PoC - Datadog

The need

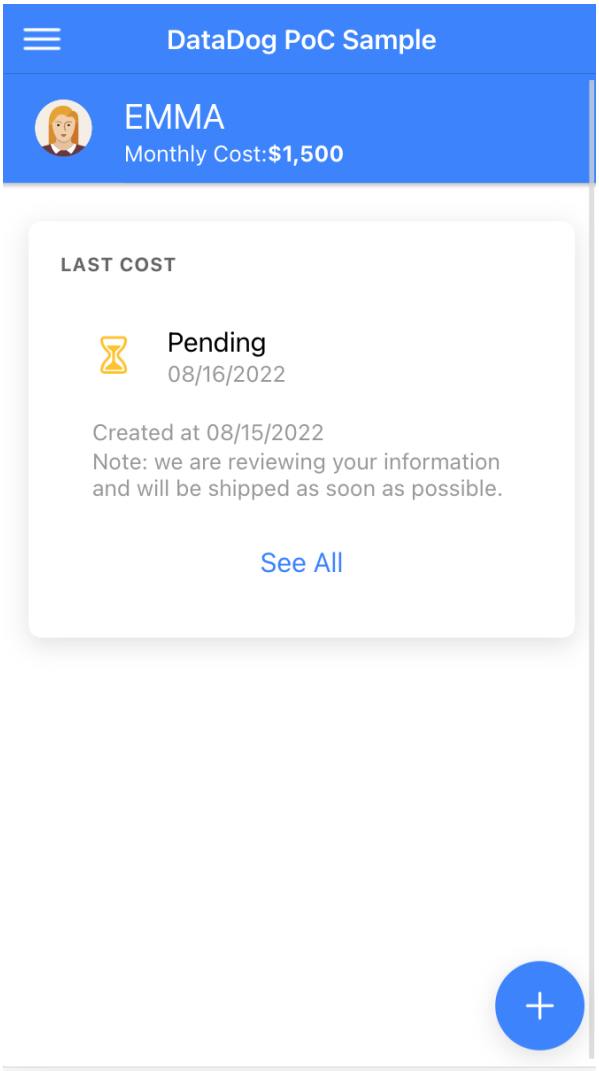
Datadog Real User Monitoring (RUM) enables you to visualize and analyze the real-time performance and user journeys of your application’s individual users. To collect events, add the RUM Browser SDK to your browser application and configure what data is collected using initialization parameters.

