GRAPHQL GIFTS FROM KIWI.COM

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ESLINT & BABEL PRESET

> CONSISTENT CODEBASE

> FASTER CODE REVIEWS

> MODERN JS FEATURES

ESLINT

yarn add --dev @kiwicom/eslint-config

> REACT, RN, HOOKS, RELAY

> PRETTIER, JEST

> FLOW, NODE

> EXTENDABLE

ESLINT

```javascript
//.eslintrc.js
module.exports = {
  root: true,
  extends: [
    '@kiwicom/eslint-config',
  ],
};
```

DO NOT IGNORE ESLINT WARNINGS!

```js
//.eslintrc.js
module.exports = {
  root: true,
  extends: [
    '@kiwicom/eslint-config/strict',
  ],
};
```

BABEL PRESET

yarn add --dev @kiwicom/babel-preset-kiwicom

> FLOW, JSX

> CLASS PROPERTIES

> RELAY FRAGMENTS

> SUGAR: a?.b; a ?? b; {...a}

FETCH

yarn add @kiwicom/fetch

> RETRIES
> TIMEOUTS
> ERROR HANDLING

FETCH

```javascript
import fetchWithRetries from '@kiwicom/fetch';

fetchWithRetries(
  'https://example.api',
  {
    fetchTimeout: 15000,
    retryDelays: [1000, 3000],
    // ... standard Fetch options
  },
);
```
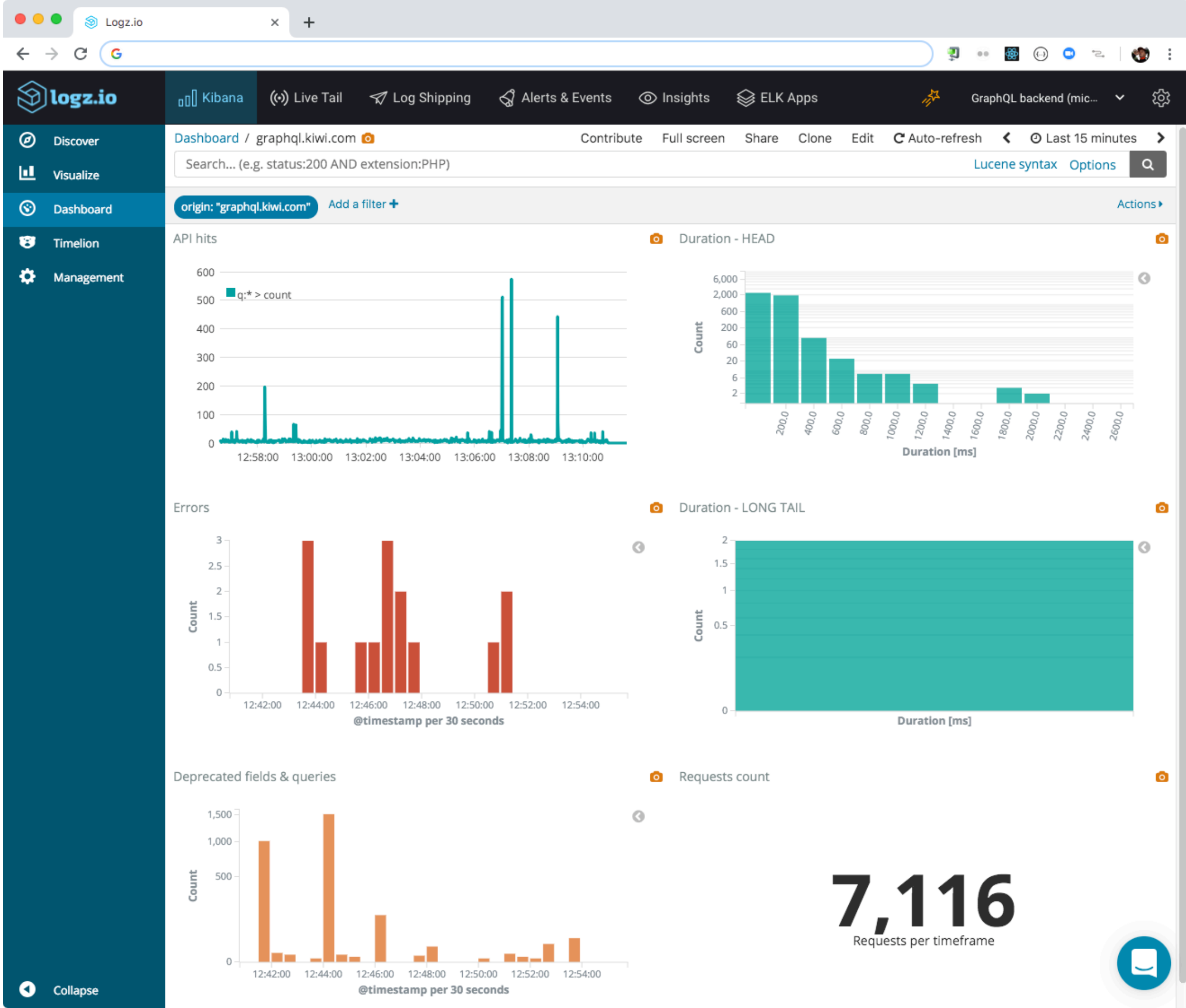
FETCH

```javascript
import fetchWithRetries, { TimeoutError, ResponseError } from '@kiwicom/fetch';

try {
  const response = await fetchWithRetries('//localhost');
} catch (error) {
  if (error instanceof TimeoutError) {
    console.error('request timeouted');
  } else if (error instanceof ResponseError) {
    console.error('unsuccessful response', error.response);
  } else {
    console.error('unknown error');
  }
}
```

