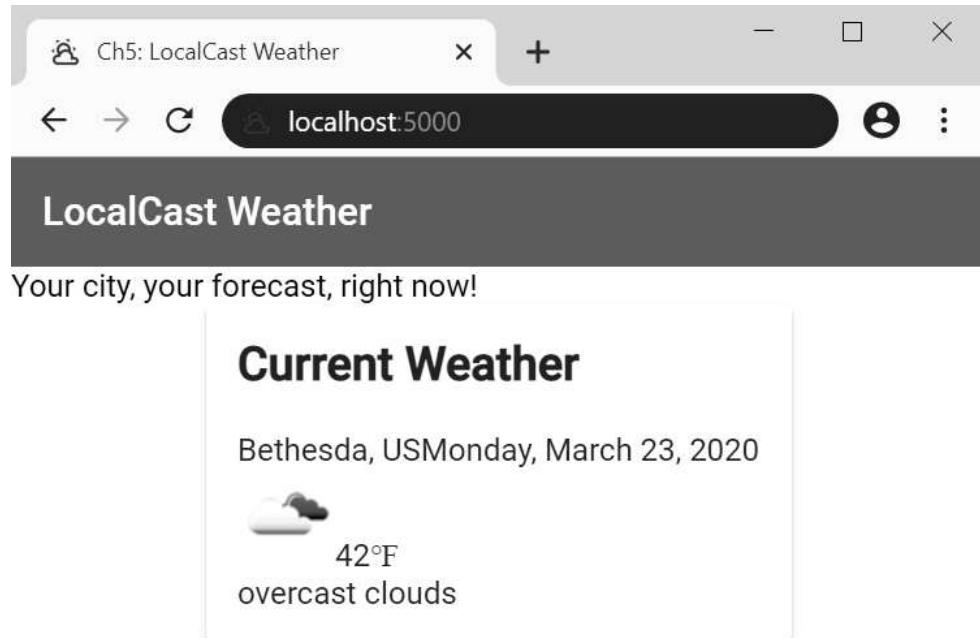
Backlog	To do	In progress	Done
① Add authentication, so users can retrieve data from any browser #37 opened by duluca	① Display forecast information for current location #33 opened by duluca	① Improve the UX of the app with Angular Material #36 opened by duluca	① Create a mock up for the app #40 opened by duluca
① Add HTML5 GeoLocation support #38 opened by duluca	① Add city search capability so that users can see weather information from other cities #34 opened by duluca	① Add a preferences pane to store the default city for the user #35 opened by duluca	① Display Current Location weather information for the current day #32 opened by duluca
① User localStorage to cache user preferences #39 opened by duluca			

.col-md-1											
.col-md-8						.col-md-4					
.col-md-4				.col-md-4				.col-md-4			
.col-md-6						.col-md-6					









Ch5: LocalCast Weather

localhost:5000

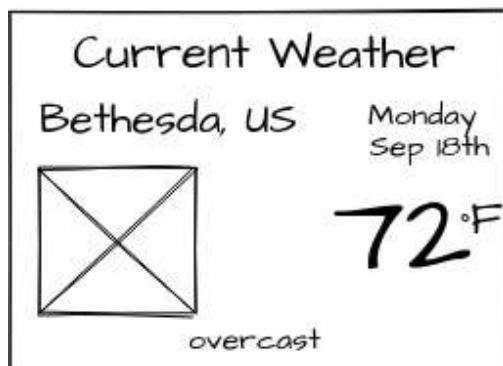
## LocalCast Weather

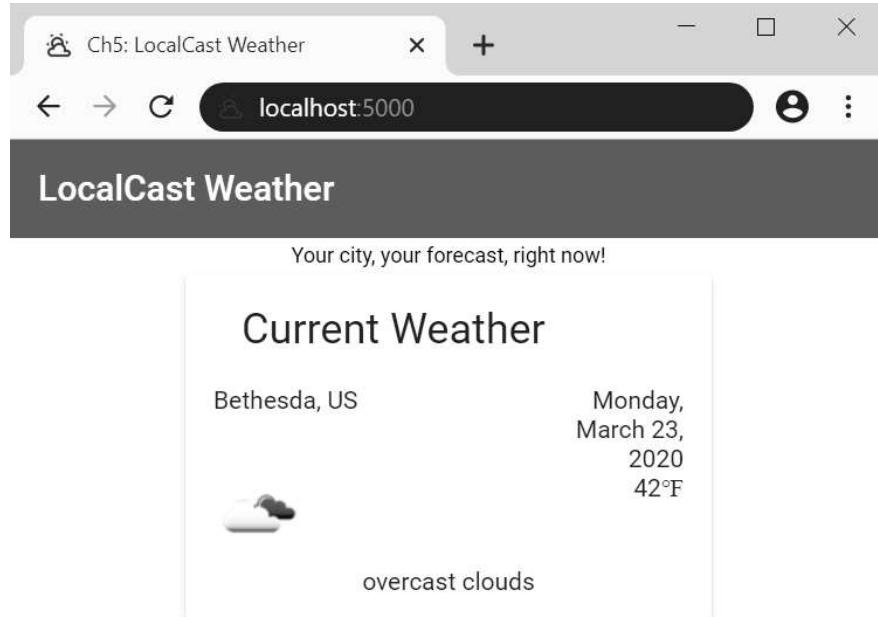
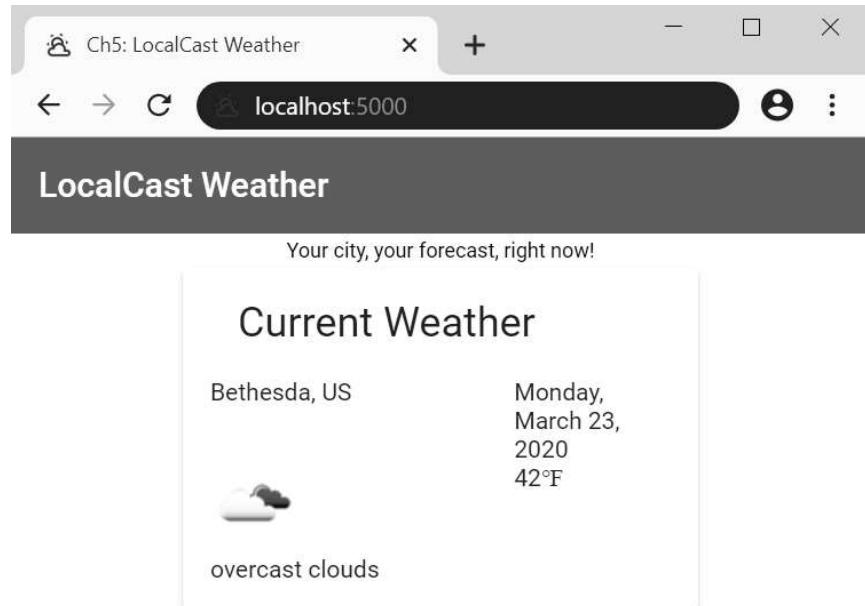
Your city, your forecast, right now!

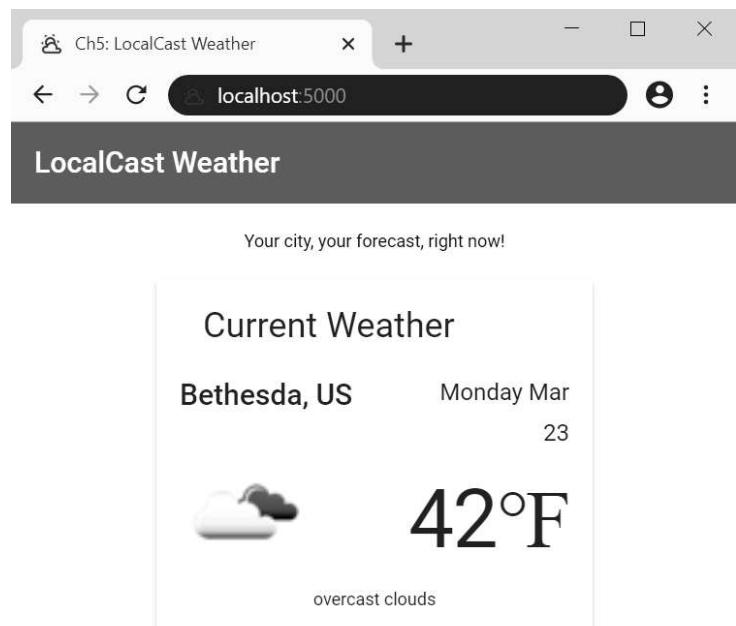
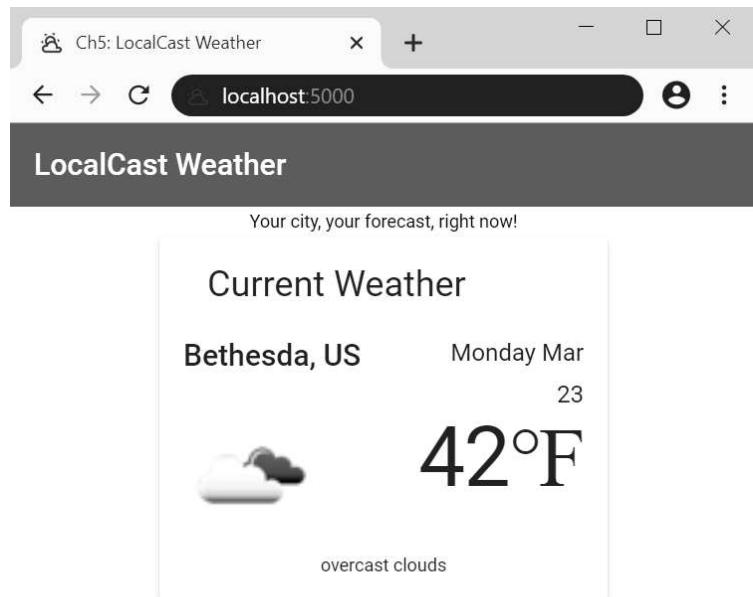
### Current Weather

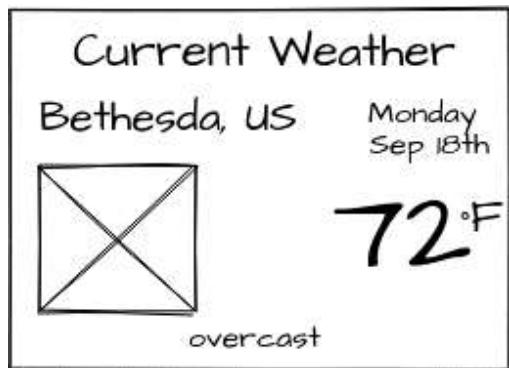
Bethesda, US Monday, March 23, 2020

 42°F  
scattered clouds









The browser window has the following details:  
Title bar: Ch5: LocalCast Weather  
Address bar: localhost:5000  
Content area:  
Section title: LocalCast Weather  
Text: Your city, your forecast, right now!  
Weather card:  
Section title: Current Weather  
Location: Bethesda, US      Date: Monday  
Date: Mar 23rd  
Icon: A small icon of a cloud with dark areas representing overcast clouds.  
Temperature: 55 °F  
Text below icon: overcast clouds

A screenshot of a web browser window titled "Ch5: LocalCast Weather". The address bar shows "localhost:5000". The main content area has a dark header with "LocalCast Weather" and a sub-header "Your city, your forecast, right now!". Below this is a card with "Current Weather" for "Bethesda, US" on "Tuesday Mar 24th". The card displays a weather icon of overcast clouds and the temperature "42 °F".

Ch5: LocalCast Weather

localhost:5000

## LocalCast Weather

Your city, your forecast, right now!

### Current Weather

Bethesda, US      Tuesday  
Mar 24th

42 °F

overcast clouds



COLOR TOOL

EXPORT



USER INTERFACES   ACCESSIBILITY

1/6 >

Text

+

—

MATERIAL PALETTE

CUSTOM

	50	100	200	300	400	500	600	700	800	900	A	100	200	400	A	700
Red																
Pink																
Purple																
Deep Purple																
Indigo																
Blue																
Light Blue																
Cyan																
Teal																

CURRENT SCHEME

RESET ALL

Primary #f44336  P	Secondary #3d5afe  S	Text on P #000000 T
P – Light #ff7961	P – Dark #ba000d	S – Light #8187ff
RESET		S – Dark #0031ca

Text on S  
#ffffff  
T





## COLOR TOOL

USER INTERFACES

ACCESSIBILITY

### Primary

#f44336

Aa Large Text

Aa Normal Text

White Text min 85% opacity

NOT LEGIBLE



Black Text min 55% opacity

min 77% opacity

### P – Light

#ff7961

Aa Large Text

Aa Normal Text

White Text NOT LEGIBLE

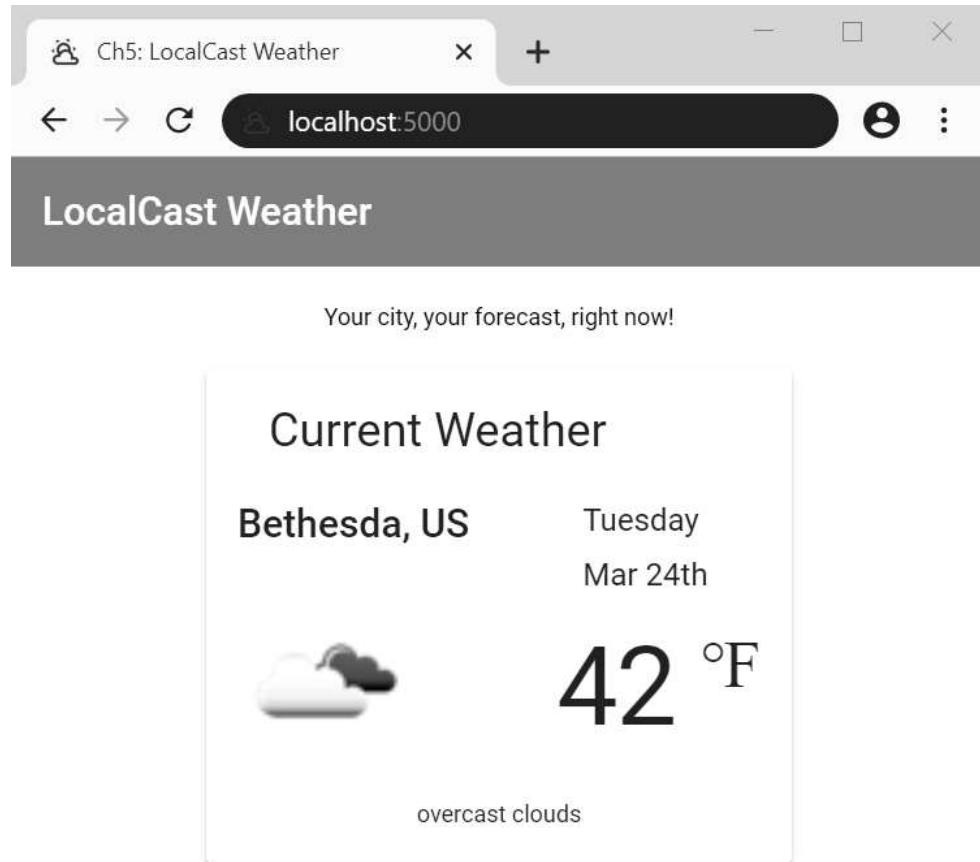


NOT LEGIBLE

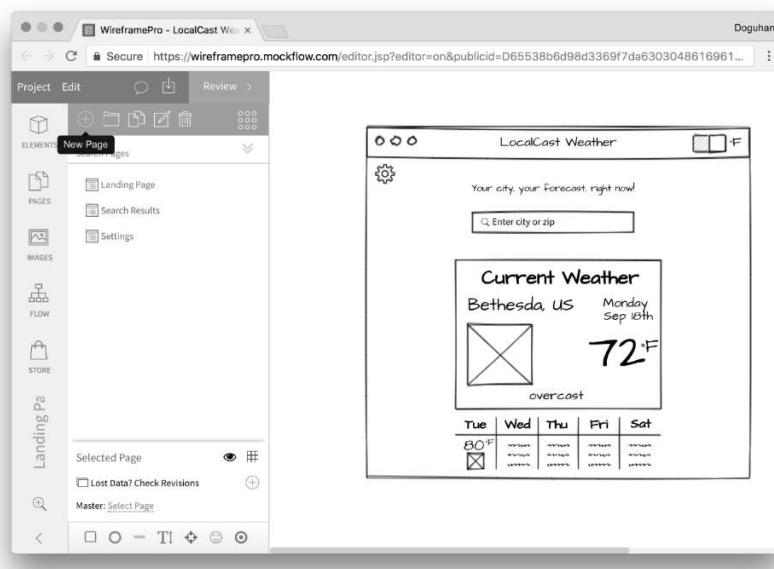
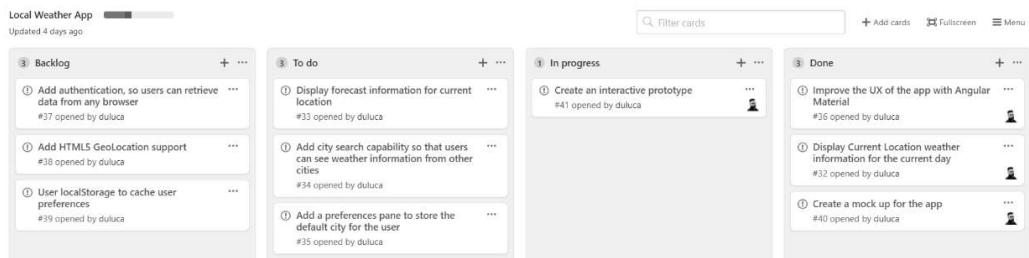


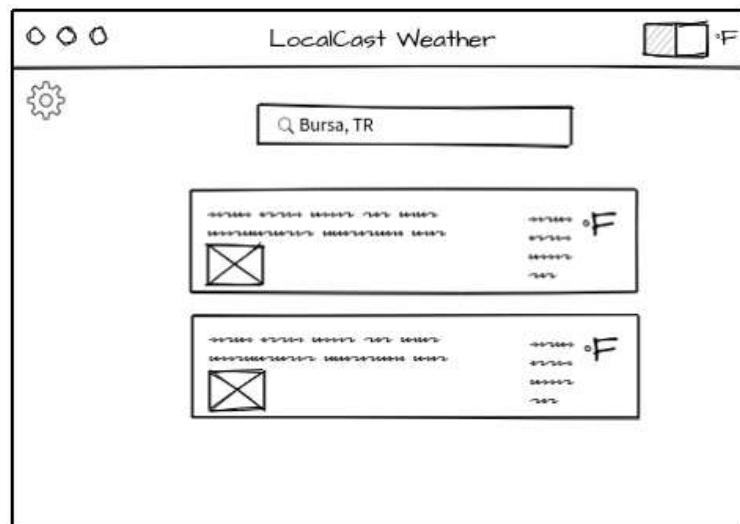
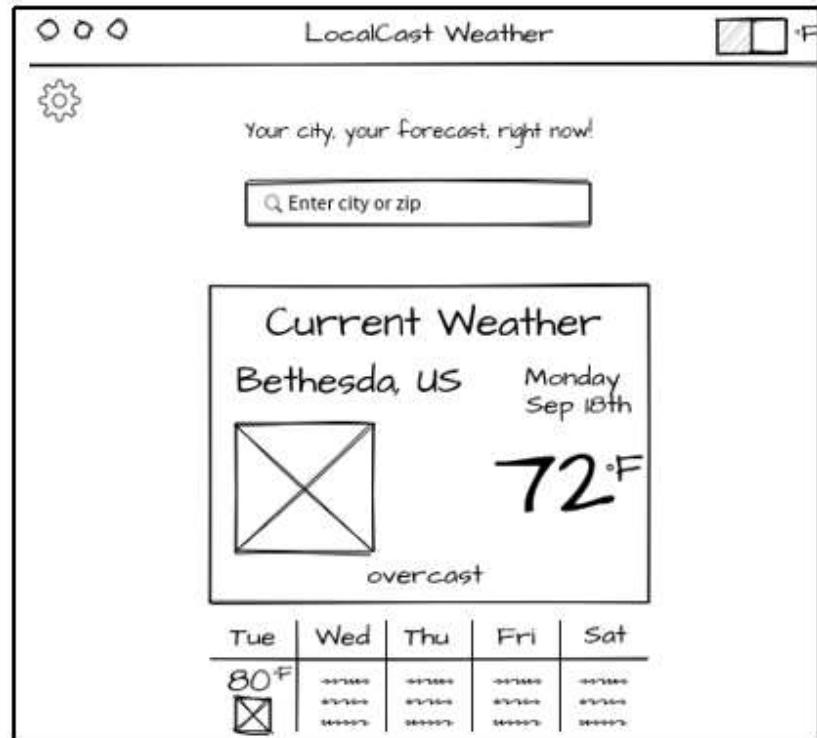
Black Text min 48% opacity

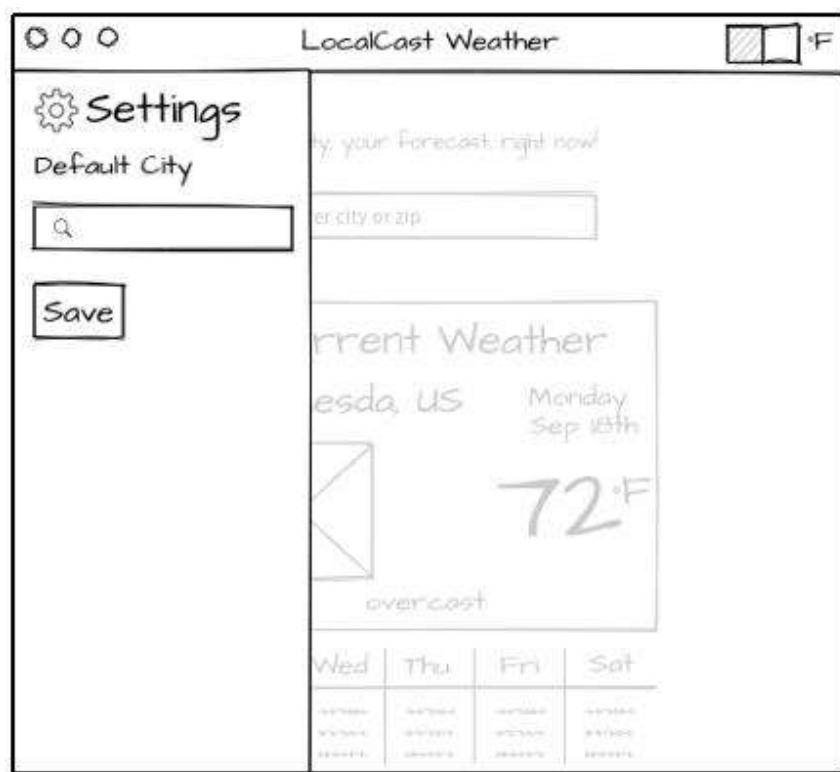
min 65% opacity

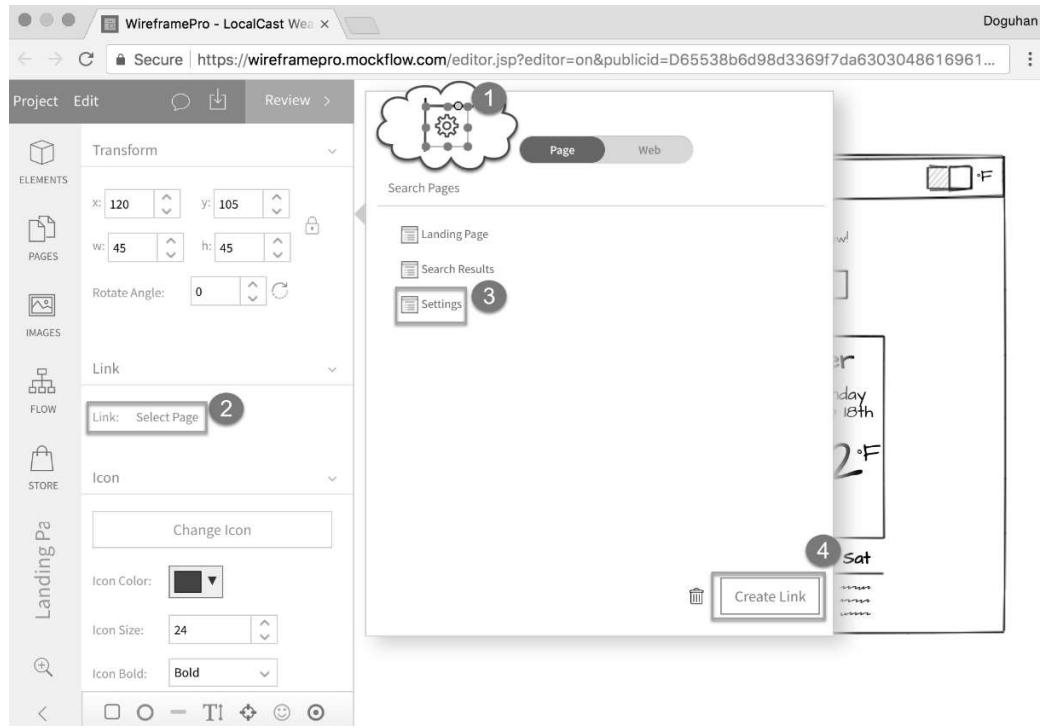


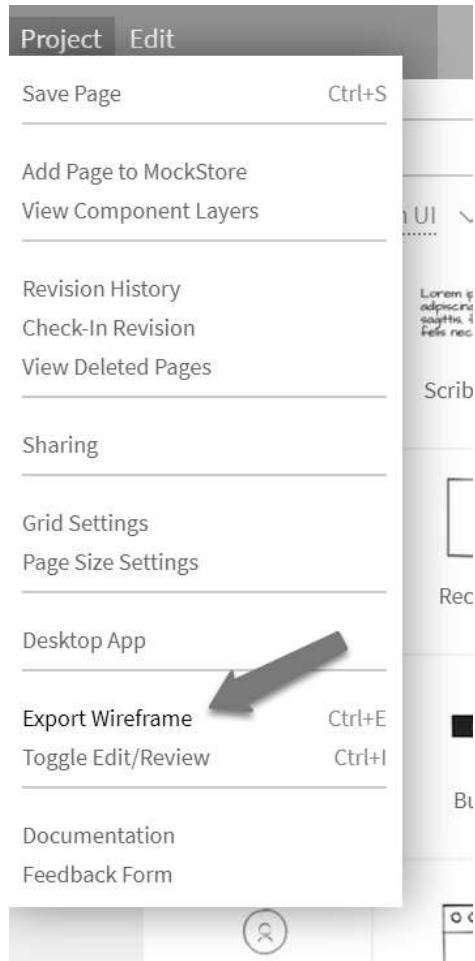
The screenshot shows a Kanban board titled "Local Weather App" with four columns: Backlog, To do, In progress, and Done. The "Backlog" column contains three items: "Add authentication, so users can retrieve data from any browser", "Add HTML5 Geolocation support", and "User localStorage to cache user preferences". The "To do" column contains three items: "Display forecast information for current location", "Add city search capability so that users can see weather information from other cities", and "Add a preferences pane to store the default city for the user". The "In progress" and "Done" columns each contain one item: "Improve the UX of the app with Angular Material" and "Create a mock up for the app". A search bar at the top right says "Filter cards".