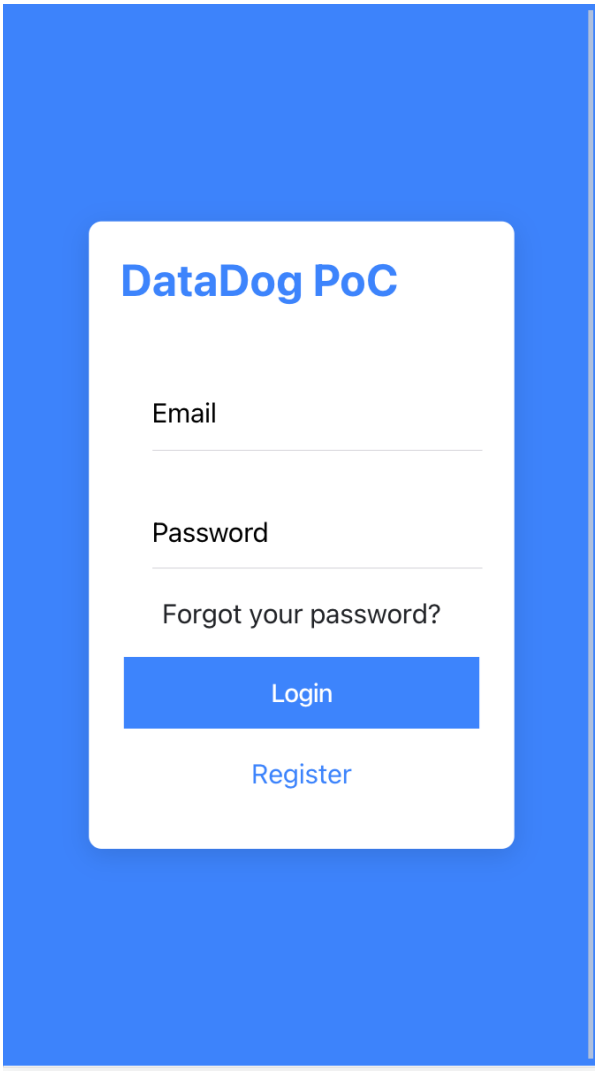
Solution Mapping

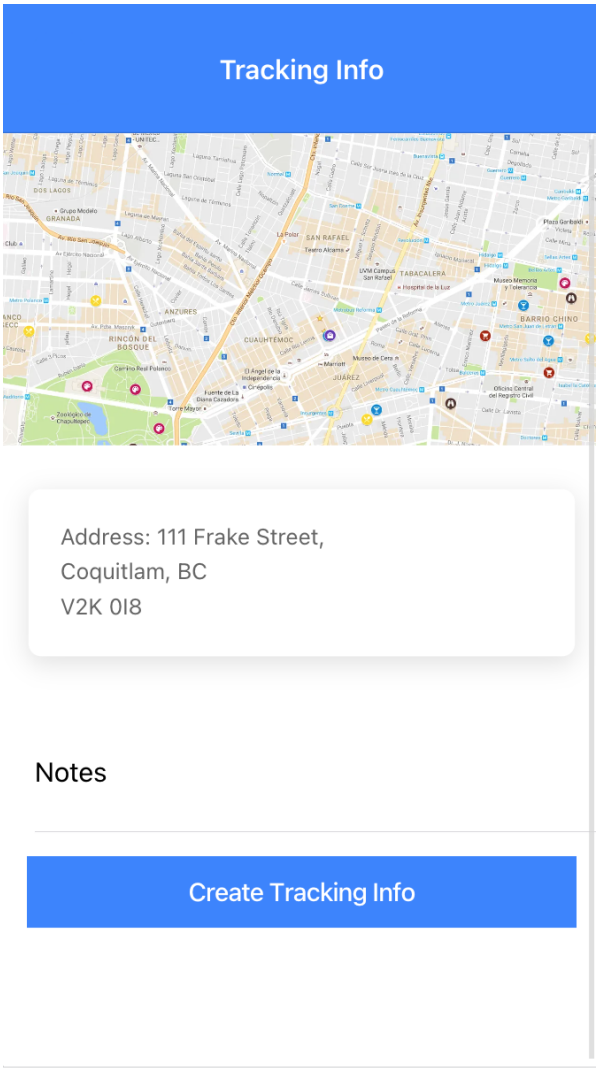
Ionic is an open source UI toolkit for building performant, high-quality mobile and desktop apps using web technologies — HTML, CSS, and JavaScriptIonic.

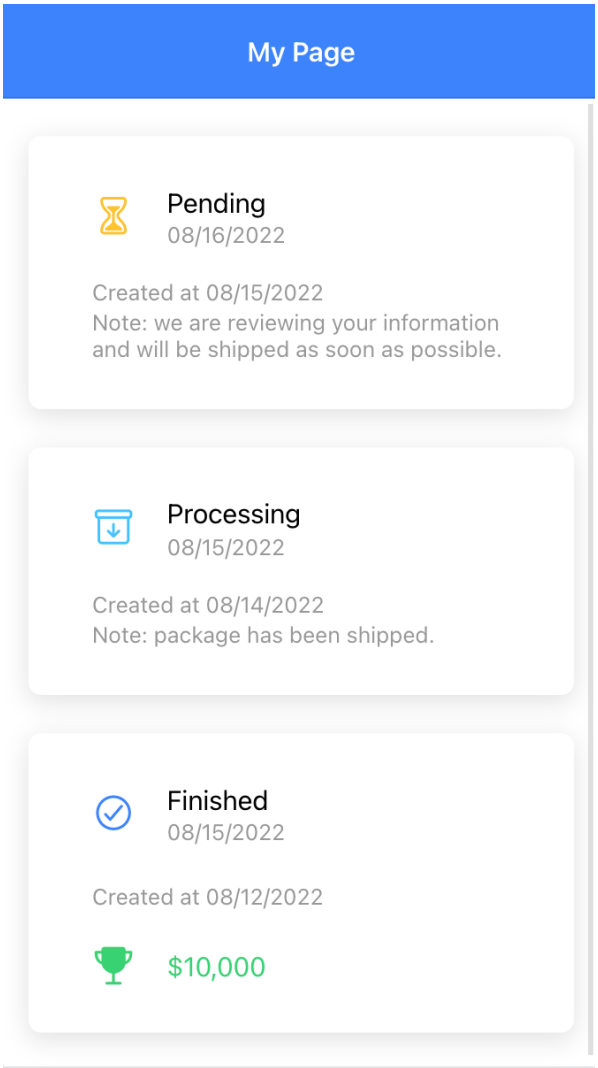
1. Create a Ionic mobile App sample
2. Integrate the DataDog RUM into Ionic sample