LOGZ

yarn add @kiwicom/graphql-logz

- > APOLLO ENGINE ALTERNATIVE
- > LOGZ.IO BACKEND & UI
- > GRAPHQL QUERY, VARIABLES
- > DEPRECATED FIELDS
- > DURATION, HEADERS,

Logz.io

Discover
Visualize
Dashboard
Timelion
Management

Dashboard / graphql.kiwi.com

Contribute · Full screen · Share · Clone · Edit · Auto-refresh · Last 15 minutes

Search... (e.g. status:200 AND extension:PHP)

Lucene syntax · Options

origin: "graphql.kiwi.com" · Add a filter +

Actions ▸

API hits

q:* > count

600
500
400
300
200
100
0

12:58:00 13:00:00 13:02:00 13:04:00 13:06:00 13:08:00 13:10:00

Duration - HEAD

6,000
2,000
600
200
60
20
6
2

200.0 400.0 600.0 800.0 1000.0 1200.0 1400.0 1600.0 1800.0 2000.0 2200.0 2400.0 2600.0

Duration [ms]

Count

Errors

3
2.5
2
1.5
1
0.5
0

12:42:00 12:44:00 12:46:00 12:48:00 12:50:00 12:52:00 12:54:00

@timestamp per 30 seconds

Count

Duration - LONG TAIL

2
1.5
1
0.5
0

Duration [ms]

Count

Deprecated fields & queries

1,500
1,000
500
0

12:42:00 12:44:00 12:46:00 12:48:00 12:50:00 12:52:00 12:54:00

@timestamp per 30 seconds

Count

Requests count

7,116

Requests per timeframe

Collapse

logz.io

Kibana | Live Tail | Log Shipping | Alerts & Events | Insights | ELK Apps

GraphQL backend (mic...

Discover

Visualize

Dashboard

Timelion

Management

Selected Fields

t   message

Available Fields ⚙

Popular

⏱ @timestamp

t query

t tags

t variables

\# duration

◖ graphqlFieldIsDe...

t graphqlFieldName

t graphqlFieldPath

t graphqlFieldType

t headers

t operationName

t origin

t type

February 28th 2019, 12:57:10.679 - February 28th 2019, 13:12:10.679 — Auto

@timestamp per 30 seconds

COGNITIVE INSIGHTS

☐ response (1)

