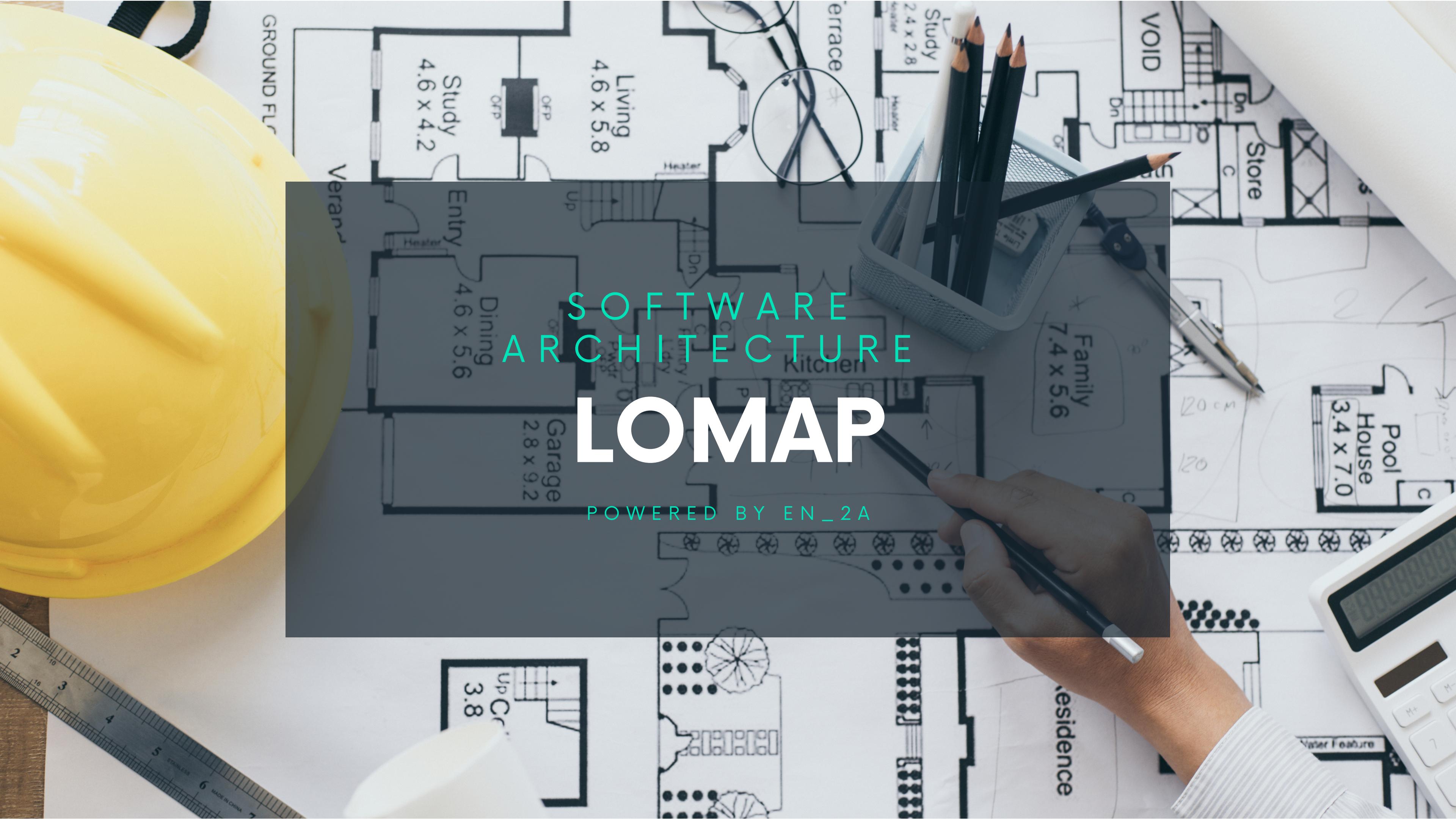
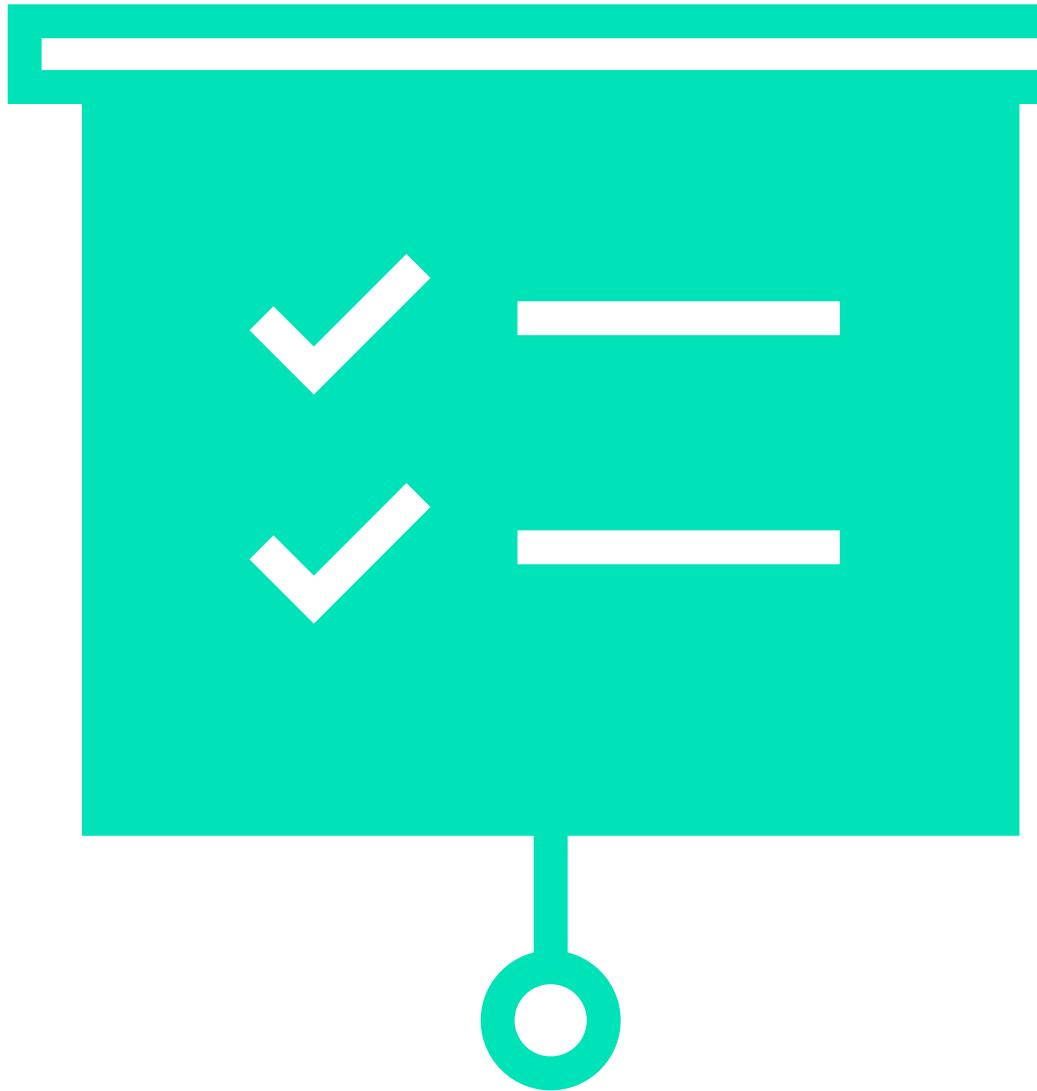


SOFTWARE ARCHITECTURE LOMAP

POWERED BY EN_2A



CONTENTS

- 
- 1 TEAM MEMBERS
 - 2 GOALS
 - 3 REQUIREMENTS
 - 4 DEVELOPMENT
 - 5 FUNCTIONALITIES
 - 6 DEMO

TEAM MEMBERS

PABLO ARGALLERO

DEVELOPER

SANTIAGO FERNANDEZ

DEVELOPER

PATRICIA GARCIA

DEVELOPER

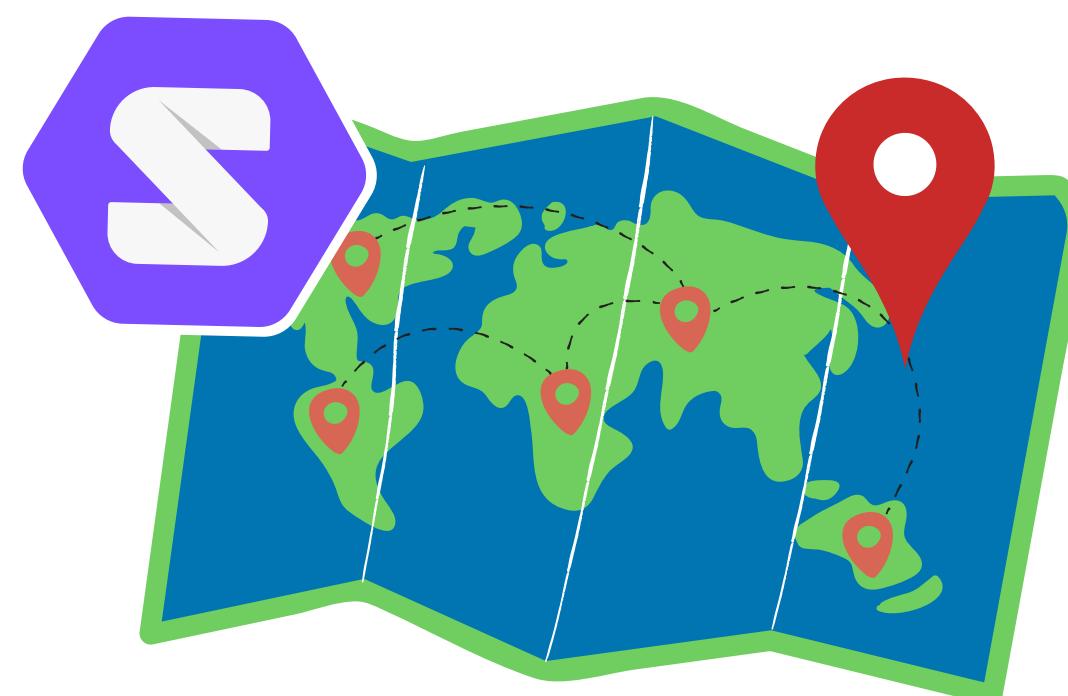
ADRIÁN VEGA

DEVELOPER



GOALS

- Counsel of Brussels hires HappySw to develop a software system called LoMap
- Application with personalized maps about places and local business in the city
- Data stored in personal pod's according to the SOLID project.



LOMAP

REQUIREMENTS

DECENTRALIZED
STORAGE

ADD LOCATIONS
IN CATEGORIES

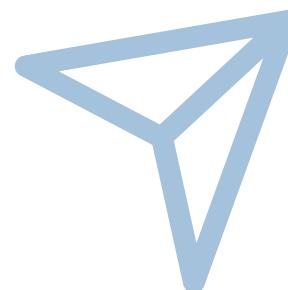
ADD REVIEWS
SCORES AND
PICTURES

GAMIFICATION
FEATURES

FRIEND AND
CATEGORY
FILTERING

MANAGE
FRIENDS

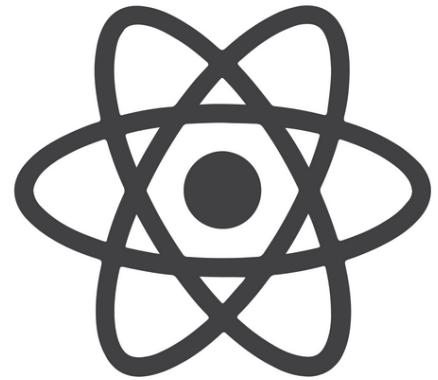
SHOW
LOCATIONS IN
MAP



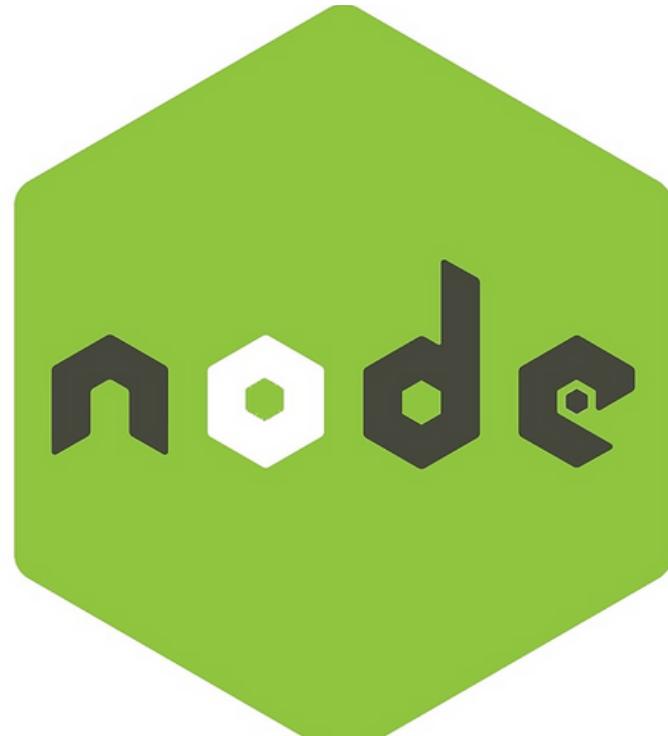
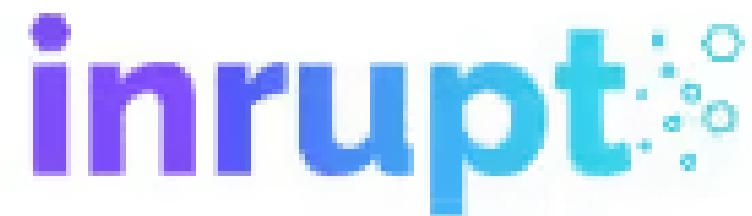
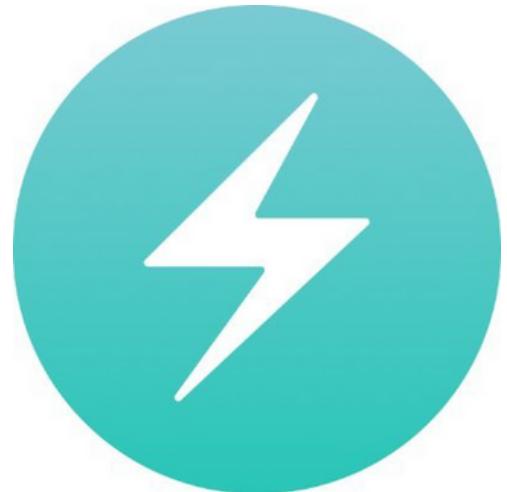
A collage of office scenes. In the foreground, a person's hands are shown; one hand is on a white keyboard and the other is holding a black smartphone. In the middle ground, another person is working at a desk with a laptop, surrounded by papers, sticky notes, and a calculator. In the background, there's a window looking out onto a garden. A metal pen holder filled with pens is on the right. The word "DEVELOPMENT" is overlaid in large, bold, white capital letters.