Prototype Creation


DataDog PoC Sample
EMMA
Monthly Cost:$1,500
LAST COST
Pending
08/16/2022
Created at 08/15/2022
Note: we are reviewing your information
and will be shipped as soon as possible.
See All

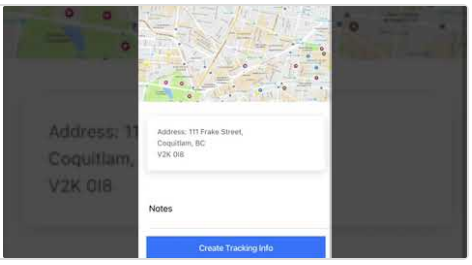

DataDog PoC
Email
Password
Forgot your password?
Login
Register





Sample App - Demo

https://youtube.com/shorts/vCxL02HfZtM?feature=share

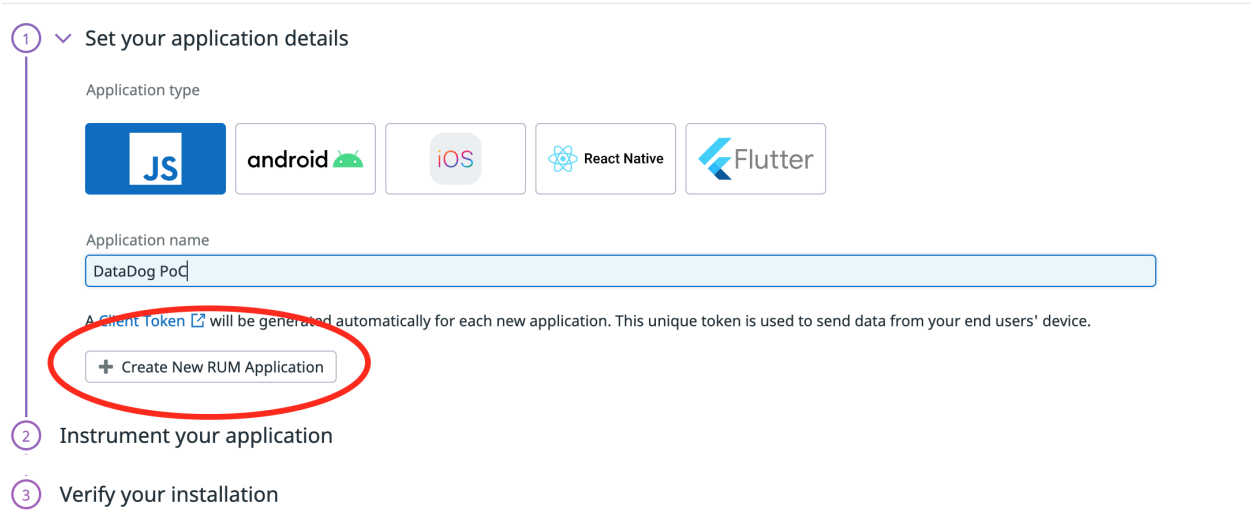


Solution

1. Download **DataDog Agent**, and register an account
2. **Set up RUM Browser Monitoring**, create a RUM application:

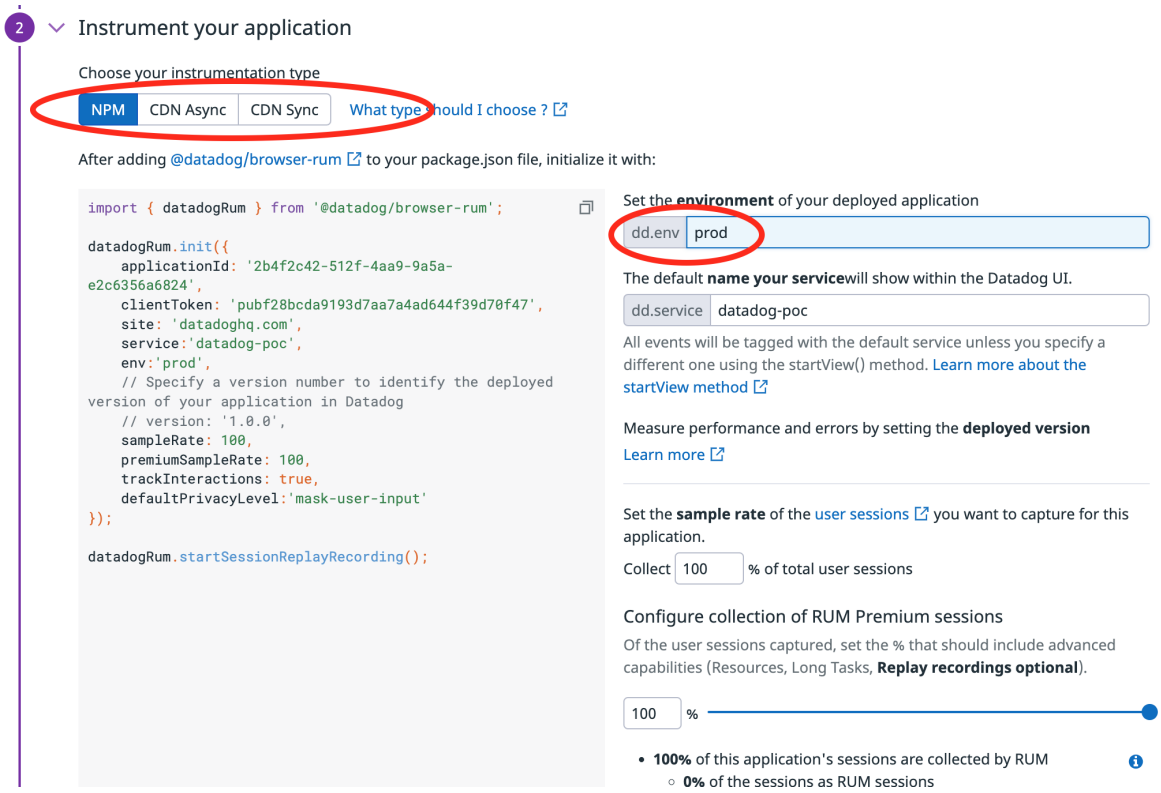
3. In Datadog, navigate to the **RUM Applications** page and click the **New Application** button.

- Enter a name for your application and click **Generate Client Token**. This generates a `clientToken` and an `applicationId` for your application.



- Choose the installation type for the RUM Browser SDK: npm, or a hosted version (CDN async or CDN sync).