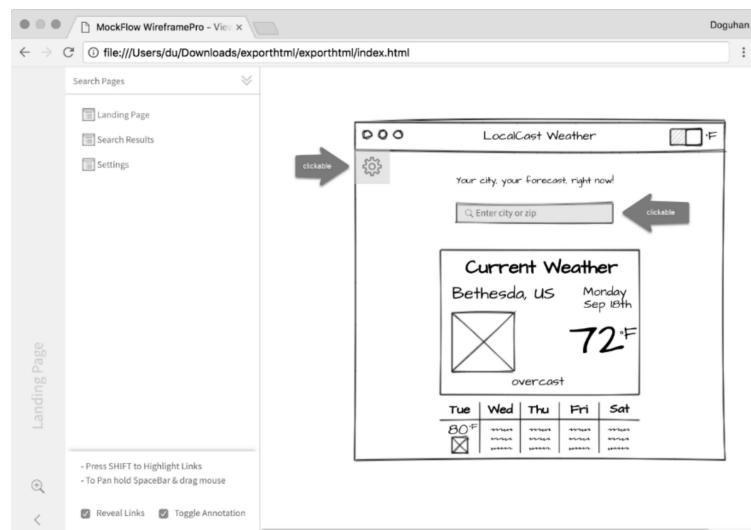
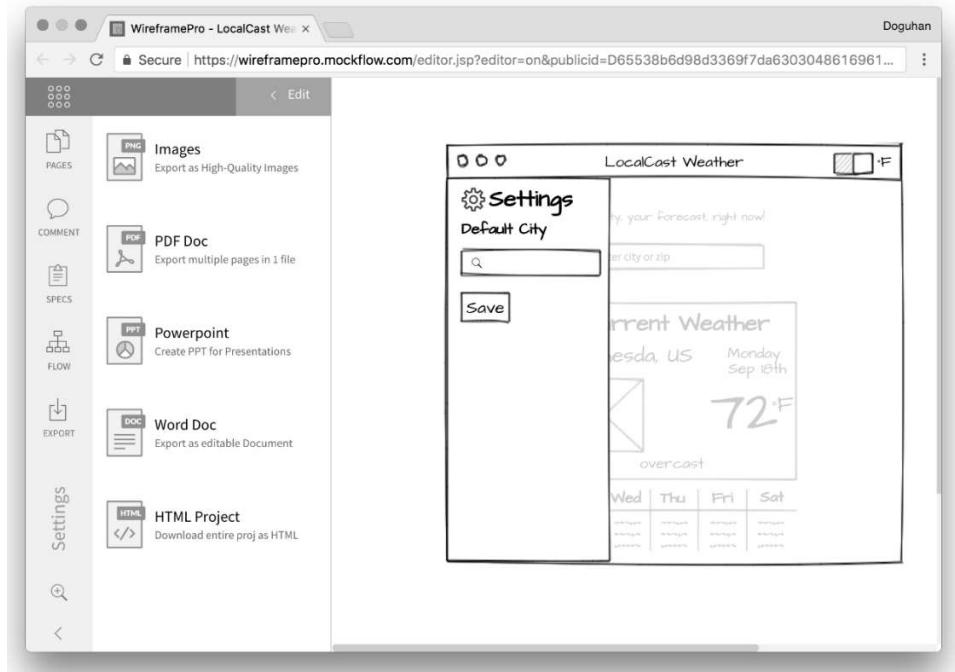




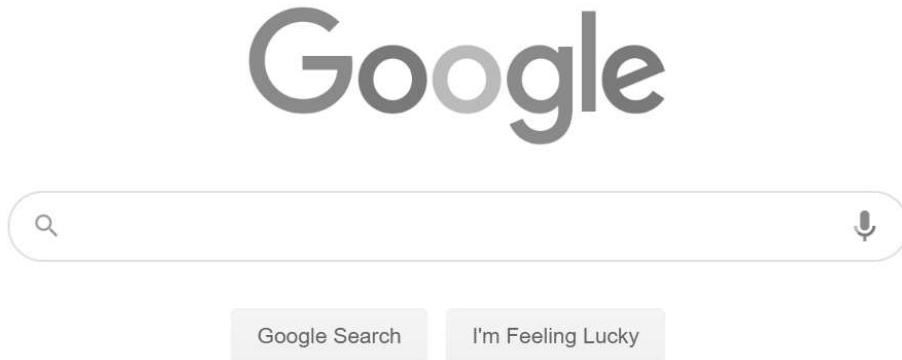








## Chapter 6: Forms, Observables, and Subjects

A screenshot of a Trello board titled "Local Weather App". The board has four columns: "Backlog", "To do", "In progress", and "Done".

- Backlog:**
  - Add authentication, so users can retrieve data from any browser #37 opened by duluca
  - Add HTML5 Geolocation support #38 opened by duluca
  - User localStorage to cache user preferences #39 opened by duluca
- To do:**
  - Display forecast information for current location #33 opened by duluca
  - Add a preferences pane to store the default city for the user #35 opened by duluca
- In progress:**
  - Add city search capability so that users can see weather information from other cities #34 opened by duluca
- Done:**
  - Create an interactive prototype #41 opened by duluca
  - Improve the UX of the app with Angular Material #36 opened by duluca
  - Display Current Location weather information for the current day #32 opened by duluca
  - Create a mock up for the app #40 opened by duluca

A screenshot of a web browser window titled "LocalCast Weather". The address bar shows "localhost:5000". The main content area displays the "LocalCast Weather" logo and a search bar with the placeholder "City Name or Postal Code". Below the search bar, a large box contains the heading "Current Weather" and the location "Bethesda, US". It also shows the day "Thursday" and date "Feb 13th". To the left of the temperature, there is a small icon of clouds with rain. To the right, the temperature is displayed as "40 °F". Below the temperature, the condition "light rain" is mentioned. At the bottom of the weather box, there is a five-day forecast table:

Tue	Wed	Thu	Fri	Sat
80°F	~~~~~	~~~~~	~~~~~	~~~~~
	~~~~~	~~~~~	~~~~~	~~~~~

Tue	Wed	Thu	Fri	Sat
80°F	~~~~~	~~~~~	~~~~~	~~~~~
	~~~~~	~~~~~	~~~~~	~~~~~

# LocalCast Weather

Your city, your forecast, right now!

City Name or Postal Code

 bursa

Specify country code like 'Paris, US'

## Current Weather

Bursa, TR

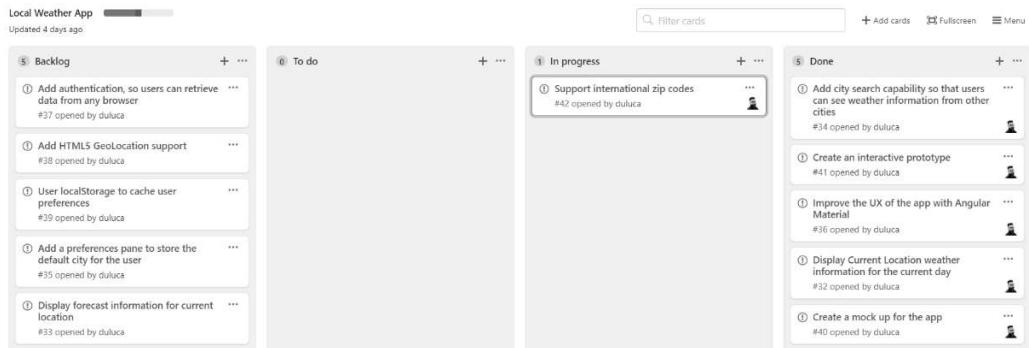
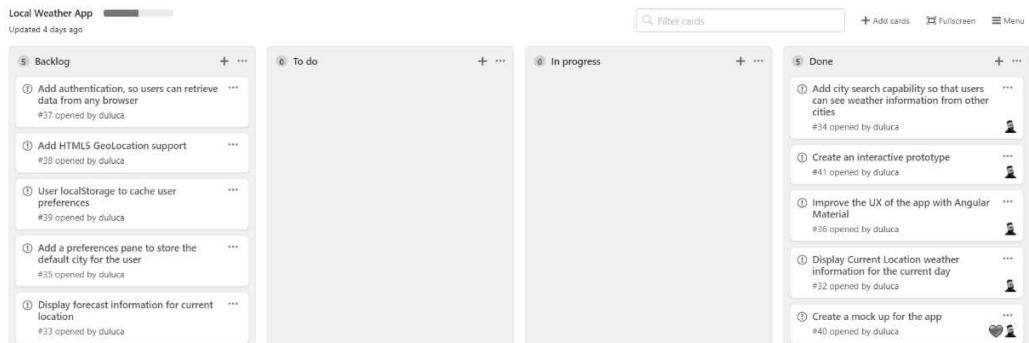
Wednesday

Mar 25th



45 °F

broken clouds



# LocalCast Weather

Your city, your forecast, right now!

City Name or Postal Code

 EC2R 6AB

Specify country code like 'Paris, US'

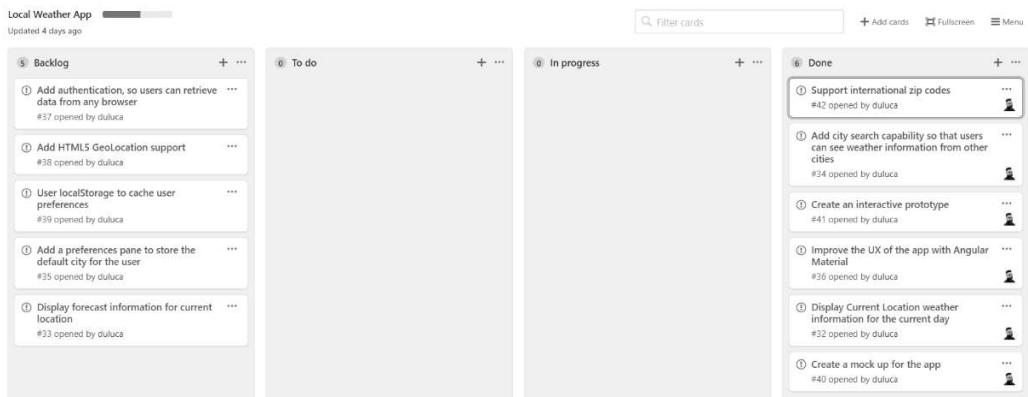
## Current Weather

Barbican, GB      Wednesday  
Mar 25th

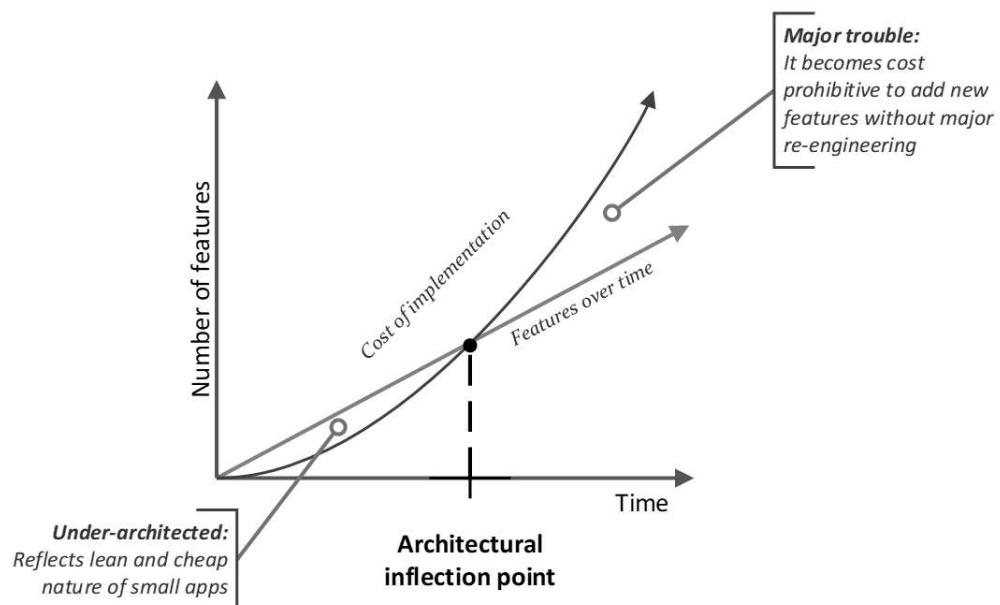
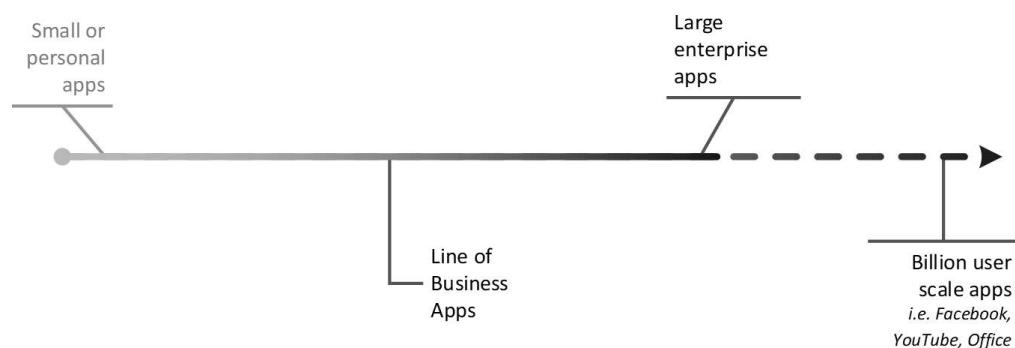


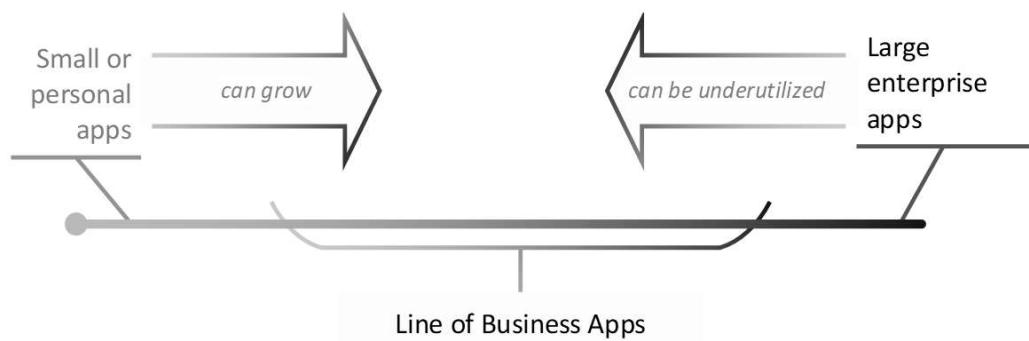
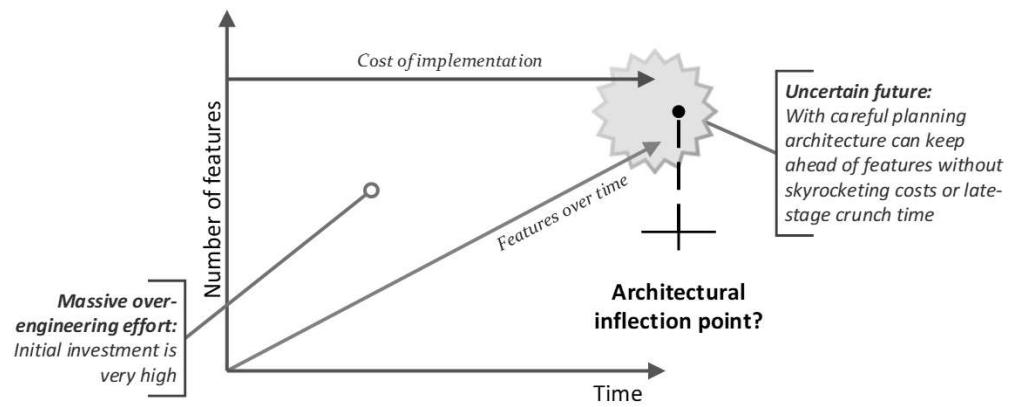
34 °F

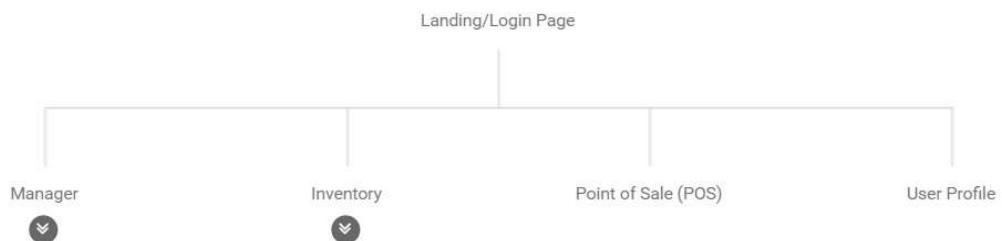
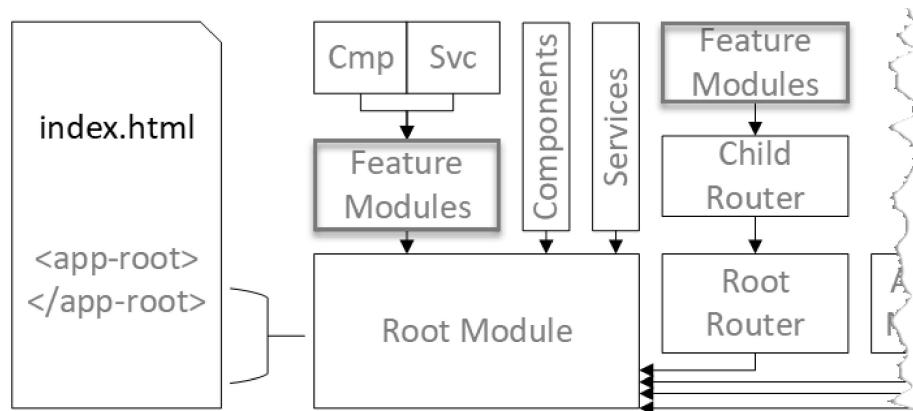
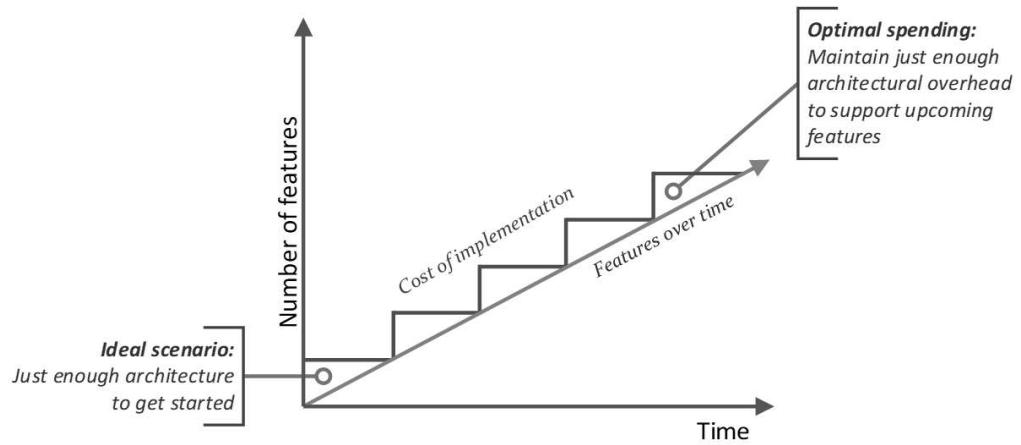
clear sky

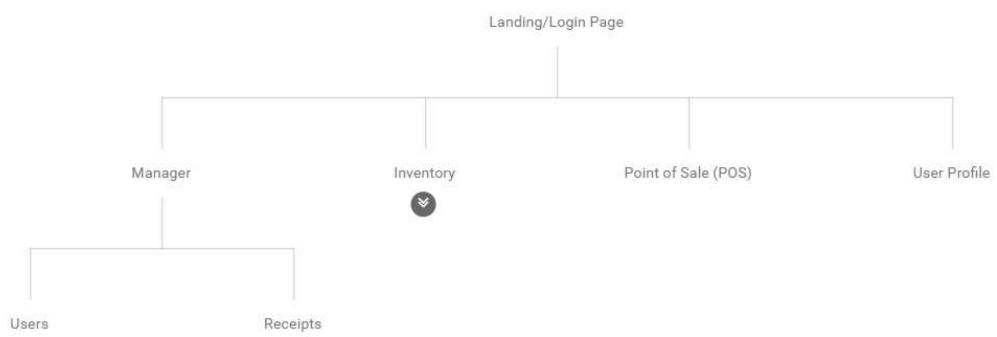


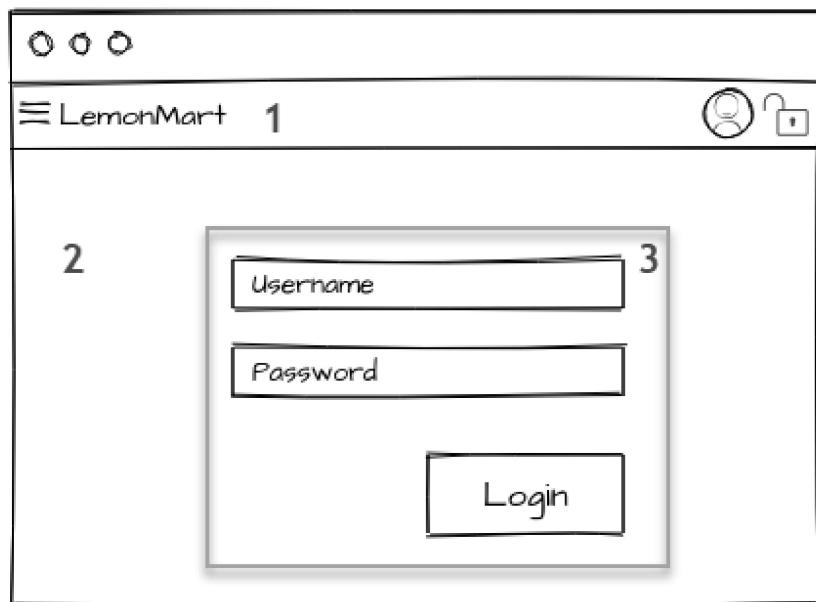
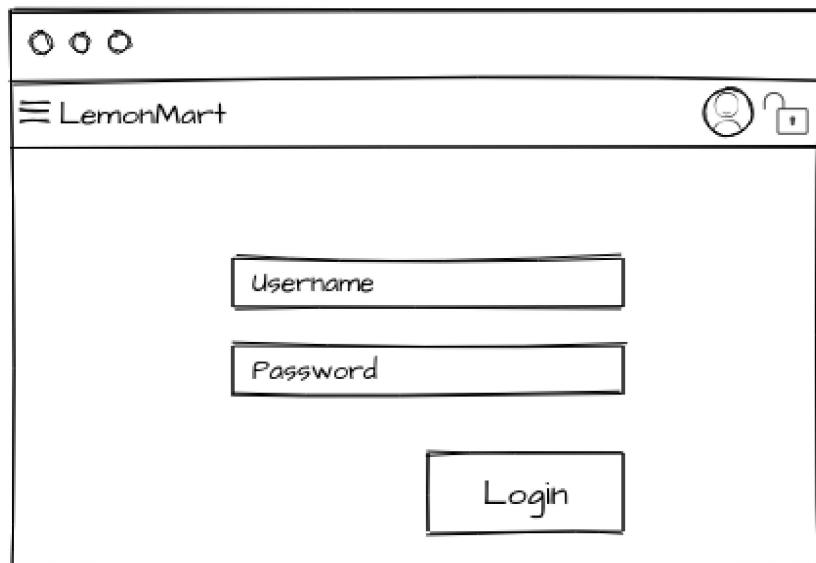
## Chapter 7: Creating a Router-First Line-of-Business App

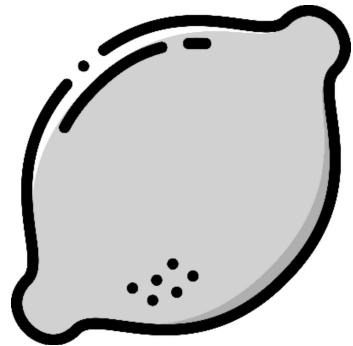






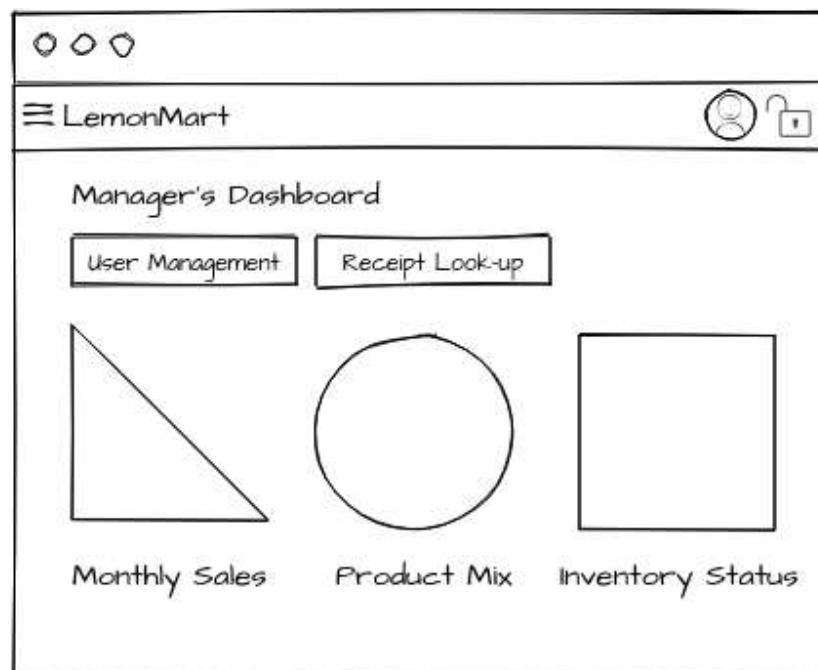
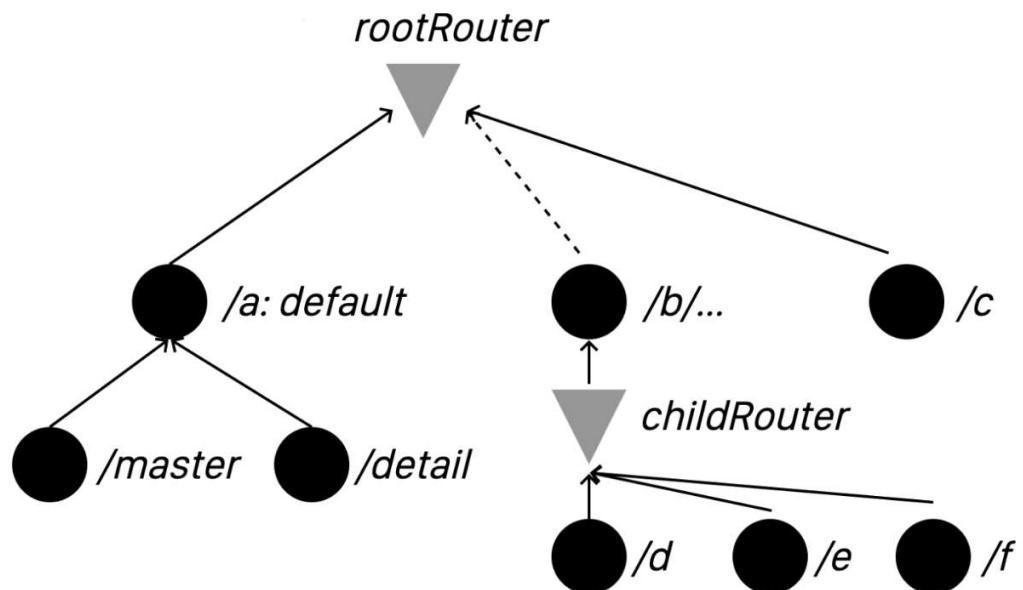


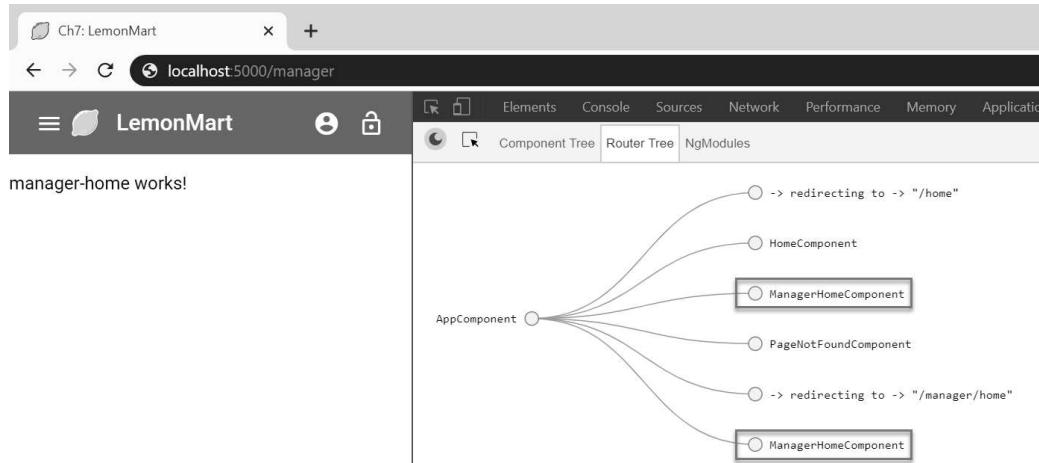
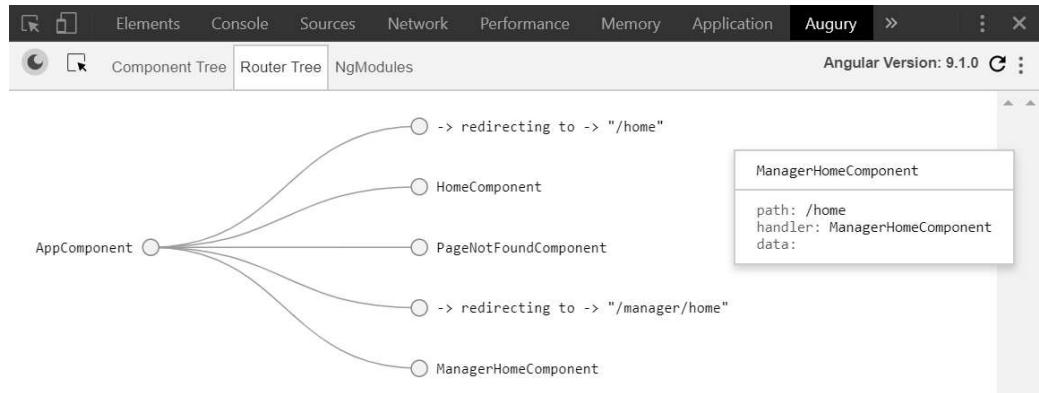