Time	message
▾ February 28th 2019, 13:11:57.088	-

Table | JSON

View surrounding documents ⧉ | View single document ⧉

⏱ @timestamp 🔍 🔍 ⊟ ✳ February 28th 2019, 13:11:57.088

\# duration 🔍 🔍 ⊟ ✳ 353.5

t headers 🔍 🔍 ⊟ ✳ {"host":"graphql.kiwi.com","accept":"*/*","accept-encoding":"gzip, deflate, br","accept-languag
e":"en-US,en;q=0.9,lt;q=0.8","content-type":"application/json","origin":"https://www.kiwi.co
m","referer":"https://www.kiwi.com/us/search/gran-canaria-las-palmas-spain/frankfurt-germany/20
19-03-01/anytime","user-agent":"Mozilla/5.0 (Windows NT 6.1; Win64; x64) AppleWebKit/537.36 (KH
TML, like Gecko) Chrome/72.0.3626.109 Safari/537.36","x-forwarded-for":"88.119.95.95, 10.2.31.4
2","x-forwarded-port":"443","x-forwarded-proto":"https","content-length":"1480","connection":"c
lose"}

t origin 🔍 🔍 ⊟ ✳ graphql.kiwi.com

t query 🔍 🔍 ⊟ ✳
```
                    query(
                        $search: HotelsSearchInput!,
                        $filter: HotelsFilterInput,
                        $options: AvailableHotelOptionsInput,
                        $after: String,
                        $first: Int = 50,
                    ) {
                        allAvailableBookingComHotels(
                            search: $search,
                            filter: $filter,
                            options: $options,
                            after:$after,
                            first: $first,
                        ) {
                            pageInfo {
                                hasNextPage
                                hasPreviousPage
                                startCursor
```

Collapse

BC CHECKER

```
yarn add --dev @kiwicom/graphql-bc-checker
```

> AUTO UPDATE SCHEMA SNAPSHOT

> CREATE BC CHANGELOG

> FITS INTO TEST PIPELINE

> DX FOCUS

BC CHECKER

```js
// scripts/test-bc.js
import path from 'path';
import testBC from '@kiwicom/graphql-bc-checker';

import Schema from './src/Schema';

testBC({
  allowBreakingChanges: false,
  snapshotLocation: path.join(__dirname, 'schema-snapshot.graphql'),
  schema: Schema,
});
```

BC CHECKER DX

VALUE_REMOVED_FROM_ENUM - FUTURE was removed from enum type AllBookingsOnlyEnum.
VALUE_REMOVED_FROM_ENUM - PAST was removed from enum type AllBookingsOnlyEnum.

Tips how to avoid breaking changes:

- field removal/modification (introduce new field and only deprecate the old one)
- type removal/modification (just deprecate it and leave it there)
- removal from enum/union (introduce new enum/union)
- arguments removal/modification (introduce new query or graph node)
- change non-nullable -> nullable (just don't do it or introduce new field)
- change of default argument value (don't or introduce new argument/query)

error Command failed with exit code 1.

RELAY

```
yarn add react @kiwicom/relay
```

> RELAY WRAPPER

> QUERY LOGGING DURING DEVELOPMENT

> RESPONSE CACHE, BATCH REQUESTS

> UPLOADABLES, PERSISTENT QUERIES

> FLOW

▼ **[1] Relay Modern: AppQuery**   **RelayNetworkLoggerTransaction.js:66**

[1] Relay Modern: AppQuery: 599.638916015625ms   RelayNetworkLoggerTransaction.js:67

Cache Config: ▶Object   RelayNetworkLoggerTransaction.js:74

Variables: {   RelayNetworkLoggerTransaction.js:74
  "count": 20
}

Response: RelayNetworkLoggerTransaction.js:74
▼Object ⓘ
  ▼data:
    ▶dangerZone: {allLocations: {…}}
    ▶incrementalPagination: {edges: Array(20), pageInfo: {…}}
    ▶incrementalPagination2: {edges: Array(20), pageInfo: {…}}
    ▶__proto__: Object
  ▶__proto__: Object