- Define the environment name and service name for your application to use unified service tagging for RUM & Session Replay. Set a version number for your deployed application in the initialization snippet. For more information, see Tagging.
- Set the sampling rate of total user sessions collected and use the slider to set the percentage of total Browser Premium sessions collected. Browser Premium sessions include resources, long tasks, and replay recordings.
- Click the **Session Replay Enabled** toggle to access replay recordings in Session Replay.
- Select a privacy setting for Session Replay in the dropdown menu.

- Deploy the changes to your application. Once your deployment is live, Datadog collects events from your users' browsers.
- Visualize the data collected in dashboards or create a search query in the RUM Explorer.



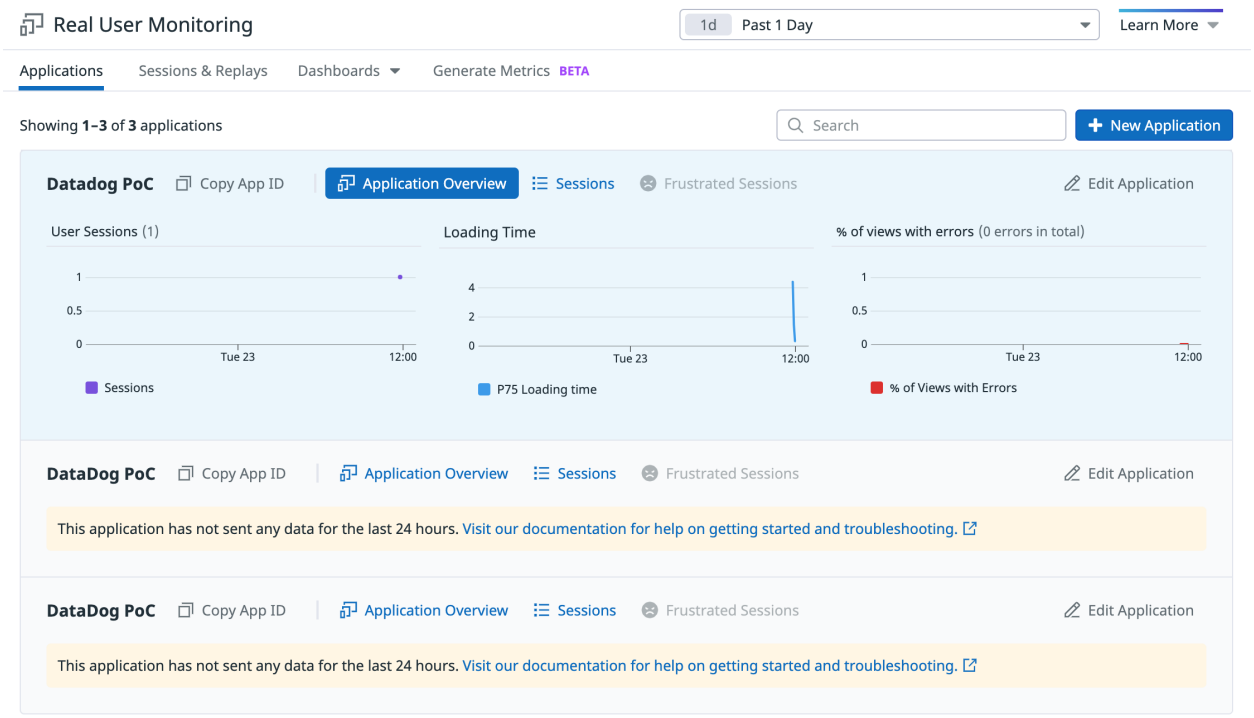
4. **Set up in application**:
5. Add `@datadog/browser-rum` to your `package.json` file
6. Then initialize it with:

