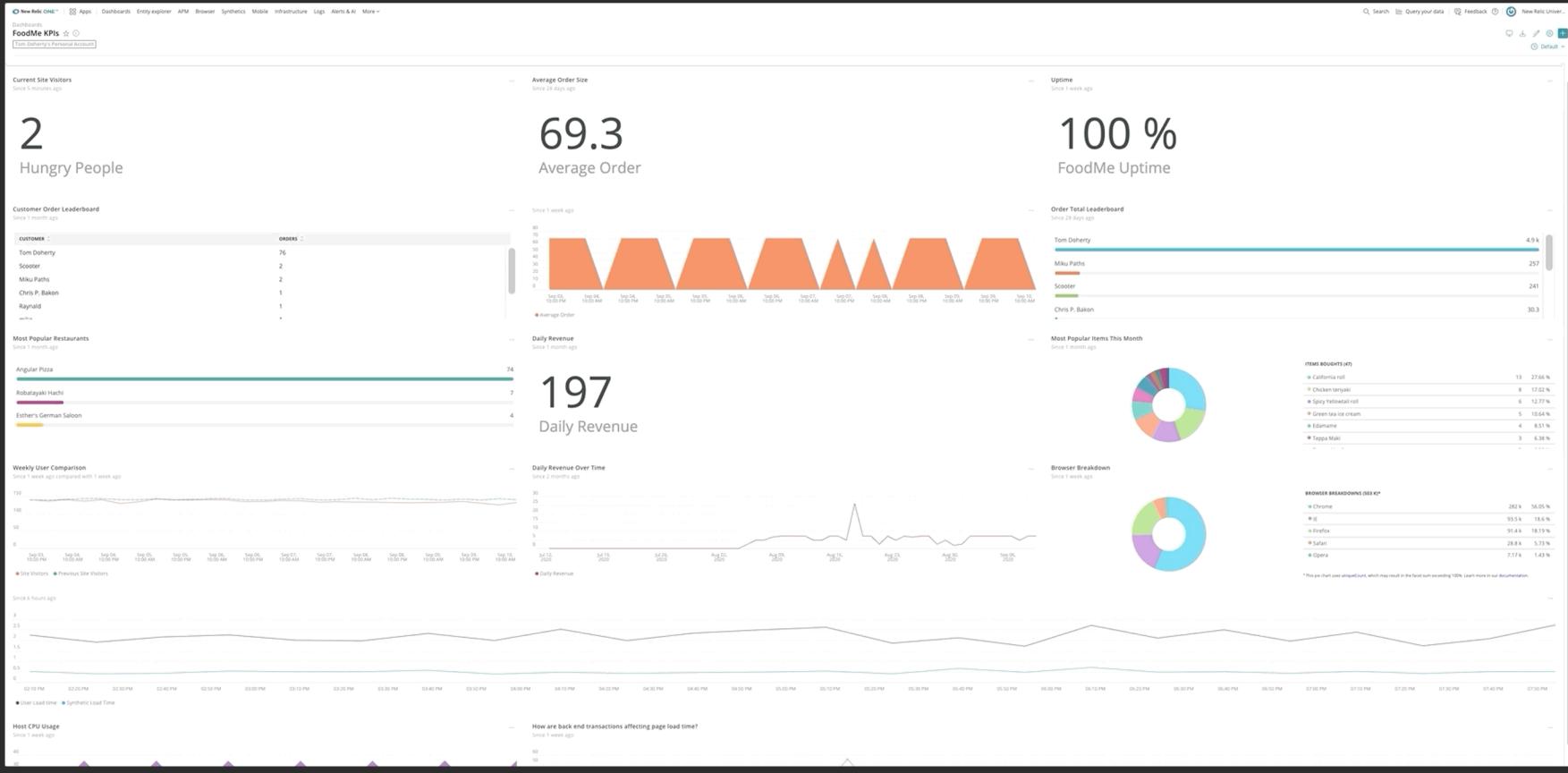


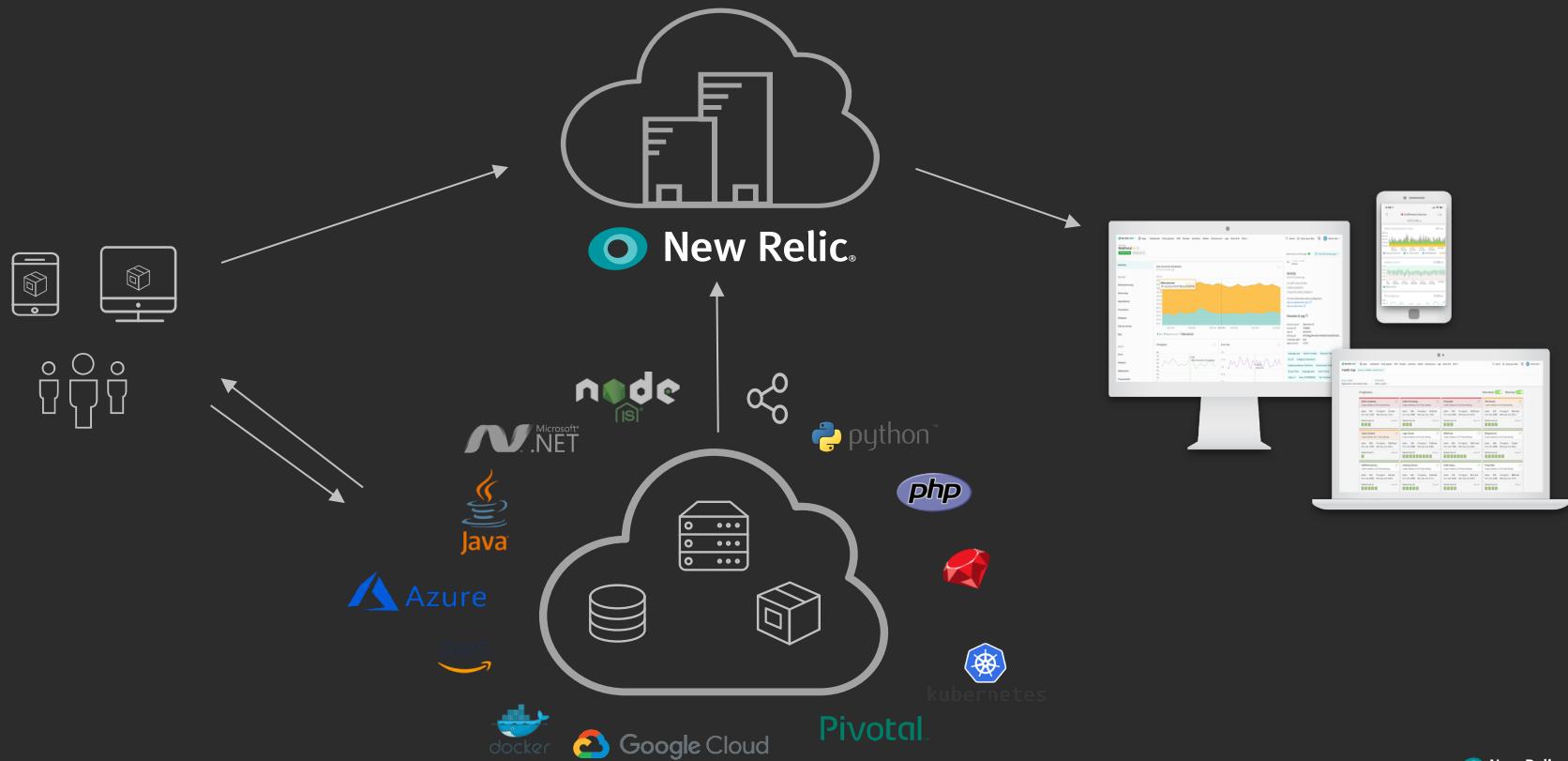
Instrumenting your Service with Agents

Setting up Front and Back-end Monitoring

Dashboard Example



Introduction to Agents



Let's get an app reporting!

You will need:

1. A glitch account (free) www.glitch.com
2. A New Relic account www.newrelic.com
3. Your New Relic License key (which you can find in under the account settings drop down)

Let's take 5 minutes to make sure you are ready to go.

