



A Quick overview of testing a REST API

Without talking really fast

Lianne Klaver – Technical Test Specialist



**challenge
US**

End of the presentation

	executed	failed
iterations	1	0
requests	3	0
test-scripts	3	0
prerequisite-scripts	0	0
assertions	13	1
total run duration: 1780ms		
total data received: 119.78KB (approx)		
average response time: 453ms		

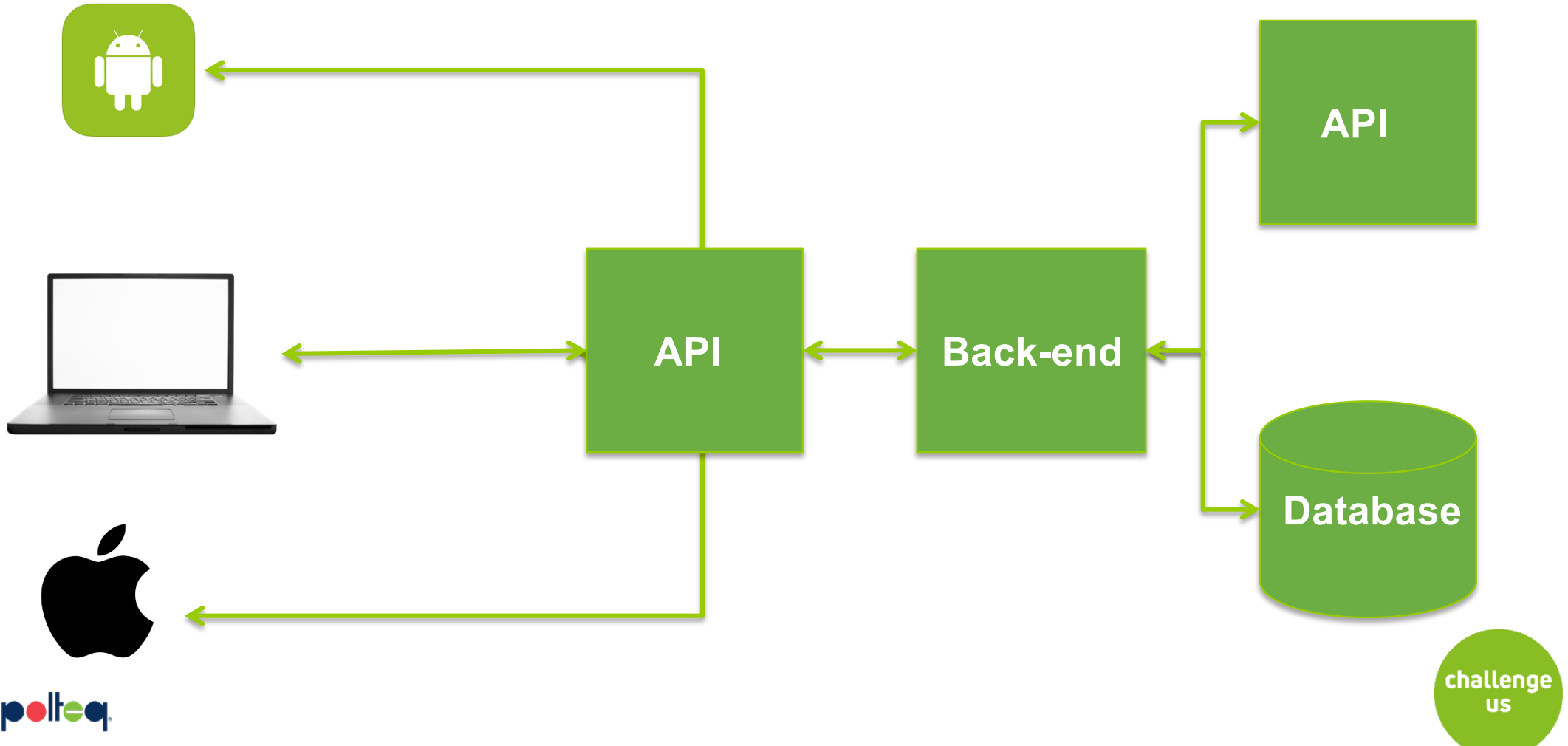
Content

- 8 Sheets to get some context
- WordPress API + Postman, Live Testing!
- Summary: What just happened?!
- What to learn next?
- End of the presentation