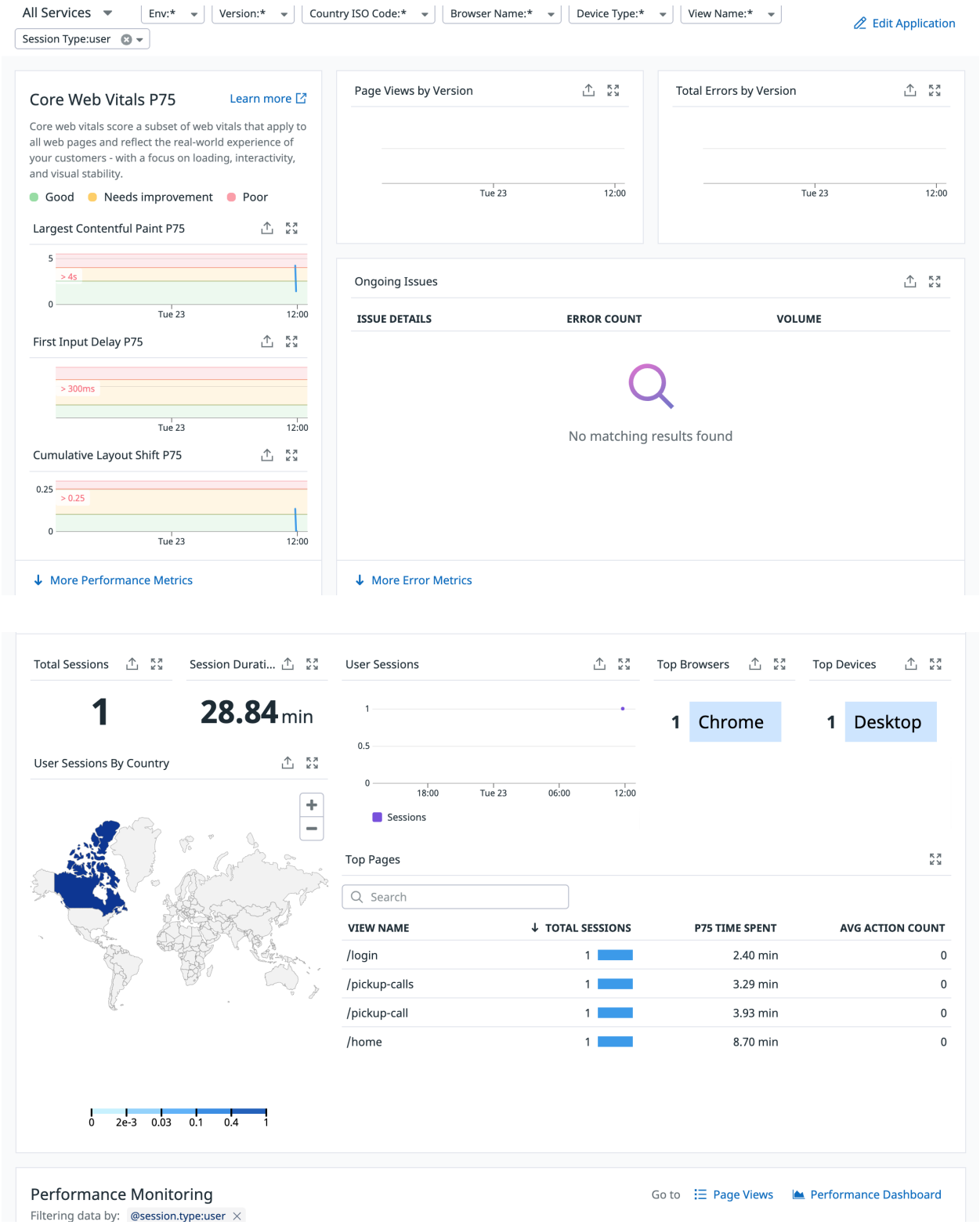
▼ Latest version

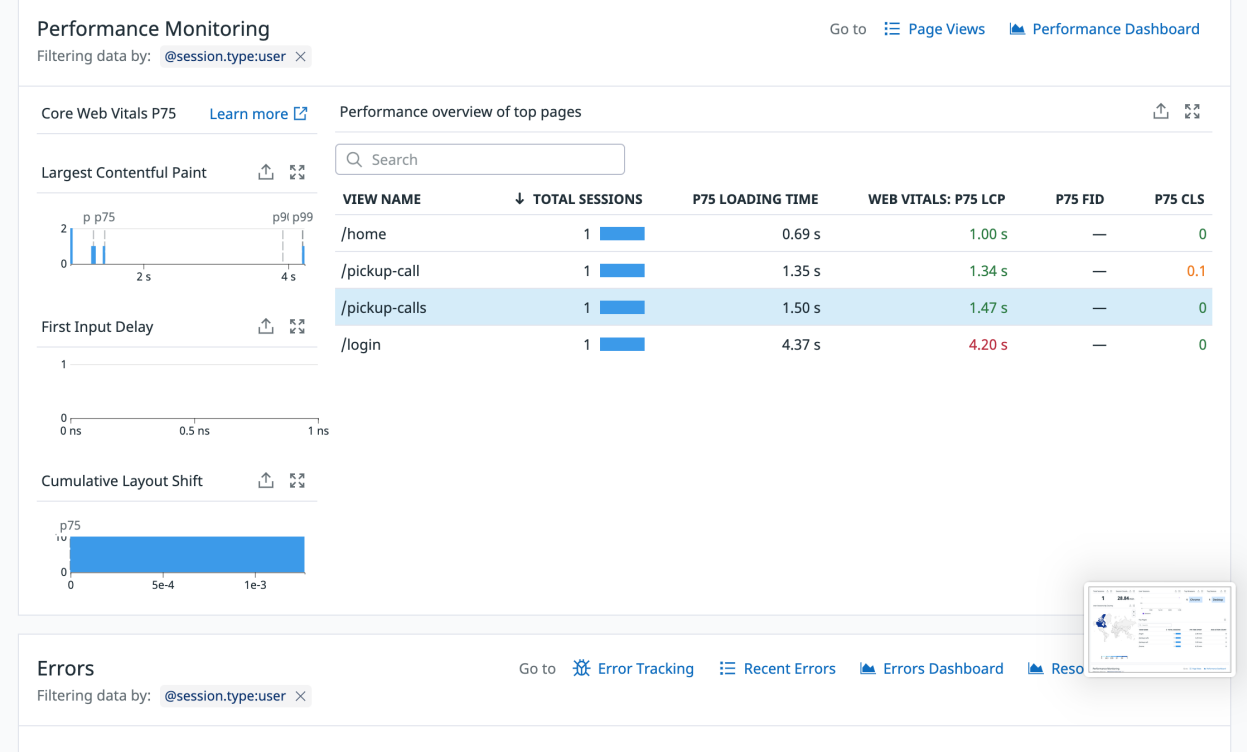
```
import { datadogRum } from '@datadog/browser-rum'

datadogRum.init({
  applicationId: '<DATADOG_APPLICATION_ID>',
  clientToken: '<DATADOG_CLIENT_TOKEN>',
  site: '<DATADOG_SITE>',
  //  service: 'my-web-application',
  //  env: 'production',
  //  version: '1.0.0',
  sampleRate: 100,
```