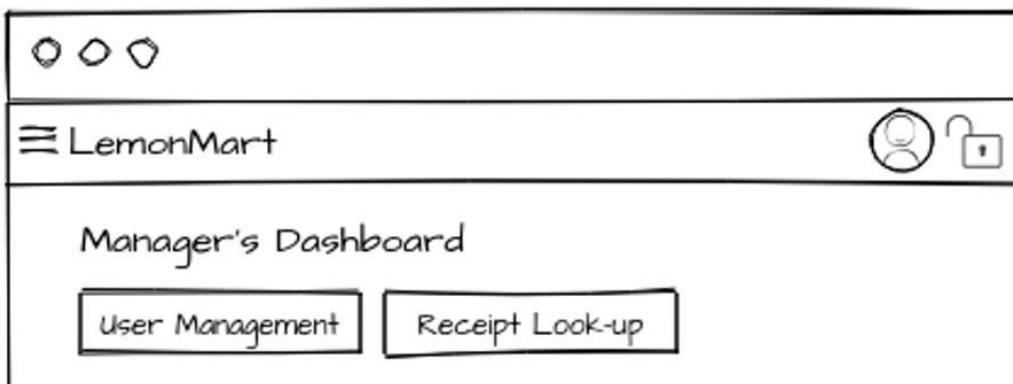
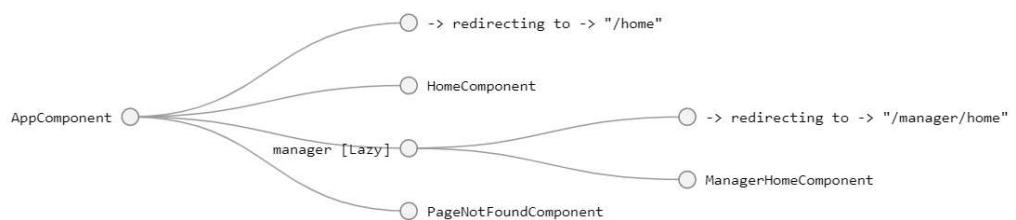
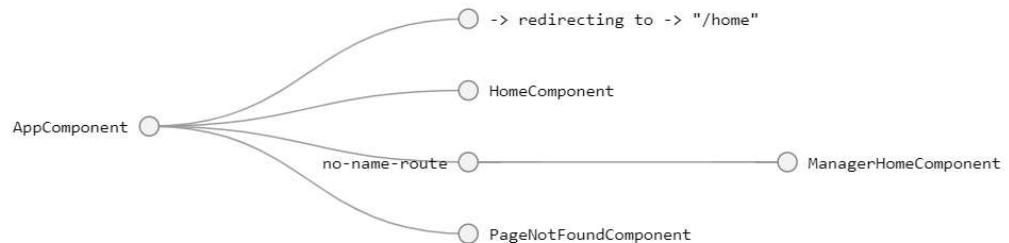
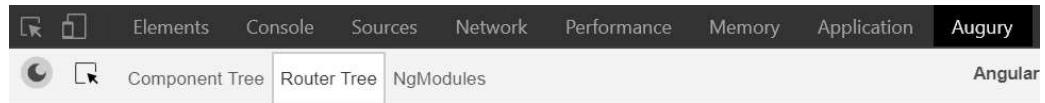


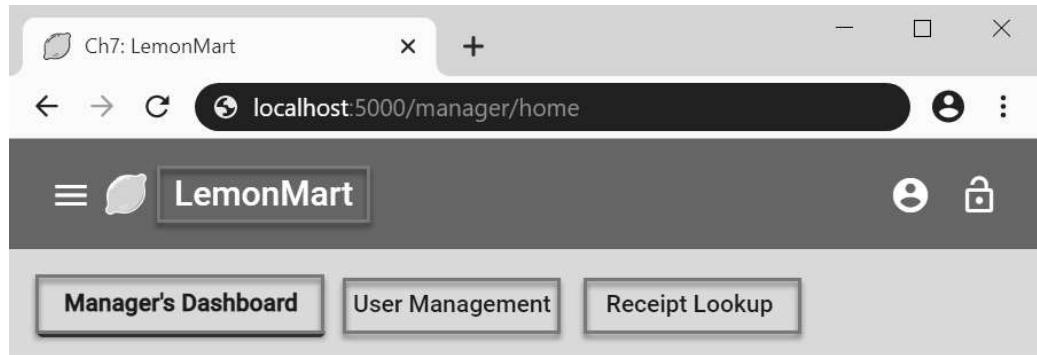
Hello, Limoncu!

Login



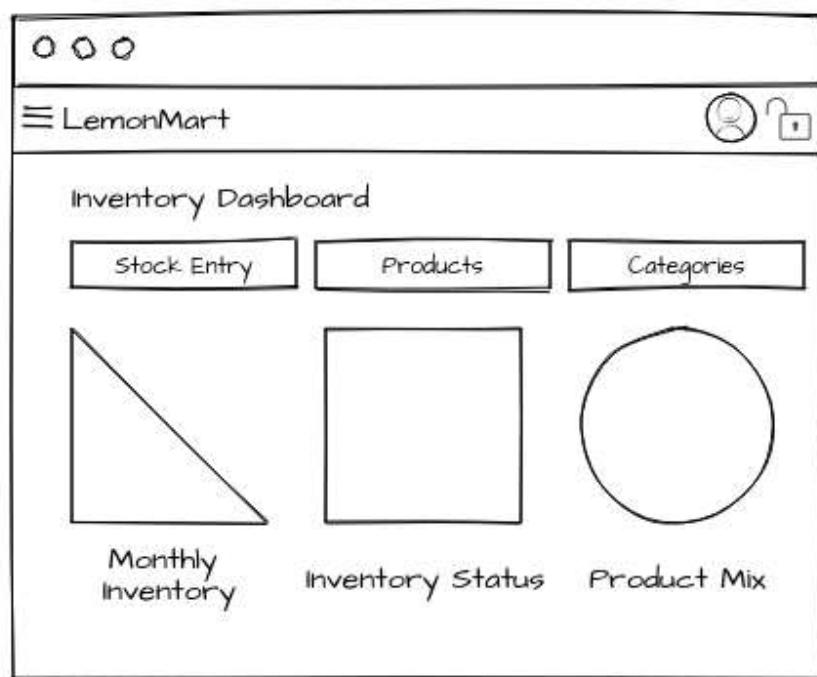


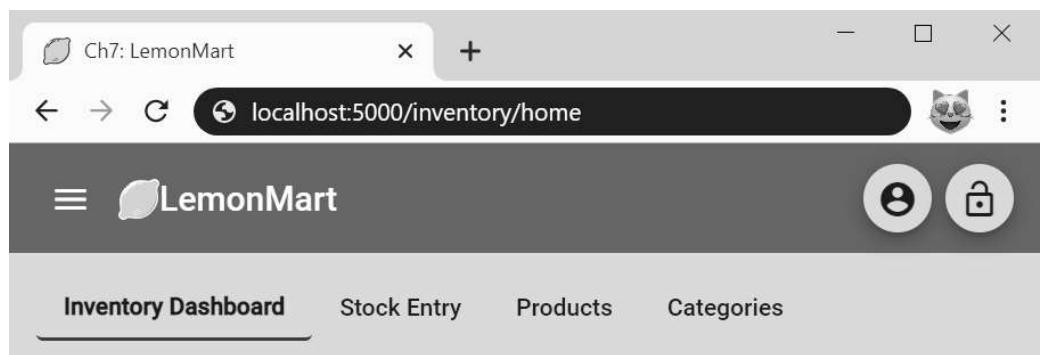




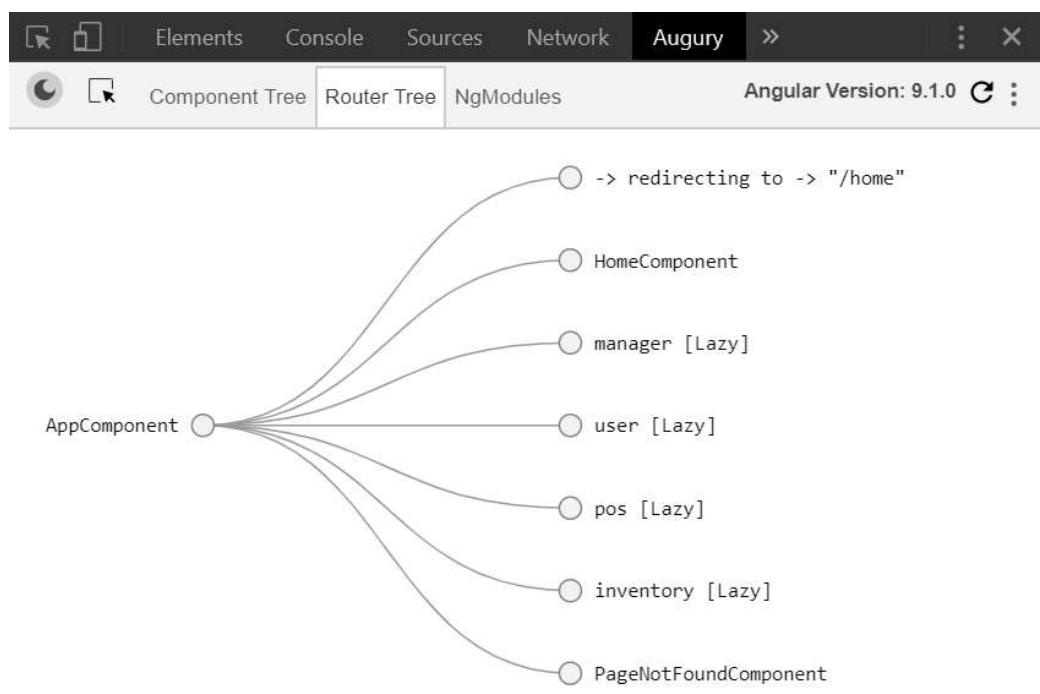
manager-home works!

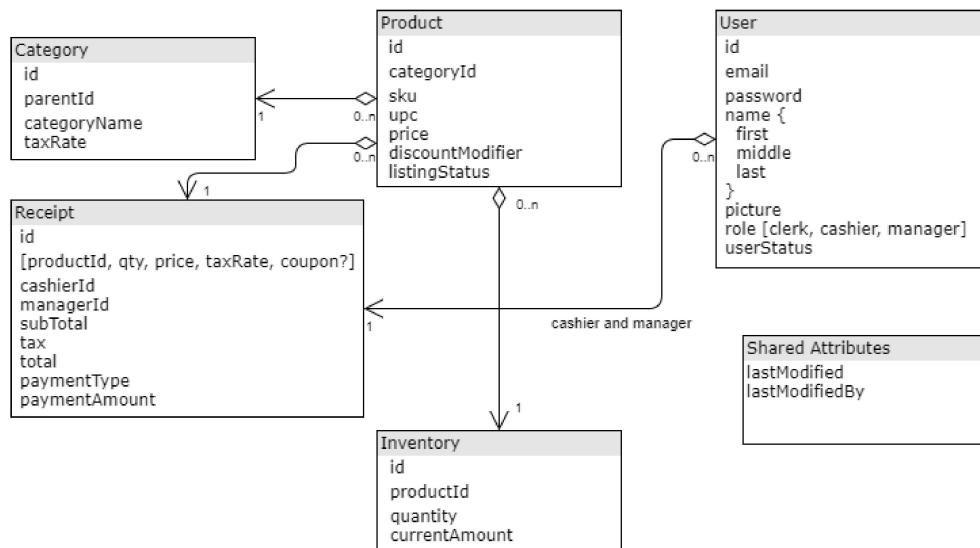






inventory-home works!





1 duluca / lemon-mart

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

## Home

Doguhan Uluca edited this page on Feb 16 · 9 revisions

2 Welcome to the lemon-mart wiki!

LemonMart follows a router-first approach to designing a SPA app. See the Readme for more details.

Below are the design artifacts that facilitates the router-first approach.

## Design Artifacts 4

1. User Roles
  - Unauthenticated, can login to the system
  - Cashier, checks out customers buying good on the POS system,
  - Clerk, adds new items to inventory and can view inventory to take stock,
  - Manager, can access all system functionality, manager system users and lookup receipts.
2. Site Map - <https://github.com/duluca/lemon-mart/wiki/Site-Maps>
3. Entities/Major Data Components - <https://github.com/duluca/lemon-mart/wiki/Entity-Model>
4. Mock Ups - <https://github.com/duluca/lemon-mart/wiki/Mock-Ups>

3 Pages 4

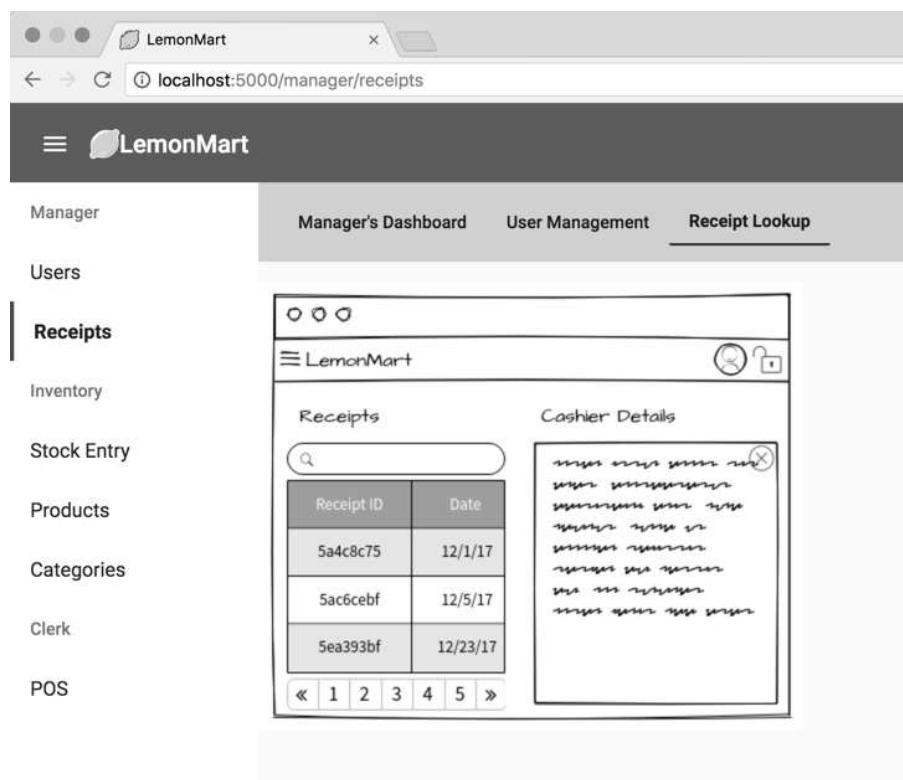
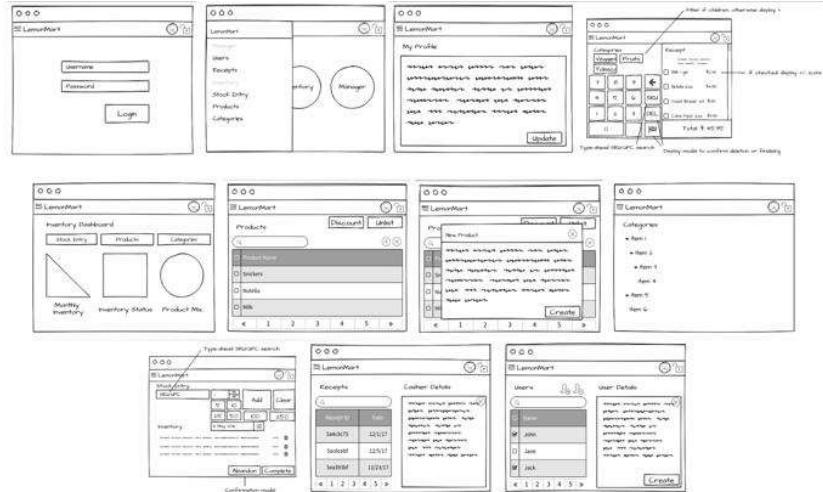
- Home
- Entity Model
- Mock Ups
- Site Maps

+ Add a custom sidebar

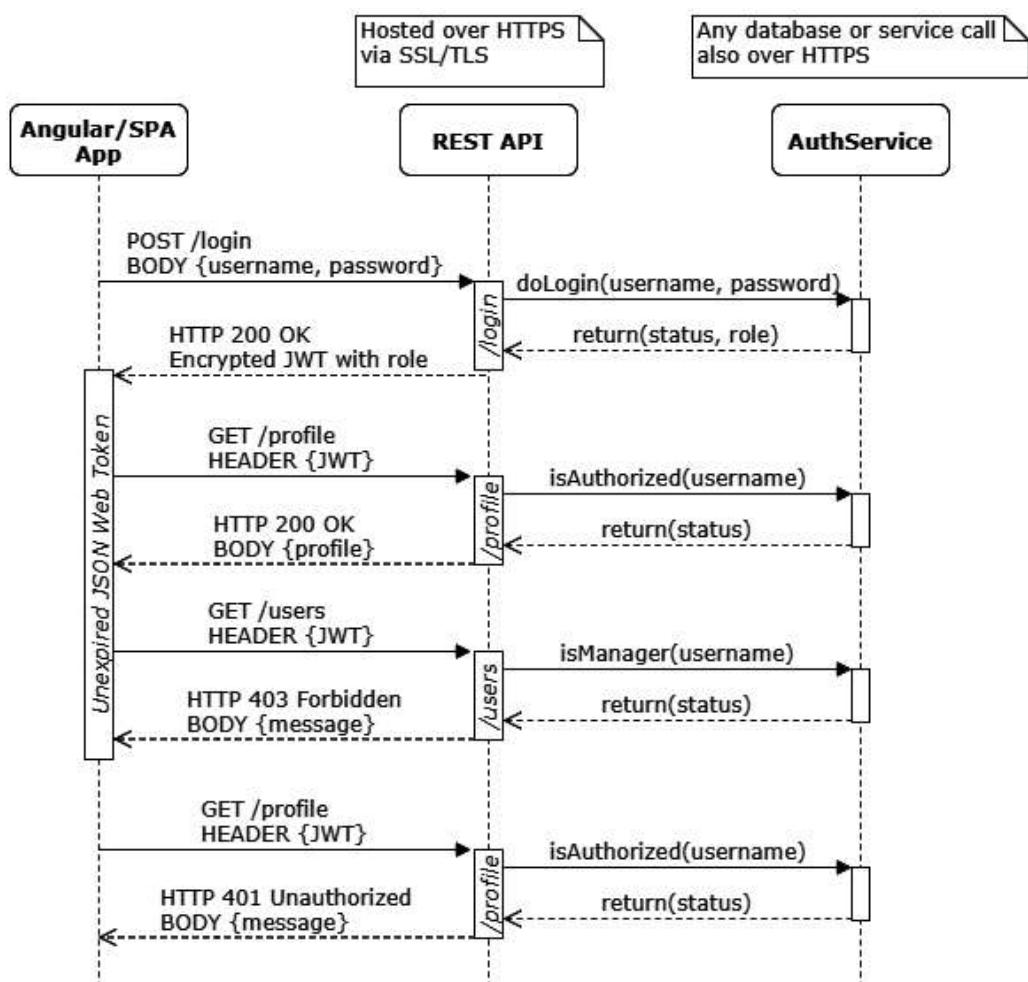
Clone this wiki locally

<https://github.com/duluca>

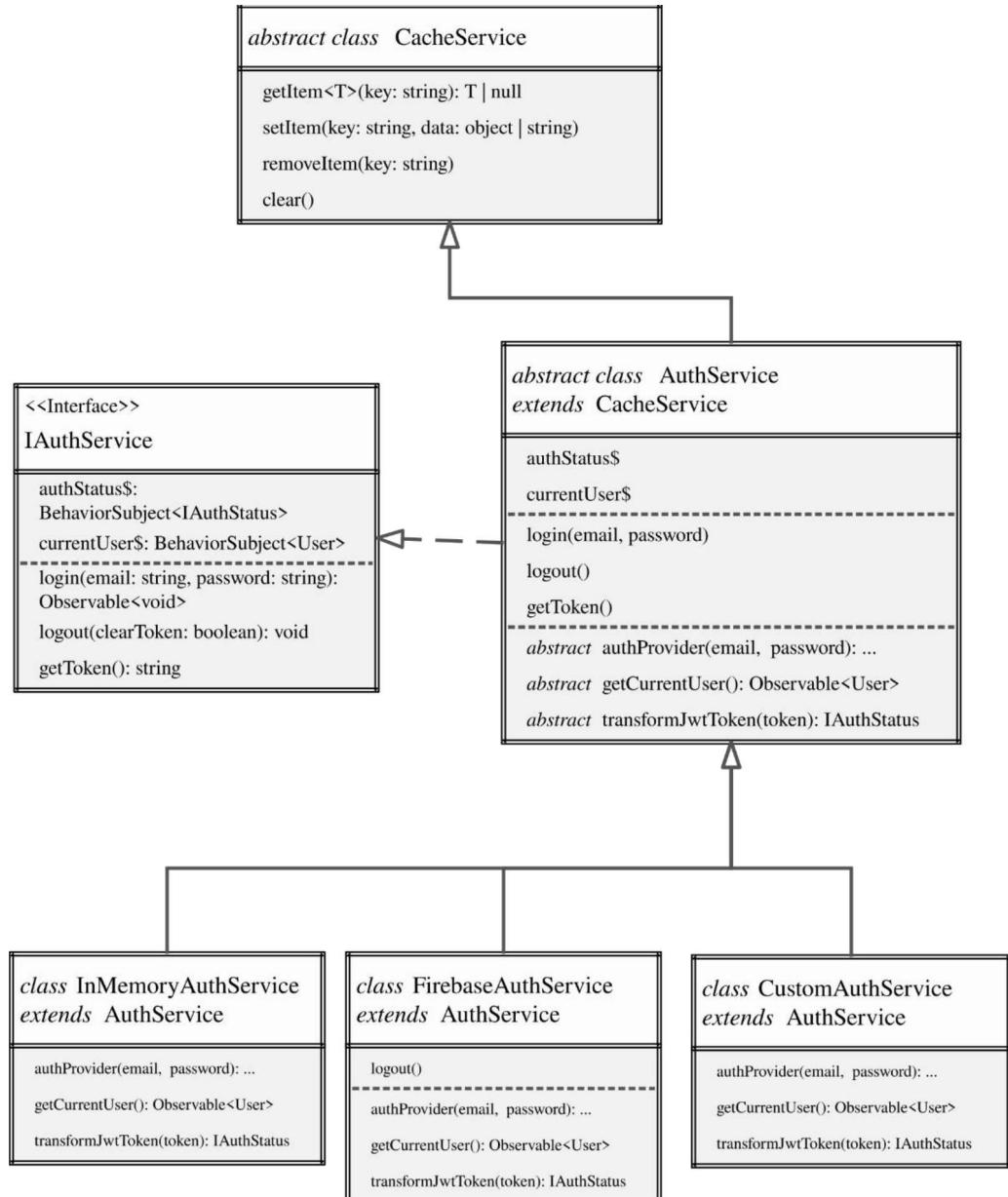
Clone in Desktop



## Chapter 8: Designing Authentication and Authorization



User
_id
email
name
picture
role
userStatus
dateOfBirth
level
address
phones



1 Application tab selected.

2 Storage section expanded, showing Local Storage and Session Storage. Local Storage contains an entry for http://localhost:5000.

3 Key: jwt, Value: "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCIsImV4cGlyZXNjbiI6IjFoIiwiYWxn3JpdGhtIjoibm9uZSJ9.eyJpc0F1dGhbnRpY2F0ZWQiOnRydWUsInVzZXJZCI6IjVkyTAXNzUxZGEyN2NjNDYyZDI2NTkxMyIsInVzZJSb2xlijoibWFuYWdlciI9.SKgcjjCOMc1asK2AKm\_L2XRhQ75R2P1oj8ck6u-XjT8"

4 Development mode logs:  
 You're using the InMemoryAuthService. Do not use this service in production. auth.inmemory.service.ts:37  
 Angular is running in the development mode. Call enableProdMode() to enable the production mode. core.js:40651  
 [WDS] Live Reloading enabled. client:52

5 Development mode logs:  
 fake-jwt-sign package is for educational purposes only. DO NOT USE IN PRODUCTION index.js:18 CODE!

1 Network tab selected.

2 Network tab settings: Preserve log checked, Disable cache checked, Online selected.

3 Request details for lemon.svg:  
 Request URL: http://localhost:5000/assets/img/icons/lemon.svg  
 Request Method: GET  
 Status Code: 200 OK  
 Remote Address: 127.0.0.1:5000  
 Referrer Policy: no-referrer-when-downgrade

4 Response Headers (8):  
**Authorization:** Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCIsImV4cGlyZXNjbiI6IjFoIiwiYWxn3JpdGhtIjoibm9uZSJ9.eyJpc0F1dGhbnRpY2F0ZWQiOnRydWUsInVzZXJZCI6IjVkyTAXNzUxZGEyN2NjNDYyZDI2NTkxMyIsInVzZJSb2xlijoibWFuYWdlciI9.SKgcjjCOMc1asK2AKm\_L2XRhQ75R2P1oj8ck6u-XjT8  
**Cache-Control:** no-cache  
**Connection:** keep-alive  
**Cookie:** \_ga=1\_2046974717\_1501500067



## Hello, Lemonite!

E-mail

 test

E-mail is not valid

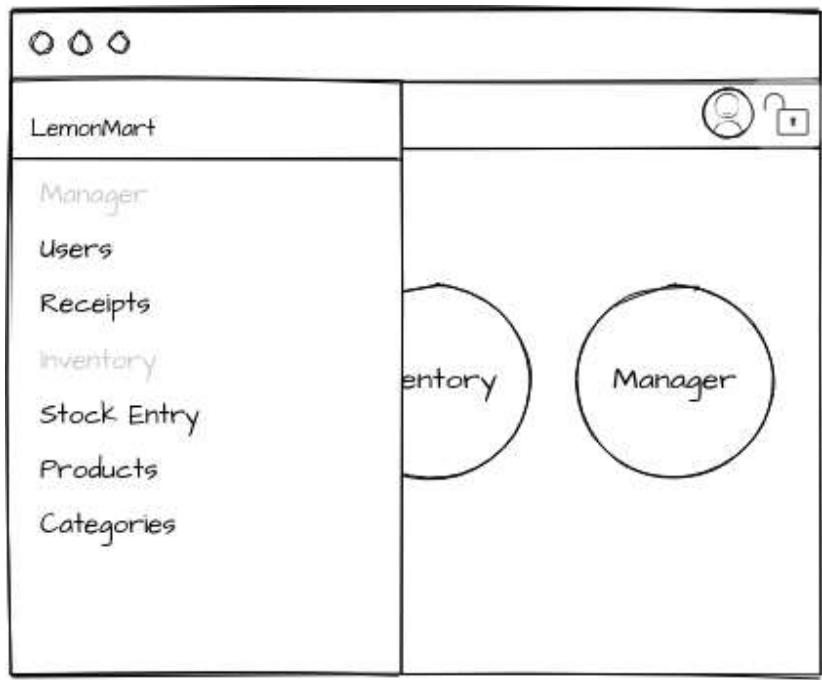
Password

 ...