DEVELOPMENT

TypeScript



React JS

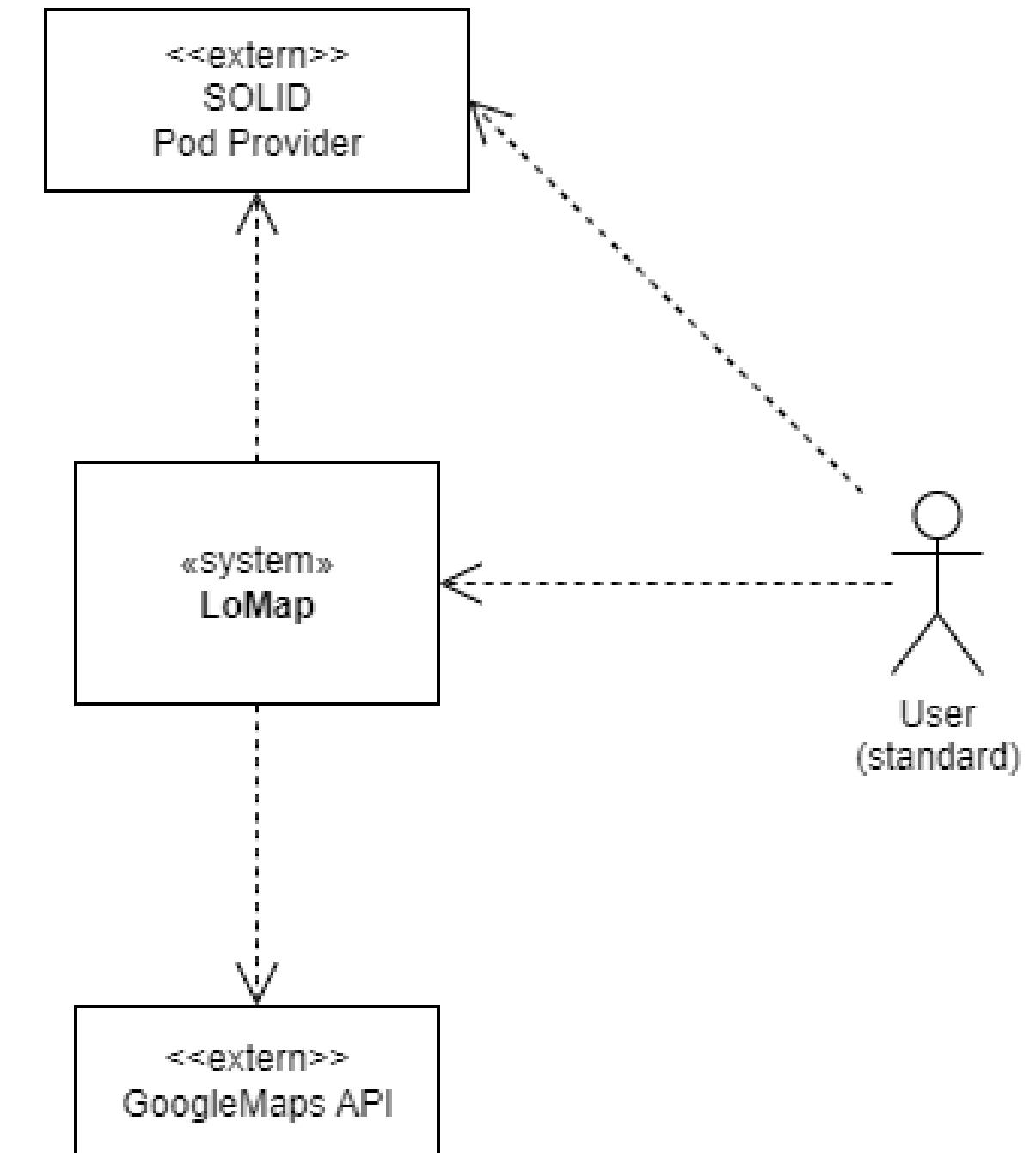


TECHNOLOGIES

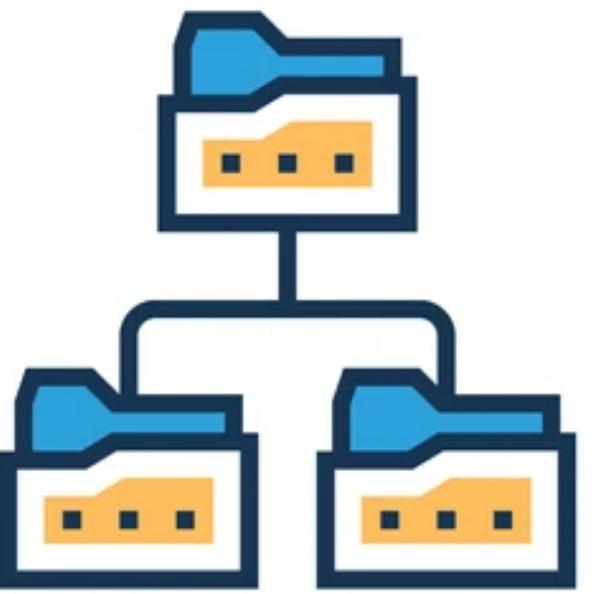
- **TYPESCRIPT**
PROGRAMMING LANGUAGE
- **NODEJS**
RUNTIME ENVIRONMENT
- **REACT**
FRAMEWORK FOR WEB CREATION
- **INRUPT**
LIBRARIES FOR POD MANAGEMENT
- **CHAKRA UI**
LIBRARY FOR VISUAL COMPONENTS

SYSTEM OVERVIEW

- **SOLID POD PROVIDER**
PLATFORM PROVIDING THE SOLID PODS
- **LOMAP**
APPLICATION SYSTEM
- **GOOGLE MAPS API**
LIBRARY PROVIDING MAP FUNCTIONALITY



DESIGN SOLUTION



- **SERVERLESS APPLICATION**
NOT SERVER NOR DATABASE
- **CLIENT SIDE COMPONENT**
CODE RESIDES IN BROWSER
- **POD FOLDER HIERARCHY**
INFORMATION IN FOLDERS
BASED ON THEIR CONTENT

QUALITY OVERVIEW

AVAILABILITY
SOLID DEPENDENCY

SECURITY
100%
DECENTRALIZED

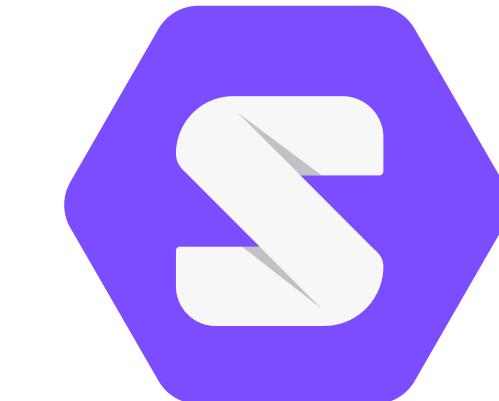
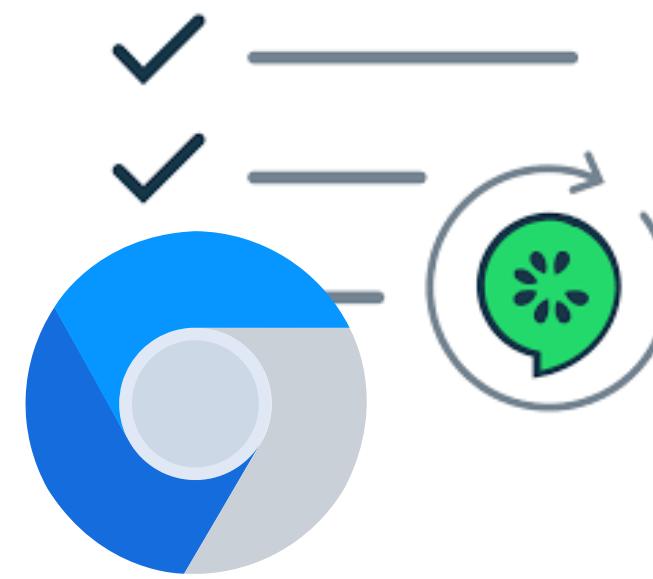