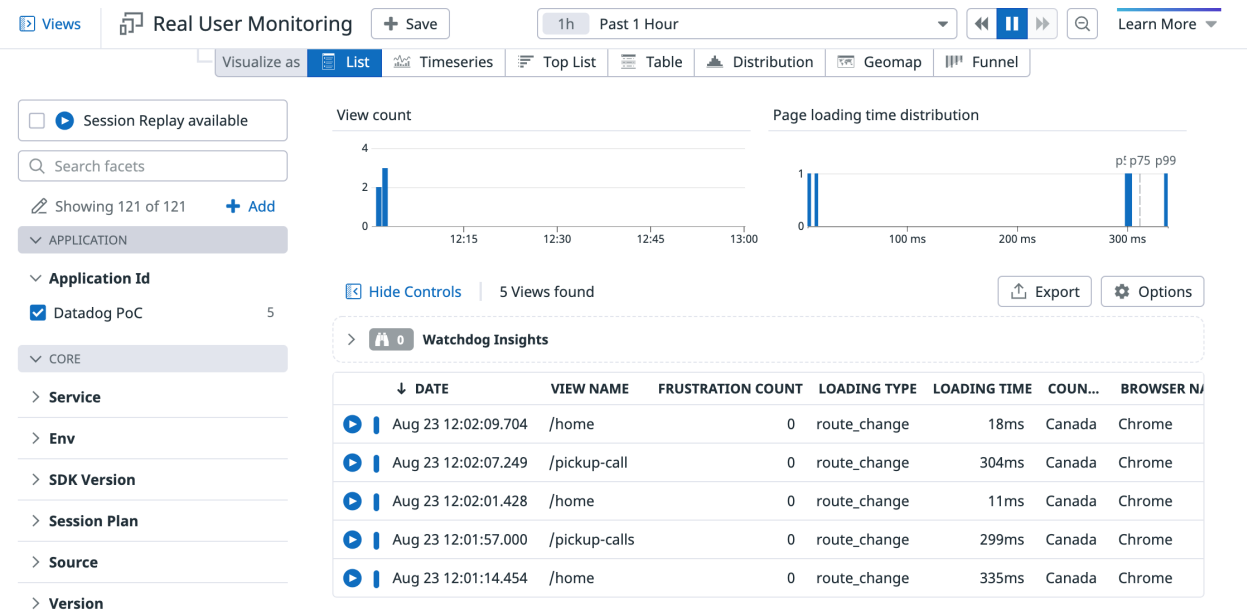
```
  premiumSampleRate: 100, // if not included, the default is 100
  trackInteractions: true,
})
```