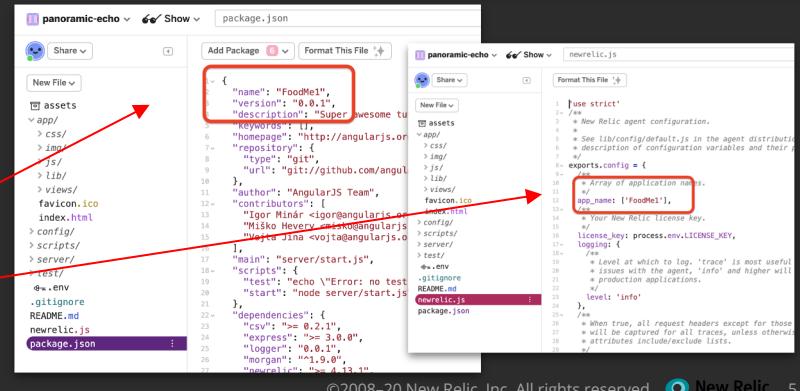
Lab: FoodMe step 1

Clone FoodMe into a Glitch account

1. Create an account at glitch.com
2. Visit the url:
<https://glitch.com/edit/#!/remix/nru-foodme>
 to clone foodme into your Glitch account
3. Edit the ` `.env` file to contain your New Relic license key
4. Set the name of the application in the Newrelic.js file and package.json file



```
LICENSE_KEY=2bc40852554cf73b2db045487e83262b7d66b863
```



package.json

```
{
  "name": "FoodMe",
  "version": "0.0.1",
  "description": "Super awesome tutu",
  "keywords": [
    "angularjs",
    "angular",
    "http://angularjs.org"
  ],
  "repository": {
    "type": "git",
    "url": "git@github.com:angularjs/tutu.git"
  },
  "author": "AngularJS Team",
  "contributors": [
    "Igor Minár <igor@angularjs.org>",
    "Misko Hevery <misko@angularjs.org>",
    "Mátska Jina <vojta@angularjs.org>"
  ],
  "main": "server/start.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" & exit 1",
    "start": "node server/start.js"
  }
}
```

newrelic.js

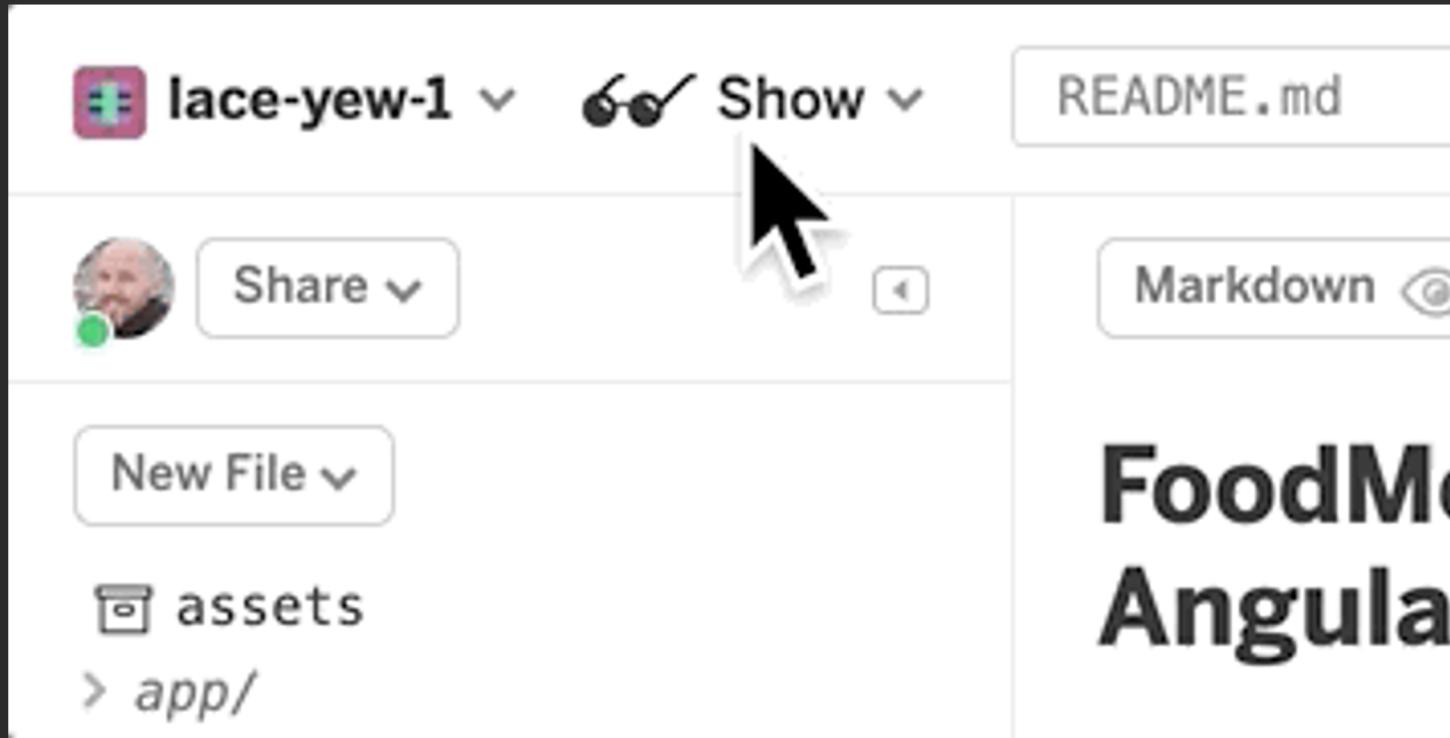
```
'use strict';

// New Relic agent configuration.
// See lib/config/default.js in the agent distribution for
// description of configuration variables and their
// default values.

exports.config = {
  // Array of application names.
  app_name: ['FoodMe'],
  // Your New Relic license key.
  license_key: process.env.LICENSE_KEY,
  logging: {
    // Level at which to log. 'trace' is most useful
    // for debugging, but generates lots of issues with the agent, 'info' and higher will
    // be captured for all traces, unless otherwise
    // attributes include/exclude lists.
    level: 'info'
  },
  // When true, all request headers except for those
  // attributes include/exclude lists.
  capture_headers: true
};
```