USABILITY
USABILITY FORMS

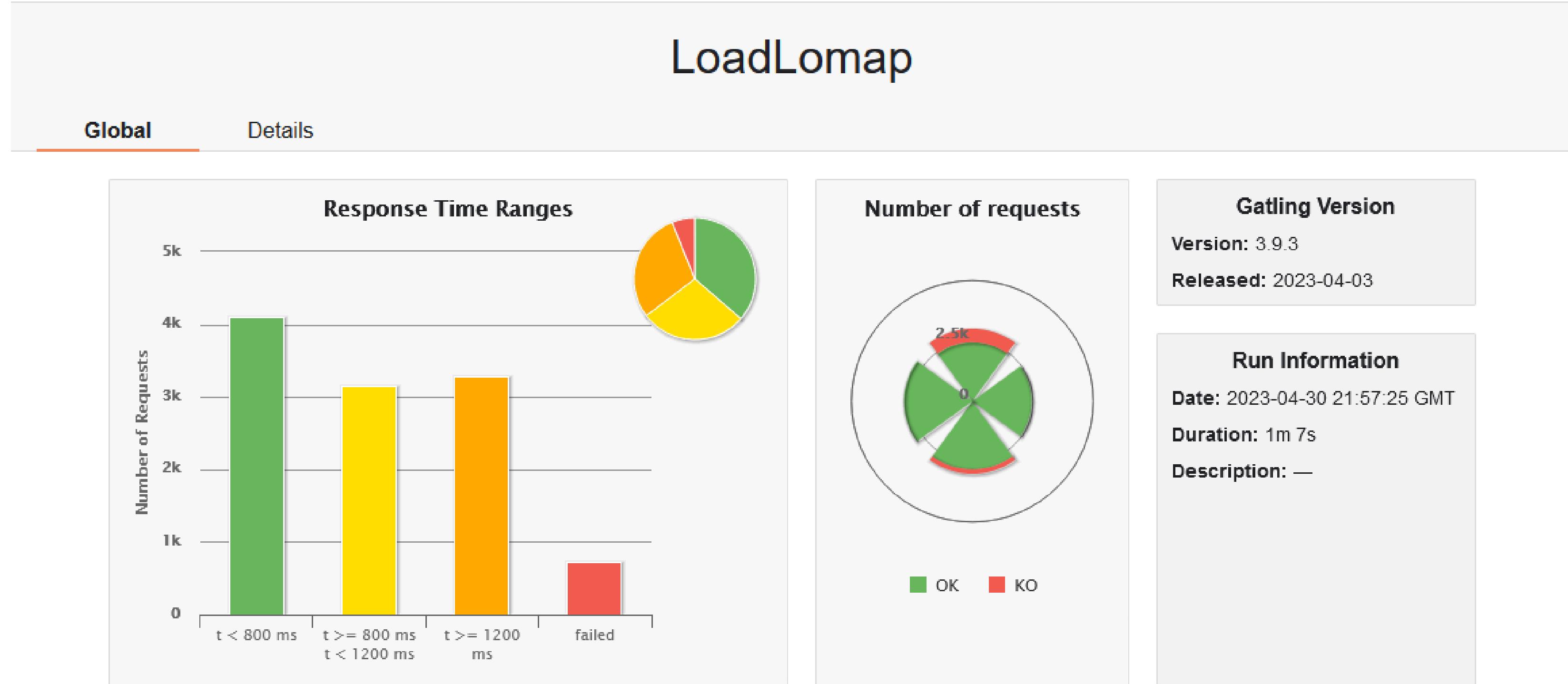
TESTABILITY
CUCUMBER & UNIT
TESTING

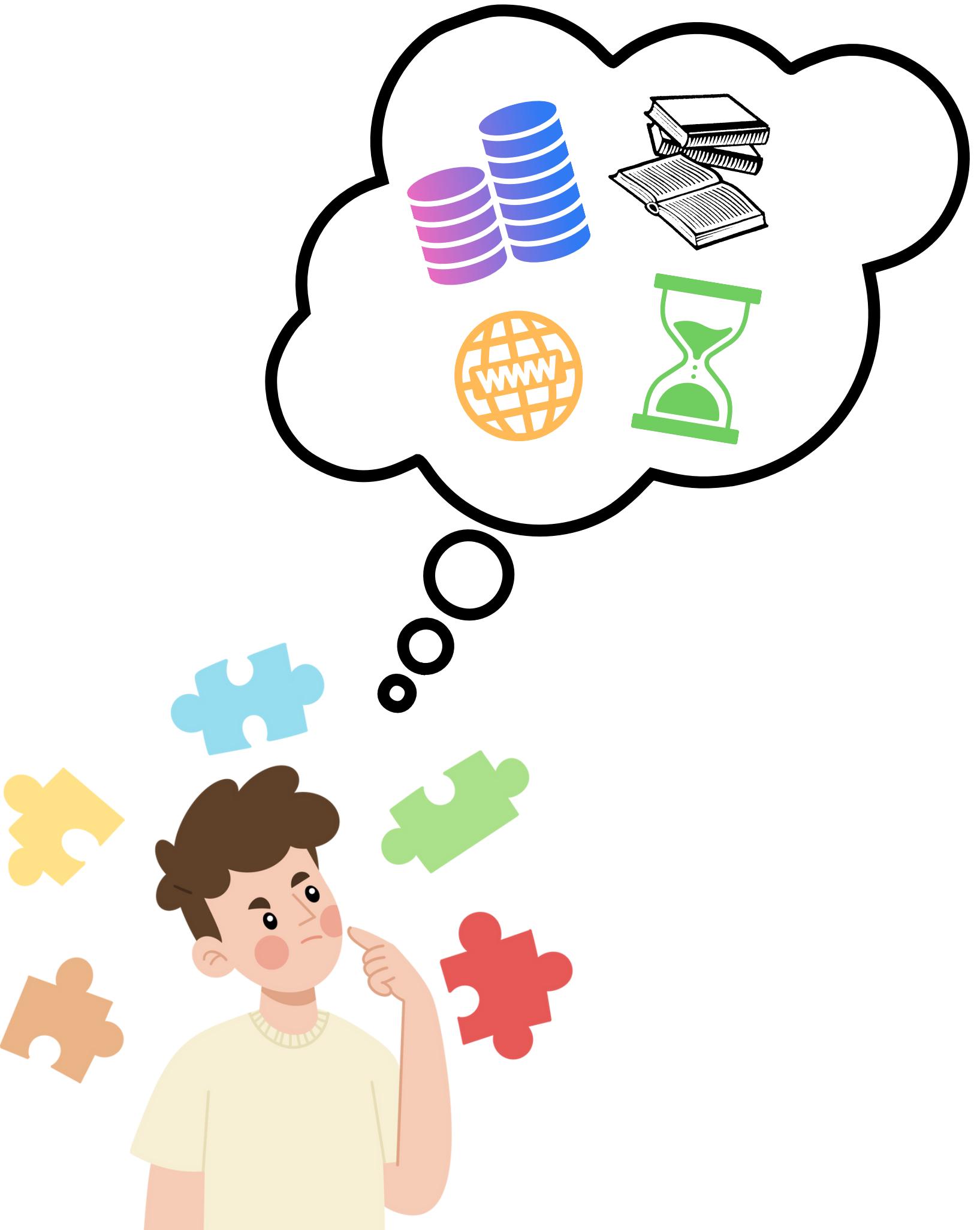
PORTABILITY
DIFFERENT BROWSERS
AND DEVICES

PERFORMANCE
LOAD TESTS



LOAD TESTING RESULTS





RISKS AND TECHNICAL DEBTS

SOLID UNDERSTANDING

PROJECT CHARACTERISTICS



DEADLINES

**SOLID AND INRUP
DEPENDENCIES**

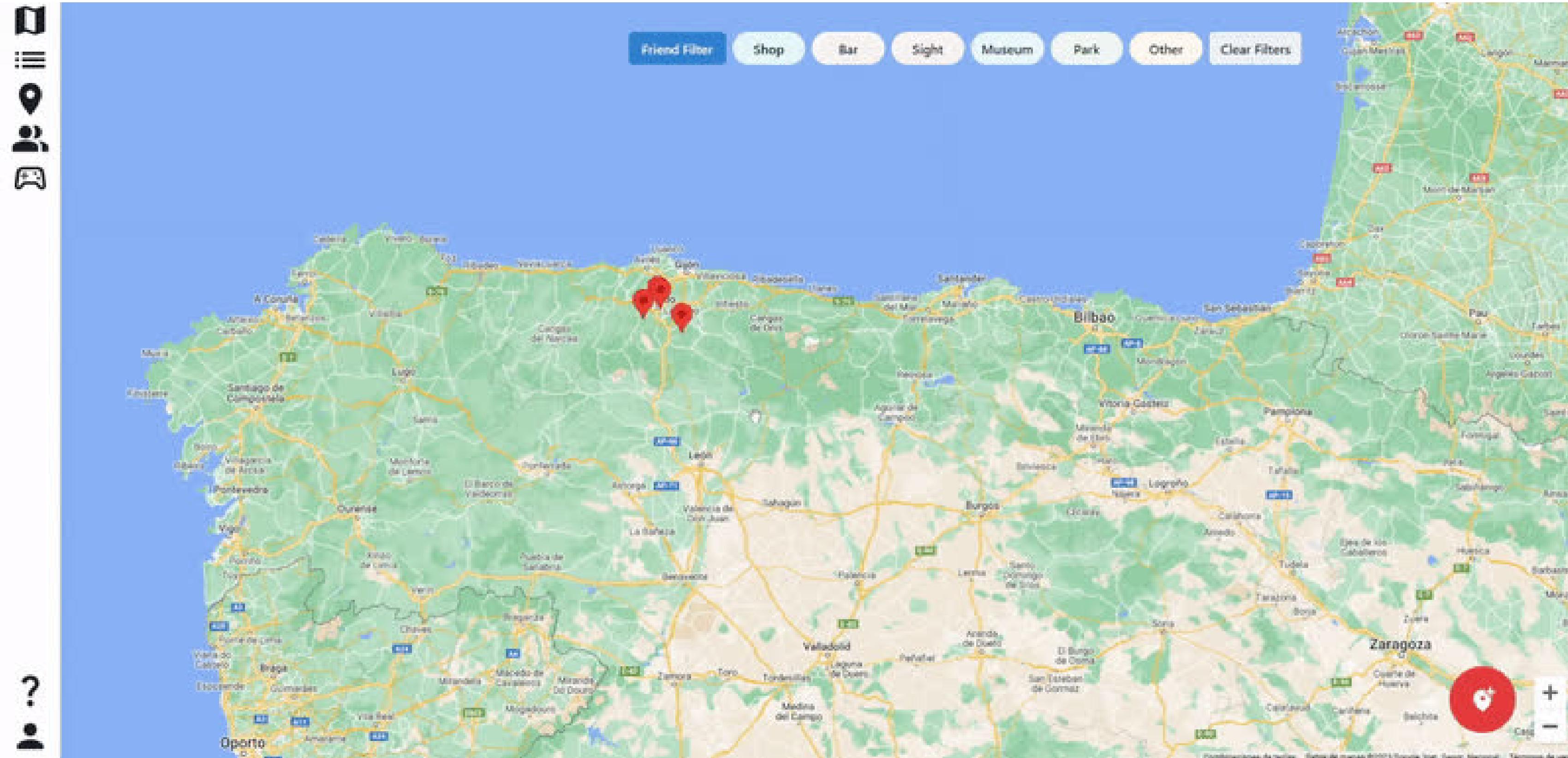


NO DB USAGE

FUNCTIONALITIES

A collage of various business-related images. It includes two people at a desk, one writing in a notebook and the other looking at a screen. There are several documents with charts and graphs, such as a pie chart labeled '100%', a line graph titled 'Marketing his team', and a bar chart. A laptop keyboard, a tablet displaying a testimonial from 'ALAN MURRAY' about 'What Our Clients Say', a smartphone showing a 'Business plan by month', a computer mouse, a keyboard, and a coffee cup are also visible.

ADD LOCATION FROM THE MENU



ADD LOCATION FROM THE MAP

The map shows the region around Oviedo, with several red location markers placed on the terrain. A legend at the top right provides filters for different types of locations:

- Friend Filter
- Shop
- Bar
- Sight
- Museum
- Park
- Other
- Clear Filters

On the left side of the map, there is a vertical sidebar with the following icons from top to bottom:

- A folder icon.
- A list icon.
- A location pin icon.
- A person icon.
- A game controller icon.

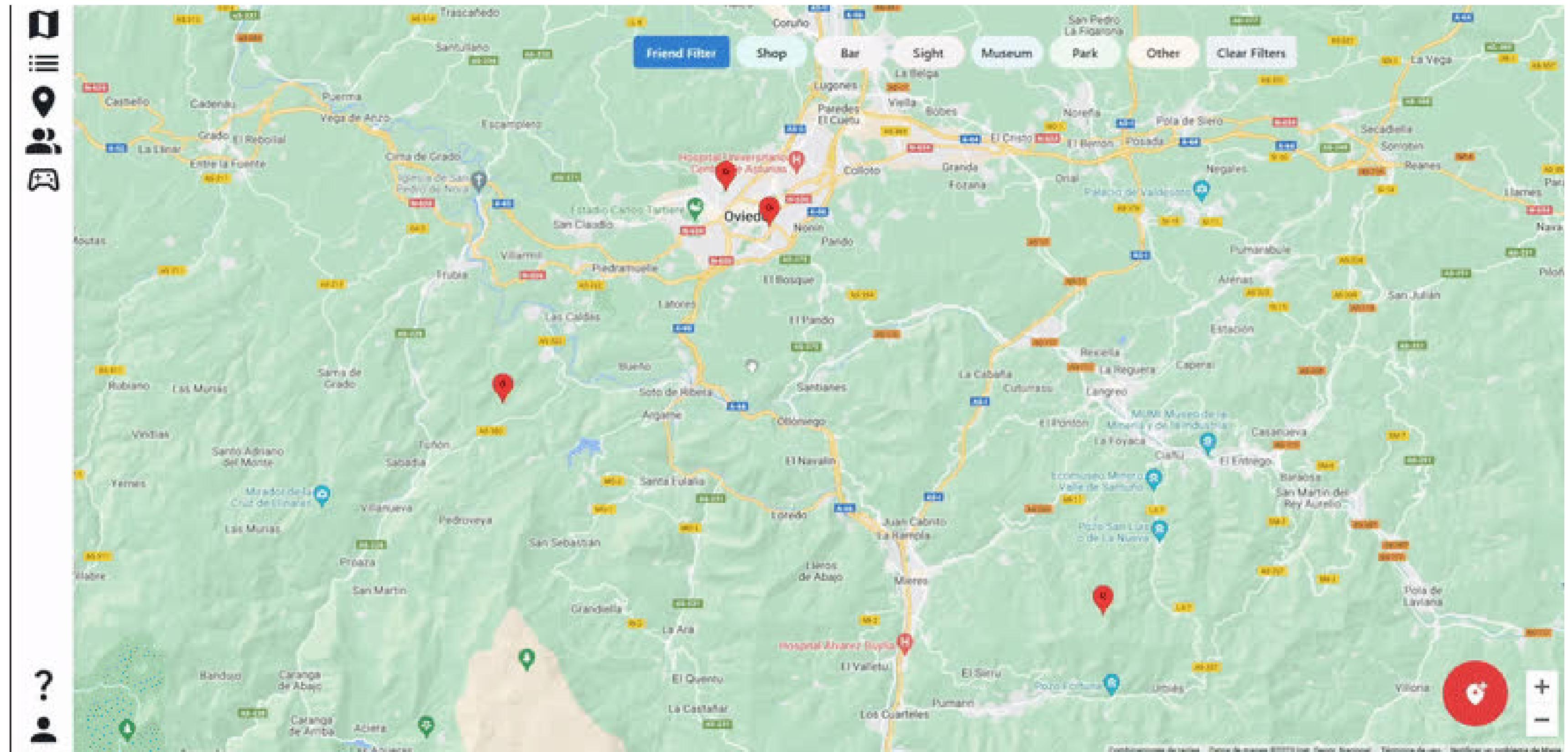
At the bottom left, there is a question mark icon and a user profile icon. On the bottom right, there are zoom controls (+ and -).