Password is at least 8 characters long

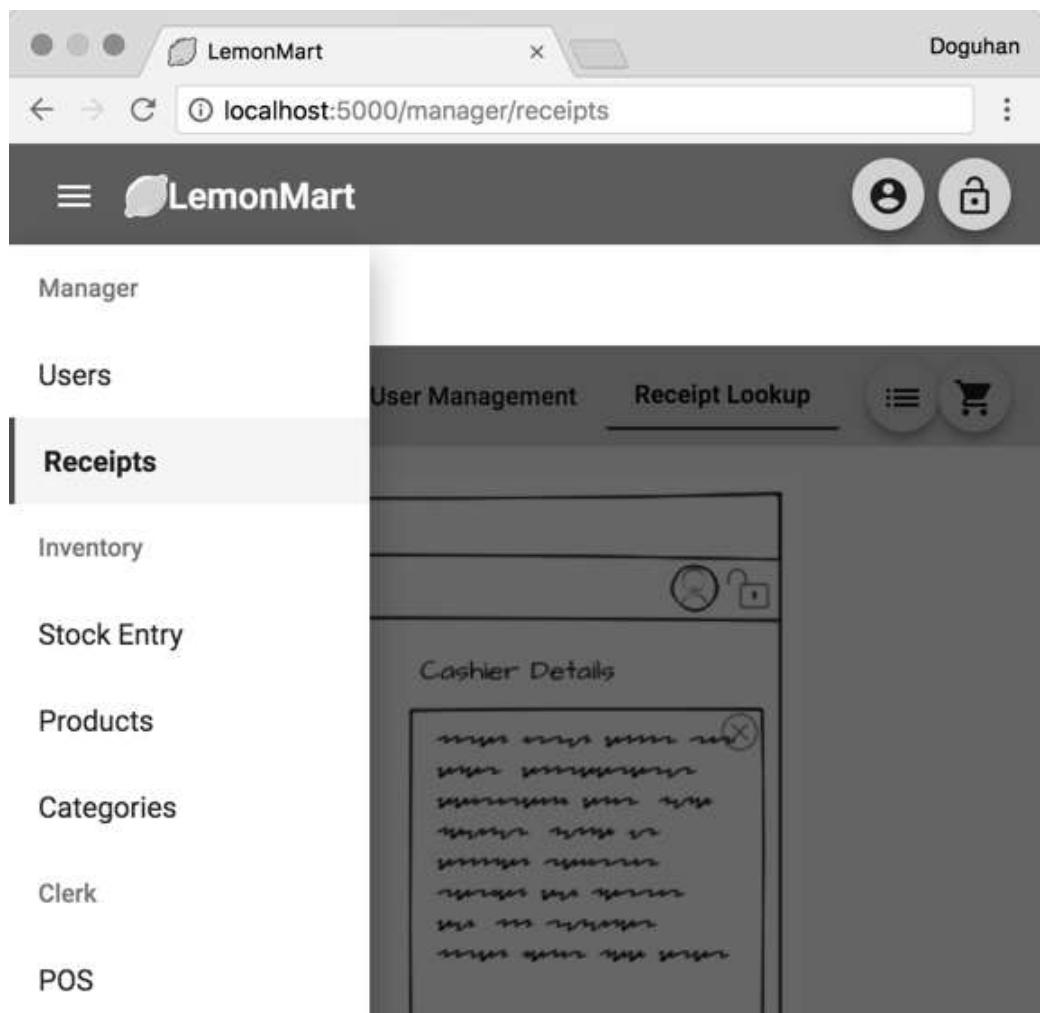


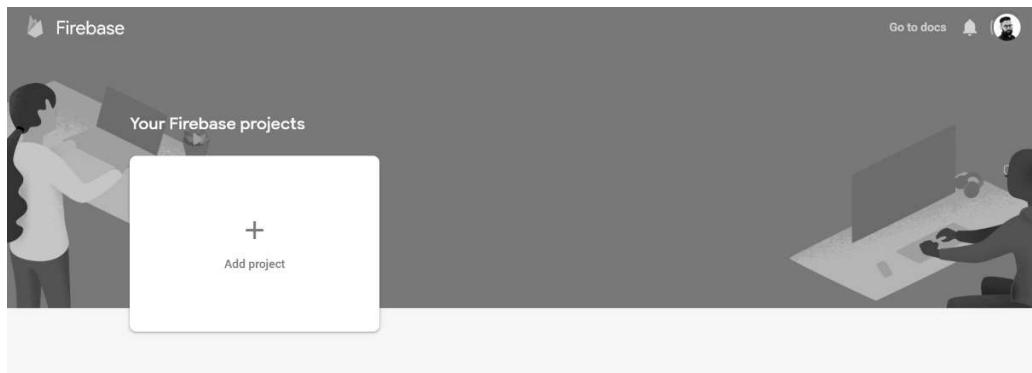
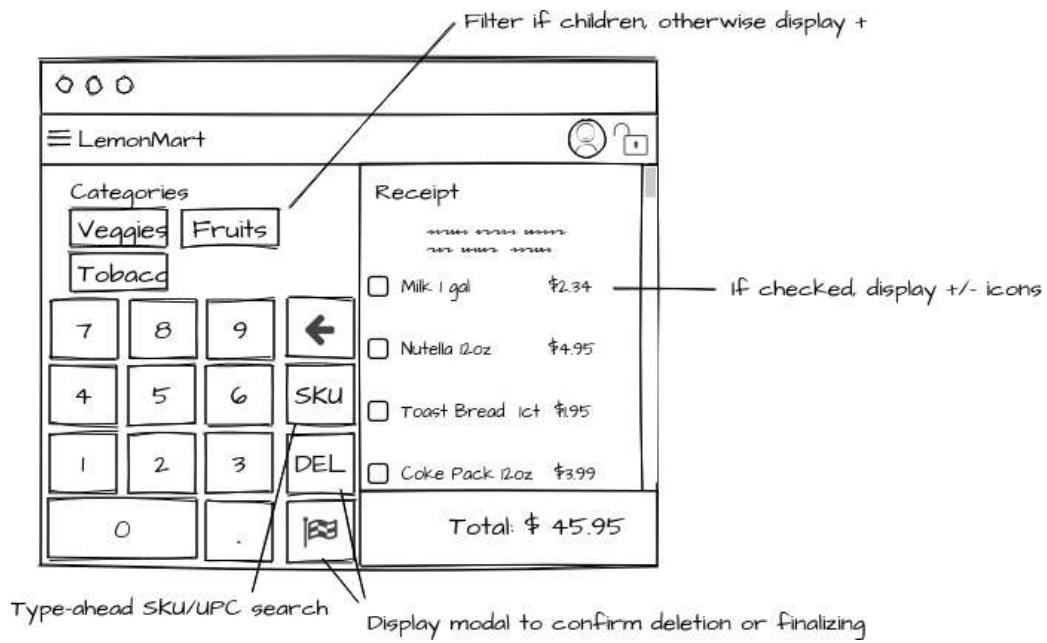
Welcome Doguhan Ulucal! Role: manager

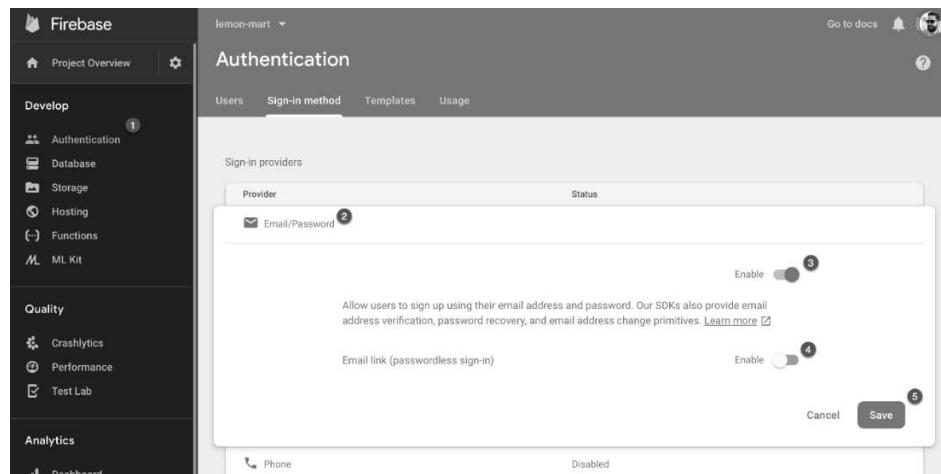
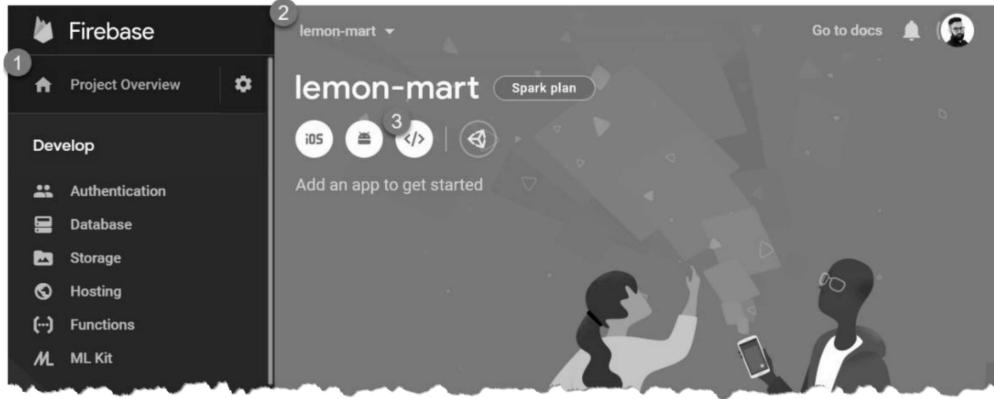


The screenshot shows the LemonMart Manager's Dashboard. The top navigation bar includes a menu icon, the LemonMart logo, and user icons for profile and lock. Below the menu, there are tabs for Manager's Dashboard, User Management, and Receipt Lookup, with Receipt Lookup being the active tab. On the left, a sidebar lists various management functions: Manager, Users, Receipts (selected), Inventory, Stock Entry, Products, Categories, Clerk, and POS. The main content area displays a receipt search interface with a search bar and three recent receipts listed: 5a4c8c75 (Date 12/1/17), 5ac6cebf (Date 12/5/17), and 5ea393bf (Date 12/23/17). To the right, a section titled "Cashier Details" shows a list of names, each preceded by a small circular icon.

Receipt ID	Date
5a4c8c75	12/1/17
5ac6cebf	12/5/17
5ea393bf	12/23/17







lemon-mart ▾

Go to docs 🔔  ?

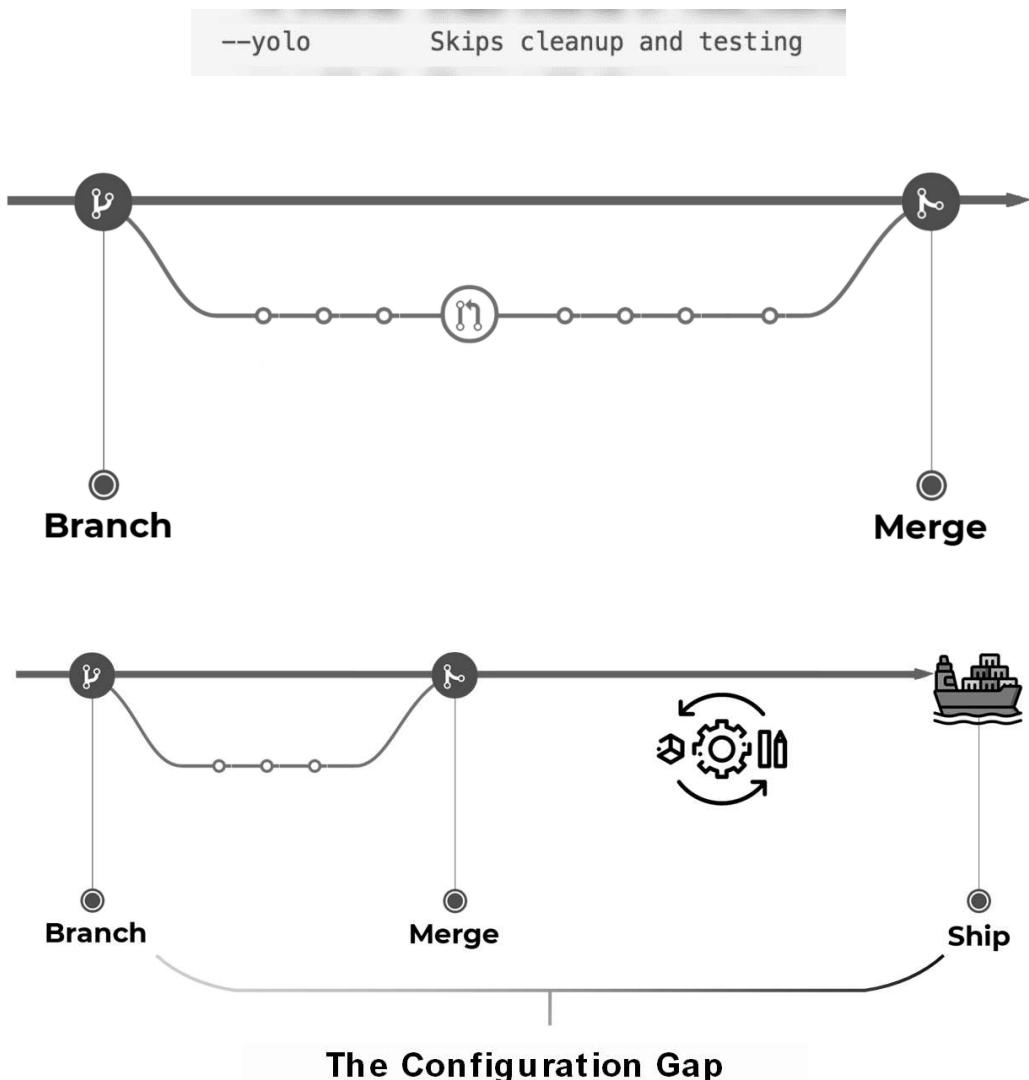
## Authentication

Users Sign-in method Templates Usage

Search by email address, phone number, or user UID Add user ⟳ ⋮

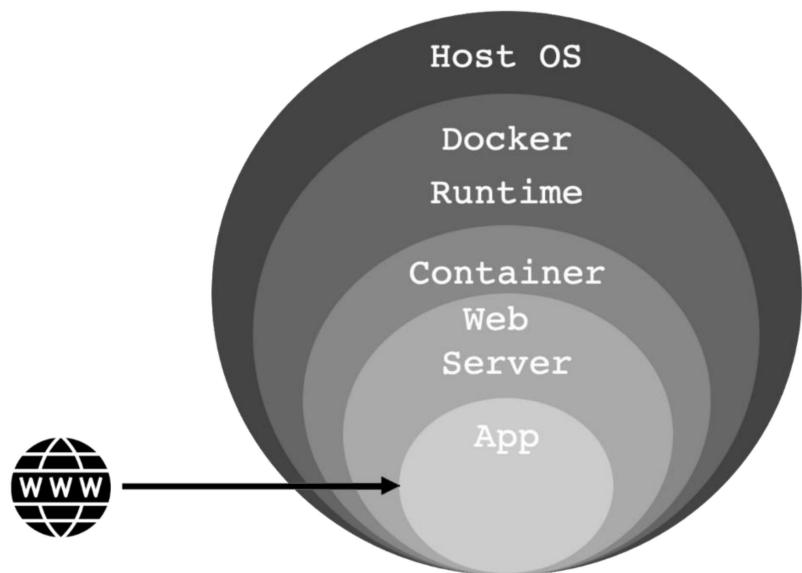
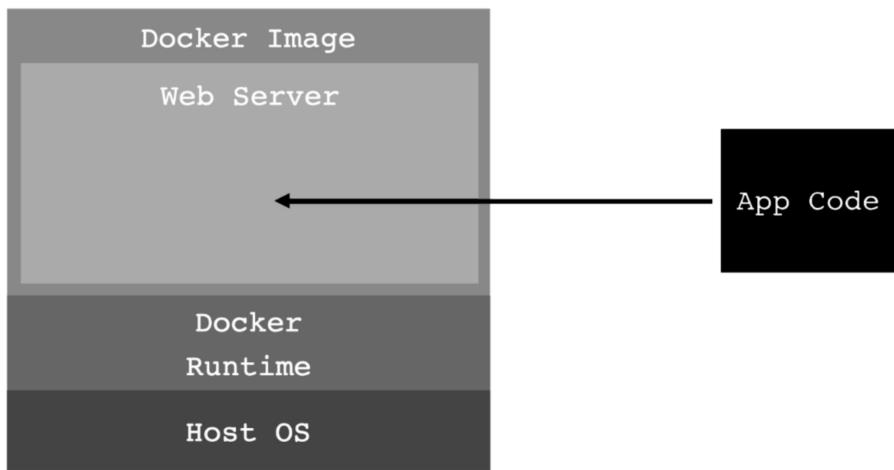
Identifier	Providers	Created	Signed In	User UID ↑
No users for this project yet				

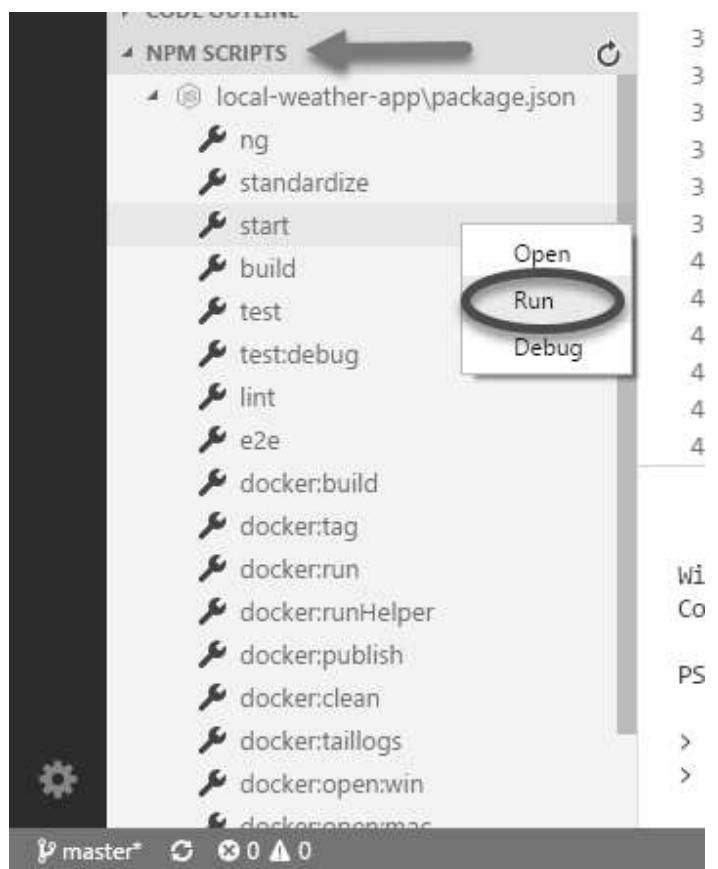
# **Chapter 9: DevOps Using Docker**

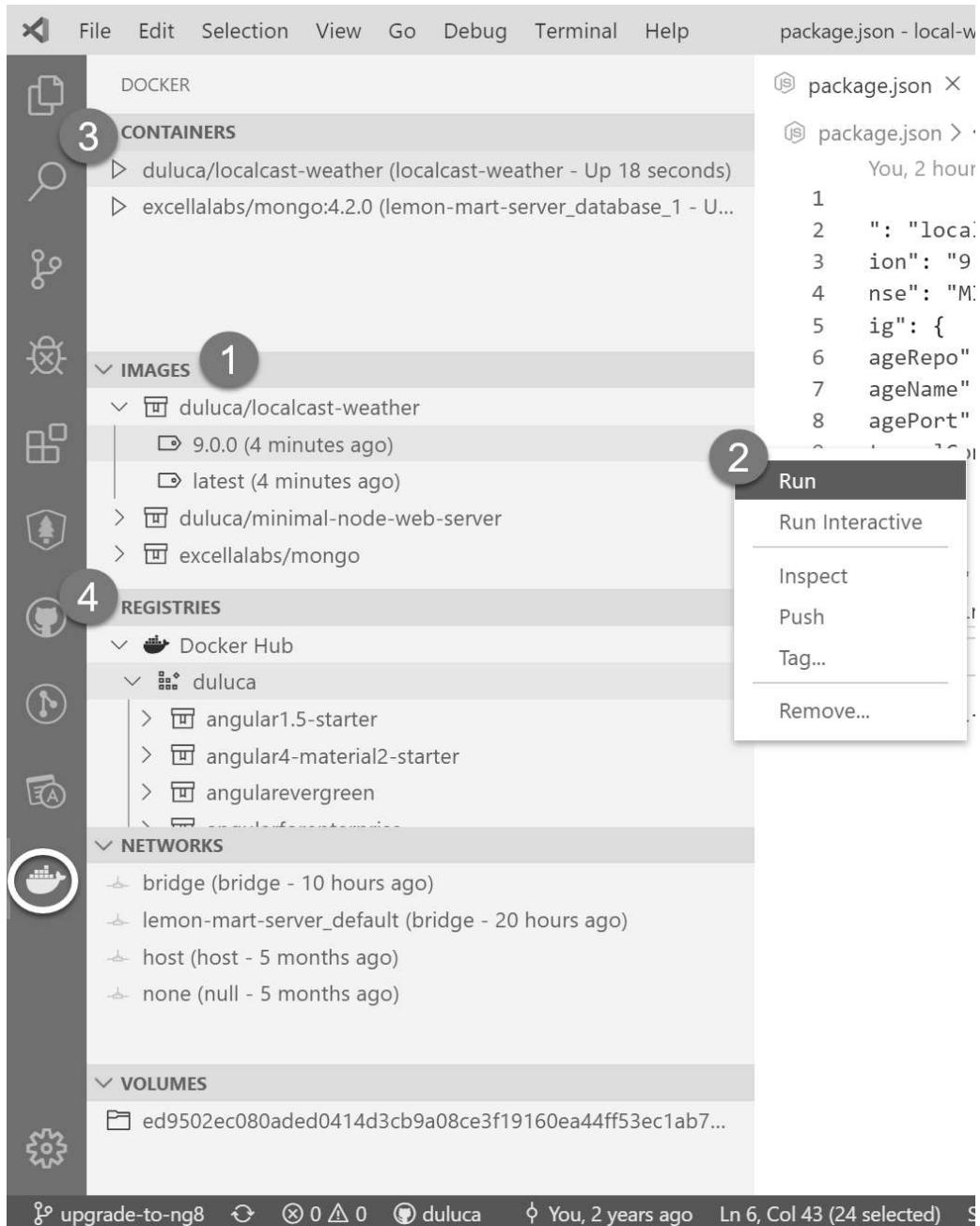


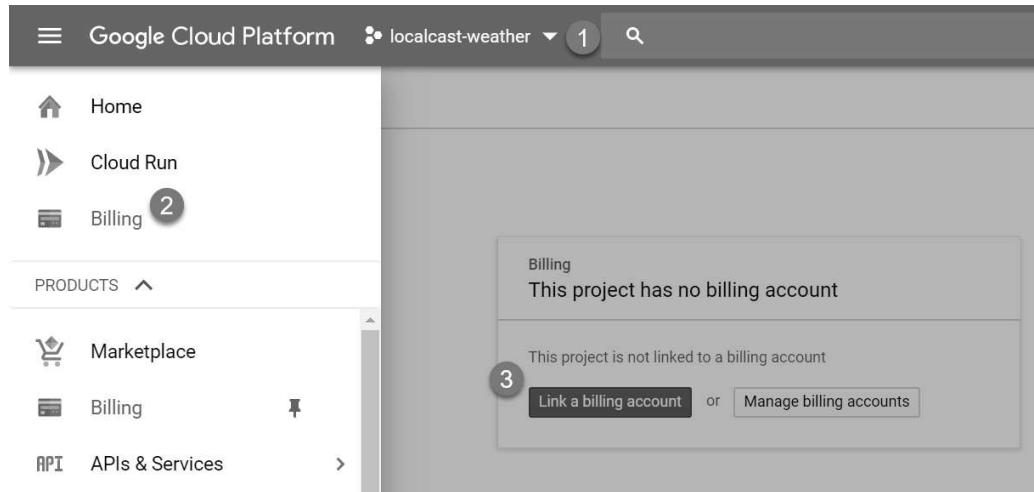
```
FROM  Operating Environment
SETUP Security
      Dependencies
COPY   Compiled Code
      Assets
CMD    Bootstrap
```

```
FROM scratch
      Dependencies
FROM alpine
      Assets
FROM nginx
      Bootstrap
```









```
Service name (localcast-weather):
Deploying container to Cloud Run service [localcast-weather] in project [localcast-
weather] region [us-east1]
Deploying...
  Creating Revision...done
  Routing traffic...done
Done.
Service [localcast-weather] revision [localcast-weather-00011-yup] has been deployed
and is serving 100 percent of traffic at https://localcast-weather-sgzmgloslq-
ue.a.run.app
```

Google Cloud Platform    localcast-weather

Cloud Run    Service details    DEPLOY NEW REVISION

**localcast-weather**    Region: us-east1    URL: <https://localcast-weather-sgzmgloslq-ue.a.run.app>

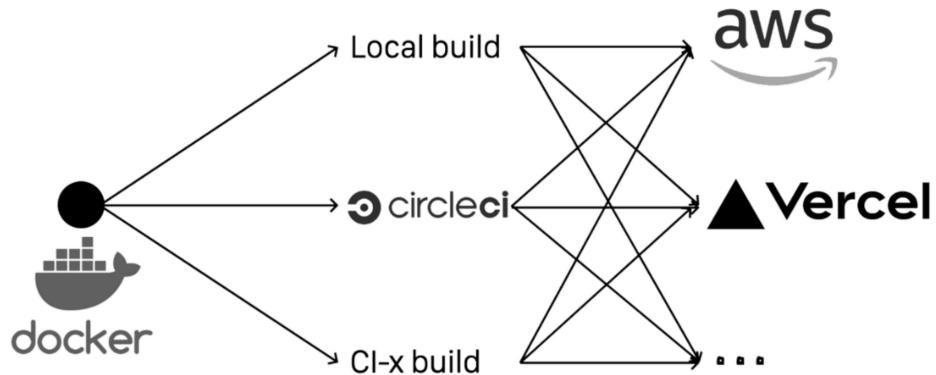
METRICS    REVISIONS    LOGS    DETAILS    YAML    PERMISSIONS

Logs Showing 200 messages    Any log level    Filter

```

[!] 2019-12-18T07:41:03.695883822Z Container terminated due to sandbox error.
[!] 2019-12-18T07:43:07.630982918Z Application failed to start: Failed to create init process: Failed to load...
[!] 2019-12-18T07:43:07.736227472Z Container terminated due to sandbox error.
[?] 2019-12-18T07:43:08.797856Z [0mGET / [36m304 [0m2.471 ms - - [0m
[?] 2019-12-18T07:43:08.799322Z GET 304 330 B 11 ms Chrome 80 https://localcast-weather-sgzmgloslq-ue.a...
[?] 2019-12-18T07:43:09.205384Z [0mGET /main-es2015.64fb6b74cdcd233e42b0.js [36m304 [0m1.665 ms - - [0m
[?] 2019-12-18T07:43:09.205814Z [0mGET /polyfills-es2015.58725a5910daef768ca8.js [36m304 [0m1.669 ms - - [0m
[?] 2019-12-18T07:43:09.206792Z GET 304 332 B 7 ms Chrome 80 https://localcast-weather-sgzmgloslq-ue.a...
[?] 2019-12-18T07:43:09.206900Z [0mGET /styles.523cf82bc089f264d5c.css [36m304 [0m1.707 ms - - [0m
[?] 2019-12-18T07:43:09.206929Z [0mGET /runtime-es2015.e59a6cd8f1b6ab0c3f29.js [36m304 [0m1.811 ms - - [0m
[?] 2019-12-18T07:43:09.207474Z GET 304 331 B 8 ms Chrome 80 https://localcast-weather-sgzmgloslq-ue.a...
[?] 2019-12-18T07:43:09.207838Z GET 304 330 B 8 ms Chrome 80 https://localcast-weather-sgzmgloslq-ue.a...
[?] 2019-12-18T07:43:09.208232Z GET 304 331 B 9 ms Chrome 80 https://localcast-weather-sgzmgloslq-ue.a...
[?] No newer entries found matching current filter.

```



A screenshot of a deployment log interface. At the top, a navigation bar shows the path: local-weather-app > deploy\_zeitnow > build-test-and-deploy > deploy (506). Below this, a summary card for the 'deploy' step shows a green checkmark and the word 'SUCCESS'. To the right are 'Rerun' and '...' buttons. The main area contains a timeline with two events: 'Attaching Workspace' (0s) and 'npx now --token \$NOW\_TOKEN --platform-version 2 --prod /tmp/workspace/dist/ch6 --confirm' (7s). The terminal output for the second event shows the Now CLI 18.0.0 executing commands like 'Setting up project', 'Upload', 'Building', and finally 'Production' at <https://ch6.now.sh>. A note at the bottom says 'CircleCI received exit code 0'.

```
#!/bin/bash -eo pipefail
npx now --token $NOW_TOKEN --platform-version 2 --prod /tmp/workspace/dist/ch6 --confirm

Now CLI 18.0.0
- Setting up project
> Upload [] 0% 0.0s > Upload [] 2% 6.3s > Upload [] 46% 0.6s > Upload [] 100% 0.0s
  Inspect: https://zeit.co/duluca/ch6/ofwzxkeme [3s]
- Building
- Building
  Production: https://ch6.now.sh [5s]
CircleCI received exit code 0
```

local-weather-app > deploy\_cloudrun > build-test-and-deploy > deploy\_cloudrun (481)

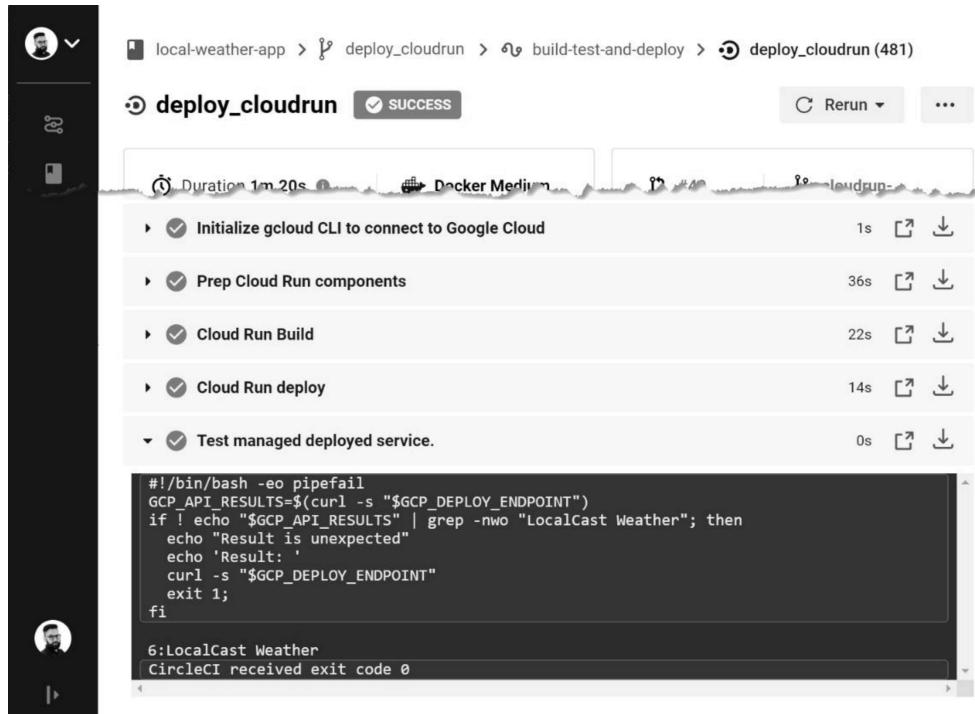
**deploy\_cloudrun** ✓ SUCCESS

Duration 1m 20s | Docker Medium | leandr...