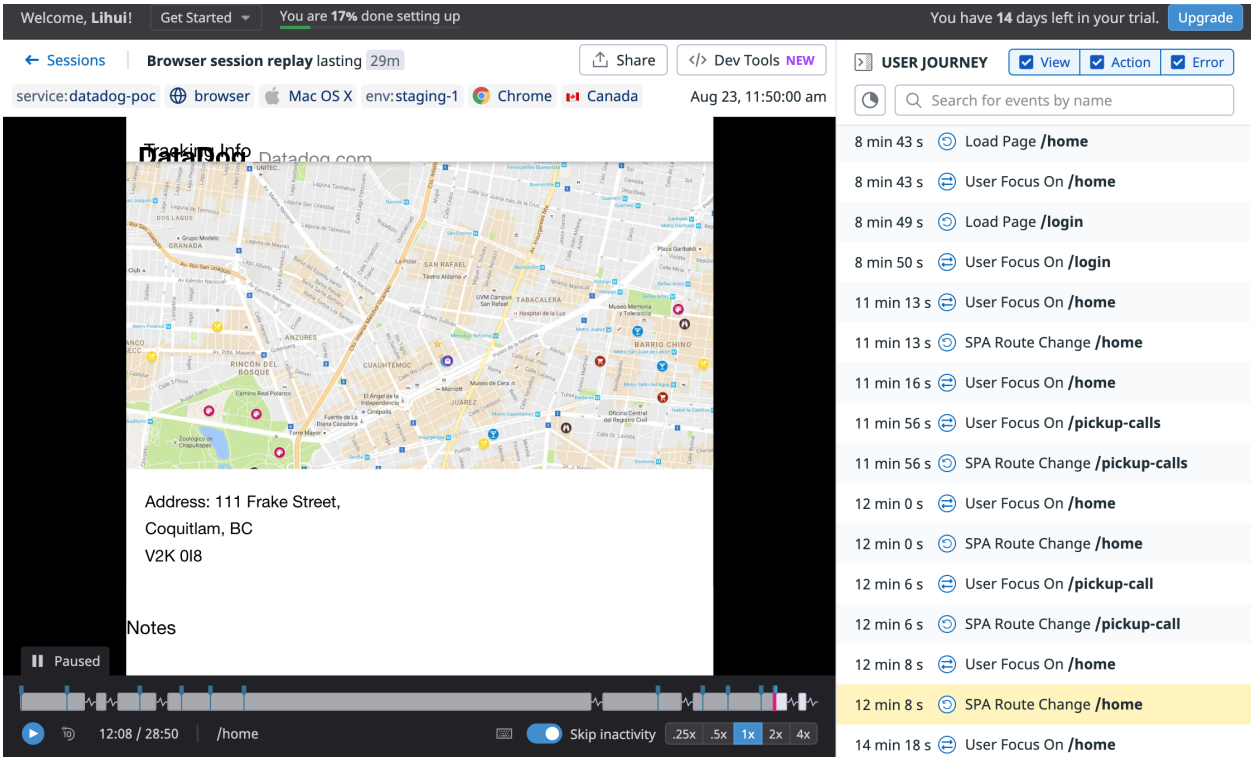
Performance Results




All Services
Env:*
Version:*
Country ISO Code:*
Browser Name:*
Device Type:*
View Name:*
Session Type:user
Edit Application
Core Web Vitals P75
Learn more
Core web vitals score a subset of web vitals that apply to all web pages and reflect the real-world experience of your customers - with a focus on loading, interactivity, and visual stability.
Good
Needs improvement
Poor
Largest Contentful Paint P75
> 4s
Tue 23
12:00
First Input Delay P75
> 300ms
Cumulative Layout Shift P75
> 0.25
More Performance Metrics
Page Views by Version
Total Errors by Version
Ongoing Issues
ISSUE DETAILS
ERROR COUNT
VOLUME
No matching results found
More Error Metrics
Total Sessions
1
Session Durati...
28.84 min
User Sessions By Country
User Sessions
Sessions
18:00
06:00
Top Browsers
1 Chrome
Top Devices
1 Desktop
Top Pages
Search
VIEW NAME
TOTAL SESSIONS
P75 TIME SPENT
AVG ACTION COUNT
/login 1 2.40 min 0
/pickup-calls 1 3.29 min 0
/pickup-call 1 3.93 min 0
/home 1 8.70 min 0
0
2e-3
0.03
0.1
0.4
1
Performance Monitoring
Filtering data by: @session.type:user
Go to
Page Views
Performance Dashboard


Performance Monitoring
Filtering data by: @session.type:user
Go to Page Views Performance Dashboard
Core Web Vitals P75 Learn more
Largest Contentful Paint
First Input Delay
Cumulative Layout Shift
Performance overview of top pages
Search
VIEW NAME TOTAL SESSIONS P75 LOADING TIME WEB VITALS: P75 LCP P75 FID P75 CLS
/home 1 0.69 s 1.00 s — 0
/pickup-call 1 1.35 s 1.34 s — 0.1
/pickup-calls 1 1.50 s 1.47 s — 0
/login 1 4.37 s 4.20 s — 0
Errors
Filtering data by: @session.type:user
Go to Error Tracking Recent Errors Errors Dashboard


Views
Real User Monitoring
Save
1h Past 1 Hour
Learn More
Visualize as List Timeseries Top List Table Distribution Geomap Funnel
Session Replay available
Search facets
Showing 121 of 121 Add
APPLICATION
Application Id
Datadog PoC 5
CORE
Service
Env
SDK Version
Session Plan
Source
Version
BROWSER
Browser Name
Chrome 5
View count
Page loading time distribution
Hide Controls 5 Views found
Export Options
Watchdog Insights
DATE VIEW NAME FRUSTRATION COUNT LOADING TYPE LOADING TIME COUN... BROWSER NA
Aug 23 12:02:09.704 /home 0 route_change 18ms Canada Chrome
Aug 23 12:02:07.249 /pickup-call 0 route_change 304ms Canada Chrome
Aug 23 12:02:01.428 /home 0 route_change 11ms Canada Chrome
Aug 23 12:01:57.000 /pickup-calls 0 route_change 299ms Canada Chrome
Aug 23 12:01:14.454 /home 0 route_change 335ms Canada Chrome



> Replay Results: https://app.datadoghq.com/rum/replay/sessions/690a6fb8-b2cc-4779-9d8c-c4a89abc609d?ts=1661280600652

PoC Recording Video

https://youtu.be/RkAkTIlgr7I

Reference

1. https://ionicframework.com/docs
2. https://docs.datadoghq.com/real_user_monitoring/browser/
3. https://www.etlsolutions.com/new/an-example-of-a-successful-proof-of-concept/
4. https://ionic.io/integrations/datadog