package.json

Run the Application to Generate Some Data by Placing Some Food Orders



Head to one.newrelic.com and search for your Service

The screenshot shows the New Relic One dashboard. At the top, there's a navigation bar with links for Apps, Dashboards, Entity explorer, APM, Browser, Synthetics, Mobile, Infrastructure, Logs, Alerts & AI, More, Search, and Query your data. Below the navigation, there's a section titled "Your next steps" with four cards: "Welcome to New Relic One", "Add more data", "Debug faster with logs in context", and "Extend the". The main area is titled "Home" and shows sections for "Favorite dashboards" (13) and "Favorite services" (5). The "Favorite services" table includes columns for Name, Account, End User, Page View, Response, Throughput, and Error Rate. Services listed include FoodMe, Tom Do..., Order-Status, and Plan Service. To the right, an "Activity stream" shows service violations: a warning violation for Plan Service (closed), another for Plan Service (opened), and a critical violation for Plan Service (closed). A mouse cursor is hovering over the "Search" button.

Name	Account	End User	Page View	Response	Throughput	Error Rate
FoodMe	New Re...	1.02 s	12 ppm	9.44 ms	808 rpm	0%
FoodMe	Tom Do...	1.93 s	1.00 ppm	38.9 ms	75 rpm	0%
Order-Status	Demotr...	-	-	42.7 ms	112 rpm	0.30%
Plan Service	Demotr...	-	-	416 ms	48 rpm	0%

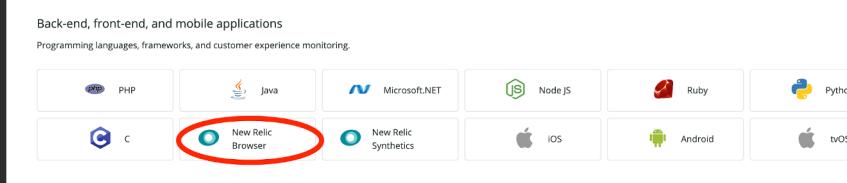
Activity stream:

- Warning violation closed for Plan Service: Web response time > 500 ms
- Warning violation opened for Plan Service: Web response time > 500 ms
- Critical violation closed for Plan Service: Web response time > 500 ms

Lab: FoodMe step 2

Deploying the Browser agent

1. In the “Add More Data” menu’, choose Browser, select your account, choose Copy/paste Javascript code and copy the Browser agent snippet.
2. Paste the snippet into the `app/index.html` file (just after the head)
3. In the “Name Your App” section, select “Yes” and search for your Application name
4. Click the Show > In a New Window button in the upper-left corner of the screen to open the app in a new browser window.



The screenshot shows a code editor with the file "index.html" selected. The code is as follows:

```

1  <!doctype html>
2  <html lang="en" ng-app="foodMeApp">
3
4  <head>
5    <meta charset="UTF-8">
6    <script type="text/javascript">
7      ;window.NREUM||(NREUM.init=function(t,e,n){function r(n){if(!e[n]){
8        ;NREUM.loader_config=(accountID:"2613643",trustKey:"2613643",agentID:"72596052",
9        ;NREUM.info={beacon:"bam.nr-data.net",errorBeacon:"bam.nr-data.net",licenseKey
10       }</script>
11
12
13    <link rel="stylesheet" href="css/app.css">
14    <link rel="stylesheet" href="css/bootstrap-united.css">
15
16
17  <body>
18
19  <div class="container">
20
21    <div class="navbar" ng-controller="NavbarController">
22      <div class="navbar-inner">
23        <a class="brand" href="#">FoodMe</a>
24        <ul class="nav">
25          <li ng-class="{active: routeIs('/')}><a href="#">Home</a></li>
26          <li ng-class="{active: routeIs('/how-it-works')}><a href="#">How it works</a></li>

```

A red box highlights the script block containing the NREUM initialization code. Another red box highlights the "Format This File" button at the top right of the code editor.