>

RELAY EXAMPLE

github.com/kiwicom/relay-example

> **HOW TO** @kiwicom/relay

> **SIMPLE FETCHING**

> **ENDLESS PAGINATION**

> **BI-DIRECTIONAL PAGINATION**

Relay pagination showcase

Bi-directional pagination
See: Refetch Container

1. 🇮🇹 Rome
2. 🇫🇷 Paris
3. 🇪🇸 Barcelona
4. 🇺🇸 San Francisco
5. 🇺🇸 Boston
6. 🇺🇸 Washington, D.C.
7. 🇺🇸 Denver
8. 🇺🇸 Las Vegas
9. 🇺🇸 Atlanta
10. 🇺🇸 Miami
11. 🇺🇸 Tampa
12. 🇺🇸 Orlando
13. 🇵🇭 Manila
14. 🇺🇸 New York
15. 🇬🇧 London
16. 🇺🇸 Los Angeles
17. 🇺🇸 Chicago
18. 🇬🇷 Athens International
19. 🇺🇸 Hartsfield–Jackson Atlanta International
20. 🇪🇸 Barcelona–El Prat

‹ Previous page | Next page ›

Incremental pagination 1
See: Refetch Container

1. 🇮🇹 Rome
2. 🇫🇷 Paris
3. 🇪🇸 Barcelona
4. 🇺🇸 San Francisco
5. 🇺🇸 Boston
6. 🇺🇸 Washington, D.C.
7. 🇺🇸 Denver
8. 🇺🇸 Las Vegas
9. 🇺🇸 Atlanta
10. 🇺🇸 Miami
11. 🇺🇸 Tampa
12. 🇺🇸 Orlando
13. 🇵🇭 Manila
14. 🇺🇸 New York
15. 🇬🇧 London
16. 🇺🇸 Los Angeles
17. 🇺🇸 Chicago
18. 🇬🇷 Athens International
19. 🇺🇸 Hartsfield–Jackson Atlanta International
20. 🇪🇸 Barcelona–El Prat

Load more!
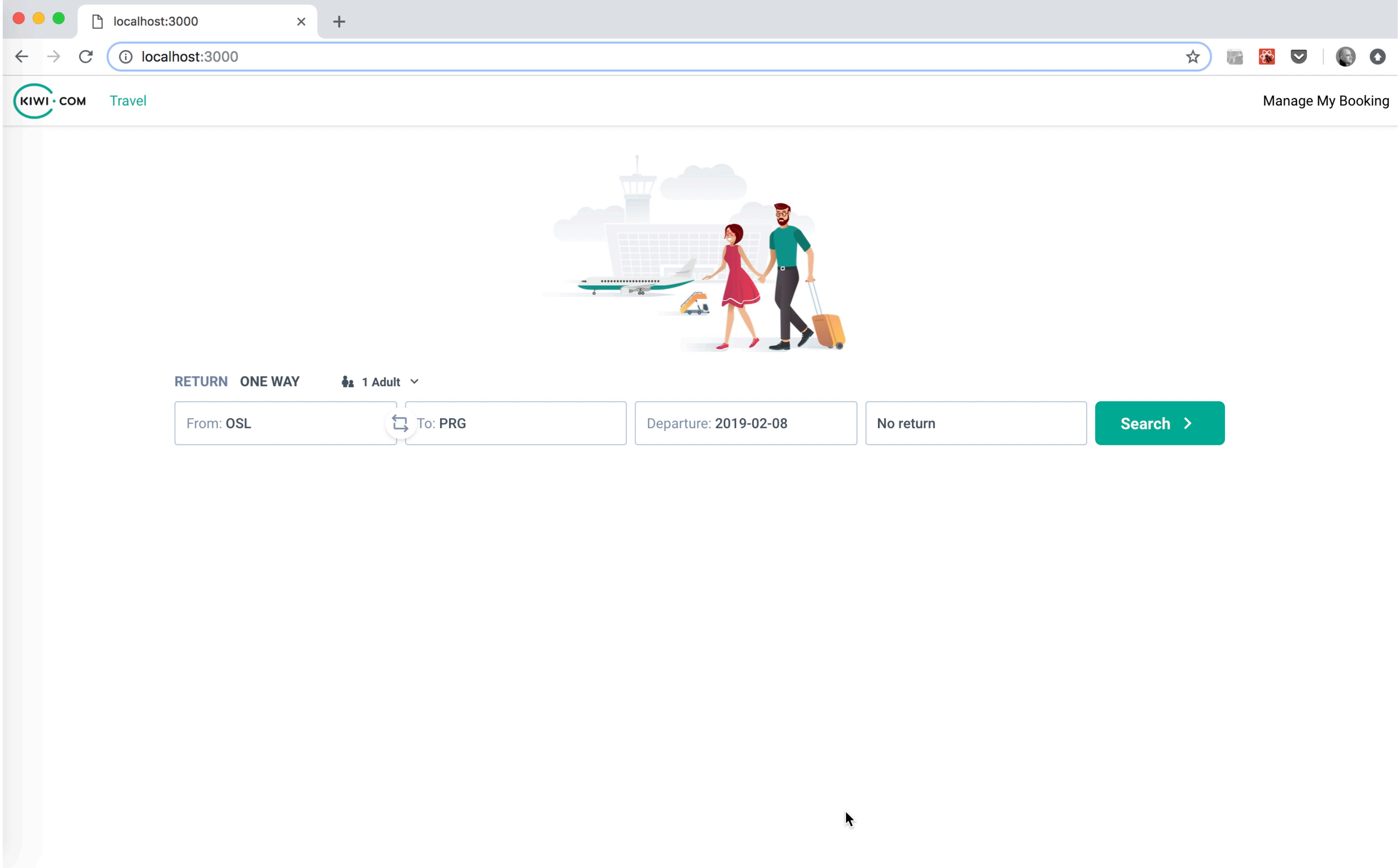
Incremental pagination 2
See: Pagination Container