FILTER LOCATIONS

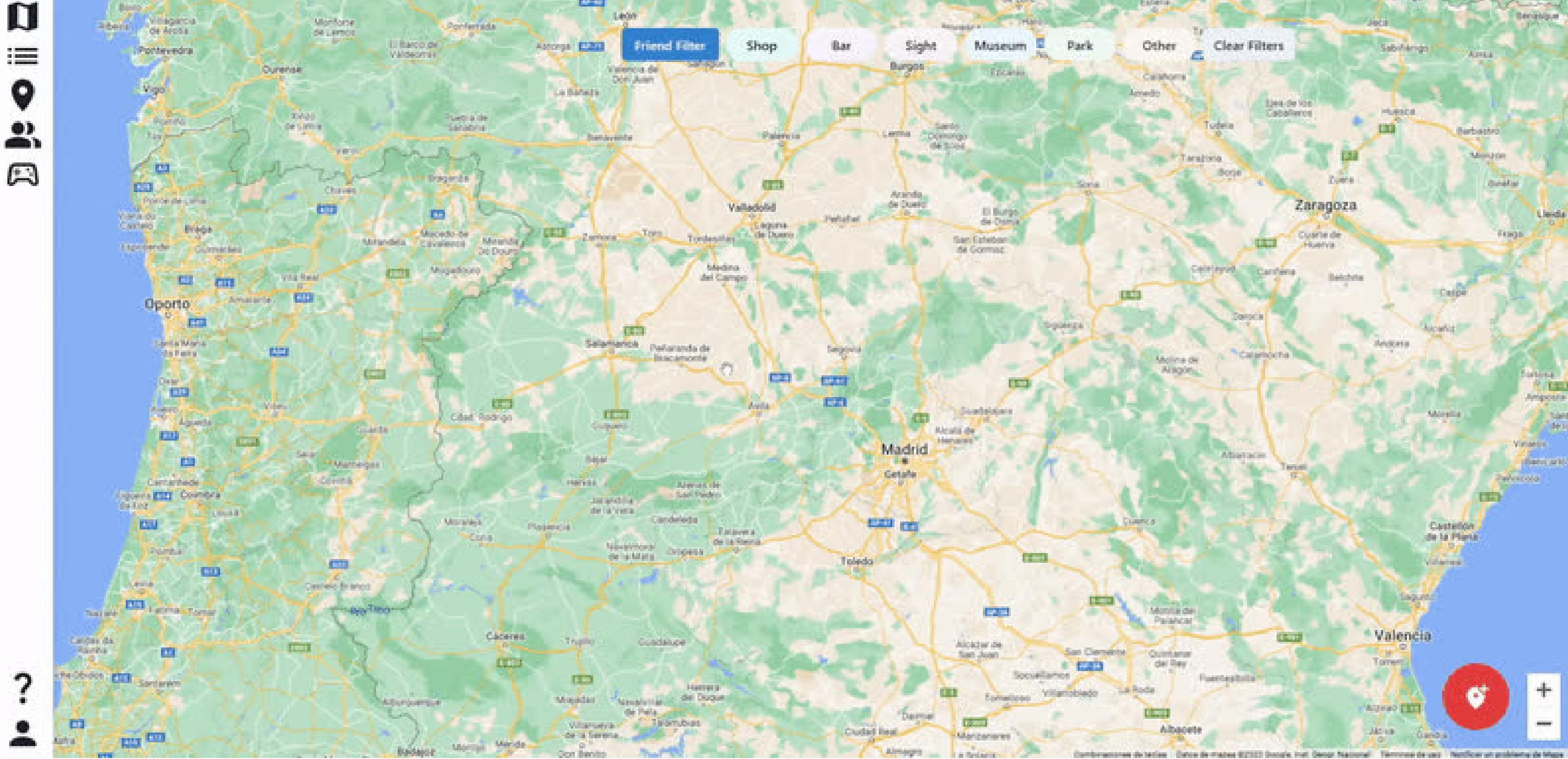
The map displays the city of Oviedo and its surrounding areas. Key features include:

- Geographic Labels:** Oviedo, Pravia, Cangas de Onís, Siero, Lena, Cangas del Narcea, Avilés, and numerous smaller towns and villages.
- Rivers:** Sella, Nalón, and Ubierna.
- Highways:** N-634, A-67, and A-890.
- Markings:** Red dots indicate specific locations of interest, such as the city center and a nearby town.
- Filter Buttons:** Located in the top right corner, these buttons allow users to filter locations by category: Friend Filter, Shop, Bar, Sight, Museum, Park, Other, and Clear Filters.
- Control Buttons:** In the bottom right corner, there are zoom controls (+ and -) and a "Tamaño" (Size) button.
- Help Icon:** A question mark icon in the bottom left corner provides assistance.

LIST AND MANAGE LOCATIONS



ADD FRIEND



GAME FEATURES



Progress Record

Keep adding locations to increase your trophies and rank!