- ✓ Initialize gcloud CLI to connect to Google Cloud 1s
- ✓ Prep Cloud Run components 36s
- ✓ Cloud Run Build 22s
- ✓ Cloud Run deploy 14s
- ✓ Test managed deployed service. 0s

```
#!/bin/bash -eo pipefail
GCP_API_RESULTS=$(curl -s "$GCP_DEPLOY_ENDPOINT")
if ! echo "$GCP_API_RESULTS" | grep -wo "LocalCast Weather"; then
    echo "Result is unexpected"
    echo 'Result: '
    curl -s "$GCP_DEPLOY_ENDPOINT"
    exit 1;
fi

6:LocalCast Weather
CircleCI received exit code 0
```

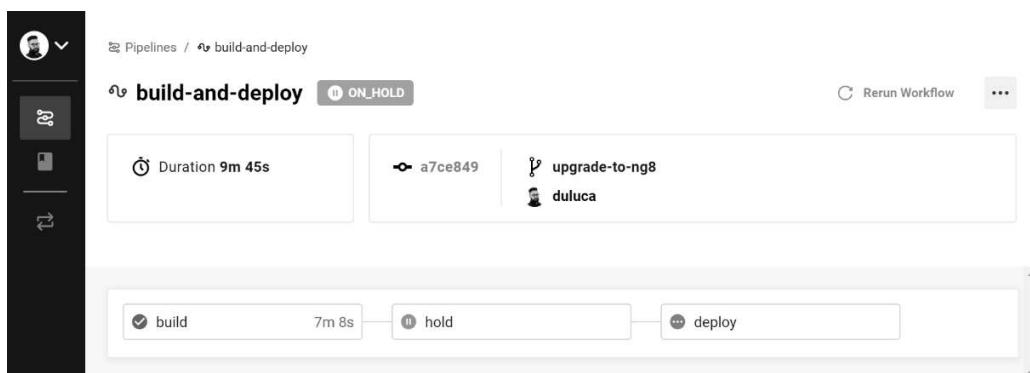


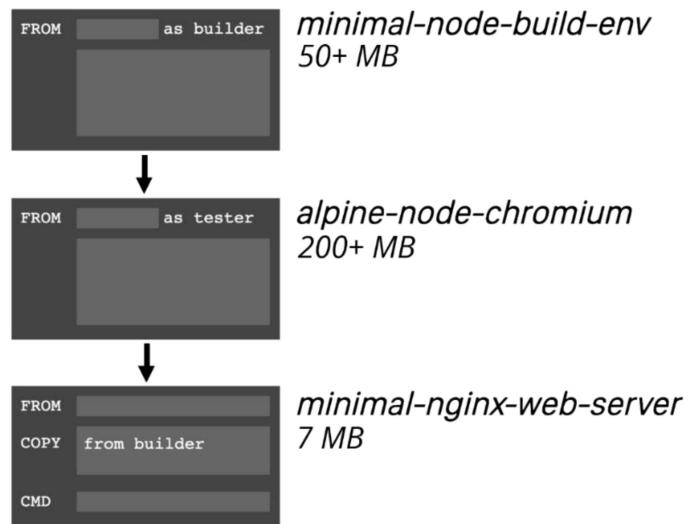
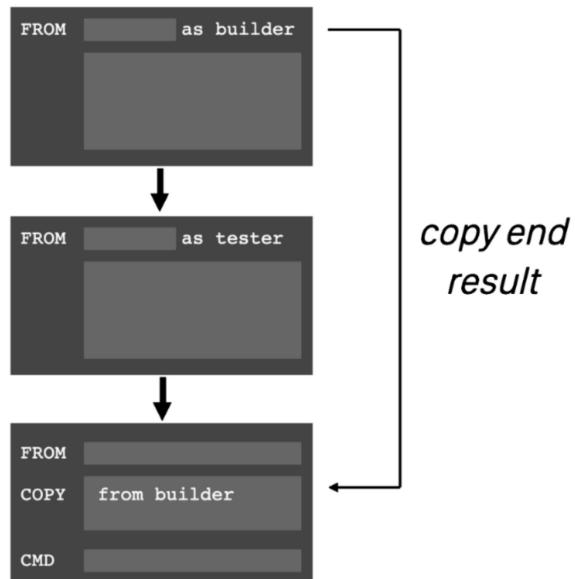
Pipelines / build-and-deploy

**build-and-deploy** ● ON\_HOLD

Duration 9m 45s | a7ce849 | upgrade-to-ng8 | duluca

```
graph LR
    build[build] -- "7m 8s" --> hold[hold]
    hold --> deploy[deploy]
```





The screenshot shows a CircleCI build details page for a project named "lemon-mart". The build number is 329, and it was successful. The build duration was 8m 38s, completed 1 hour ago. It used a Docker Medium plan with 2 CPU / 4 GB RAM. The build was triggered by a pull request #25 from user eda13e9. The build was performed by Doguhan Uluca.

The page displays a list of build steps:

- Spin Up Environment (5s)
- Preparing Environment Variables (0s)
- Checkout code (0s)
- Setup a remote Docker engine (1s)
- Execute Pipeline (Build Source -> Test -> Build Web Server) (8m 28s)
- Saving Cache (0s)
- Uploading artifacts (0s)

The "Uploading artifacts" step is currently active, showing the progress of uploading files:

```
Uploading /home/circleci/repo/docker-cache/built-image.tar.gz to built-image.tar.gz
Uploading /home/circleci/repo/docker-cache/built-image.tar.gz (9.2 MB): DONE
```

## All files

80.49% Statements 524/651 | 55.75% Branches 97/174 | 67.76% Functions 124/183 | 79.02% Lines 437/553

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

File ▲	Statements	Branches	Functions	Lines
src	100%	15/15	100%	1/1 100% 15/15
src/app	100%	36/36	100%	0/0 100% 8/8 100% 27/27
src/app/auth	60.8%	76/125	25%	9/36 37.14% 13/35 58.77% 67/114
src/app/common	79.55%	70/88	26.92%	7/26 66.67% 12/18 78.21% 61/78
src/app/home	100%	14/14	100%	0/0 100% 5/5 100% 11/11
src/app/inventory	100%	6/6	100%	0/0 100% 3/3 100% 4/4
src/app/inventory/categories	100%	6/6	100%	0/0 100% 3/3 100% 4/4
src/app/inventory/categories	100%	6/6	100%	0/0 100% 3/3 100% 4/4
src/app/user/profile	87.69%	57/65	93.1%	54/58 65% 13/20 88.33% 53/60
src/app/user/user	71.6%	58/81	55.88%	19/34 50% 11/22 74.63% 50/67
src/app/user/view-user	100%	18/18	83.33%	5/6 100% 4/4 100% 16/16
src/environments	100%	1/1	100%	0/0 100% 1/1

Code coverage generated by istanbul at Sat May 05 2018 17:05:21 GMT-0400 (EDT)

## All files src/app/auth

61.6% Statements 77/125 | 25% Branches 9/36 | 38.24% Functions 13/34 | 59.65% Lines 68/114

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

File	Statements	Branches	Functions	Lines
auth-guard.service.ts	48.72%	19/39	0%	3/9 47.22% 17/36
auth.service.fake.ts	84.62%	11/13	100%	0/0 60% 3/5 81.82% 9/11
auth.service.ts	57.69%	30/52	28.57%	4/14 21.43% 3/14 55.32% 26/47
cache.service.ts	75%	12/16	50%	3/6 60% 3/5 73.33% 11/15
role.enum.ts	100%	5/5	100%	2/2 100% 1/1 100% 5/5

Code coverage generated by istanbul at Thu May 10 2018 02:50:40 GMT-0400 (Eastern Daylight Time)

## All files / src/app/auth cache.service.ts

75% Statements 12/16 50% Branches 3/6 60% Functions 3/5 73.33% Lines 11/15

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

```
1 1x export abstract class CacheService {  
2 1x   protected getItem<T>(key: string): T {  
3 2x     const data = localStorage.getItem(key)  
4 2x     if (data && data !== 'undefined') {  
5       return JSON.parse(data)  
6     }  
7 2x     return null  
8   }  
9  
10 1x   protected setItem(key: string, data: object | string) {  
11 2x     if (typeof data === 'string') {  
12       localStorage.setItem(key, data)  
13     }  
14     localStorage.setItem(key, JSON.stringify(data))  
15   }  
16  
17 1x   protected removeItem(key: string) {  
18     localStorage.removeItem(key)  
19   }  
20  
21 1x   protected clear() {  
22     localStorage.clear()  
23   }  
24 1x }
```

Code coverage generated by istanbul at Thu May 10 2018 02:50:40 GMT-0400 (Eastern Daylight Time)

 All checks have passed Hide all checks

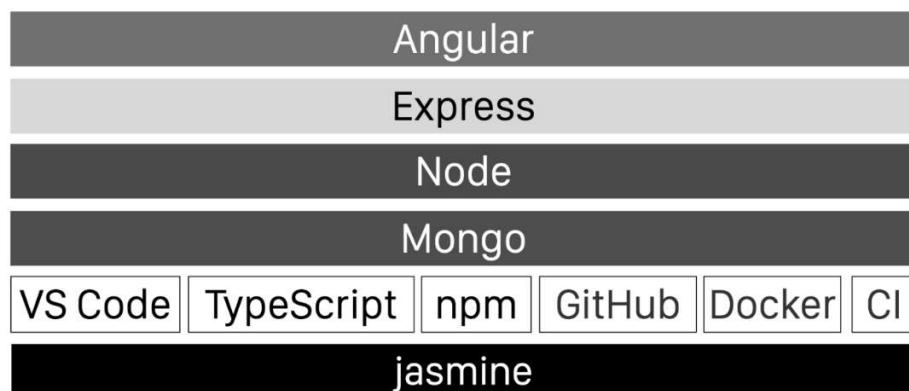
3 successful checks

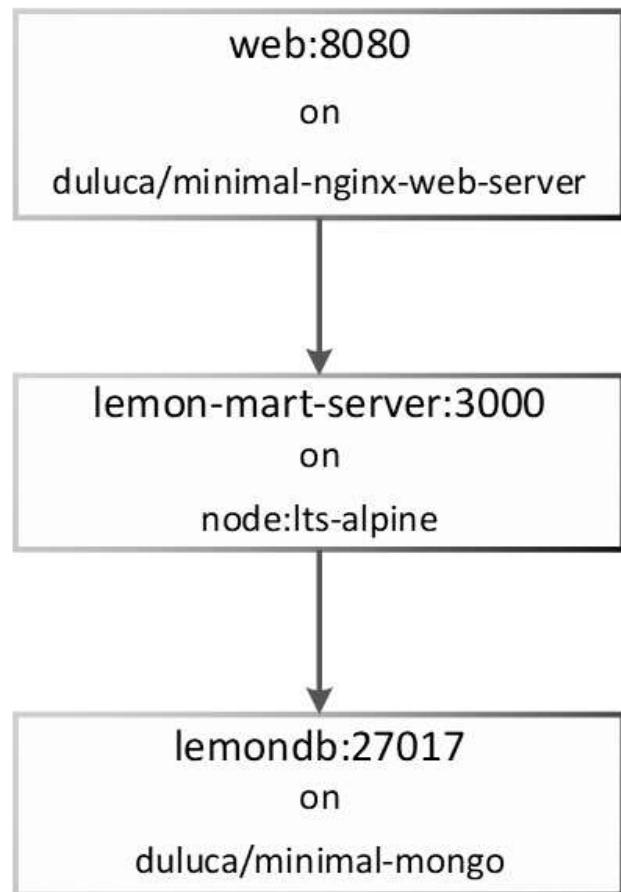
  DeepScan — 0 new and 6 fixed issues	<a href="#">Details</a>
  ci/circleci: build — Your tests passed on CircleCI!	<a href="#">Details</a>
  coverage/coveralls — First build on upgrade-to-ng8 at 59.459%	<a href="#">Details</a>

 This branch has no conflicts with the base branch  
Merging can be performed automatically.

**Merge pull request**  You can also open this in GitHub Desktop or view command line instructions.

## Chapter 10: RESTful APIs and Full-Stack Implementation





The screenshot shows a dual-pane interface. On the left, a code editor displays the `swagger.yaml` file for a LemonMart API. The file content is as follows:

```
swagger: "2.0"
info:
  title: LemonMart
  description: LemonMart API
  version: "2.0.0"
servers:
  - url: http://localhost:3000
    description: Local environment
  - url: https://mystagingserver.com
    description: Staging environment
  - url: https://myprodserver.com
    description: Production environment
components:
  securitySchemes:
    bearerAuth:
      type: http
      scheme: bearer
      bearerFormat: JWT
  responses:
    Unauthorized:
      description: Unauthorized
      content:
        application/json:
          schema:
            $ref: "#/components/schemas/ServerMessage"
  schemas:
    ServerMessage:
      type: object
      properties:
        message:
          type: string
    Role:
      type: string
      enum: [none, clerk, cashier, manager]
    PhoneType:
      type: string
      enum: [none, mobile, home, work]
    Phone:
      type: object
      properties:
        type:
          type: string
          $ref: "#/components/schemas/PhoneType"
```

On the right, a browser window titled "Swagger" displays the "LemonMart" API documentation. The title bar says "Swagger Preview - c:\dev\lemon-mart-server\swagger.yaml - lemon-mart-server - Visual Studio Code". The main page shows the "LemonMart" logo, version 2.0.0, and OAS3 compliance. It includes a dropdown for "Servers" set to "http://localhost:3000 - Local environment" and an "Authorize" button. Below this, under the "default" path, are several API endpoints listed in a table:

Method	Path	Description
POST	/v1/login	
GET	/v1/auth/me	
GET	/v2/users	
POST	/v2/users	Create a new 'User'
GET	/v2/users/{id}	
PUT	/v2/users/{id}	Updates an existing 'User'

Below the endpoints is a "Schemas" section containing a "ServerMessage" schema entry.

SwaggerHub

lemon-mart v 2.0.0 v

Info

Tags

Servers

Search

```

1  openapi: 3.0.1
2  info:
3    title: LemonMart
4    description: LemonMart API
5    version: "2.0.0"
6
7    servers:
8      - url: http://localhost:3000
9        description: Local environment
10     - url: https://mystagingserver.com
11       description: Staging environment
12     - url: https://myprodserver.com
13       description: Production environment
14
15   components:
16     securitySchemes:
17       bearerAuth:
18         type: http
19         scheme: bearer
20         bearerFormat: JWT
21
22   responses:
23     UnauthorizedError:
24       description: Unauthorized
25       content:
26         application/json:
27           schema:
28             $ref: "#/components/schemas/ServerMessage"
29
30   schemas:
31     ServerMessage:
32       type: object
33       properties:
34         message:
35           type: string
36         Role:
37           type: string
38           enum: [none, clerk, cashier, manager]
39         PhoneType:
40           type: string
41           enum: [none, mobile, home, work]
42         Phone:
43           type: object
44           properties:
45             $ref: "#/components/schemas/PhoneType"
46             digits:
47               required:
48                 type:
49                   digits
50             Name:
51             type: object
52             properties:
53               first:
54                 type: string

```

Last Saved: 10:26:17 pm - Dec 19, 2019 ✓ VALID ✓

LemonMart

2.0.0 OAS3

LemonMart API

Authorize

Servers

http://localhost:3000

Local environment

default

POST /v1/login

GET /v1/auth/me

GET /v2/users

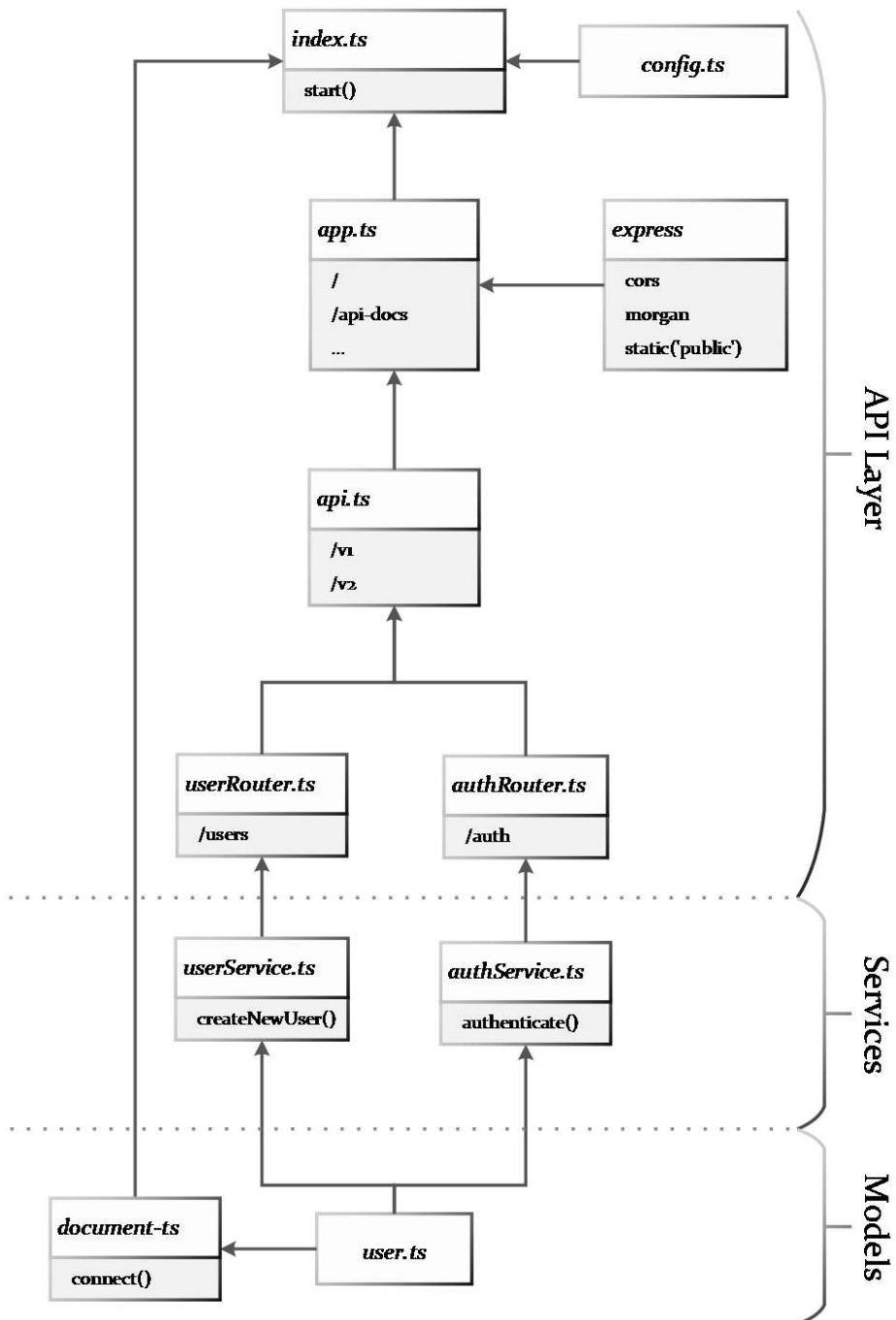
POST /v2/users Create a new 'User'

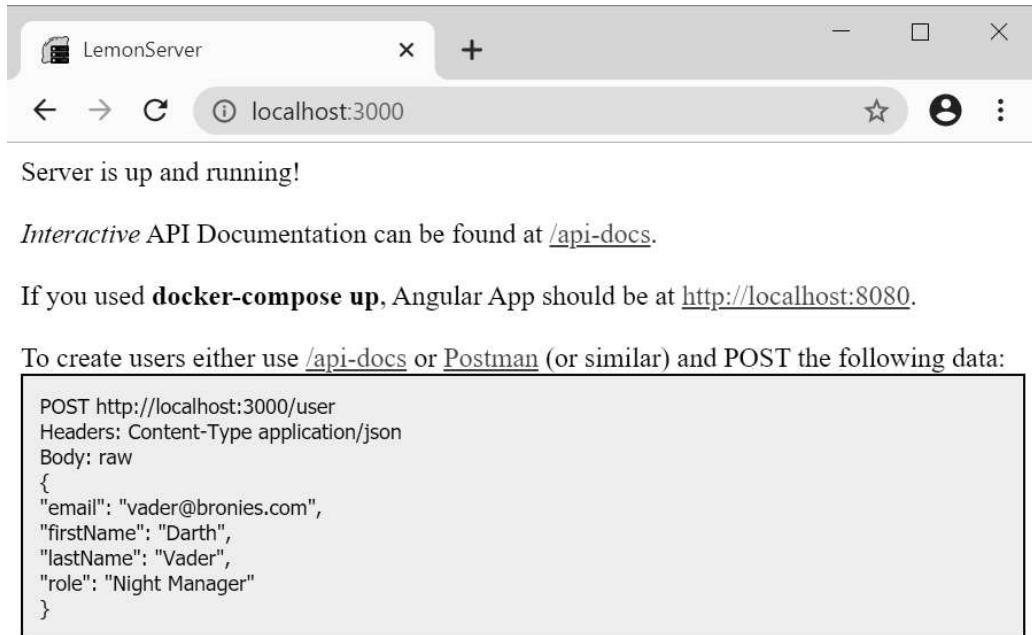
GET /v2/users/{id}

PUT /v2/users/{id} Updates an existing 'User'

Schemas

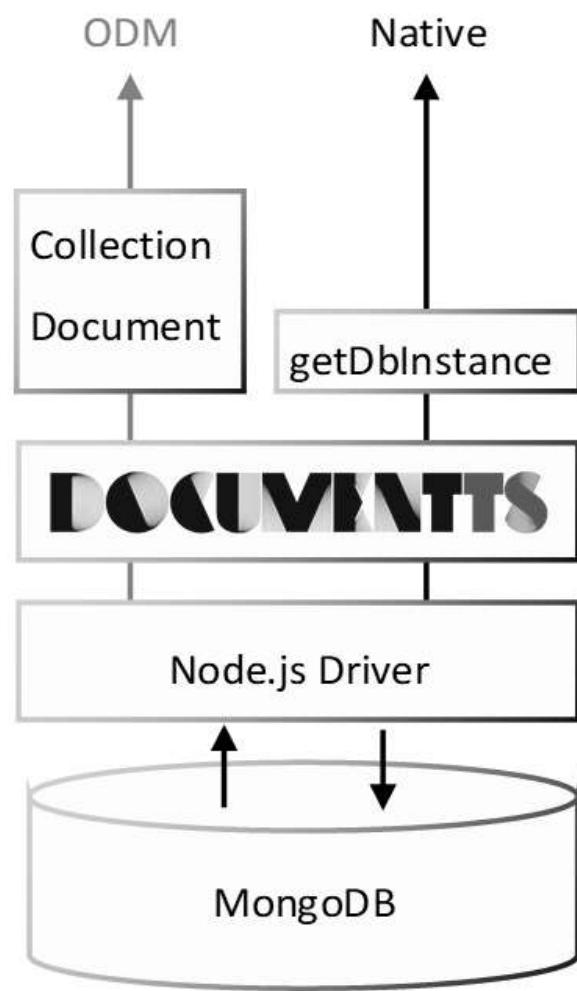
ServerMessage





More information can be found on GitHub at <https://github.com/duluca/lemon-mart> 🍋

Powered by **DOCUMENTTS**



The screenshot shows the Postman application interface. On the left, the sidebar displays collections: 'LemonMart' (1) with 6 requests, 'Minimal Mean' (2) with 2 requests, and 'POST Me'. The main area shows a 'Login' request (3) for 'POST /auth/login' to 'http://localhost:3000/v1/auth/login'. The 'Body' tab (4) contains a JSON payload:

```
1 [ {  
2   "email": "dulucagmail.com",  
3   "password": "lolipop!!"  
4 } ]
```

The response (6) is a JSON object containing an access token:

```
1 {  
2   "accessToken":  
3     "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJlbWFpbC16ImR1bHVjYUBnbWFpbC5jb20iLCyb2xIijoibWFuYWdlciI5InRpYR1cmuiOjIodHRwczovL3NlY3VyzS5ncmF2YXRhc15jb20vYXZhdGFyLzdjYmFhOWFmYjVjYTc4ZDk3ZjhjHjg52jhjZTZjOTg1iwiawF0IjoxNfc20TYSMTY2lC3leHA1oJE1NzcwNTU1NhYsInN1Yi16IjVkyTAxliZuxZGEyN2NjNDyyZDf2NTkxMyJ9.011jEQNm8fdrgyGrCad1bPKoEwsir81eoZ9Gsn4qH#"  
3 }
```

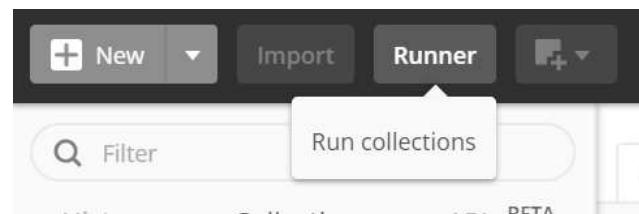
The screenshot shows the Postman application interface. At the top, there is a header bar with 'GET' selected, a URL field containing 'http://localhost:3000/v2/users', a 'Send' button, and a 'Save' button.

The main workspace has tabs for 'Params', 'Authorization' (which is currently selected), 'Headers (8)', 'Body', 'Pre-request Script', 'Tests', 'Settings', 'Cookies', and 'Code'. The 'Authorization' tab has a dropdown menu set to 'Bearer Token' (marked with a circled '2'). A note in a callout box says: 'Heads up! These parameters hold sensitive data. To keep this data secure while working in a collaborative environment, we recommend using variables.' It also includes a link to 'Learn more about variables' and an 'X' icon to close the note. Below this, there is a 'Token' input field containing '{{token}}' (marked with a circled '3').

On the left side of the workspace, there is a note: 'The authorization header will be automatically generated when you send the request.' followed by a link to 'Learn more about authorization'. At the bottom left is a 'Preview Request' button. At the bottom right, there are status indicators: 'Status: 200 OK', 'Time: 7ms', 'Size: 413 B', and a 'Save Response' dropdown.

The bottom section shows a preview of the JSON response. The response body is:

```
1 [{}]
2 "data": [
3 |   {
```



Collection Runner

My Workspace ▾

Run In Command Line Docs

Choose a collection or folder

Search for a collection or folder

1 LemonMart

GET Get Users  
POST Create User  
POST Create Users  
GET Get User by Id  
POST Login

Environment 2 LemonMart Server

Iterations 1

Delay 0 ms

Log Responses For all requests ⓘ

Data Select File

Keep variable values ⓘ  
 Run collection without using stored cookies  
 Save cookies after collection run ⓘ

3

RUN ORDER

Deselect All | Select All | Reset

GET Get Users  
 POST Create User  
 POST Create Users 3  
 GET Get User by Id  
 POST Login  
 POST Me

4

Run LemonMart

The screenshot shows the 'Collection Runner' interface. On the left, there's a search bar and a list of collections under 'LemonMart'. The 'Environment' dropdown is set to 'LemonMart Server'. Below it are 'Iterations' (set to 1), 'Delay' (0 ms), and 'Log Responses' (set to 'For all requests'). There are also checkboxes for 'Keep variable values', 'Run collection without using stored cookies', and 'Save cookies after collection run'. A large 'Run LemonMart' button is at the bottom. On the right, there's a 'RUN ORDER' section with checkboxes for various API endpoints. The 'Create Users' endpoint is checked and highlighted with a circled '3'. At the top right of the interface are buttons for 'Deselect All', 'Select All', and 'Reset'.