API Definition

- API stands for *application program interface*:
 - Set of routines, protocols, tools and blocks for building applications (systems of systems) and so reducing complexity
 - Making it easier for a developer to build applications
 - Abstracting the underlying implementation, only exposing objects or actions a developer needs
 - API reduces the cognitive load on a programmer

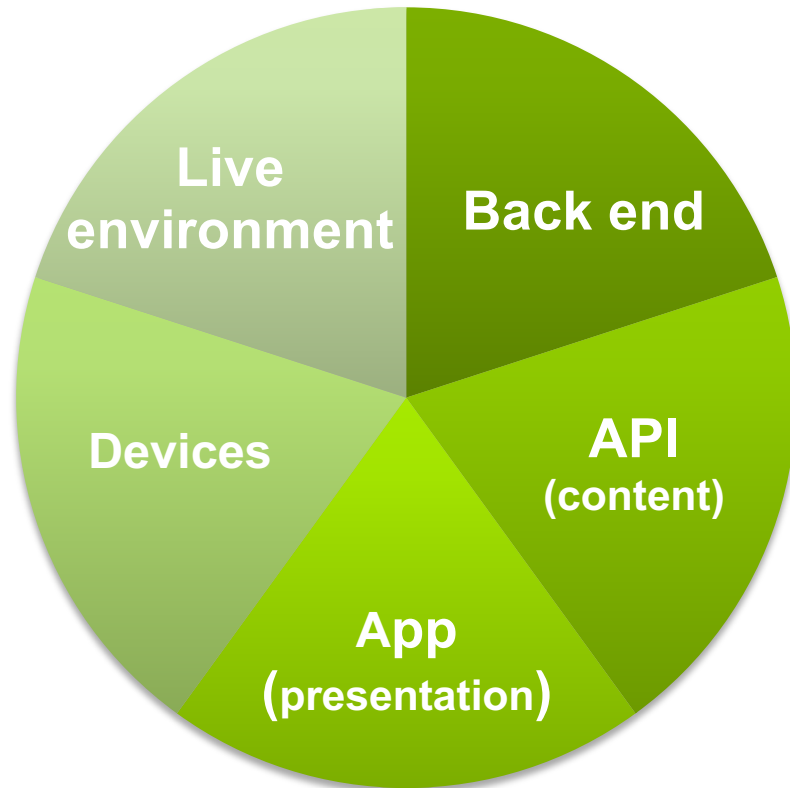
API – Systems communicating



REST API concepts

- Definition of REST by Roy T. Fielding
 - Root element service (base or start URL, http or https)
 - Navigation (syntax)
 - Hierarchy (structure of the data)
 - Resources (logical name of the data)
 - Stateless and caching
 - HTTP state for application status (200 ok, 400 error)
 - Request and response
 - Media types (text/json or application/vendor specific)
 - Verbs (methods or actions)
 - Headers and caching results
 - Access (account and tokens)

The world of mobile apps



Where is the API getting the data from?

What information do we want to store?

Who has to build on top of the API?

Who has access to the API?

What will be the front-end?

How will the data be presented?

What kind of devices will use the data?