505

Explorer

Current rank:
Explorer

Next rank:
Connoisseur

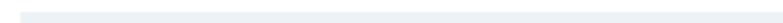


★ Challenges ★

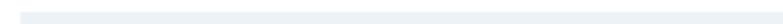
Add 20 locations



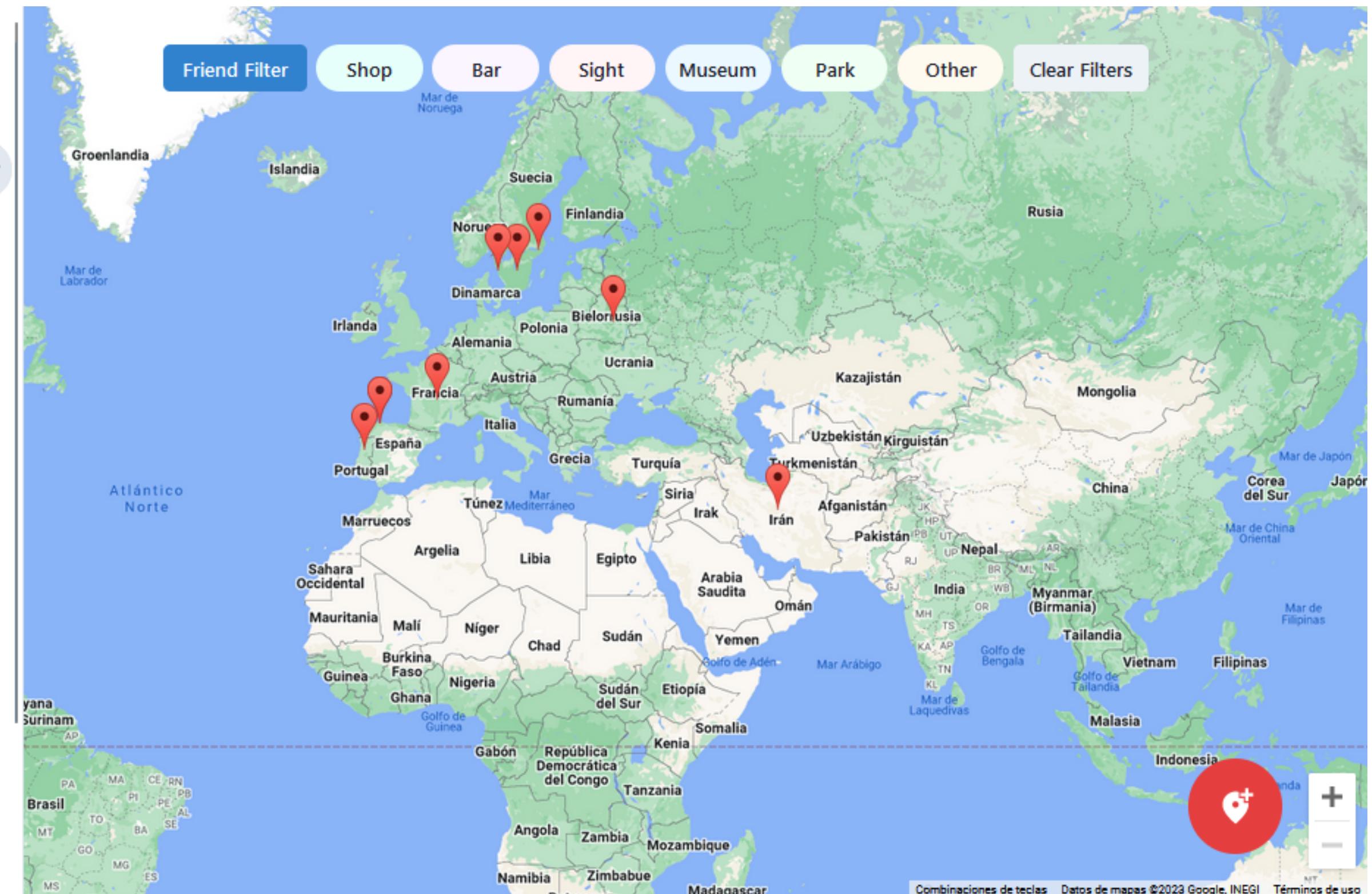
Add a location with 4 categories

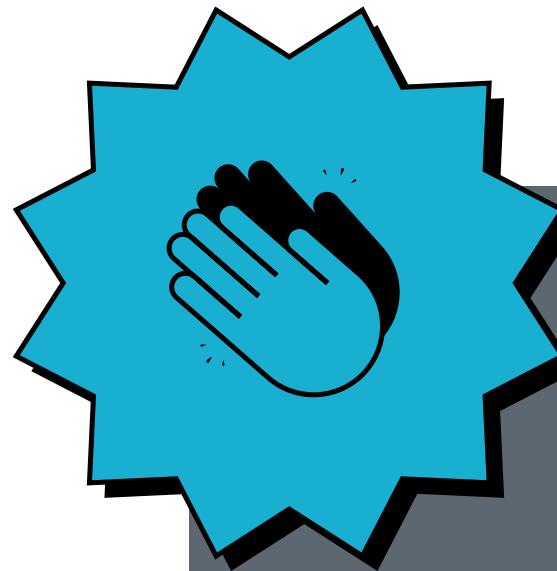


Have in your list 10 museums



Make your average location rating 5

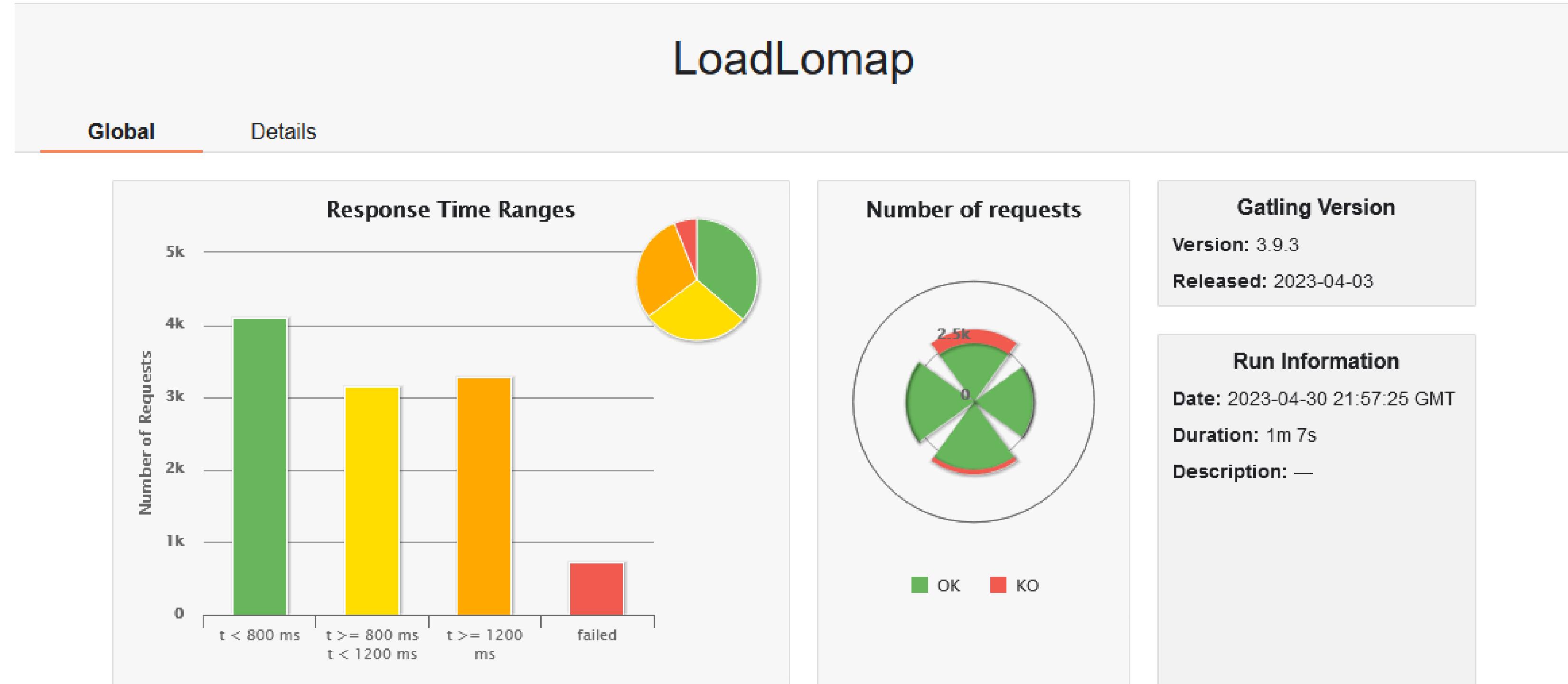




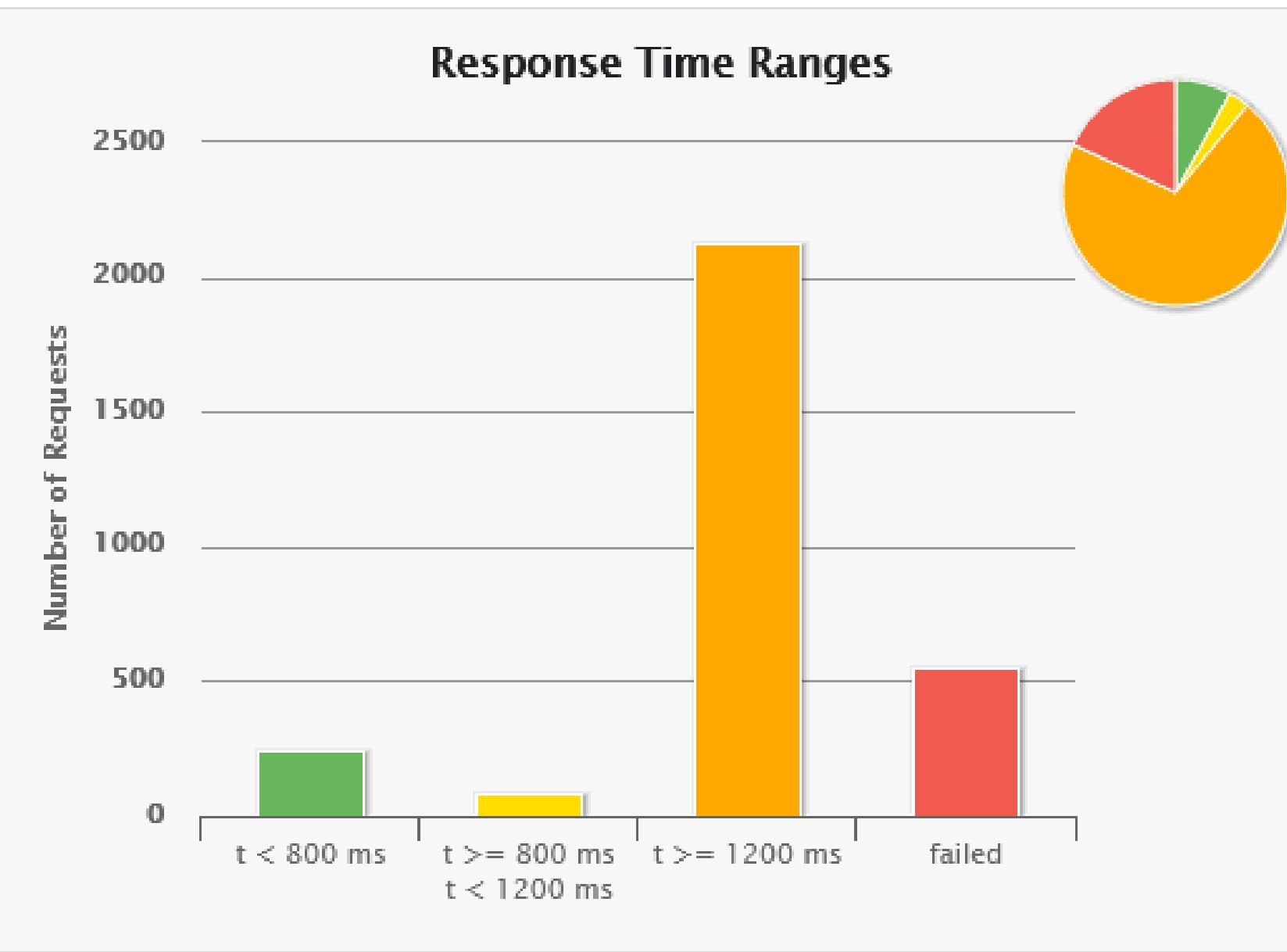
LOMAP

THANK YOU

LOAD TESTING RESULTS



LOAD TESTING RESULTS



Stats

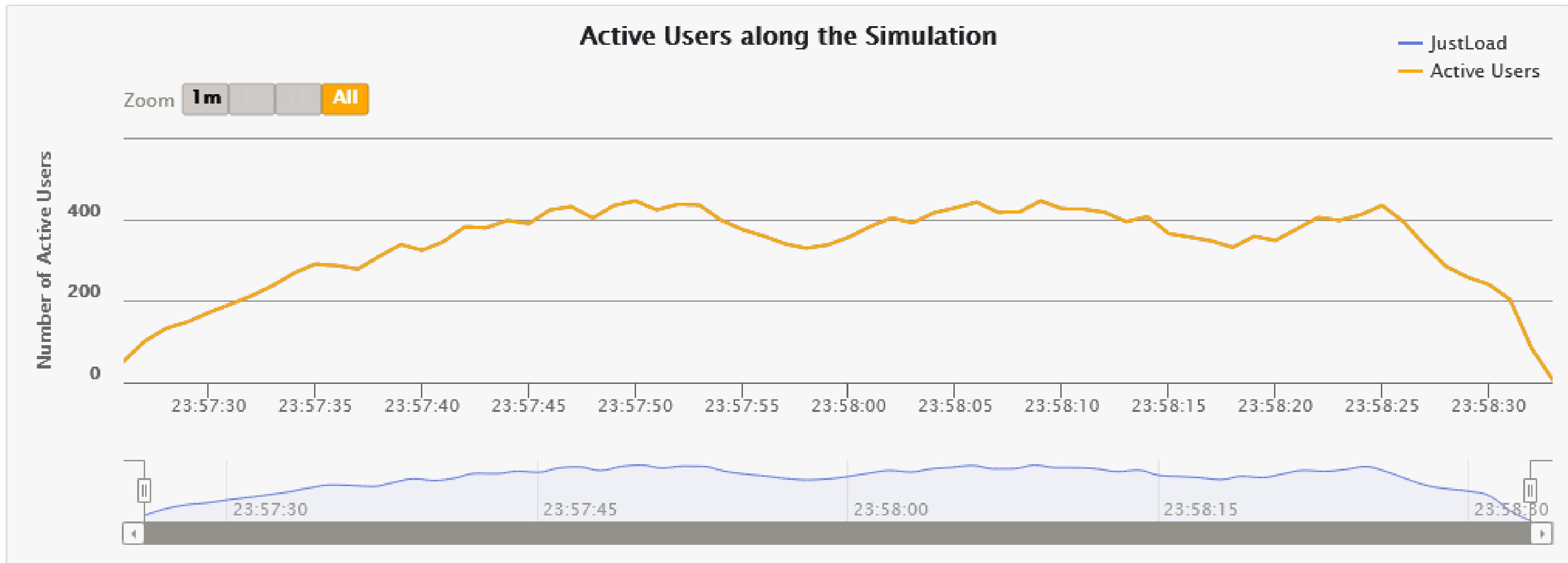
Executions

	Total	OK	KO
Total count	3000	2449	551
Mean count/s	44.118	36.015	8.103

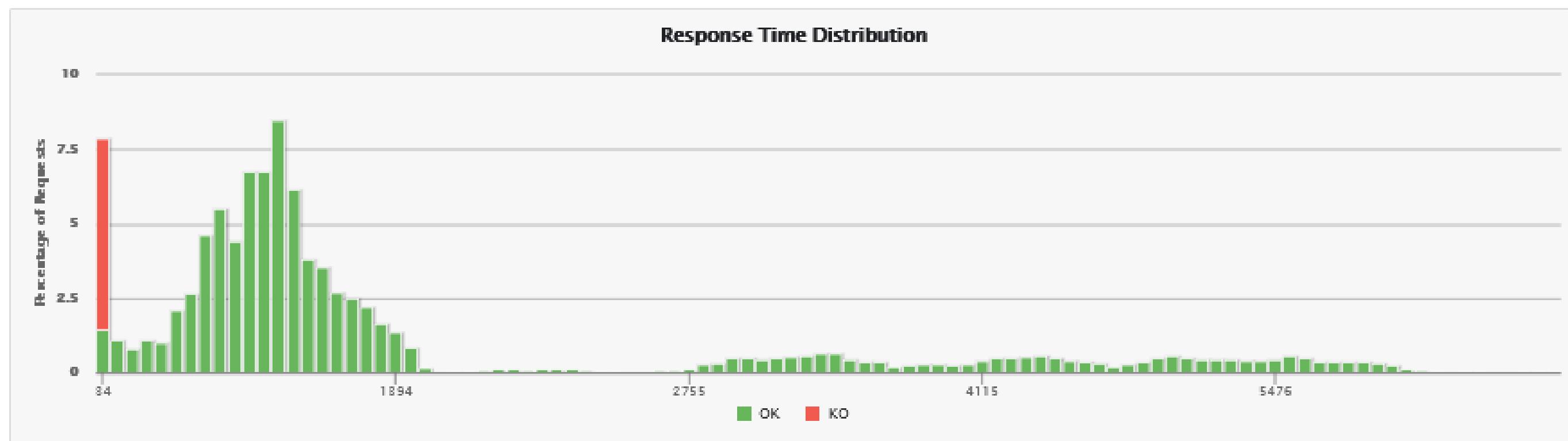
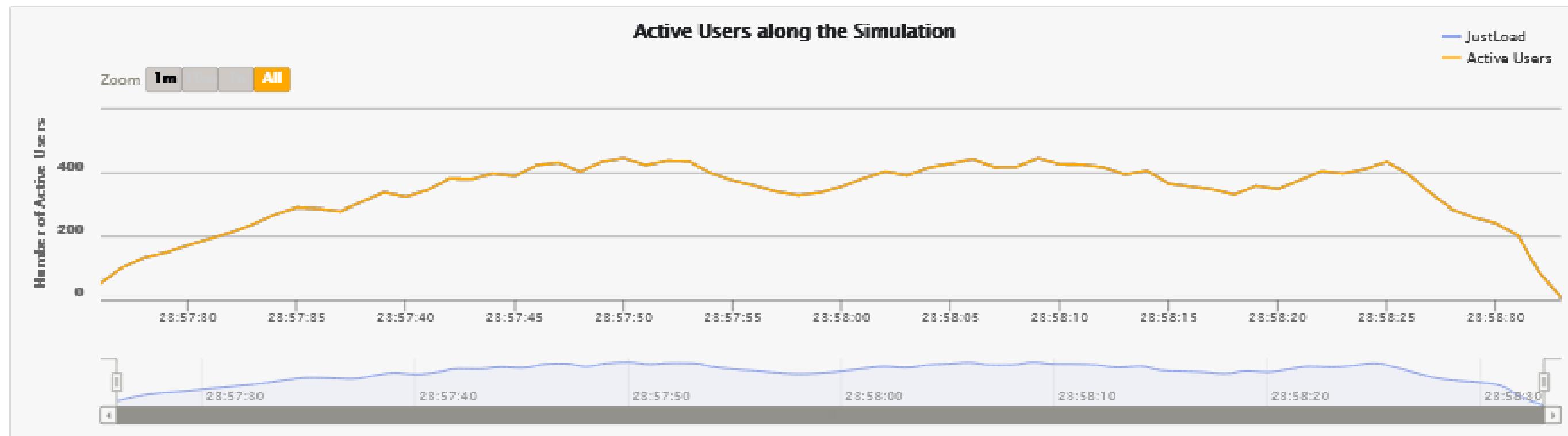
Response Time (ms)

	Total	OK	KO
Min	0	3	0
50th percentile	3457	4080	1
75th percentile	4881	5082	1
95th percentile	5808	5862	1
99th percentile	6263	6380	2
Max	6802	6802	2
Mean	3064	3753	1
Standard Deviation	2088	1659	0

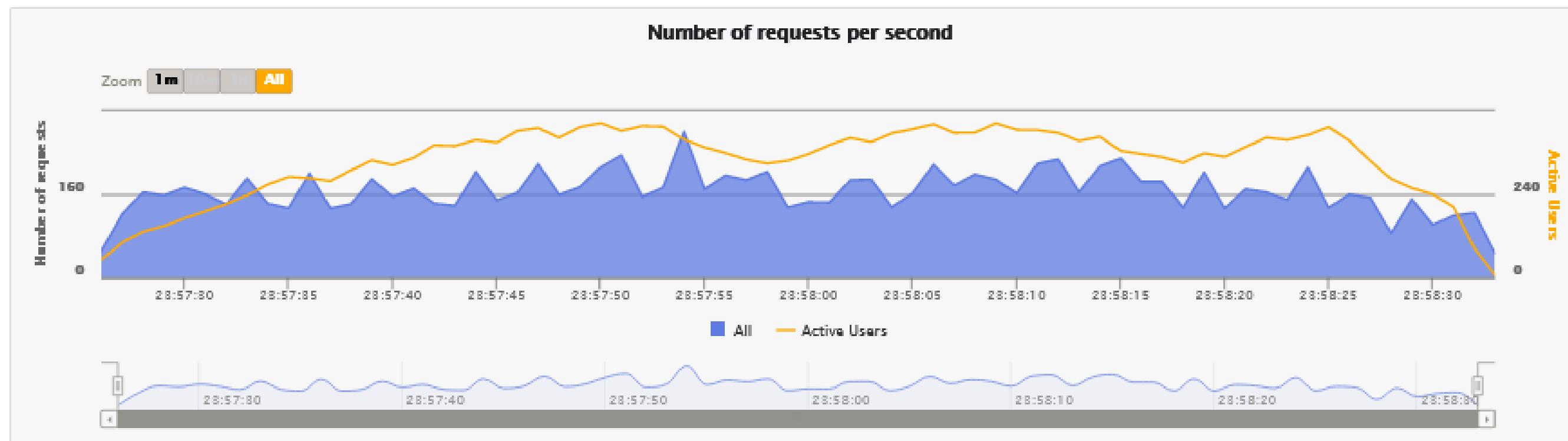
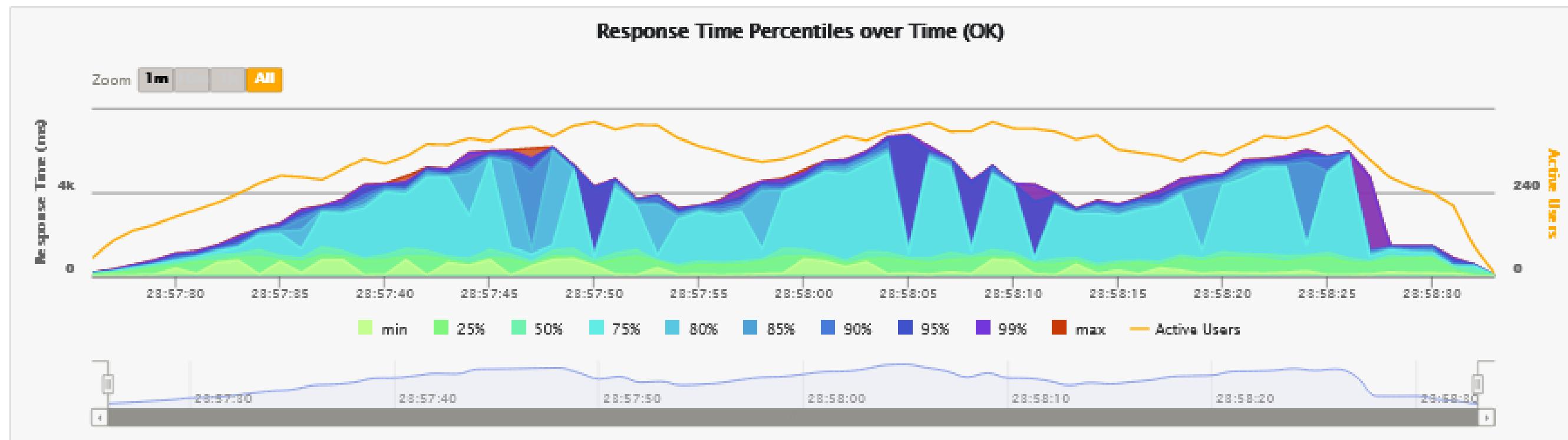
LOAD TESTING RESULTS