Collection Runner Run Results My Workspace Run In Command Line Docs

LemonMart LemonMart Server just now

Run Summary Export Results Retry New

Iteration 1

Request	Method	URL	Description	Status	Time	Size
POST Create Users	POST	http://localhost:3000/v2/...	LemonMart / Create Users	200 OK	6 ms	404 B
This request does not have any tests.						
POST Create Users	POST	http://localhost:3000/v2/...	LemonMart / Create Users	200 OK	4 ms	429 B
This request does not have any tests.						
POST Create Users	POST	http://localhost:3000/v2/...	LemonMart / Create Users	200 OK	4 ms	400 B
This request does not have any tests.						
POST Create Users	POST	http://localhost:3000/v2/...	LemonMart / Create Users	200 OK	5 ms	409 B
This request does not have any tests.						
POST Create Users	POST	http://localhost:3000/v2/...	LemonMart / Create Users	200 OK	6 ms	412 B
This request does not have any tests.						
POST Create Users	POST	http://localhost:3000/v2/...	LemonMart / Create Users	200 OK	4 ms	406 B
This request does not have any tests.						

The screenshot shows the Postman application interface. At the top, there's a navigation bar with 'New', 'Import', 'Runner', 'My Workspace', 'Invite', 'Upgrade', and other icons. The main area has a title 'GET Get Users' and a status bar indicating 'LemonMart Server'. Below the title, there's a sub-section titled 'Get Users' with 'Comments (0)' and 'Examples (0)'. The main content area shows a 'GET' request to 'http://localhost:3000/v2/users'. The 'Params' tab is selected, showing the following query parameters:

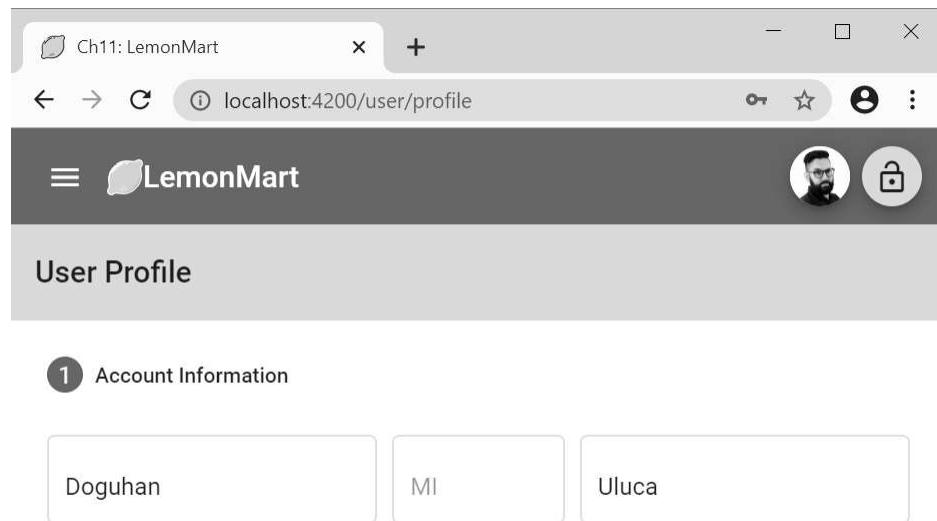
KEY	VALUE	DESCRIPTION
skip	0	
limit	5	
sortKey	name	
filter		
Key	Value	Description

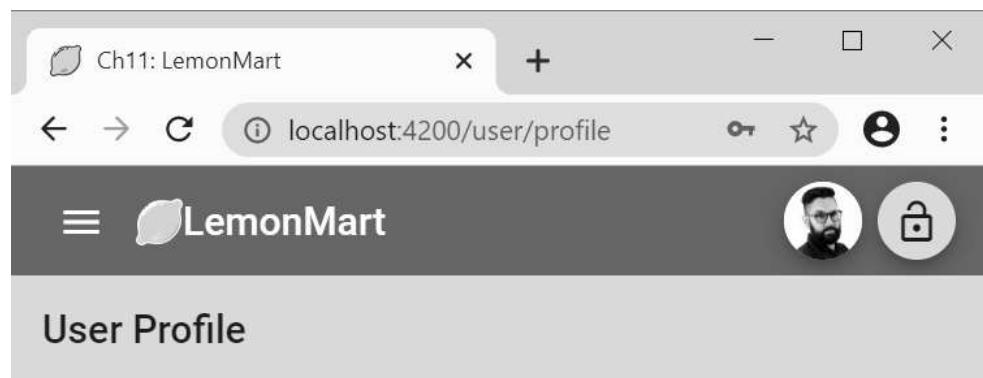
Below the params, there are tabs for 'Body', 'Cookies', 'Headers (7)', and 'Test Results'. The 'Test Results' tab shows a status of '200 OK', a time of '7ms', and a size of '1.26 KB'. A 'Save Response' button is also present. The bottom of the interface features a toolbar with icons for file operations and a help section.

Pretty Raw Preview Visualize BETA

```
[{"data": [{"_id": "5da01751da27cc462d265913", "email": "duluka@gmail.com", "name": {"first": "Doguhan", "last": "Uluka"}, "role": "manager", "fullName": "Doguhan Uluka"}, {"_id": "5dffff3e6b30d157e08962f4", "email": "veli@gmail.com", "name": {"first": "Veli", "last": "Tepeli"}, "role": "clerk", "fullName": "Veli Tepeli"}, {"_id": "5dffff3e6b30d157e08962f5", "email": "thunderdome@hotmail.com", "name": {"first": "Justin", "last": "Thunderclaps"}, "role": "clerk", "fullName": "Justin Thunderclaps"}, {"_id": "5dffff3e6b30d157e08962f6", "email": "jt23@hotmail.com", "name": {"first": "Tim", "last": "John"}, "role": "clerk", "fullName": "Tim John"}, {"_id": "5dffff3e6b30d157e08962f7", "email": "apple@smith.com", "name": {"first": "Obladi", "last": "Oblada"}, "role": "clerk", "fullName": "Obladi Oblada"}, {"_id": "5dffff3e6b30d157e08962f8", "email": "jones.smith@icloud.com", "name": {"first": "Smith", "last": "Jones"}, "role": "clerk", "fullName": "Smith Jones"}, {"_id": "5dffff3e6b30d157e08962f9", "email": "bugs@bunnylove.com", "name": {"first": "Bugs", "last": "Bunny"}, "role": "clerk", "fullName": "Bugs Bunny"}], "total": 7}
```

## Chapter 11: Recipes – Reusability, Routing, and Caching





Doguhan

MI

Uluca



## User Profile

1 Account Information ————— 2 Contact Information ————— 3 Review

First Name: Doguhan

MI: MI

Last Name: Uluca

Date of Birth: 1/31/1980

E-mail: duluca@gmail.com

40 year(s) old

Only your manager can update your e-mail.

Role:  None  Cashier  Clerk  Manager

Select the Limoncu level:

**Next**

Date of Birth

4/26/2020 

APR 2020 ▾

< >

S	M	T	W	T	F	S	
				1	2	3	4
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30			

Date of Birth

1/31/1980 

40 year(s) old

State

Virginia

Virgin Islands

Vermont

Phone Number(s) + Add Phone

Type

Mobile ▾

Number

Delete

Type

None

Number

Delete  

Mobile

Number

Delete  

Home

Number

Delete  

Work

**LemonMart**



## User Profile

Review and update your user profile.

 **Doguhan Uluca**  
manager

**E-mail**  
duluca@gmail.com

**Date of Birth**  
Jan 31, 1980

[Back](#) [Reset](#) [Update](#)

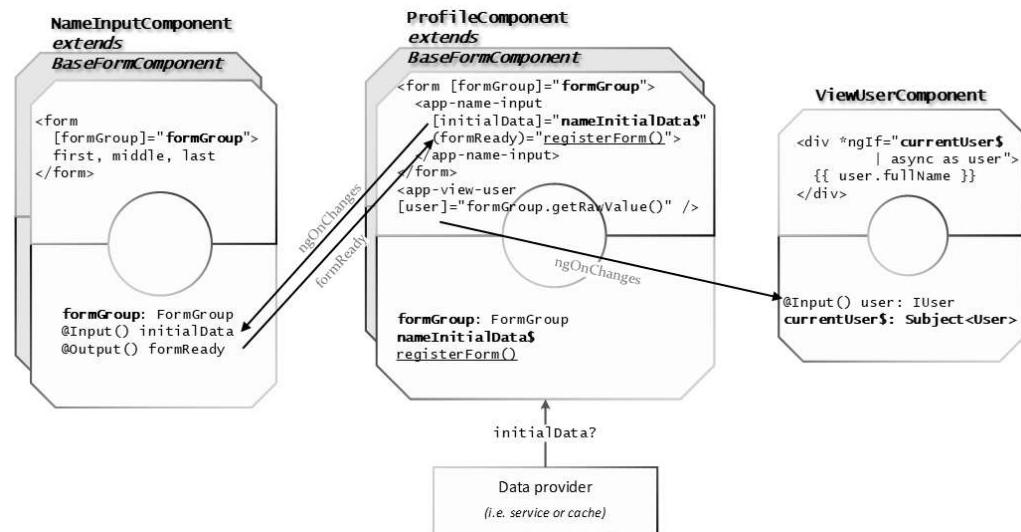
LemonMart

## User Profile

1 Account Information    2 Contact Information    3 Review

First Name	MI	Last Name
Doguhan		Uluca

Date of Birth    E-mail



Phone Number(s)  Add Phone

Type 

Mobile 

Number +1(555) 555-0717

Type 

Number +1(\_\_\_\_) \_\_\_\_-\_\_\_\_ 

Select the Limoncu level: *neither a lemon or a lime*



 Password

Minimum 8 characters

Authentication Mode: *In Memory*

Fake Login Info ^

Use any 8 character string as password		
Role	E-mail	
None	Any @test.com email	Fill
Clerk	clerk@test.com	Fill
Cashier	cashier@test.com	Fill
Manager	manager@test.com	Fill

The screenshot shows a browser window with the LemonMart website. The Network tab of the developer tools is active, displaying a list of network requests. A context menu is open over one of the requests, with 'Offline' selected. The menu also includes options like 'Online', 'Presets', 'Fast 3G', and 'Slow 3G'. The main content area shows a user profile form with fields for Account Information, Contact Information, and Review. The review section contains a message: 'Review and update your user profile.' Below it, there's a summary of the user: '6 Johnny Cache' (manager), 'E-mail: duluca@gmail.com', and 'Date of Birth: Jan 1, 1980'. At the bottom, there are 'Back', 'Reset', and 'Update' buttons. An error message 'An unknown error has occurred' is displayed above the 'Update' button.

1

2

3

4

5

6

The image shows a screenshot of a mobile application named "LemonMart". At the top, there is a navigation bar with three horizontal lines on the left, the "LemonMart" logo in the center, and a user icon with a lock symbol on the right. Below the navigation bar, the title "User Profile" is displayed. The main content area contains a form with three steps: "1 Account Informati...", "2 Contact Informati...", and "3 Review". Step 1 is currently active. The first field is "First Name" with the value "Johnny". The second field is "MI" with the value "MI". A modal dialog is overlaid on the form, containing the text "Cache" and "1 Loaded data from cache" with a "Close" button. The bottom field is "Date of Birth".

≡ LemonMart

User Profile

1 Account Informati... — 2 Contact Informati... — 3 Review

First Name

Johnny

MI

Last Name

Cache

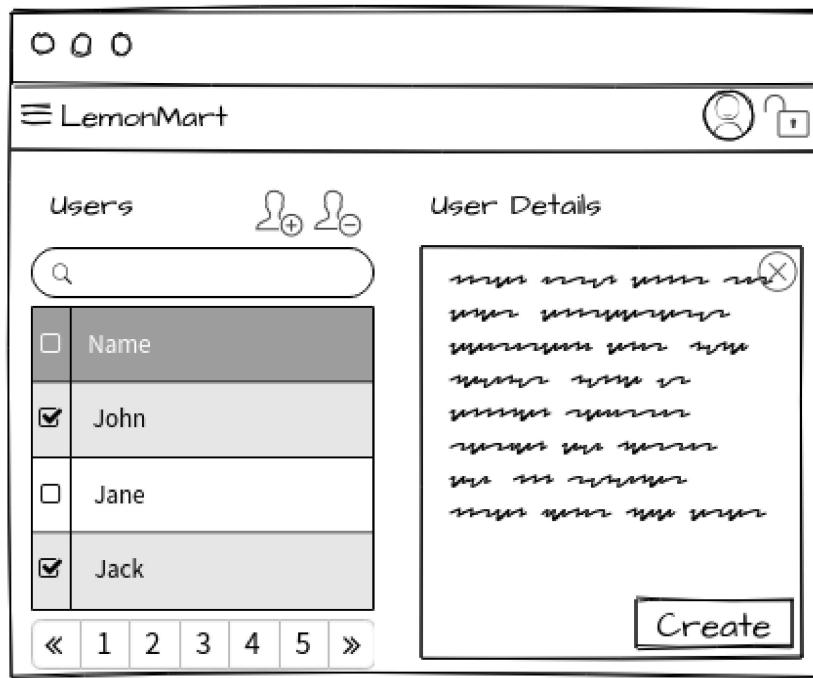
1

Loaded data from cache

Close

Date of Birth

## Chapter 12: Master/Detail, Data Tables, and NgRx



Name ↑	E-mail	Role	View Details
Bugs Bunny	bugs@bunnylove.com	clerk	
Doguhan Uluca	duluca@gmail.com	manager	

Developer Tools - http://localhost:5000/manager/users

view-user.component.ts

```
31 },
32 })
33 export class ViewUserComponent implements OnInit {
34   @Input() user: IUser
35   currentUser = new User()
36
37   get editMode() {
38     return !this.user
39   }
40
41   constructor(private route: ActivatedRoute) {}
42
43   ngOnInit() {
44     if (this.user) {
45       this.currentUser = User.BuildUser(this.user)
46     }
47
48     if (this.route.snapshot && this.route.snapshot.data) {
49       this.currentUser = User.BuildUser(this.route.snapshot.data['user'])
50       this.currentUser.dateOfBirth = Date.now() // for data mocking purposes only
51     }
52   }
53 }
```

Object

- ▶ user: {id: "Sample text", email: "Sample t..."}  
▶ \_\_proto\_\_: Object

used on breakpoint

tch

Stack

viewUserComponent.ngOnInit  
view-user.component.ts:50

checkAndUpdateDirectiveInline  
core.js:12365

checkAndUpdateNodeInline  
core.js:13889

checkAndUpdateNode  
core.js:13832

bugCheckAndUpdateNode  
core.js:14725

debugCheckDirectivesFn  
core.js:14666

(anonymous)  
ViewUserCompone...ory.js? [sm]:1

debugUpdateDirectives  
core.js:14651

Console

Angular is running in the development mode. Call enableProdMode() to enable the production mode. core.js:3683

> this.currentUser

< ▶ User {id: "Sample text", email: "Sample text", name: {}, picture: "Sample text", role: "clerk", ...}

>

The screenshot shows the LemonMart Manager's Dashboard. On the left, there is a sidebar with the following menu items:

- Manager
- Users**
- Receipts
- Inventory
- Stock Entry
- Products
- Categories
- Clerk
- POS

The main content area has three tabs at the top: "Manager's Dashboard", "User Management" (which is currently selected), and "Receipt Lookup". Below the tabs is a search bar with a placeholder "Search by e-mail or name". The main area displays a table of user data:

Name ↑	E-mail	Role	View Details
Bugs Bunny	bugs@bunnylove.com	clerk	eye icon
Doguhan Uluca	duluca@gmail.com	manager	eye icon
Justin Thunderclaps	thunderdome@hotmail.com	clerk	eye icon
Obladi Oblada	apple@smith.com	clerk	eye icon
Smith Jones	jones.smith@icloud.com	clerk	eye icon

At the bottom of the table area, there is a circular refresh button, a dropdown for "Items per page: 5", and navigation arrows for "1 - 5 of 7".

Name ↑	E-mail	Role	View Details
Bugs Bunny	bugs@bunnylove.com	clerk	
Doguhan Uluka	duluca@gmail.com	manager	
Justin Thunderclaps	thunderdome@hotmail.com	clerk	
Obladi Oblada	apple@smith.com	clerk	
Smith Jones	jones.smith@icloud.com	clerk	



Items per page: 5 ▾ 1 – 5 of 7



## Bugs Bunny

clerk

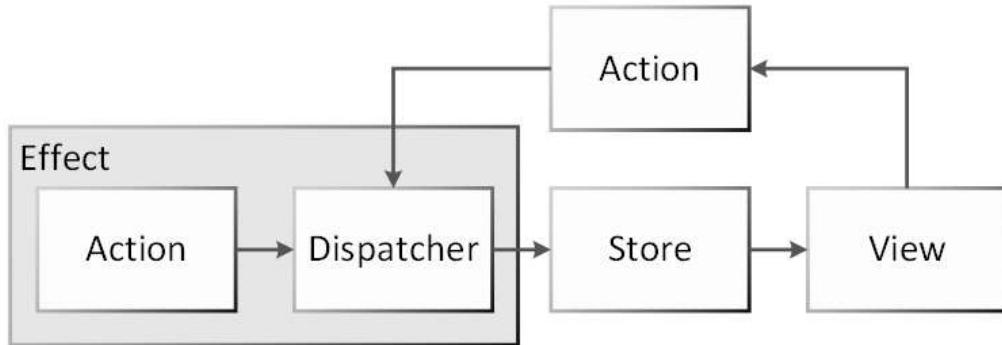
### E-mail

bugs@bunnylove.com

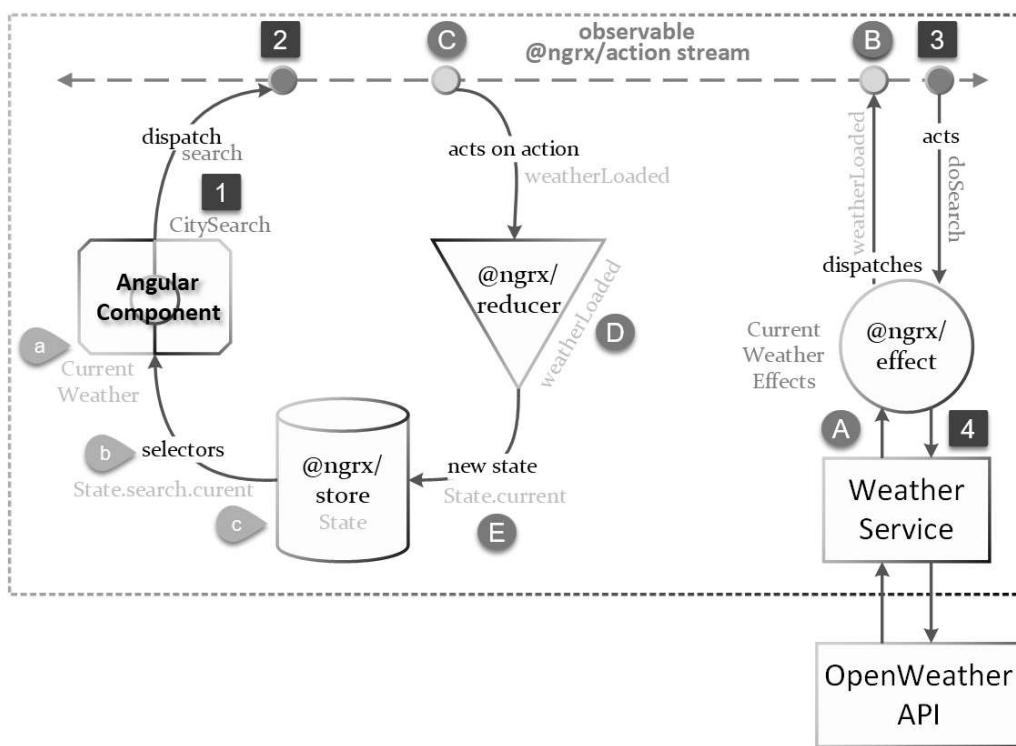
### Date of Birth

Jul 26, 1940

[Edit](#)



### LocalCast Weather



# LocalCast Weather

Your city, your forecast, right now!

 City Name or Postal Code

Specify country code like 'Paris, US'

Using NgRX

## Current Weather

--, --

Sunday Jul

7th

0 °F

LemonMart Manager's Dashboard

User Management

Using NgRX Data

Search

Name ↑ E-mail

Name ↑	E-mail	Role
Veli Tepeli	veli@gmail.com	clerk
Justin Thunderclaps	thunderdome@hotmail.com	clerk
Tim John	jt23@hotmail.com	clerk
Obladi Oblada	apple@smith.com	clerk
Smith Jones	jones.smith@icloud.com	clerk
Bugs Bunny	bugs@bunnylove.com	clerk
Doguhan Uluca	duluca@gmail.com	manager

Manager's Dashboard User Management Receipt Lookup

Using NgRX Data

Search

Name ↑ E-mail

Name ↑	E-mail	Role	View Details
Veli Tepeli	veli@gmail.com	clerk	eye icon
Justin Thunderclaps	thunderdome@hotmail.com	clerk	eye icon
Tim John	jt23@hotmail.com	clerk	eye icon
Obladi Oblada	apple@smith.com	clerk	eye icon
Smith Jones	jones.smith@icloud.com	clerk	eye icon
Bugs Bunny2	bugs@bunnylove.com	clerk	eye icon
Doguhan Uluca	duluca@gmail.com	manager	eye icon

C Items per page: 5 1 – 5 of 7 < >

# Chapter 13: Highly Available Cloud Infrastructure on AWS



Sign in ?

Email address of your AWS account

To sign in as an IAM user, enter your [account ID](#) or [account alias](#) instead.

Next

New to AWS?

Create a new AWS account



AWS Accounts Include  
12 Months of Free Tier Access

Including use of Amazon EC2,  
Amazon S3, and Amazon DynamoDB

Visit [aws.amazon.com/free](#) for full offer terms

## IAM Resources

Users: 1

Roles: 4

Groups: 1

Identity Providers: 0

Customer Managed Policies: 0

## Security Status

5 out of 5 complete.

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Delete your root access keys      | ▼ |
| <input checked="" type="checkbox"/> Activate MFA on your root account | ▼ |
| <input checked="" type="checkbox"/> Create individual IAM users       | ▼ |
| <input checked="" type="checkbox"/> Use groups to assign permissions  | ▼ |
| <input checked="" type="checkbox"/> Apply an IAM password policy      | ▼ |

# Create Cluster

## Step 1: Select cluster template

Step 2: Configure cluster

## Select cluster template

The following cluster templates are available to simplify cluster integrations can be added later.

### Networking only

#### Resources to be created:

Cluster

VPC (optional)

Subnets (optional)

**Powered by AWS Fargate**

**EC2 Windows + Networking**

Back

**View Cluster**

ECS status - 2 of 2 complete fargate-cluster



ECS cluster

ECS Cluster fargate-cluster successfully created



CloudFormation Stack

CloudFormation stack EC2ContainerService-fargate-cluster and its resources successfully created

## Build, tag, and push Docker image

Now that your repository exists, you can push a Docker image by following these steps:

- Successfully created repository  
dkr.ecr.us-east-1.amazonaws.com/lemon-mart

To install the AWS CLI and Docker and for more information on the steps below, visit the ECR documentation page.

- 1) Retrieve the `docker login` command that you can use to authenticate your Docker client to your registry:

Note:

If you receive an "Unknown options: --no-include-email" error, install the latest version of the AWS CLI.

[Learn more](#)

```
aws ecr get-login --no-include-email --region us-east-1
```

- 2) Run the `docker login` command that was returned in the previous step.

## Configure task and container definitions

A task definition specifies which containers are included in your task and how they interact with each other. You can also specify data volumes for your containers to use. [Learn more](#)

**Task Definition Name\*** lemon-mart-task 

**Requires Compatibilities\*** FARGATE

### Task size

The task size allows you to specify a fixed size for your task. Task size is required for tasks using the Fargate launch type and is optional for the EC2 launch type. Container level memory settings are optional when task size is set. Task size is not supported for Windows containers.

**Task memory (GB)** 0.5GB 

The valid memory range for 0.25 vCPU is: 0.5GB - 2GB.

**Task CPU (vCPU)** 0.25 vCPU 

The valid CPU for 0.5 GB memory is: 0.25 vCPU

### Task memory maximum allocation for container memory reservation



### Task CPU maximum allocation for containers



### Container Definitions

**Add container**

Container Name	Image	Hard/Soft m...	CPU Units	Essential	
lemon-mart		-/128		true	

\*Required

[Cancel](#)

[Previous](#)

**Create**

## Step 6: Review

Please review the load balancer details before continuing

### ▼ Load balancer

Edit

**Name** lemon-mart-alb  
**Scheme** internet-facing  
**Listeners** Port:80 - Protocol:HTTP  
**IP address type** ipv4  
**VPC** vpc-0df0542ba3582af1e  
**Subnets** subnet-0f115e4024776e118 (fargate-cluster/Public), subnet-0928ad2454ea040f9 (fargate-cluster/Public)  
**Tags** App:LemonMart

### ▼ Security groups

Edit

**Security groups** lemon-mart-sg

### ▼ Routing

Edit

**Target group** New target group  
**Target group name** lemon-mart-target-group  
**Port** 80  
**Target type** ip  
**Protocol** HTTP  
**Health check protocol** HTTP  
**Path** /  
**Health check port** traffic port  
**Healthy threshold** 5  
**Unhealthy threshold** 2  
**Timeout** 5  
**Interval** 30  
**Success codes** 200

### ▼ Targets

Edit

**IP addresses**

Cancel

Previous

Create

## Review

Edit

**Cluster** fargate-cluster  
**Launch type** FARGATE  
**Task Definition** lemon-mart-task:1  
**Service name** lemon-mart-service  
**Number of tasks** 2  
**Minimum healthy percent** 50  
**Maximum percent** 200

## Configure network

Edit

**VPC Id** vpc-edc6ac96  
**Subnets** subnet-0af3cc35, subnet-1eb95479  
**Selected security groups** sg-f334feba  
**Auto assign IP** ENABLED  
**Container Name:** lemon-mart  
**Container Port:** 80  
**ELB Name:** lemon-mart-alb  
**Target Group:** lemon-mart-target-group  
**Health Check Path:** /  
**Listener Port:** 80  
**Path-pattern:** /

**Create Record Set**

**Name:** lemonmart .angularforenterprise.com.

**Type:** A – IPv4 address ▾

**Alias:**  Yes  No

**Alias Target:** dualstack.lemon-mart-alb-681490029.i

**Alias Hosted Zone ID:** Z35SXDOTRQ7X7K

You can also type the domain name for the resource. Examples:

- CloudFront distribution domain name: d111111abcdef8.cloudfront.net
- Elastic Beanstalk environment CNAME: example.elasticbeanstalk.com
- ELB load balancer DNS name: example-1.us-east-2.elb.amazonaws.com
- S3 website endpoint: s3-website.us-east-2.amazonaws.com
- Resource record set in this hosted zone: www.example.com
- VPC endpoint: example.us-east-2.vpce.amazonaws.com
- API Gateway custom regional API: d-abcde12345.execute-api.us-west-2.amazonaws.com
- Global Accelerator DNS name: a012345abc.awsglobalaccelerator.com

[Learn More](#)

**Routing Policy:** Simple ▾

Route 53 responds to queries based only on the values in this record. [Learn More](#)

