



A TECHWELL EVENT

## **T11**

API Testing

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# **What's an API and How Do I Test It?**

Presented by:

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# Paul Merrill

Paul Merrill is principal software engineer in test and founder of Beaufort Fairmont Automated Testing Services. A frequent writer on testing and test automation in top-notch testing publications and an international speaker at testing and software conferences, Paul works with clients every day to accelerate testing, mitigate risks, and increase the value of testing processes with test automation. An entrepreneur, tester, and software engineer, Paul has a unique perspective on launching and maintaining quality products. Check out more test automation learnings through the webinars on his company website.



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# What's an API & How Do I Test It?

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# Today

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- ⚙️ What's an API?
- ⚙️ What is REST?
- ⚙️ How do I test an API?



# What's an API?

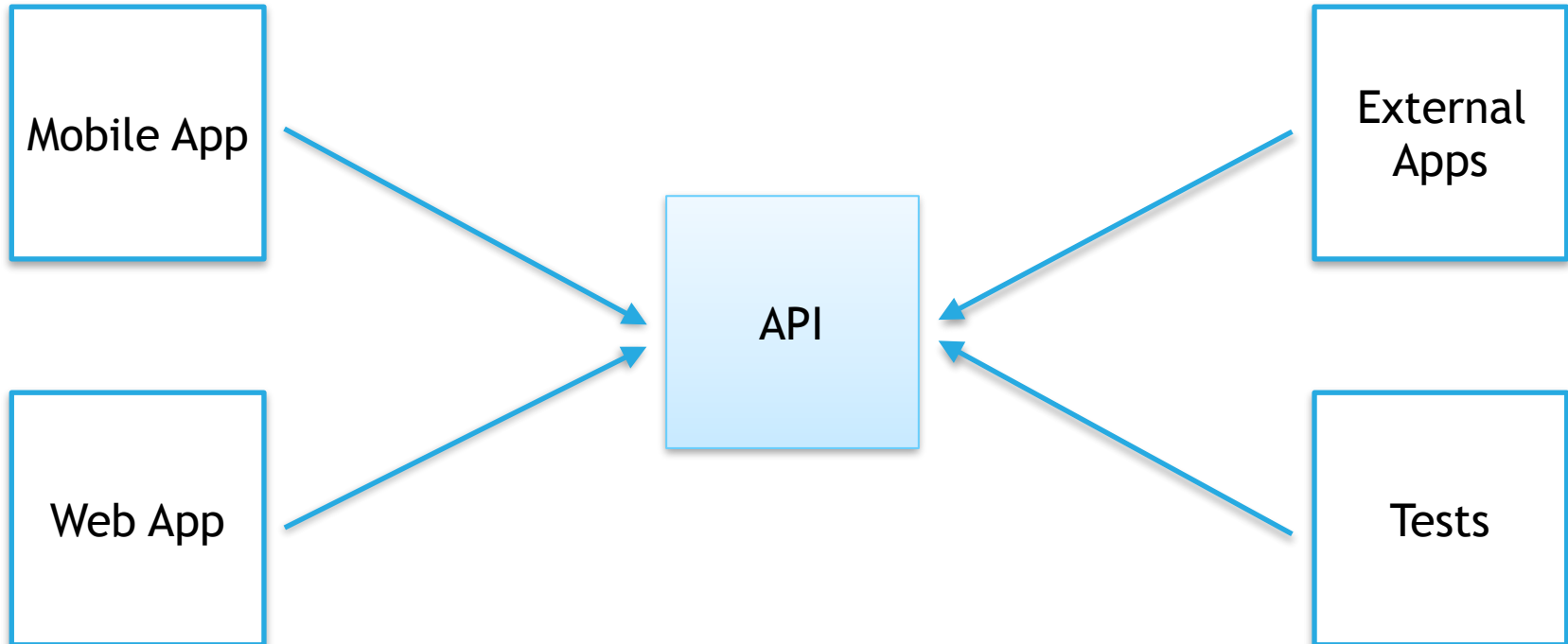
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# What's an API?

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- ⚙️ Collection of “endpoints” or services
- ⚙️ Exposes functionality internally or externally
- ⚙️ Conventions: SOAP, REST, etc.

# What's an API?





# What is REST?

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# What is REST?

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## 6 Constraints

- ⚙ Uniform Interface
- ⚙ Stateless
- ⚙ Cacheable
- ⚙ Client-Server
- ⚙ Layered System
- ⚙ Code on Demand (optional)

# What is REST?

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Usually:

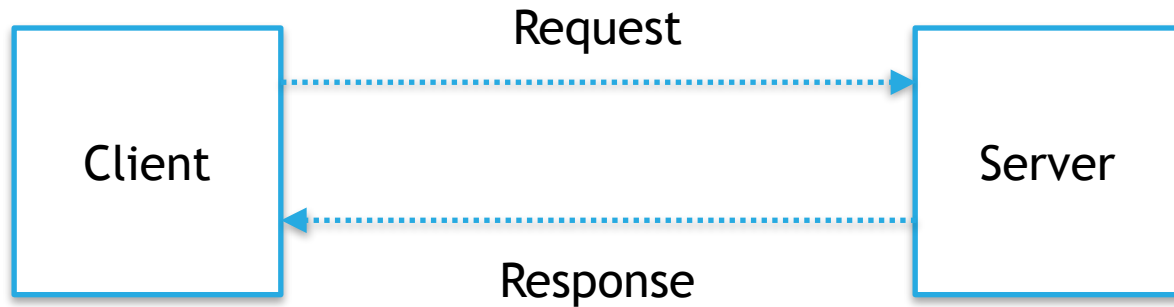
- ⚙ HTTP
- ⚙ JSON

# What is HTTP?

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# What is HTTP?

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# How Do I Test an API?

# What is a Request Method?

# What is a Request Method?

- ⚙ GET
- ⚙ POST
- ⚙ PUT
- ⚙ DELETE
- ⚙ ...and more

Let's dive in!



# References

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- ⚙️ [“What is an API? In English, please.”](#) - Peter Gazarov
- ⚙️ [“Send the First Request”](#) - Postman Blog
- ⚙️ [“What is an API?”](#) - IBM API Connect
- ⚙️ [“Architectural Styles and the Design of Network-based Software Architectures”](#) - Roy Thomas Fielding
- ⚙️ [“HTTP Methods”](#) - W3Schools

# Resources

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- ⚙️ Postman
- ⚙️ Newman - command line for Postman
- ⚙️ Curl
- ⚙️ Swagger
- ⚙️ Chrome plugin - JSONView
- ⚙️ Code - [https://github.com/dpm3354/invoices\\_api\\_test](https://github.com/dpm3354/invoices_api_test)

Call me today &  
Talk through your challenges  
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