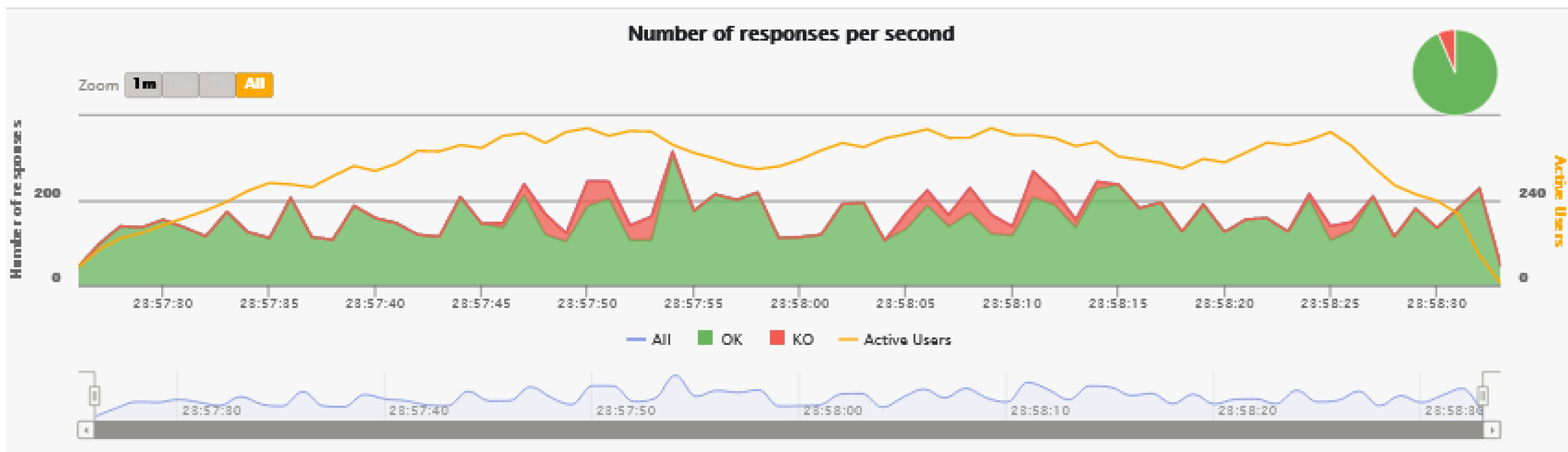
LOAD TESTING RESULTS



LOAD TESTING RESULTS

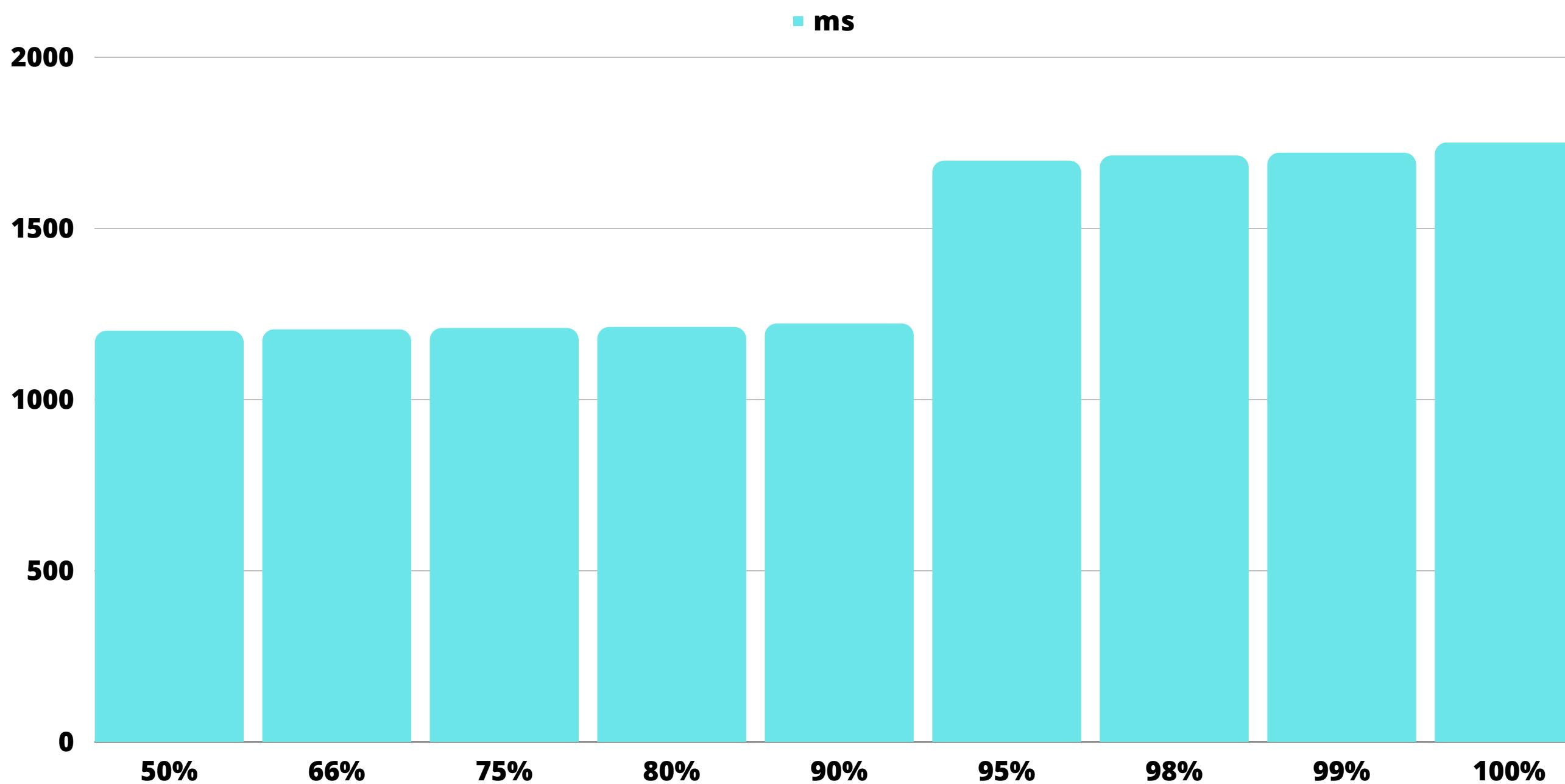


LOAD TESTING RESULTS



LOAD TESTING RESULTS

Percentage of the requests served within a certain time (ms)



LOAD TESTING RESULTS

Concurrency Level: 1000

Time taken for tests: 1235.633 seconds

Complete requests: 1000000

Failed requests: 0

Total transferred: 2102000000 bytes

HTML transferred: 1756000000 bytes

Requests per second: 809.30 [#/sec] (mean)

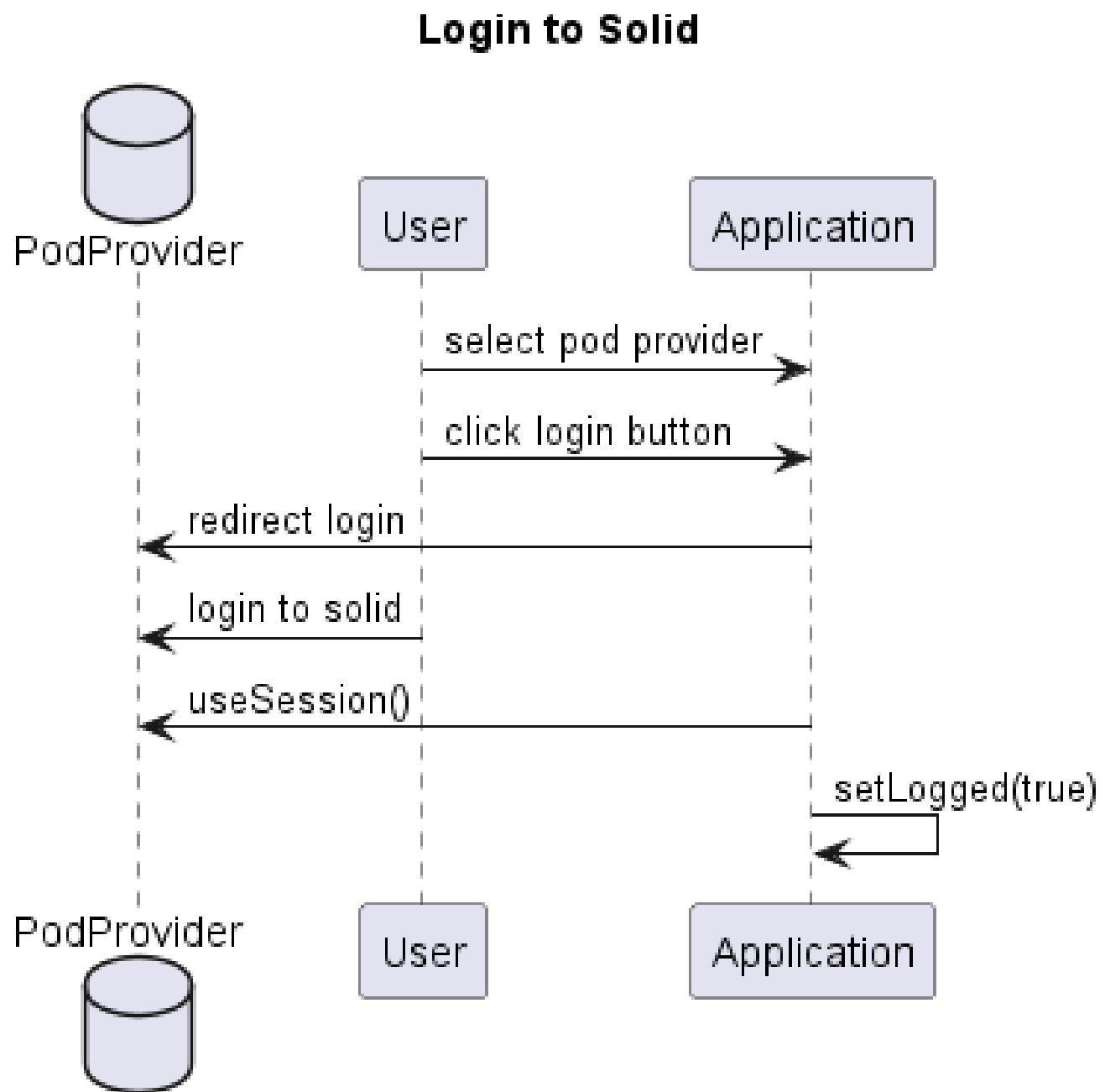
Time per request: 1235.633 [ms] (mean)

Time per request: 1.236 [ms] (mean, across all concurrent requests)