**Evaluate Target Health:**  Yes  No

Clusters > fargate-cluster > Service: lemon-mart-service

## Service : lemon-mart-service

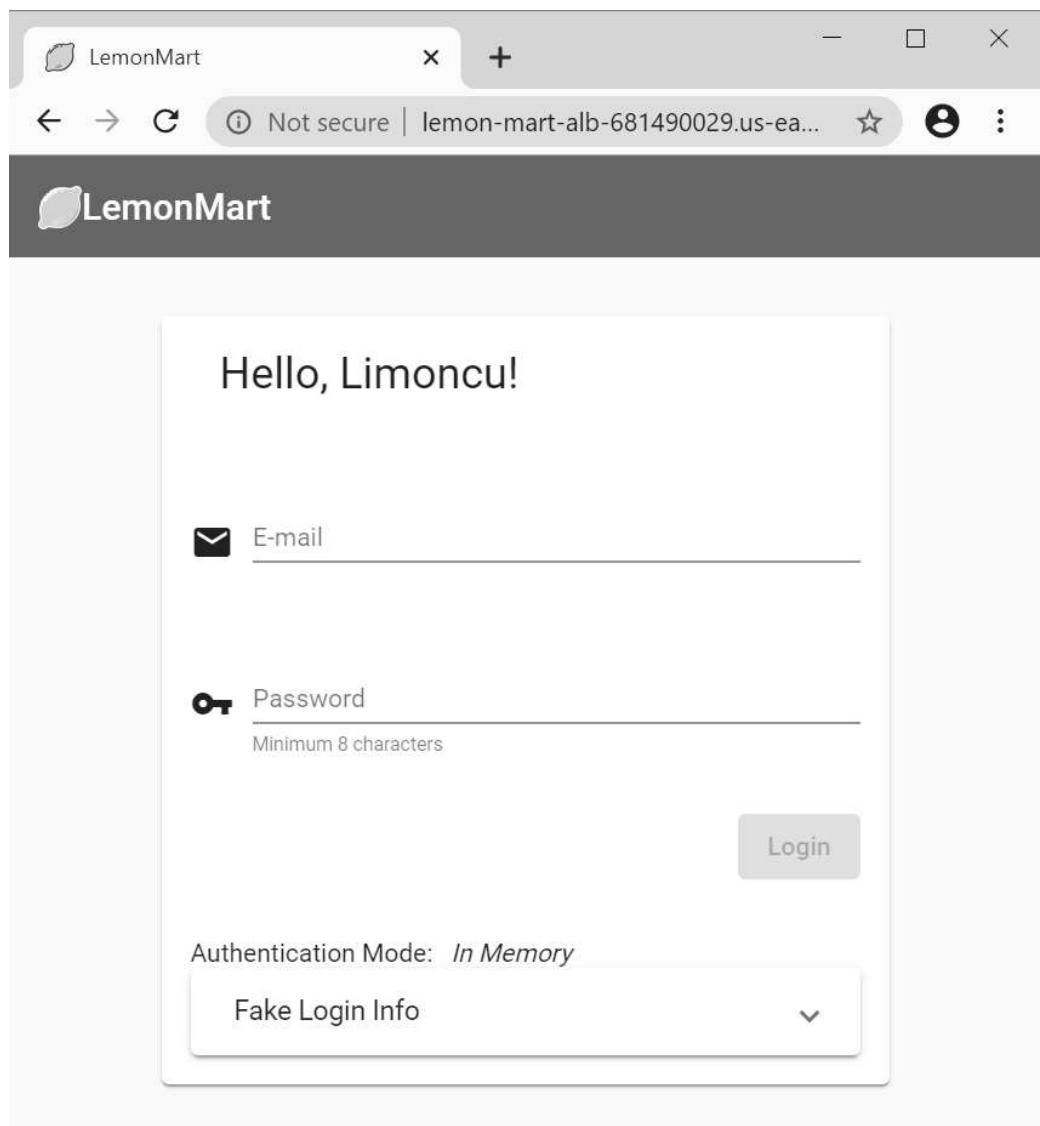
---

<b>Cluster</b>	fargate-cluster	<b>Desired count</b>	2
<b>Status</b>	ACTIVE	<b>Pending count</b>	0
<b>Task definition</b>	lemon-mart-task:1	<b>Running count</b>	2
<b>Launch type</b>	FARGATE		
<b>Platform version</b>	LATEST		
<b>Service role</b>	aws-service-role/ecs.amazonaws.com/AWSServiceRoleForECS		

Clusters > fargate-cluster > Task: 0d01d542-d1be-4915-a5e1-4e884ee0f2b1

## Task : 0d01d542-d1be-4915-a5e1-4e884ee0f2b1

Details	Logs
Cluster	fargate-cluster
Launch type	FARGATE
Platform version	1.0.0
Task definition	lemon-mart-task:1
Group	service:lemon-mart-service
Task role	None
Last status	RUNNING
Desired status	RUNNING
Created at	2018-01-21 23:46:52 -0500
Network	
Network mode	awsvpc
ENI Id	eni-23f0bfd8
Subnet Id	subnet-b3311bf8
Private IP	10.0.1.181
Public IP	54.164.92.137 ←
Mac address	0a:c0:a3:26:b9:7c



Clusters > fargate-cluster > Service: lemon-mart-service

## Service : lemon-mart-service

[Update](#)

[Delete](#)

Cluster	fargate-cluster	Desired count	2
Status	ACTIVE	Pending count	2
Task definition	lemon-mart-task:5	Running count	2
Launch type	FARGATE		
Platform version	LATEST		
Service role	aws-service-role/ecs.amazonaws.com/AWSServiceRoleForECS		

[Details](#)

[Tasks](#)

[Events](#)

[Auto Scaling](#)

[Deployments](#)

[Metrics](#)

[Logs](#)

Last updated on January 22, 2018 1:22:22 AM (0m ago) [↻](#) [?](#)

Task status: [Running](#) Stopped

[Filter in this page](#)

< 1-4 > Page size [50](#) ▾

Task	Task Definiti...	Last status	Desired stat...	Group	Launch type	Platform ver...
c017b8f5-399...	lemon-mart-t...	PROVISIONING	RUNNING	service:lemon...	FARGATE	1.0.0
d4b62953-20...	lemon-mart-t...	PROVISIONING	RUNNING	service:lemon...	FARGATE	1.0.0
7e8fffb2-ac85...	lemon-mart-t...	RUNNING	RUNNING	service:lemon...	FARGATE	1.0.0
fb12d2f0-e3c...	lemon-mart-t...	RUNNING	RUNNING	service:lemon...	FARGATE	1.0.0

```
▶ ✓ Configure AWS Secret Access Key 0s ↗ ⬇
▶ ✓ Configure AWS default region 0s ↗ ⬇
▶ ✓ npm ci 20s ↗ ⬇
▶ ✓ Restore .env files 0s ↗ ⬇
▶ ✓ Sign Docker into AWS ECR 0s ↗ ⬇
▶ ✓ Push it to ECR 10s ↗ ⬇
▼ ✓ Deploy 6m 47s ↗ ⬇


```
#!/bin/bash -eo pipefail
npm run aws:deploy
```



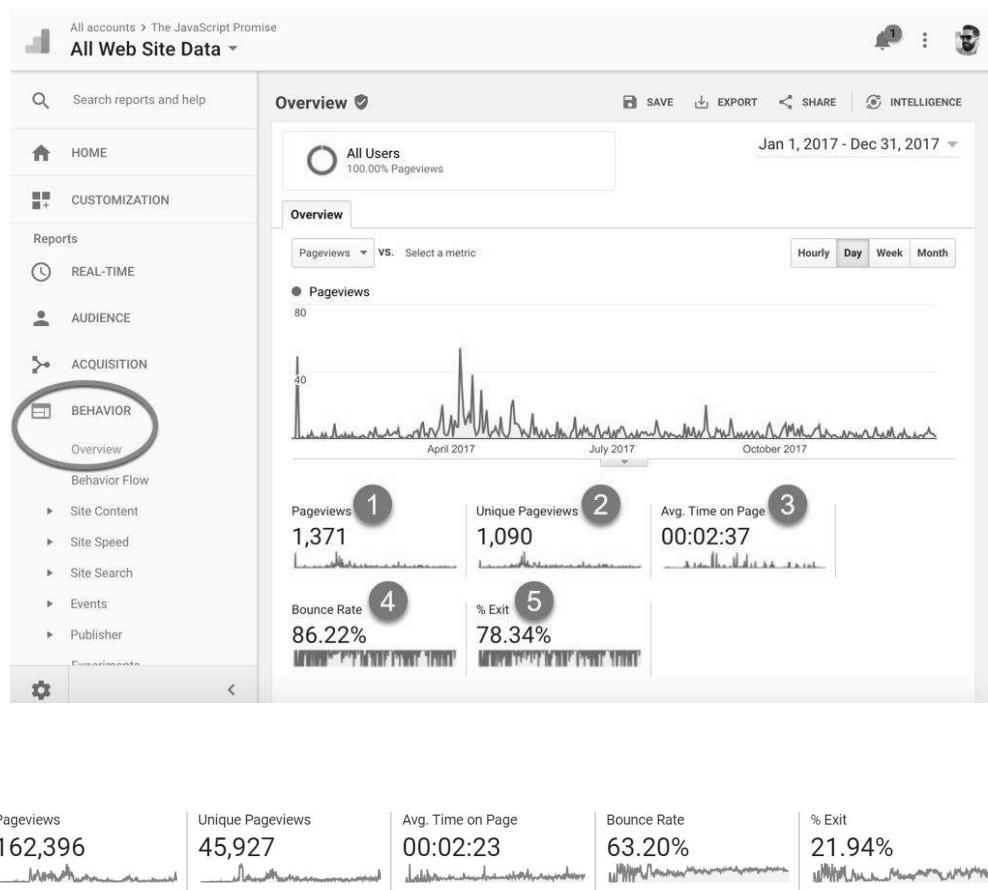
```
> lemon-mart@9.0.0 aws:deploy /home/circleci/repo
> cross-conf-env docker run --env-file ./env silintl/ecs-deploy -c $npm_package_config_awsEcsCl

Unable to find image 'silintl/ecs-deploy:latest' locally
latest: Pulling from silintl/ecs-deploy

36221ed0: Pulling fs layer
57959566: Pulling fs layer
cce446bc: Pulling fs layer
ed8398f6: Pulling fs layer
Digest: sha256:378c5dadd3eed960dff719627a2b501ac1a9d34230c9d959fde20aceb5e00305
Status: Downloaded newer image for silintl/ecs-deploy:latest
Using image name: *****/lemon-mart:latest
Current task definition: arn:aws:ecs:*****:*****:task-definition/lemon-mart-task:9
New task definition: arn:aws:ecs:*****:*****:task-definition/lemon-mart-task:10
Service updated successfully, new task definition running.
Waiting for service deployment to complete...
Service deployment successful.
CircleCI received exit code 0
```


```

# Chapter 14: Google Analytics and Advanced Cloud Ops



Analytics | Doguhan Uluda > LemonMart | All Web Site Data

Try searching "Any anomalies in sessions thi..."

Home | Customization | REPORTS | Realtime | Audience | Acquisition | Behavior | Events | Attribution BETA | Discover | Admin

**Events Overview**

All Users  
100.00% Unique Events

+ Add Segment

Apr 28, 2018 - Apr 28, 2020

**Overview**

Total Events VS. Select a metric

Hourly Day Week Month

**Total Events**

200  
100  
2019 2020

**Total Events** | **Unique Events** | **Event Value**

1,662	573	0
-------	-----	---

**Avg. Value** | **Sessions with Event** | **Events / Session with Event**

0.00	287	5.79
------	-----	------

← Google Tag Manager All accounts :

WORKSPACE VERSIONS ADMIN

### Add a New Account

1  Setup Account 

2  Setup Container

Account Name **LemonMart**

Container name

Where to Use Container

Web  iOS  Android

AMP

**CREATE** **CANCEL**

This screenshot shows the initial setup screen for a container version in Google Tag Manager. At the top, it displays the container name "LemonMart Web App". Below the header, there are three tabs: WORKSPACE (selected), VERSIONS, and ADMIN.

### Version 1 - Initial setup

**Version Summary**

- Published: 1/18/18 11:40 PM by duluca@gmail.com
- Created: 1/18/18 11:40 PM by duluca@gmail.com
- Description: No description

**Version Items**

- Tags: 0
- Triggers: 0
- Variables: 0

**Version Changes**

This container version has no changes.

**Activity History**

This screenshot shows the Google Analytics Admin interface for a property named "LemonMart". The left sidebar includes sections for ADMIN (selected), USER, and various management tools like Data Collection, User ID, and Session Settings. A central panel displays the "Tracking ID" (4) as UA-112695360-1, with a status message indicating traffic in the past 48 hours and 1 active user.

### Website Tracking

**Global Site Tag (gtag.js)** (5)

This section provides the Global Site Tag (gtag.js) tracking code for the property:

```
<!-- Global site tag (gtag.js) - Google Analytics -->
<script async src="https://www.googletagmanager.com/gtag/js?id=UA-112695360-1"></script>
<script>
window.dataLayer = window.dataLayer || [];
function gtag(){dataLayer.push(arguments);}
gtag('js', new Date());

gtag('config', 'UA-112695360-1);
</script>
```

The code snippet includes comments explaining its function and how it interacts with Google Tag Manager.

**Google Analytics**

**Tag Configuration**

Tag type: Universal Analytics (Google Analytics)

Track Type: Page View

Google Analytics Settings: {{Tracking ID}}

Enable overriding settings in this tag:

Advanced Settings

**Triggering**

Firing Triggers: All Pages (Page View)

**SAVE**

The screenshot shows the configuration interface for a Google Analytics tag in a digital marketing tool. The tag is set to 'Universal Analytics' and 'Page View' track type. It uses the variable '{{Tracking ID}}' for Google Analytics settings. A checkbox for overriding settings is unchecked. The triggering rule is set to fire on all pages. The interface includes a sidebar with 'WORK' and 'Default' sections, and a save button at the top right.

**Version 2 - added ga id**

**Version Summary**

Created: 1/19/18 12:06 AM by duluca@gmail.com

Description: No description

Version Items:

Tag	Triggers	Variable
1	0	1

More options:

This screenshot shows the version history for a tag named 'Version 2 - added ga id'. It was created on 1/19/18 at 12:06 AM by the user 'duluca@gmail.com'. There is no description provided. The version summary indicates there is one tag item, zero trigger items, and one variable item.

All accounts > LemonMart

All Web Site Data

Search reports and help

HOME

CUSTOMIZATION

Reports

REAL-TIME (Overview circled)

Locations

Traffic Sources

Content

Events

Conversions

AUDIENCE

ACQUISITION

BEHAVIOR

CONVERSIONS

Overview

Right now

2 active users on site

DESKTOP 100%

Pageviews

Per minute Per second

3 1.5

2 1

1 0.5

-16 min -6 min -60 sec -45 sec -30 sec -15 sec

Create Shortcut BETA

Top Referrals:

Source	Active Users
There is no data for this view.	

Top Active Pages:

Active Page	Active Users
1. /home	1 50.00%
2. /manager/home	1 50.00%

Top Social Traffic:

Source	Active Users
There is no data for this view.	

Top Locations:

Top Keywords:

Keyword	Active Users
There is no data for this view.	



## Projects

A project contains all you need to conduct load tests: virtual users, scenarios, and bench reports. This page lists all of your projects and allows you to create a new one.

Filter



**+ Add project**

Name (allow 3 to 60 length)

LemonMart

Description (up to 300 characters)

LemonMart load test



Cancel



Save

Saved at 1:40:28

DESIGN

POS User

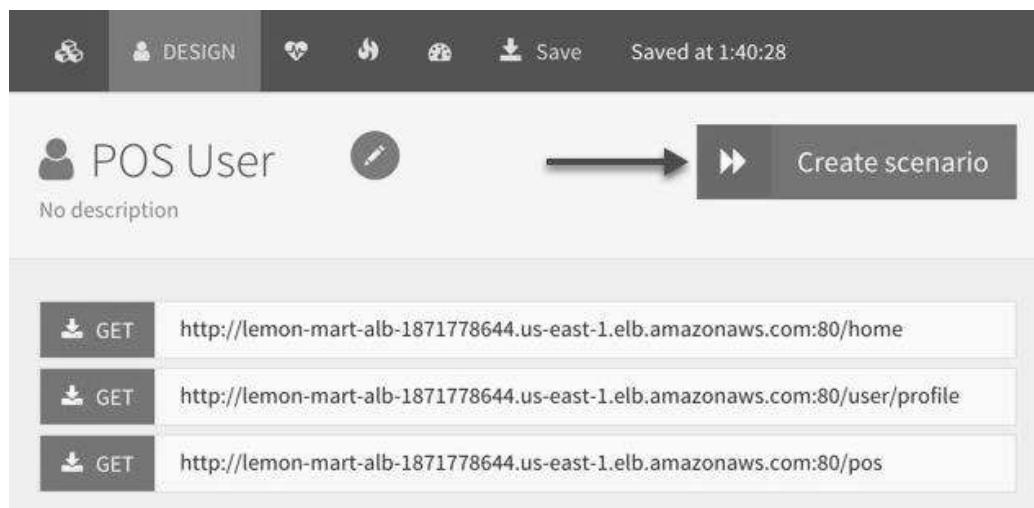
No description

Create scenario

GET http://lemon-mart-alb-1871778644.us-east-1.elb.amazonaws.com:80/home

GET http://lemon-mart-alb-1871778644.us-east-1.elb.amazonaws.com:80/user/profile

GET http://lemon-mart-alb-1871778644.us-east-1.elb.amazonaws.com:80/pos



User profile OctoPerf

Virtual Users

User Agents

Configuration

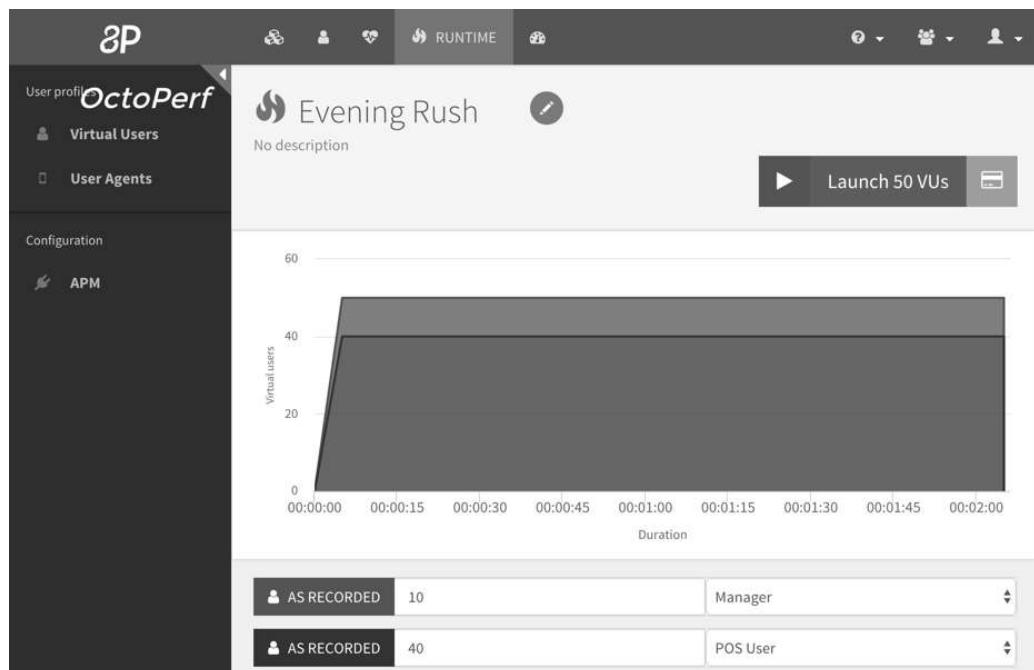
APM

RUNTIME

Evening Rush

No description

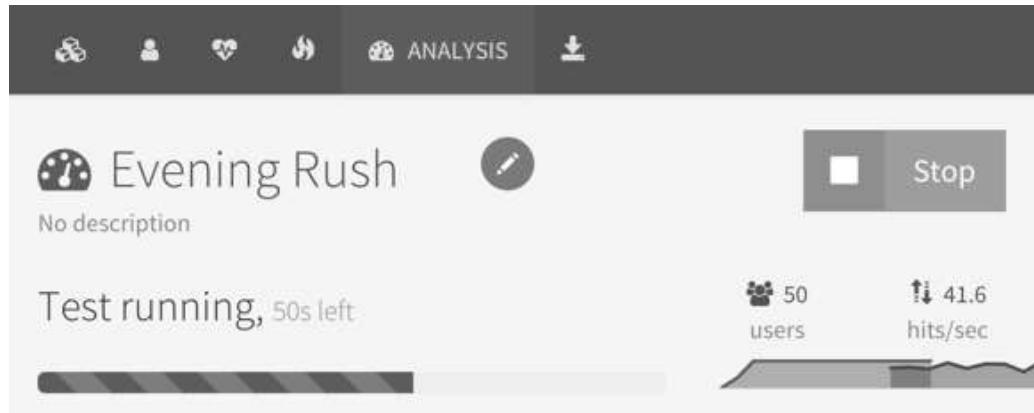
Launch 50 VUs



Virtual users

Duration

User	Count	Role
AS RECORDED	10	Manager
AS RECORDED	40	POS User

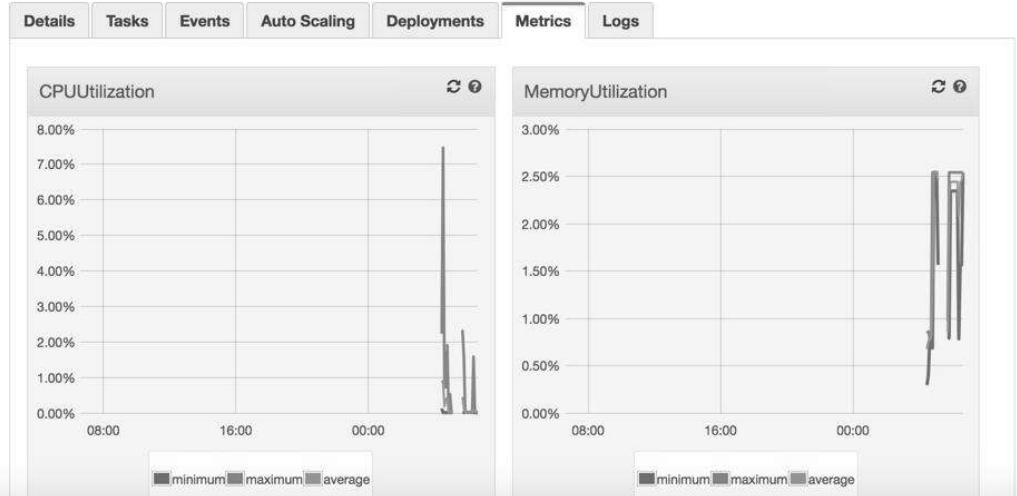


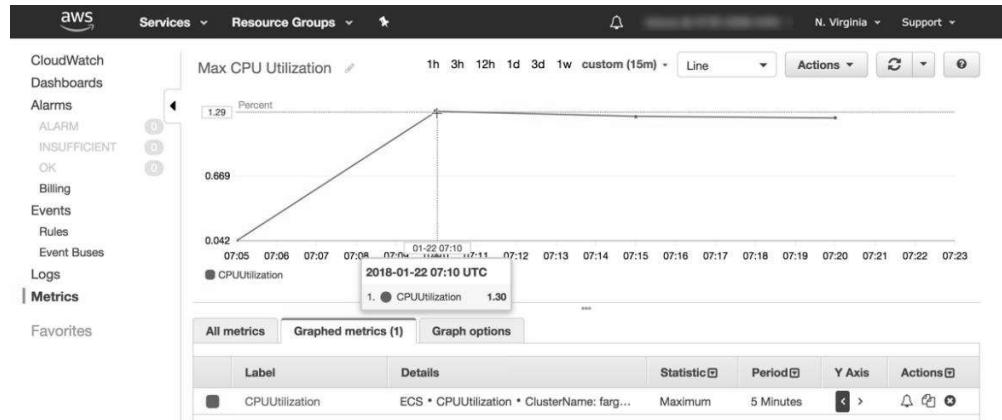
Clusters > fargate-cluster > Service: lemon-mart-service

### Service : lemon-mart-service

[Update](#) [Delete](#)

Cluster	fargate-cluster	Desired count	2
Status	ACTIVE	Pending count	0
Task definition	lemon-mart-task:5	Running count	2
Launch type	FARGATE		
Platform version	LATEST		
Service role	aws-service-role/ecs.amazonaws.com/AWSServiceRoleForECS		





All accounts > LemonMart

## LemonMart Web App

WORKSPACE VERSIONS ADMIN

Current Workspace Triggers

Default Workspace >

Search

Overview

Tags

Triggers

Variables

Folders

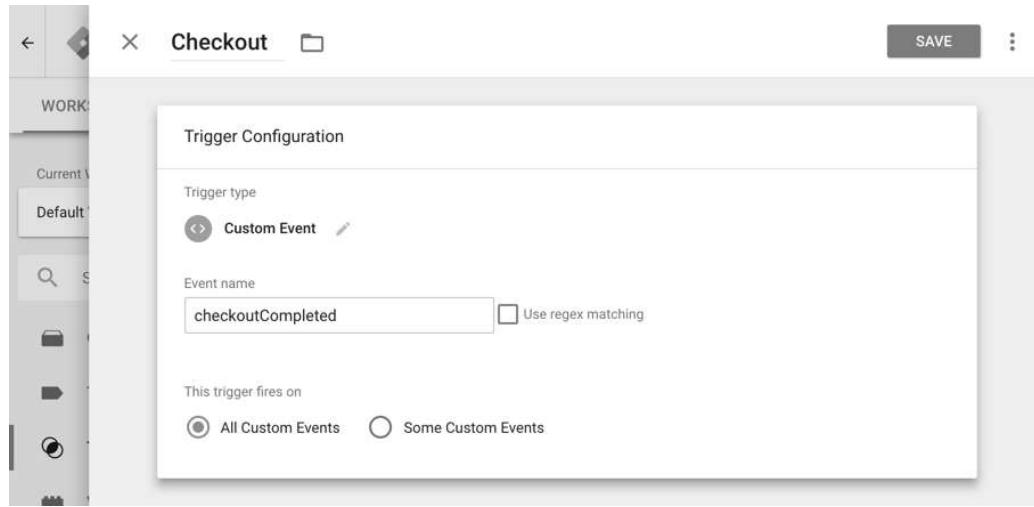
NEW

Name ↑

Checkout Completed

Checkout Initiated

The screenshot shows the 'LemonMart Web App' interface. At the top, there's a navigation bar with 'All accounts > LemonMart' and the app name. Below it is a menu bar with 'WORKSPACE', 'VERSIONS', and 'ADMIN'. Under 'WORKSPACE', there's a 'Current Workspace' section with a dropdown set to 'Default Workspace'. To the right of this is a 'Triggers' section. A large grey arrow points from the 'Default Workspace' dropdown towards the 'NEW' button in the 'Triggers' section. The 'Triggers' section has a 'Name ↑' header and a list of items: 'Checkout Completed' and 'Checkout Initiated'. On the left side of the workspace menu, there are links for 'Search', 'Overview', 'Tags', 'Triggers' (which is circled in red), 'Variables', and 'Folders'. The 'Triggers' link is highlighted with a red oval.