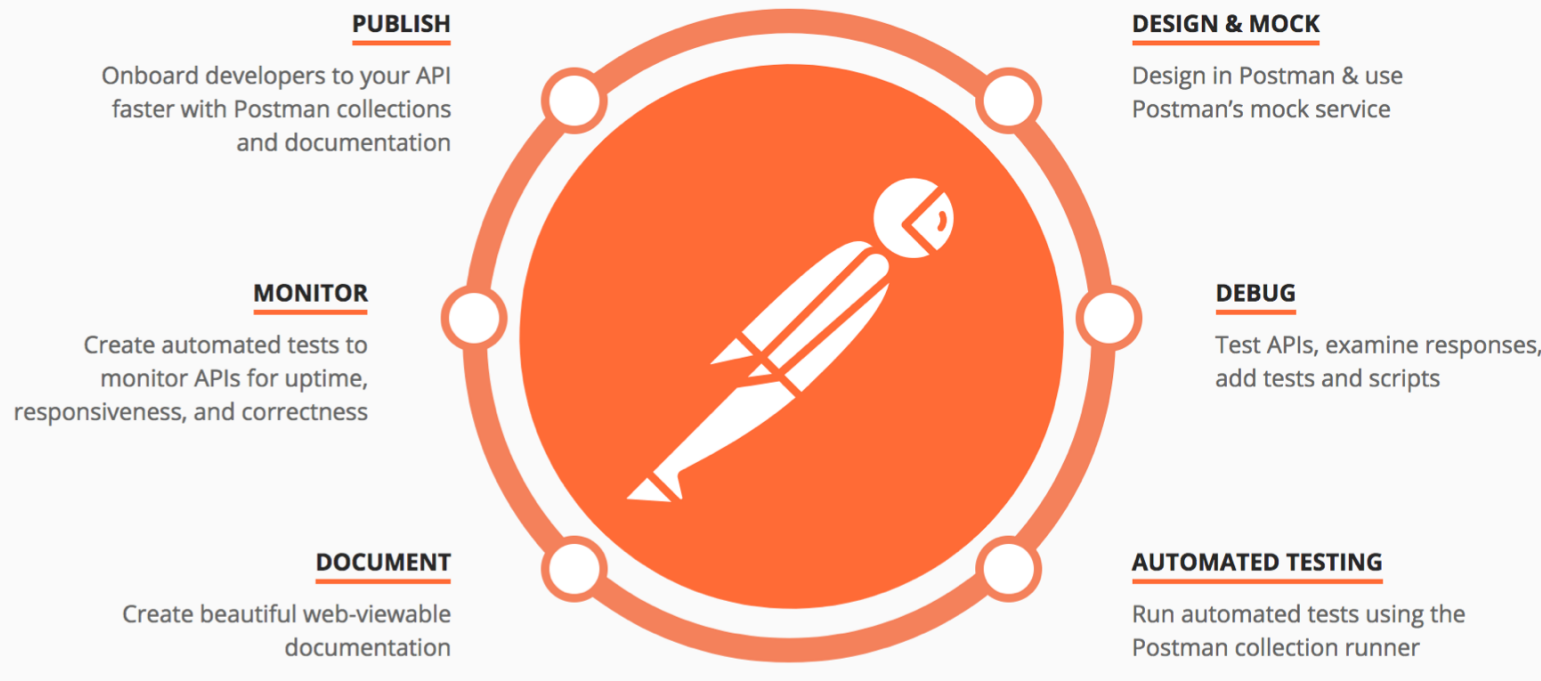
From which location will they use it from?

Who are those users of the front-end? And how many?

Tooling to test API's - Postman

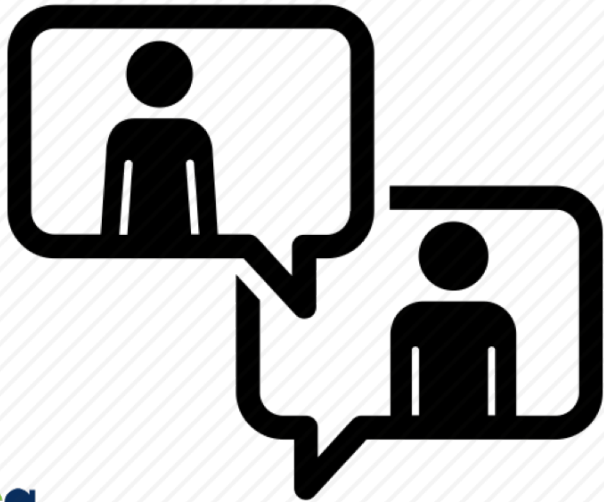
Postman's Tools Support Every Stage of the API Lifecycle.

Through design, testing and full production, Postman is there for faster, easier API development—without the chaos.



Meet WordPress

WordPress is open source software you can use to create a beautiful website, blog, or app.