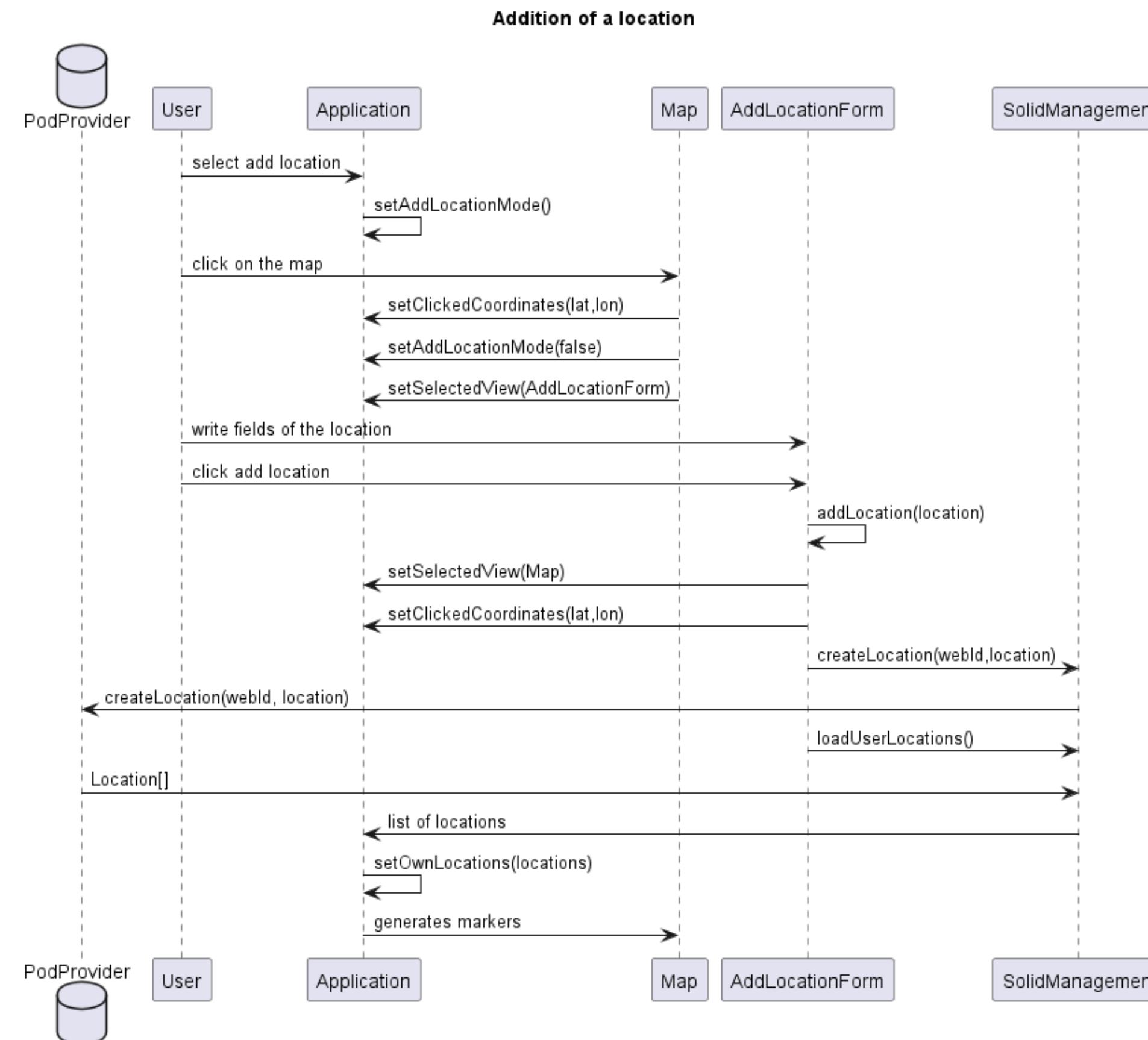
Transfer rate: 1661.28 [Kbytes/sec] received