Head to one.newrelic.com and search for your Browser Application

The screenshot shows the New Relic ONE dashboard. At the top, there's a navigation bar with links for New Relic ONE™, Apps, Dashboards, Entity explorer, APM, Browser, Synthetics, Mobile, Infrastructure, Logs, Alerts & AI, More, a search bar, and a query bar. Below the navigation, there's a section titled "Your next steps" with four items: "Welcome to New Relic One" (with a video thumbnail), "Add more data" (with a description of collecting metrics, events, logs, and traces), "Debug faster with logs in context" (with a description of viewing logs alongside errors and metrics), and "Extend the platform" (with a description of exploring options). The main content area is titled "Home". It features a "Favorite dashboards" section with a link to 13 dashboards. Below that is a "Favorite services" section with a table showing five services: FoodMe, FoodMe, Order-Status, and Plan Service. The table columns include NAME, ACCOUNT, END USAGE, PAGE VIEWS, RESPONSE TIME, THROUGHPUT, and ERROR RATE. To the right of the table is an "Activity stream" showing service violations: a warning violation closed for Plan Service (Web response time > 500 ms) and a warning violation opened for Plan Service (Web response time > 500 ms), along with a critical violation closed for another service.

NAME	ACCOUNT	END USAGE	PAGE VIEWS	RESPONSE TIME	THROUGHPUT	ERROR RATE
FoodMe	New Relic	1.02 s	12 ppm	9.44 ms	808 rpm	0%
FoodMe	Tom Dooley	1.93 s	1.00 ppm	38.9 ms	75 rpm	0%
Order-Status	Demotri	-	-	42.7 ms	112 rpm	0.30%
Plan Service	Demotri	-	-	416 ms	48 rpm	0%

Bonus Lab: FoodMe Lab 3

Distributed Tracing

1. Edit `newrelic.js`
2. Add the following:

```
distributed_tracing: {
  enabled: true
}
```

1. Open the browser FoodMe app, and enable distributed tracing under Application Settings.
2. Generate some traffic into the app
3. Access the traces by clicking Distributed Tracing in the Browser app

```

 1 'use strict';
 2 /*
 3  * New Relic agent configuration.
 4  *
 5  * See lib/config/default.js in the agent distribution for a more complete
 6  * description of configuration variables and their potential values.
 7  */
 8 /*
 9  * Array of application names.
10 */
11 /*
12  * Array of application names.
13 */
14 /*
15  * Your New Relic license key.
16 */
17 /*
18  * Level at which to log. 'trace' is most useful to New Relic when diagnosing
19  * issues with the agent; 'info' and higher will impose the least overhead on
20  * production applications.
21 */
22 /*
23  * Issues with the agent; 'info' and higher will impose the least overhead on
24  * production applications.
25 */

```

The code editor shows the `newrelic.js` file with the following content:

```
'use strict';
/*
 * New Relic agent configuration.
 *
 * See lib/config/default.js in the agent distribution for a more complete
 * description of configuration variables and their potential values.
*/
/*
 * Array of application names.
*/
/*
 * Array of application names.
*/
/*
 * Your New Relic license key.
*/
/*
 * Level at which to log. 'trace' is most useful to New Relic when diagnosing
 * issues with the agent; 'info' and higher will impose the least overhead on
 * production applications.
*/
/*
 * Issues with the agent; 'info' and higher will impose the least overhead on
 * production applications.
*/
```

The screenshot shows the New Relic Browser application settings for the "FoodMe" application. The "Settings" tab is selected, specifically the "Distributed Tracing" section. The "Agent and account" section contains a "Copy/Paste Javascript Code" button. The "Instrumentation" section has a "Pro + SPA" radio button selected. The "Distributed Tracing" section has an "ON" button and a "Distributed Tracing" link. A note below states: "Monitor and analyze your Browser requests from end to end as they travel across distributed systems. Requires APM Pro agent and Browser Pro + SPA agent and account. To ensure that APM transaction data is collected as expected, please refer to the minimum required APM instrumentation for your application." There is also a checkbox for "Exclude newrelic header".