1. 🇮🇹 Rome
2. 🇫🇷 Paris
3. 🇪🇸 Barcelona
4. 🇺🇸 San Francisco
5. 🇺🇸 Boston
6. 🇺🇸 Washington, D.C.
7. 🇺🇸 Denver
8. 🇺🇸 Las Vegas
9. 🇺🇸 Atlanta
10. 🇺🇸 Miami
11. 🇺🇸 Tampa
12. 🇺🇸 Orlando
13. 🇵🇭 Manila
14. 🇺🇸 New York
15. 🇬🇧 London
16. 🇺🇸 Los Angeles
17. 🇺🇸 Chicago
18. 🇬🇷 Athens International
19. 🇺🇸 Hartsfield–Jackson Atlanta International
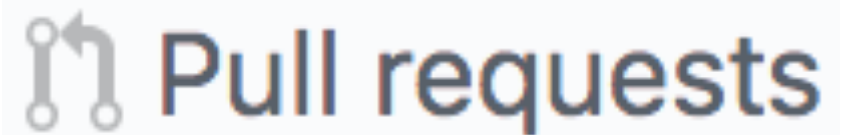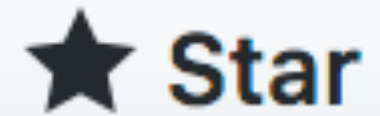20. 🇪🇸 Barcelona–El Prat

Load more!

MARGARITA

github.com/kiwicom/margarita

> GRAPHQL, RELAY

> SHAREABLE UI, RN & RNW

> KIWI.COM TEQUILA API

localhost:3000

Manage My Booking

RETURN ONE WAY   👥 1 Adult ⌄

| From: **OSL** | ⇄ To: **PRG** | Departure: **2019-02-08** | No return | Search › |

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★ Star

⊙ Issues

⥂ Pull requests

LINKS

- NPMJS.COM/PACKAGE/@KIWICOM/ESLINT-CONFIG
- NPMJS.COM/PACKAGE/@KIWICOM/BABEL-PRESET-KIWICOM
- NPMJS.COM/PACKAGE/@KIWICOM/FETCH
- NPMJS.COM/PACKAGE/@KIWICOM/GRAPHQL-LOGZ
- NPMJS.COM/PACKAGE/@KIWICOM/GRAPHQL-BC-CHECKER
- NPMJS.COM/PACKAGE/@KIWICOM/RELAY
- GITHUB.COM/KIWICOM/RELAY-EXAMPLE
- GITHUB.COM/KIWICOM/MARGARITA

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> NPMJS.COM/PACKAGE/@KIWICOM/JS

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THANK YOU!