RUNTIME VIEWS

LoMap-en2a

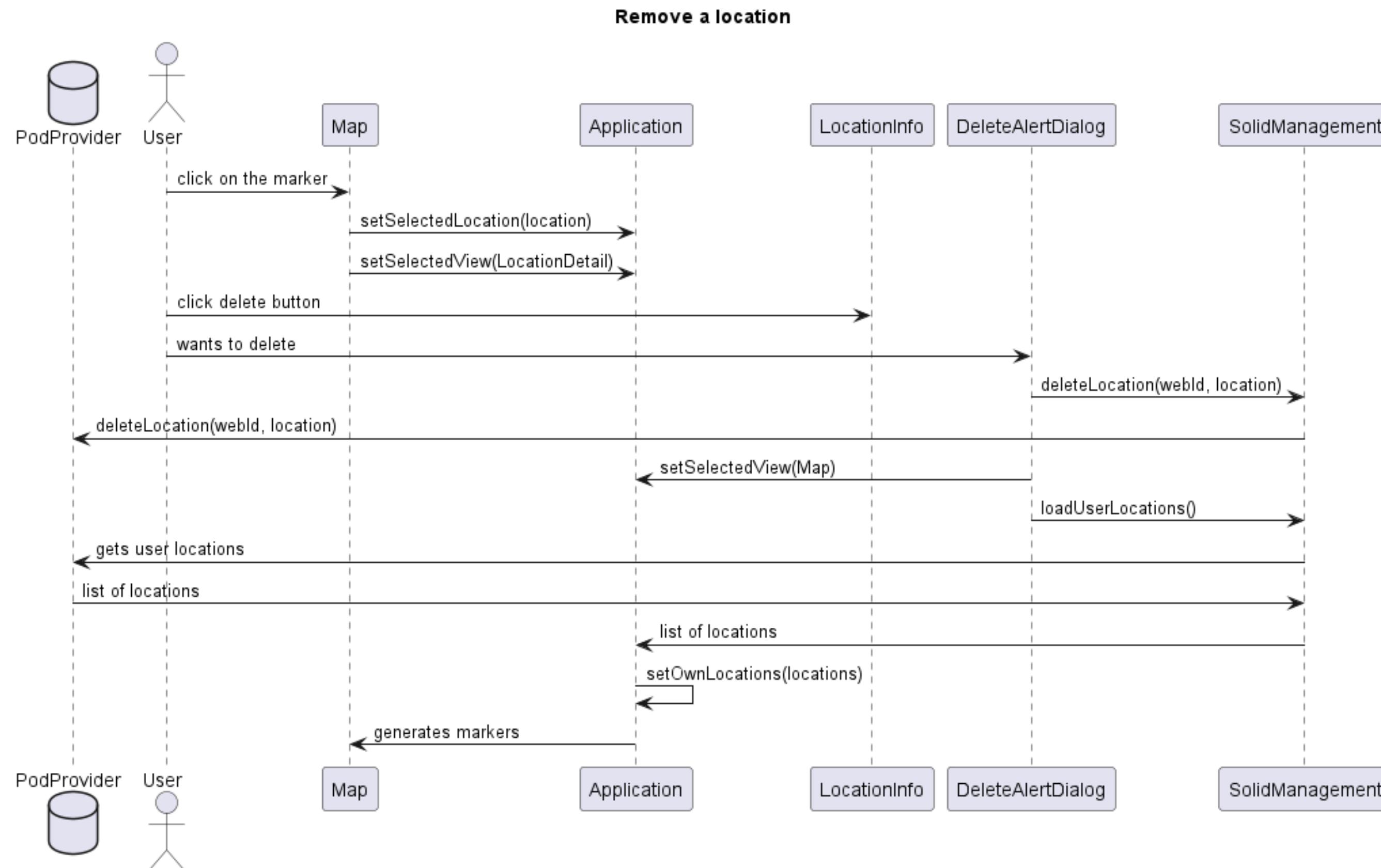


RUNTIME VIEWS

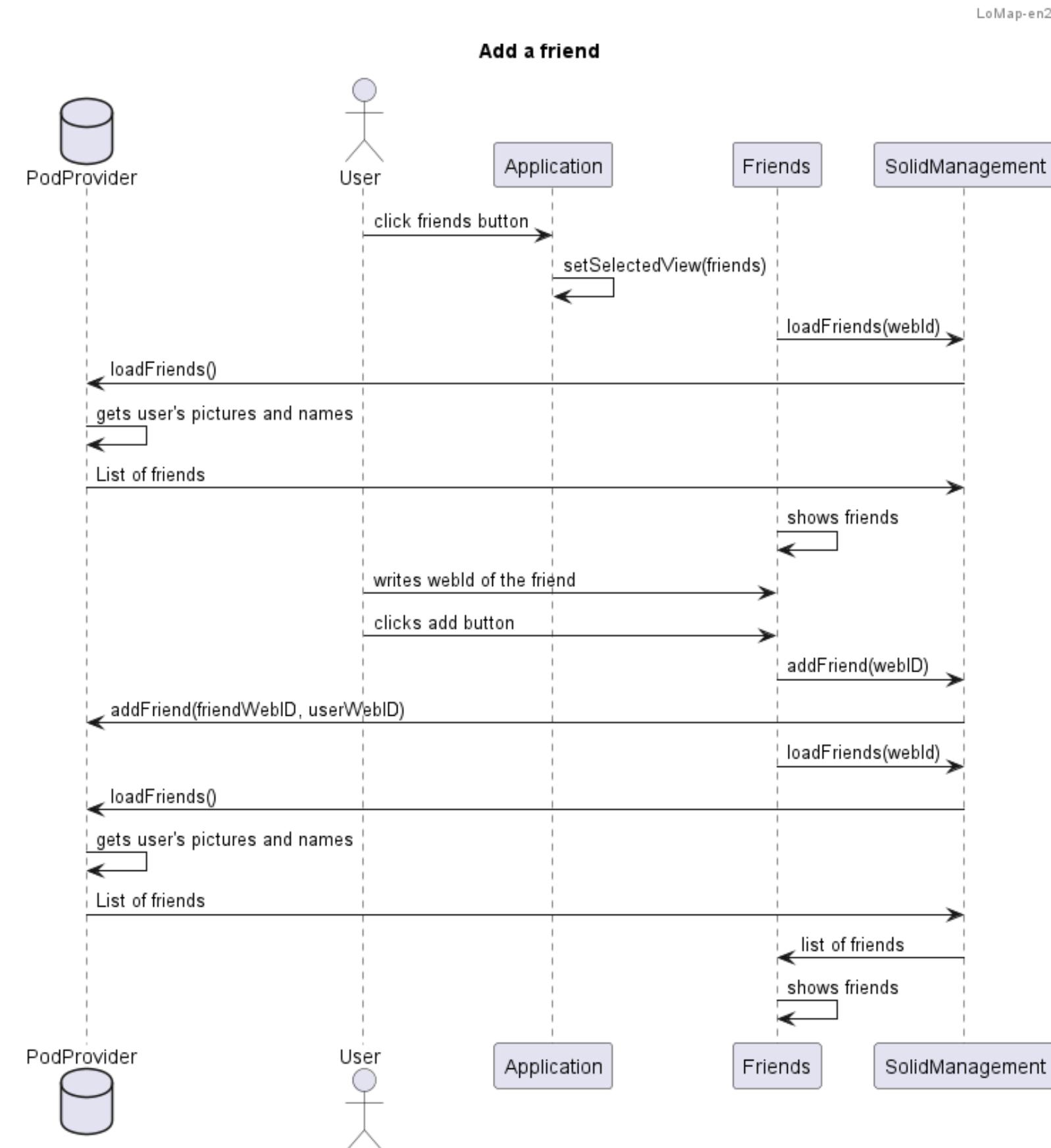


RUNTIME VIEWS

LoMap-en2a

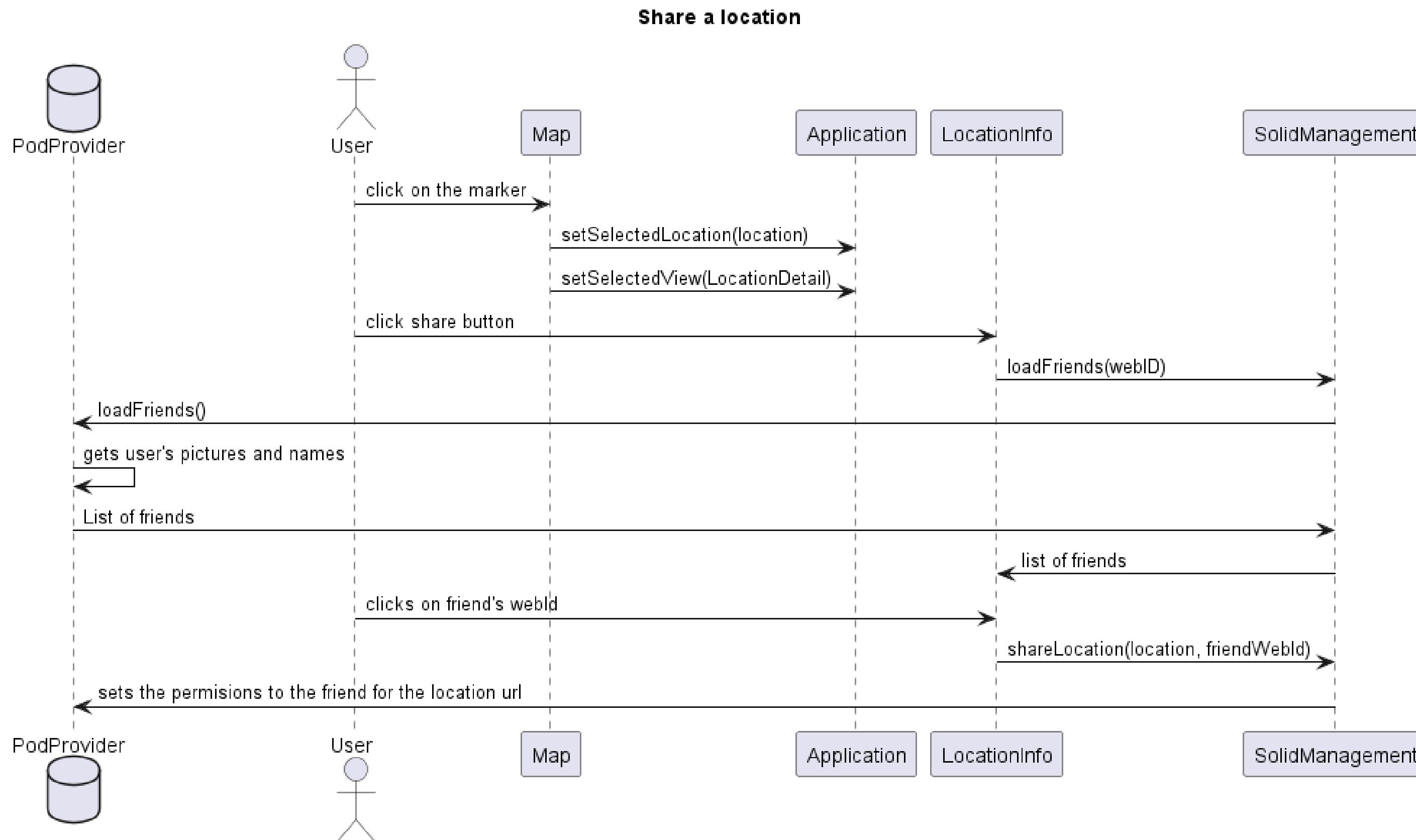


RUNTIME VIEWS



RUNTIME VIEWS

LoMap-en2a

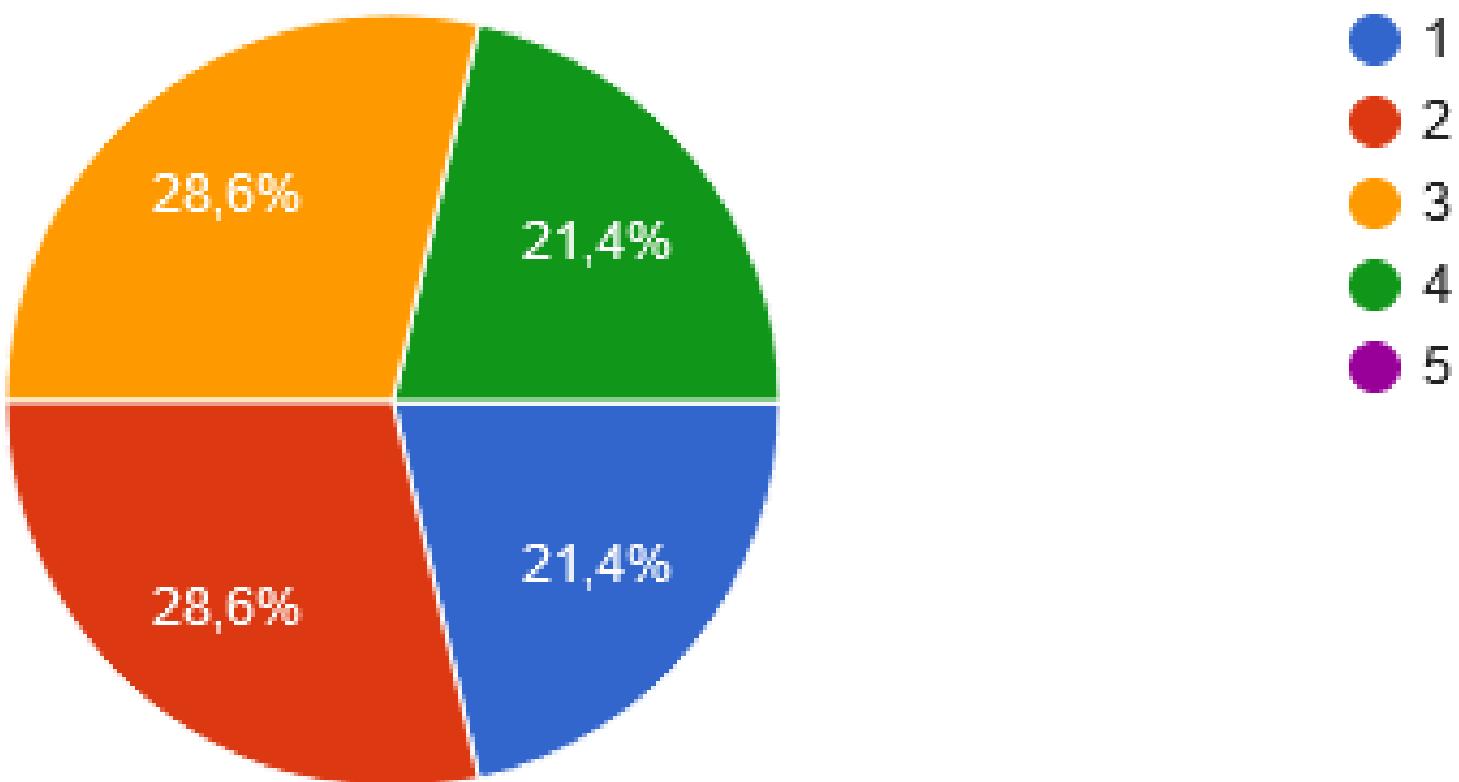


USABILITY FORM

¿Cuál consideras que es tu nivel de pericia informática?

14 respuestas

Copiar



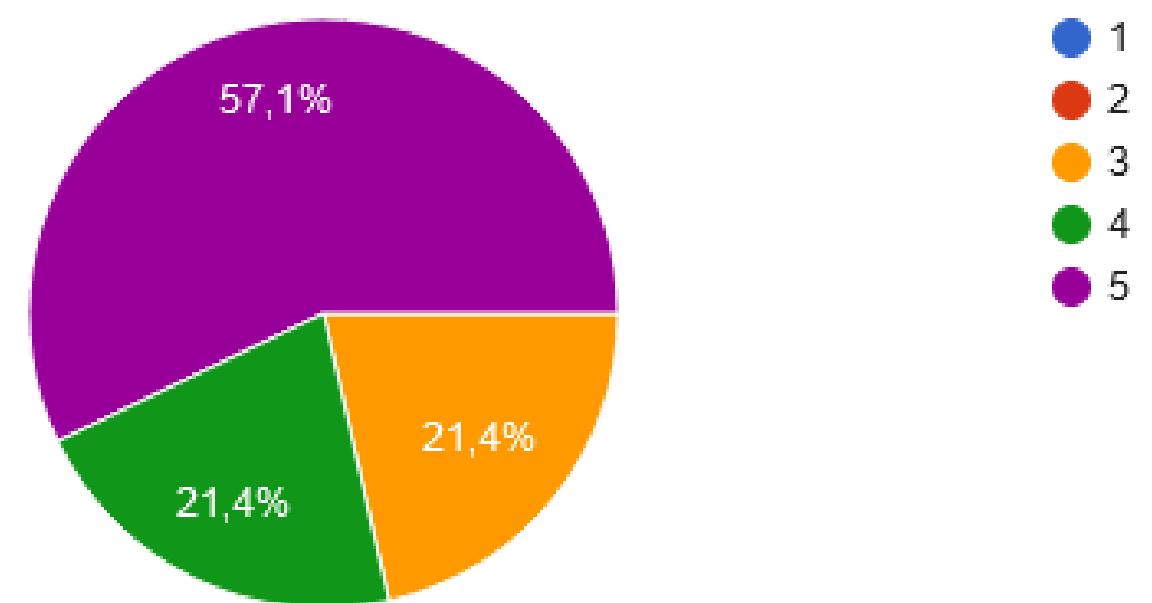
USABILITY FORM

Inicie sesión en la aplicación utilizando una cuenta que el entrevistador presente le facilitará. Una vez iniciada la sesión, añada una localización ubicada en Oviedo con nombre "localización1", descripción "descripción de la localización1" y añada alguna imagen a la misma.

 Copiar

Responda a continuación cómo valoraría la interacción de la aplicación en términos generales con respecto a esta acción.

14 respuestas



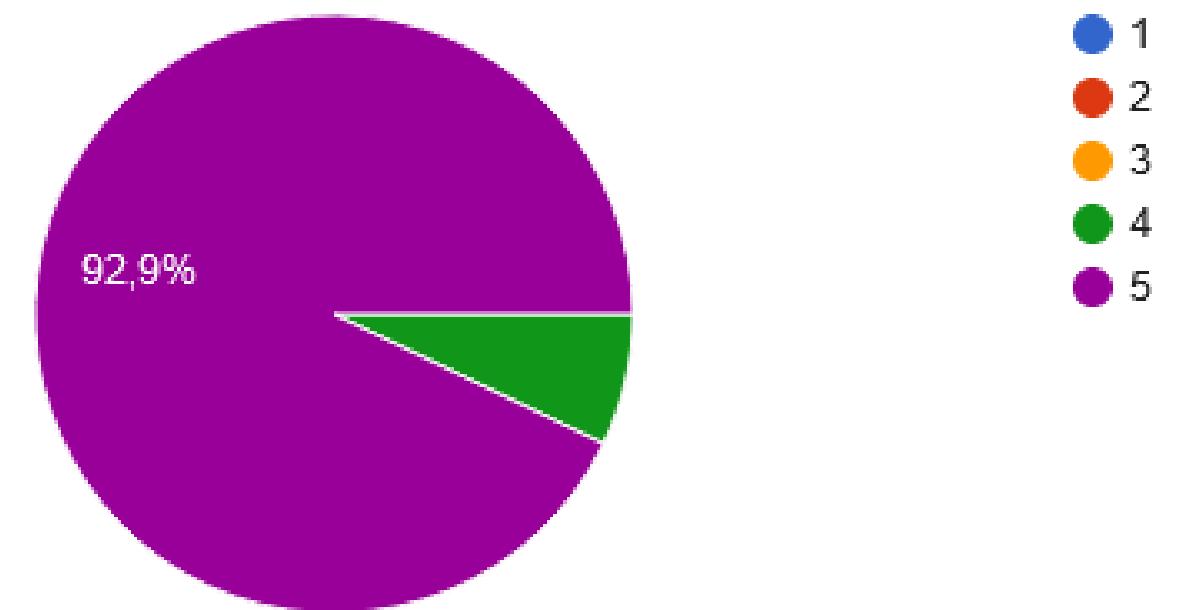
USABILITY FORM

La siguiente interacción será: ver toda la información de la localización que se añadió previamente. El resultado esperado para el final de esta interacción es ver una vista en la que se ve la imagen añadida, el nombre "localización1" y la descripción "descripción de la localización1".

 Copiar

Responda a continuación cómo valoraría la interacción de la aplicación en términos generales con respecto a esta acción.

14 respuestas



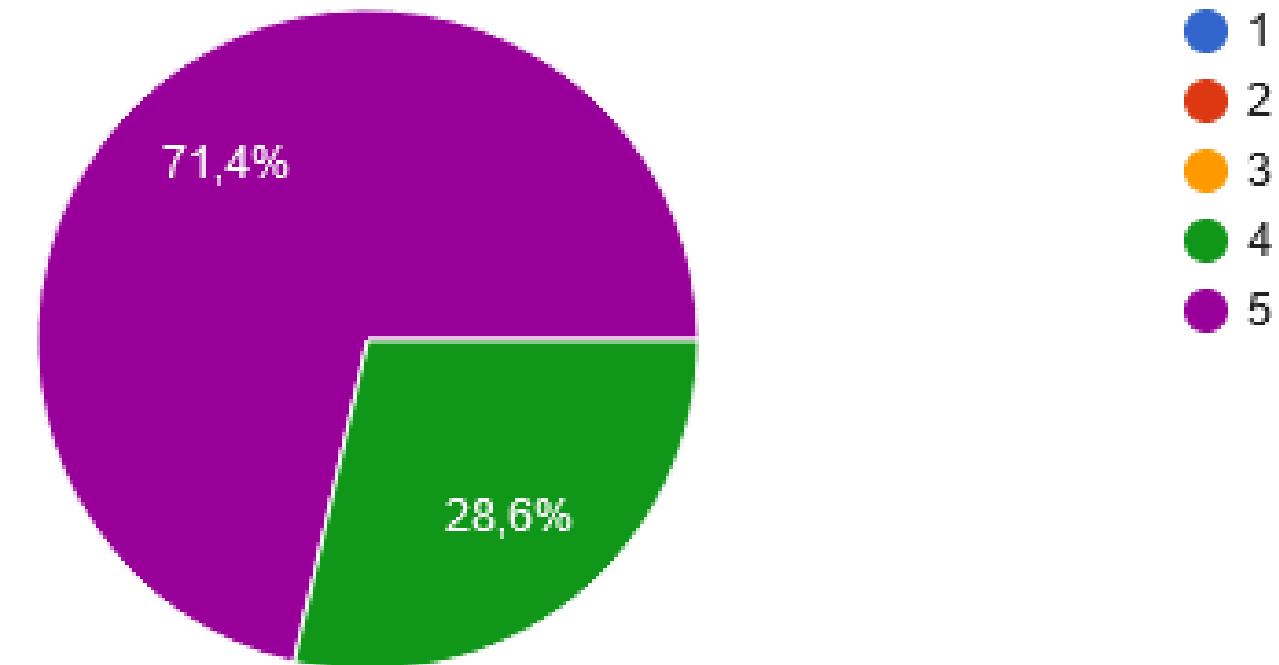
USABILITY FORM

A continuación se le pide compartir la localización con un amigo indicado por el entrevistador presente.

Copiar

Responda a continuación cómo valoraría la interacción de la aplicación en términos generales con respecto a esta acción.

14 respuestas



USABILITY FORM

Por ultimo, ponga un rating (valoración con ) y una review a una localización que uno de sus amigos ha compartido.

 Copiar

Responda a continuación cómo valoraría la interacción de la aplicación en términos generales con respecto a esta acción.

14 respuestas