Click on Distributed tracing to view your traces!

Browser applications
FoodMe ☆ ⓘ

STATUS UNKNOWN New Relic_1754

Since 30 minutes ago

Summary MONITOR

Distributed tracing Service map Dependencies Page views Session traces AJAX JS errors

Find traces where spans contain Enter an attribute or click the dropdown for options

View by: Trace duration Group traces by: Root entry span Root entity Service entry span Errors

1 s
0.8 s
0.6 s
0.4 s
0.2 s
0 s

12:35 AM 12:40 AM 12:45 AM 12:50 AM 12:55 AM 01:00 AM

● GET easy-charmed-cinnamon.glitch.me:80/js/directives/fmdelivrto.html (FoodMe)
● GET easy-charmed-cinnamon.glitch.me:80/api/restaurant (FoodMe)
● GET easy-charmed-cinnamon.glitch.me:80/api/restaurant/robatayaki (FoodMe)

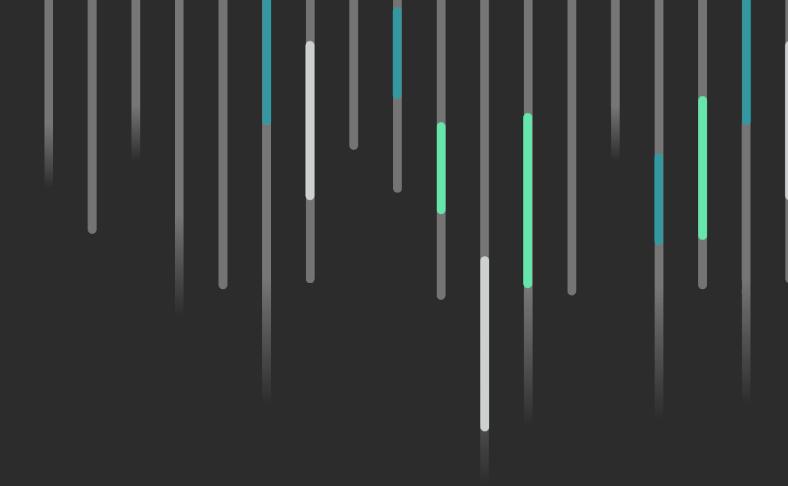
● GET easy-charmed-cinnamon.glitch.me:80/views/restaurants.html (FoodMe)
● GET easy-charmed-cinnamon.glitch.me:80/views/menu.html (FoodMe)
● Name not provided

PLOT	ROOT ENTRY SPAN	START TIME	TRACE DURATION	ROOT SPAN DURATION	BACKEND DURATION	ENTITIES	SPANS	ERRORS
Browsers	GET easy-charmed-cinnamon.glitch.me:80/... FoodMe	14 minutes ago Oct 22, 2020 12:48:38 am	315.00 ms	315.00 ms	0.00 ms	1	1	0
Filterable geography	GET easy-charmed-cinnamon.glitch.me:80/... FoodMe	14 minutes ago Oct 22, 2020 12:48:50 am	364.00 ms	364.00 ms	0.00 ms	1	1	0
SETTINGS	POST easy-charmed-cinnamon.glitch.me:80/... FoodMe	14 minutes ago Oct 22, 2020 12:48:50 am	454.00 ms	454.00 ms	0.00 ms	1	1	0
Alert conditions	GET easy-charmed-cinnamon.glitch.me:80/... FoodMe	14 minutes ago Oct 22, 2020 12:48:34 am	368.00 ms	368.00 ms	0.00 ms	1	1	0
Application settings	GET easy-charmed-cinnamon.glitch.me:80/... FoodMe	14 minutes ago Oct 22, 2020 12:48:34 am	429.00 ms	429.00 ms	0.00 ms	1	1	0
Domain conditions	GET easy-charmed-cinnamon.glitch.me:80/... FoodMe	9 minutes ago Oct 22, 2020 12:53:22 am	734.00 ms	734.00 ms	0.00 ms	1	1	0
Segment allow lists	GET easy-charmed-cinnamon.glitch.me:80/... FoodMe							

Resources

<https://docs.newrelic.com/docs/agents>

<https://docs.newrelic.com/docs/understand-dependencies/distributed-tracing/enable-configure/language-agents-enable-distributed-tracing>



Thank You

learn.newrelic.com



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