This trigger fires on

All Custom Events  Some Custom Events

Fire this trigger when an Event occurs and all of these conditions are true

Page Hostname  contains  lemonmart.com

All accounts > LemonMart

## LemonMart Web App

WORKSPACE VERSIONS ADMIN GTM-56D4F6K PREVIEW SUBMIT

Current Workspace: Default Workspace

Tags

**NEW** ←

Name ↑	Type	Firing Triggers	Last Edit...
Checkout Completed	Universal Analytics	Checkout Completed	a few seconds ago
Checkout Initiated	Universal Analytics	Checkout Initiated	4 minutes ago
Google Analytics	Universal Analytics	All Pages	24 minutes ago

Search

Overview

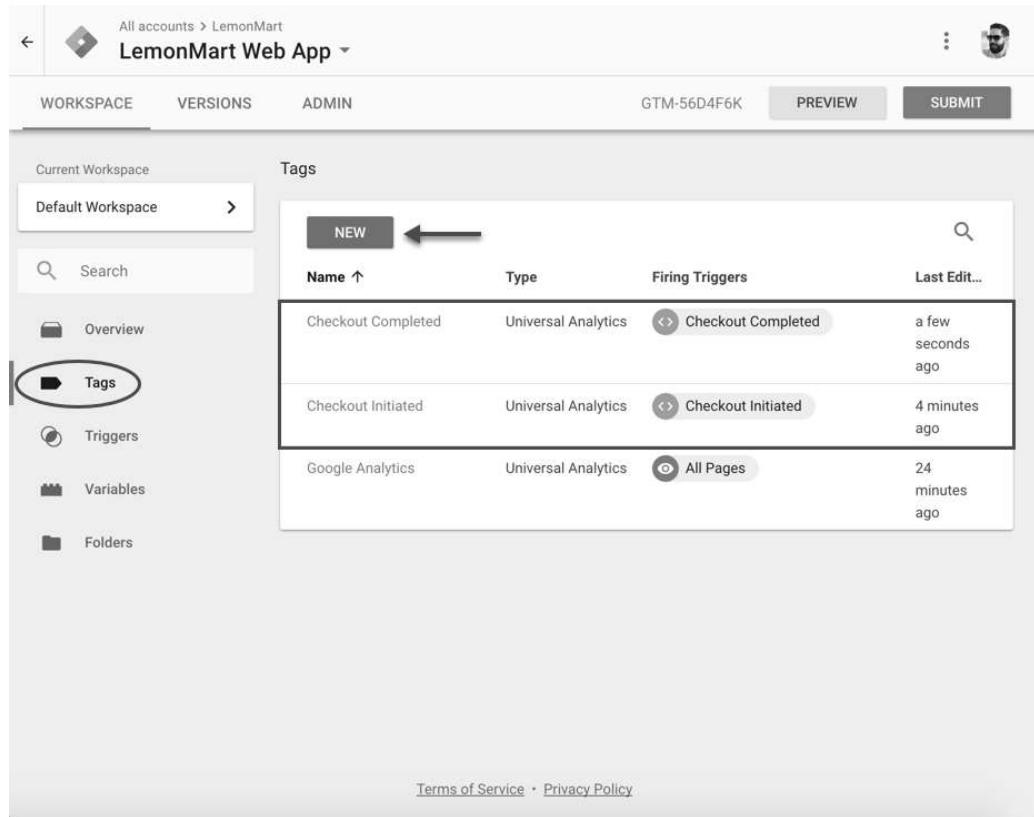
Tags (circled)

Triggers

Variables

Folders

Terms of Service · Privacy Policy



**Checkout Initiated**

SAVE

**Tag Configuration**

Tag type  
 **Universal Analytics**  
Google Analytics

Track Type  
Event

Category  
Checkout

Action  
checkoutinitiated

Label  
Checkout Initiated

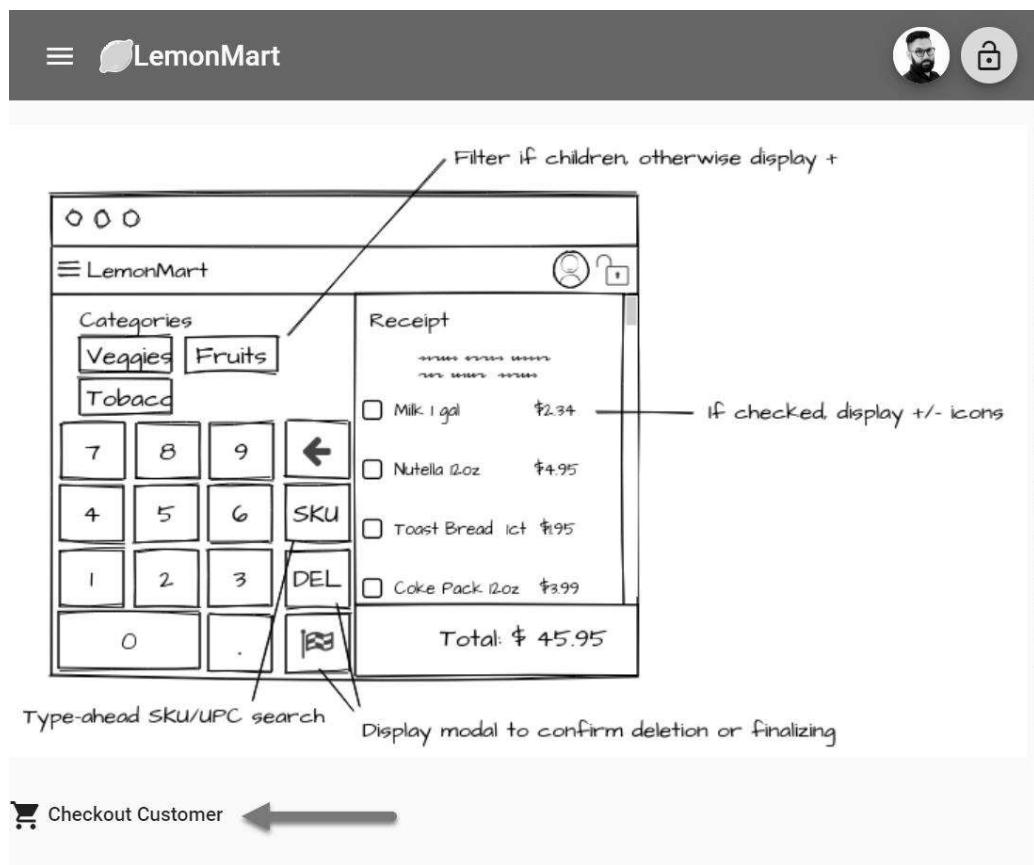
Non-Interaction Hit  
True

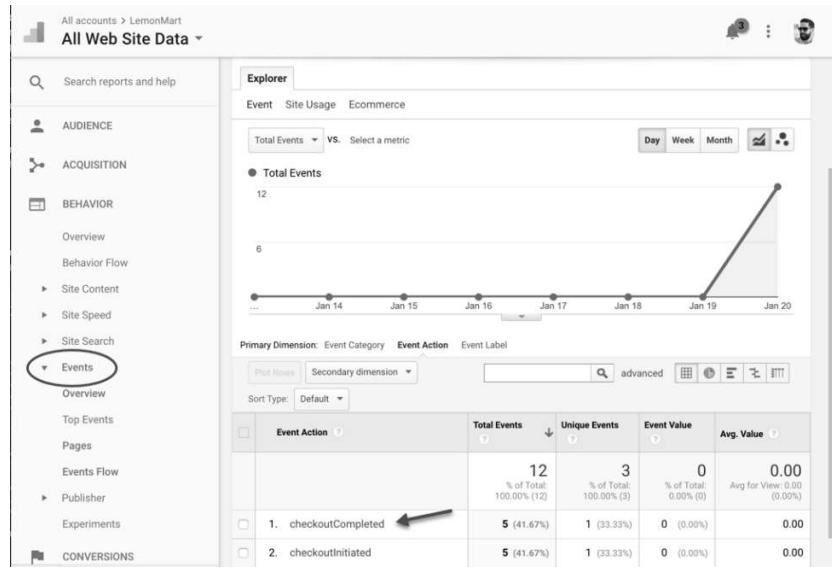
Google Analytics Settings ?  
{(Tracking ID)} ⓘ

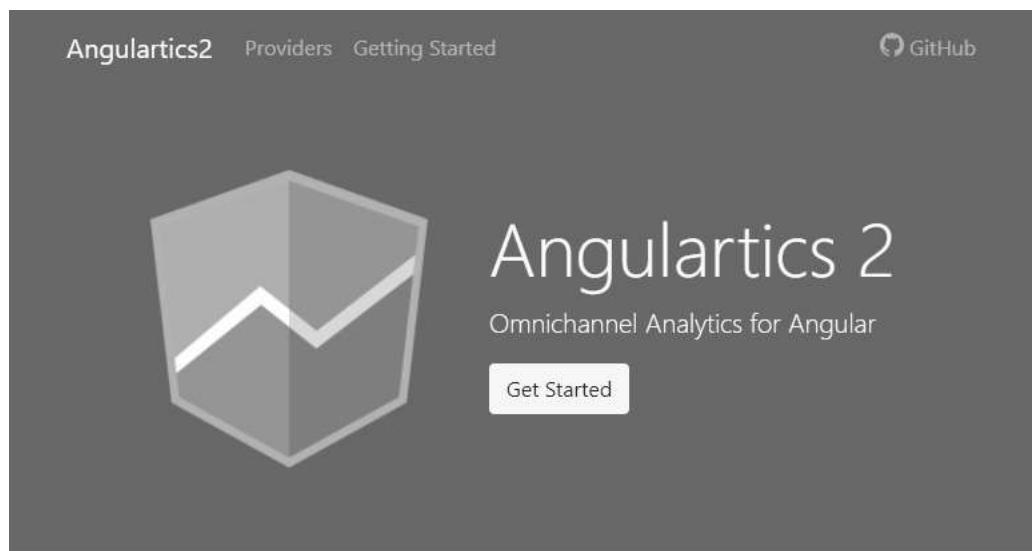
**Triggering**

Firing Triggers

 **Checkout Initiated**  
Custom Event







## Providers

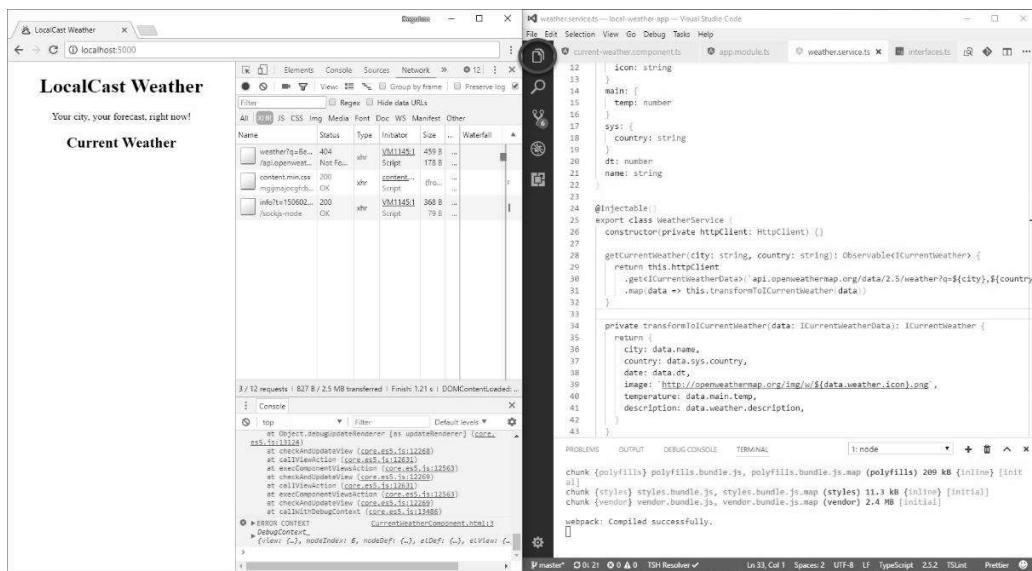
 Adobe Analytics	 Amplitude	
Adobe Analytics > Analytics	Amplitude > Analytics	Azure Application In... > Analytics
 Baidu 百度	 CLICKY	 facebook Pixel
Baidu > Analytics	CLICKY > Analytics	Facebook Pixel > Advertising

## Appendix A: Debugging Angular

### LocalCast Weather

Your city, your forecast, right now!

#### Current Weather



Karma v1.7.1 - connected

Chrome 61.0.3163 (Windows 10 0.0.0) is idle

Jasmine 3.0.0

4 specs, 0 failures

raise exceptions

AppComponent

- should create the app
- should render title in a h1 tag

CurrentWeatherComponent

- should create
- weatherService
- should be created

Bursa, TR Saturday, January 17, 1970  
289°F  
light intensity drizzle

app.component.spec.ts

```
1 // A few seconds ago (2 authors (Doghan Ulusa and others))
2 import { async, TestBed } from '@angular/core/testing';
3 import { AppComponent } from './app.component';
4 import { CurrentWeatherComponent } from './current-weather/current-weather.component';
5 import { WeatherService } from './weather/weather.service';
6 import { WeatherServiceStub } from './weather/weather-service.stub';
7
8 describe('AppComponent', () => {
9   let weatherServiceStub: WeatherServiceStub;
10
11   beforeEach(async() => {
12     weatherServiceStub = new WeatherServiceStub();
13     TestBed.configureTestingModule({
14       declarations: [AppComponent, CurrentWeatherComponent],
15       providers: [{ provide: WeatherService, useValue: weatherServiceStub }],
16     }).compileComponents();
17   });
18
19   it(
20     'should create the app',
21     async() => {
22       const fixture = TestBed.createComponent(AppComponent);
23       const app = fixture.debugElement.componentInstance;
24       expect(app).toBeTruthy();
25     }
26   );
27 })
```

Doghan Ulusa, 21 days ago • Formatting updated file

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

30/09/2017 08:41:55.858:INFO [Chrome 61.0.3163 (Windows 10 0.0.0)]: Connected on socket 60tWpP...  
30/09/2017 08:41:55.858:INFO [Chrome 61.0.3163 (Windows 10 0.0.0)]: Connected on socket w0tWpP...  
mIVVt8SKCAn with id 30328430  
chrome 61.0.3163 (Windows 10 0.0.0): Executed 4 of 4 SUCCESS (0.316 secs / 0.303 secs)

La 26, Col 4 Specs: 2 UFT-8 TypeScript: 2.5.2 TSIntl: Preference ✓

The screenshot shows the Chrome DevTools Network tab with a list of network requests. The first request, 'info?t=1589039683893', is selected. A context menu is open over this request, with various options like 'Dock side', 'Search', and 'Run command' highlighted with numbered circles (1 through 9). The bottom of the screen shows the Angular CLI output with 'Augury Detected Angular v9.1.1' and an error message about a 'TypeError'.

1 2 3 4 5 6 7 8 9

Name	Status	Type	Initiator	Size
info?t=1589039683893	200	xhr	zone-evergreen.js:2845	
postalCodeSearchJSON?maxRows=1&username=l...	200	xhr	zone-evergreen.js:2845	
weather?q=Bethesda&appid=0ff1417eeb4a81b0...	200	xhr	zone-evergreen.js:2845	

3 / 20 requests | 1.5 kB / 7.4 MB transferred | 582 B / 7.5 MB resources | Finish: 12.66 s | DOMContentLoaded: 760 ms | load: 65 ms

Console

top

Default levels ▾

index.ts:22  
index.ts:22  
core.js:40658  
client:52  
backend.js:61  
core.js:6189

Augury Detected Angular v9.1.1

4 ► ERROR TypeError: Cannot read property '1' of null at tickRootContext (core.js:13456)  
at detectChangesInRootView (core.js:13491)  
at RootViewRef.detectChanges (core.js:15182)

All XHR JS CSS Img Media Font Doc WS Manifest Other

Name	Headers	Preview	Response	»
weather?q=Bethesda,US /api.openweathermap.org/...	Cannot GET /api.openweathermap.org/...			
http://localhost:5000/api.openweathermap.org/data/2.5/weather? q=Bethesda,US				
info?t=1506034165591 /sockjs-node				

⋮ Console X

✖ top Filter Default levels ▾

✖ ▶ ERROR CONTEXT CurrentWeatherComponent.html:3

    ▼ DebugContext\_ {view: {...}, nodeIndex: 6, nodeDef: {...}, elDef: {...}, elView: {...}} ⓘ

        ▼ component: CurrentWeatherComponent

            ▼ weatherService: WeatherService

                ▼ httpClient: HttpClient

                    ► handler: HttpInterceptorHandler {next: HttpXhrBackend, interceptor: HttpXsrfIntercepto...}

                    ► \_\_proto\_\_: Object

                    ► \_\_proto\_\_: Object

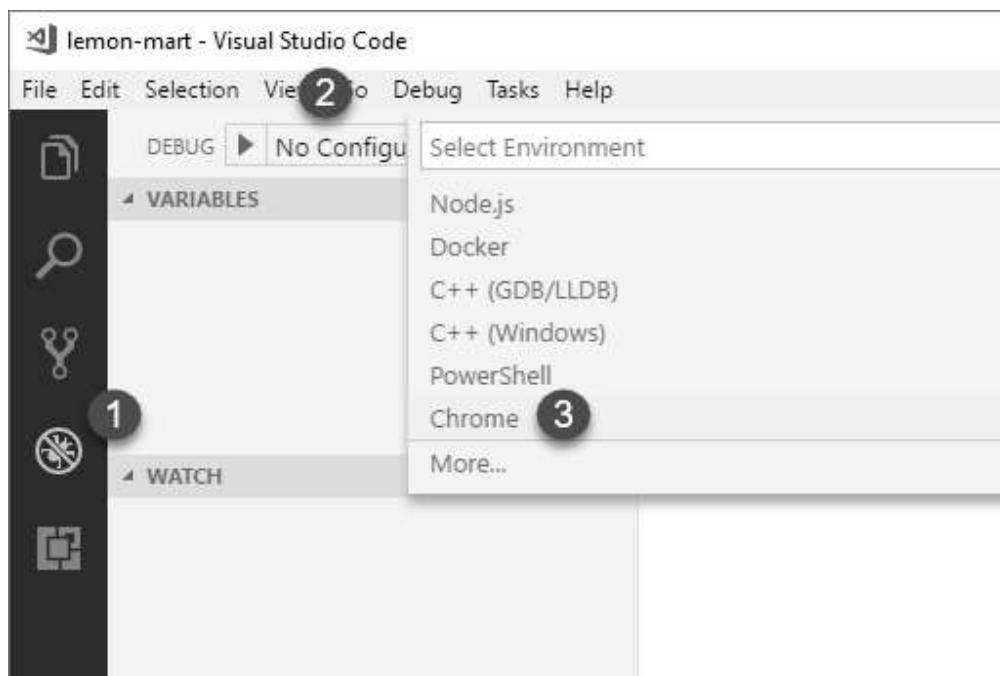
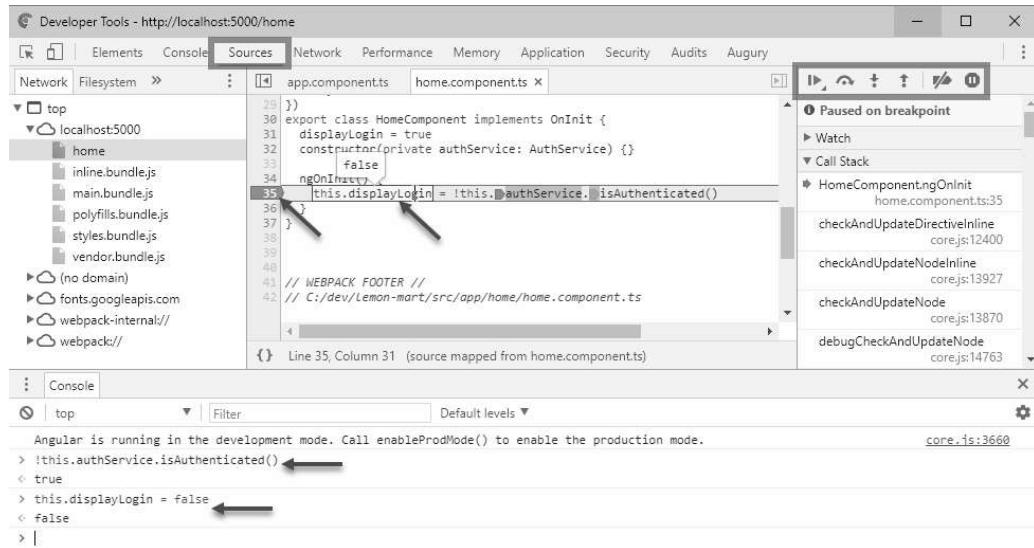
                    ► \_\_proto\_\_: Object

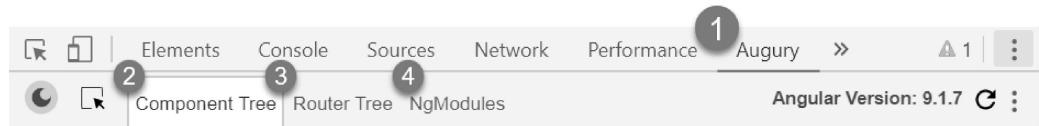
                    componentRenderElement: (...)

                    context: (...)

                ► elDef: {index: 5, parent: ...} Invoke property getter bindingIndex: 0, outputIndex: 0, ...

                ► elOrCompView: (...)





A screenshot of the Augury Component Tree view for the HomeComponent component. The left sidebar shows the component tree structure:

- AppComponent
  - MatToolbar
  - router-outlet
  - HomeComponent
- HomeComponent
  - div
    - span
  - MatButton

The HomeComponent node is selected and highlighted with a gray background. The right panel displays the component's properties and state. The properties tab shows the following:

- HomeComponent (View Source) ← ( \$\$el in Console )
- Change Detection: Default
- State ←
- displayLogin: true
- authService: AuthService

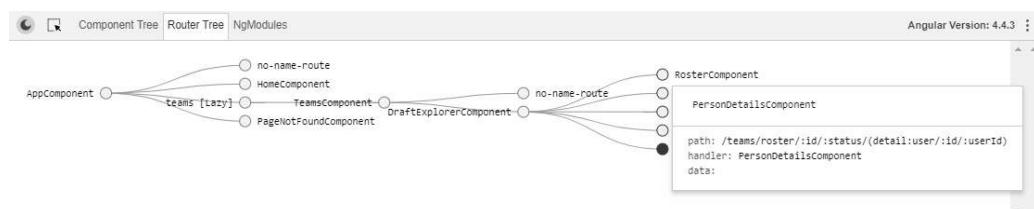
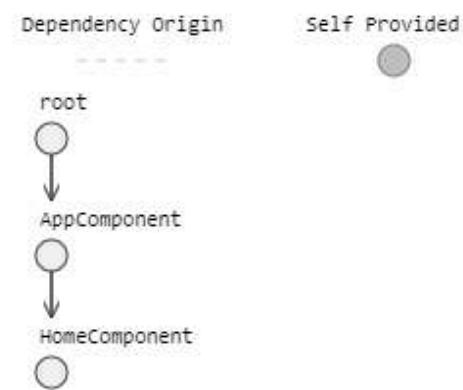
Below the right panel is a search bar with the placeholder "Search components".



### Component Hierarchy

AppComponent » HomeComponent

### Injector Graph



DevTools - localhost:5000/home

Elements Console Sources Network Performance Memory Application Security Audits Augury

Component Tree Router Tree NgModules

Show Angular Library Modules

AppModule Show Angular Library APIs

Imports	Exports	Providers	Declarations
AppRoutingModule AppMaterialModule FlexLayoutModule FieldErrorModule NxMaskModule AngularFireModule AngularFireAuthModule StoreRootModule EffectsRootModule EntityDataManager StoreDevtoolsModule	None	AuthService InjectionToken:HTTP_INTERCEPTORS MaskApplierService ActionsSubject ReducerManager ReducerObservable ReducerManagerDispatcher ScannedActionsSubject State StateObservable Store EffectsRunner EffectSources Actions DevtoolsExtension DevtoolsDispatcher	AppComponent HomeComponent PageNotFoundComponent LoginComponent NavigationMenuComponent SimpleDialogComponent

AppRoutingModule Show Angular Library APIs

Imports	Exports	Providers	Declarations
None	None	RouterScroller RouterInitializer	None

AppMaterialModule Show Angular Library APIs

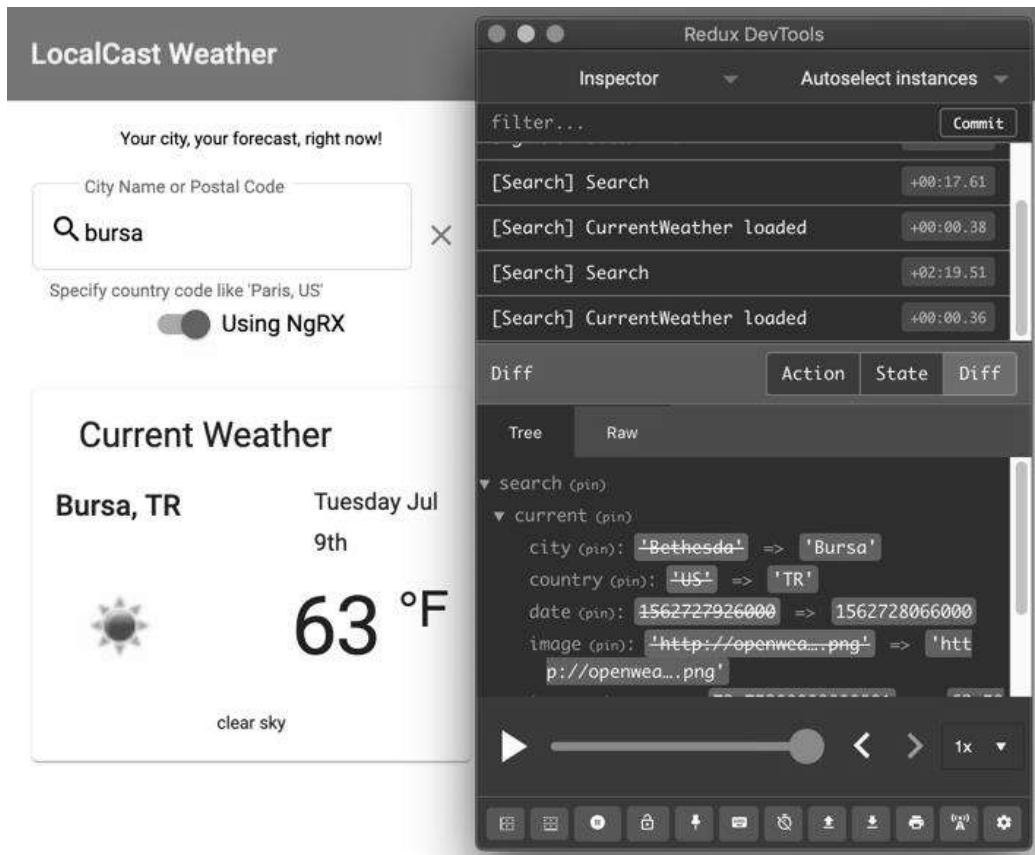
Imports	Exports	Providers	Declarations
None	MatButtonModule MatToolbarModule MatIconModule MatCardModule MatFormFieldModule MatInputModule	None	None

ManagerModule				
Imports	Exports	Providers	Declarations	
ManagerRoutingModule ManagerMaterialModule AppMaterialModule SharedComponentsModule FlexLayoutModule	None	AuthGuard UserService UserResolve	ManagerComponent Manager HomeComponent UserManagementComponent ReceiptLookupComponent UserTableComponent	
ManagerRoutingModule				
Imports	Exports	Providers	Declarations	
None	None		None	
ManagerMaterialModule				
Imports	Exports	Providers	Declarations	
None	MatTableModule MatSortModule MatPaginatorModule MatProgressSpinnerModule MatSlideToggleModule	None	None	
SharedComponentsModule				
Imports	Exports	Providers	Declarations	
FlexLayoutModule AppMaterialModule FieldInputModule	ViewUserComponent NameInputComponent	None	ViewUserComponent NameInputComponent	
UserModule				
Imports	Exports	Providers	Declarations	
UserRoutingModule AppMaterialModule FlexLayoutModule UserMaterialModule		UserService UserEntityService	ProfileComponent	

```

▶ @ngrx/store/init :5000/main.js:652
▶ @ngrx/effects/init :5000/main.js:652
Angular is running in the development mode. Call :5000/vendor.js:84666
enableProdMode() to enable the production mode.
[WDS] Live Reloading enabled. :5000/vendor.js:145392
▶ [Search] Search :5000/main.js:652
▶ [Search] CurrentWeather loaded :5000/main.js:652
▶ [Search] Search :5000/main.js:652
▶ [Search] CurrentWeather loaded :5000/main.js:652
>

```



```
[WDS] Live Reloading enabled.          client:52
b                                     tao.js:40
bo                                    tao.js:40
boi                                   tao.js:40
bois                                  tao.js:40
boise                                 tao.js:40
>
```

```
Winston is running in the development mode. Call  
enableProdMode() to enable the production mode.  
[WDS] Live Reloading enabled. client:52  
bo tap.js:40  
boise tap.js:40  
> |
```

# LocalCast Weather

Your city, your forecast, right now!

City Name or Postal Code  X

Type more than one character to search

Using BehaviorSubject

## Current Weather

--, --

Thursday

May 7th

# LocalCast Weather

Your city, your forecast, right now!

City Name or Postal Code  X

Specify country code like Paris, US

Using BehaviorSubject

## Current Weather

Boise, US

Thursday

Console

```
▶ @ngrx/store/init index.ts:22
▶ @ngrx/effects/init index.ts:22
Angular is running in the development mode. Call core.js:40658
enableProdMode() to enable the production mode.
[WDS] Live Reloading enabled. client:52
> |
```

```
▶ @ngrx/effects/init index.ts:22
Angular is running in the development mode. Call core.js:40658
enableProdMode() to enable the production mode.
[WDS] Live Reloading enabled. client:52
debounced: b city-search.component.ts:26
debounced: boise city-search.component.ts:26
debounced + filtered: boise city-search.component.ts:29
> |
```

```
src
  index.ts
  main.js
  polyfills.js
  runtime.js
  styles.js
  vendor.js
  Augury
  fonts.googleapis.com
  fonts.gstatic.com
  ng://
  webpack://
  www.googleapis.com
  www.gstatic.com

4 import { debounceTime, filter, tap } from 'rxjs/operators'
5
6 import { SearchActions } from '../actions/search.actions'
7 import * as fromSearch from '../reducers/search.reducer'
8 import {
9   FormControl
10  @Component({
11    selector: 'app-search',
12    templateUrl: './search.component.html',
13    styleUrls: ['./search.component.css']
14  })
15  export class SearchComponent implements OnInit {
16    constructor(private store: Store<fromSearch.State>, private router: Router) {
17      this.store.select(fromSearch.getSearch).subscribe(state => {
18        this.search = state.search;
19        this.error = state.error;
20        this.isLoading = state.isLoading;
21        this.isSubmitted = state.isSubmitted;
22      });
23    }
24
25    ngOnInit() {
26      this.store.select(fromSearch.getSearch).pipe(
27        filter(() => !this.search.invalid),
28        tap(searchValue => this.doSearch(searchValue))
29      ).subscribe();
30    }
31
32    doSearch(searchValue: string) {
33      const userInput = searchValue.split(',').map(s => s.trim());
34      const searchText = userInput[0];
35      const country = userInput.length > 1 ? userInput[1] : null;
36    }
37  }
38
```