WordPress testing blog – The front end

➤ <https://polteqtesting.wordpress.com/>

POLTEQ MOBILE APP TESTING BLOG

MOBILE TESTING MOBILE TESTING POSTS MATERIALS FOR THE COURSE EXTRA INFORMATION FOR EXERCISES

LIANNE KLAVER MARC VAN 'T VEER

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```
<?php find_developers( [
  'language' => PHP,
  'specialty' => SCALING,
  'location' => ANYWHERE,
 ] );
```

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Documentation of the API

Documentation online:

<https://developer.wordpress.com/docs/api/>

Endpoints in scope for test:

- GET a list of matching posts

Authentication

Users

Sites

Posts

Comments

Taxonomy

Follow

Sharing

Freshly Pressed

Notifications

Insights

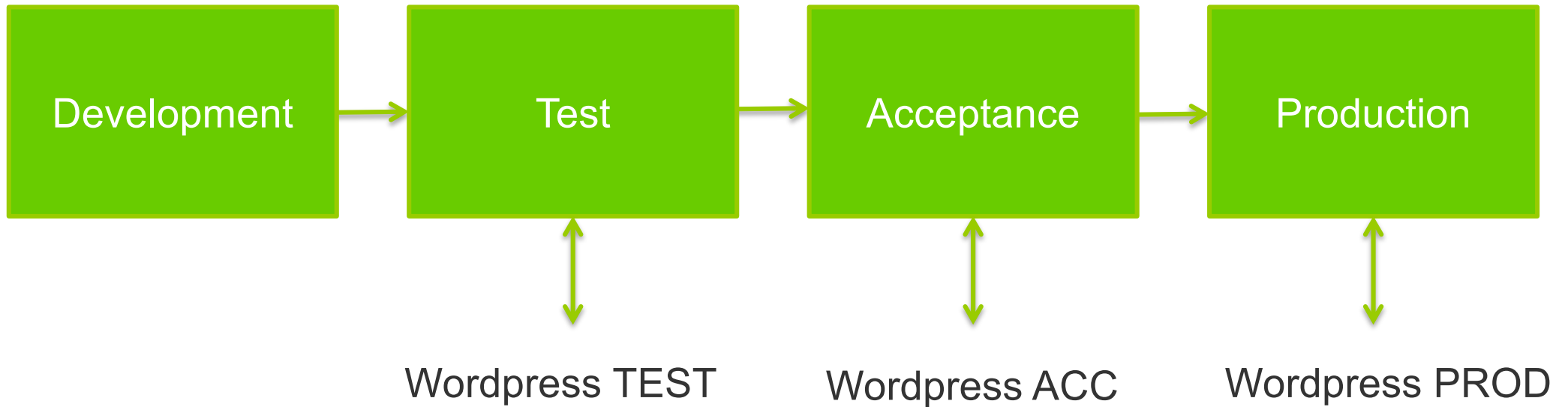
Reader

Wordpress API + Postman

Live Testing



Environment variables



New Version of the API!

1. <https://public-api.wordpress.com/rest/v1.1/>
2. <https://public-api.wordpress.com/rest/v1.2/>

Using JSONPath

JSONPath expressions refer to a JSON structure, used to navigate through the JSON

Operator	Description
<code>var jsonData = pm.response.json();</code>	Parse/Turn response into JSON
<code>\$</code>	Root element of query
<code>.<name></code>	Navigate to next child
<code>Name[#]</code>	# number of element in array (0 is first)
<code>.*</code>	Wildcard, everything after the .

About: <http://goessner.net/articles/JsonPath/>

Tool: <http://www.jsonquerytool.com/>

Code snippets + JavaScript

- Code snippets for validations:
 - Checks: response body, status code, response time
 - Schema validation
- Other code snippets & options:
 - SET, GET, CLEAR environment variable
 - `Postman.setNextRequest()`
- Javascript:
 - For loops; `.length`; `.push`; `.shift`; `.stringify`; `eval()`

Run your tests

- Runner in Postman
 - Collection folder + Environment variables
 - Collection folder + Environment variables + CSV/JSON
- Monitoring
 - 1000 requests with free account
- Run from Command Line with Node.js & Newman:
 - Local on your machine
 - CI/CD

What to learn next?

- Overview of API's: [Programmableweb.com](https://programmableweb.com)
- Java script
 - <http://www.w3schools.com/js/>
 - <http://javascript.info/>
- Postman documentation:
 - <https://www.getpostman.com/docs/v6/>
- Google & Youtube
- Or.....

Contact information

Lianne Klaver

Technical Test Specialist

- 06 – 46 64 46 39
- lianne.klaver@polteq.com
- www.polteq.com
- <https://www.linkedin.com/in/klaverlianne/>

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