PowerShell Conference Europe

Create your REST APIs with PowerShell Universal

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Arnaud Petitjean

- Consultant and PowerShell trainer since 2007
- 25+ years of IT experience
- Author of numerous books
- PowerShell MVP from 2008 to 2018 (10 years in a row)
- Founder of the French speaking PowerShell Community (https://powershell-scripting.com)
- Founder of Start-Scripting company (https://start-scripting.io)

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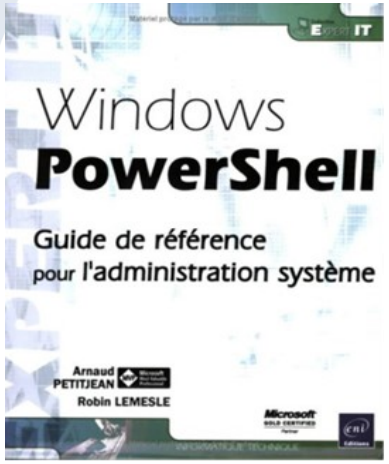
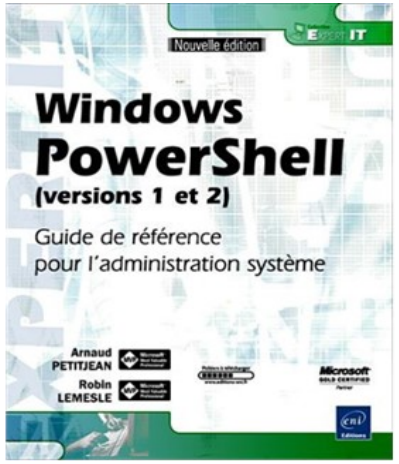
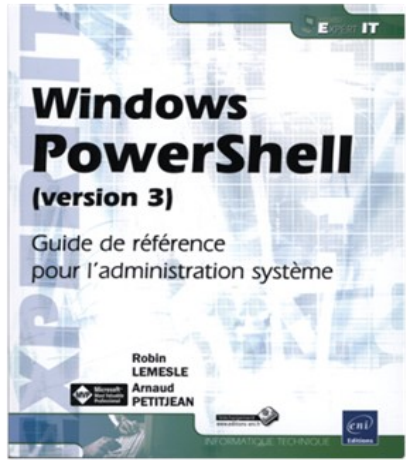
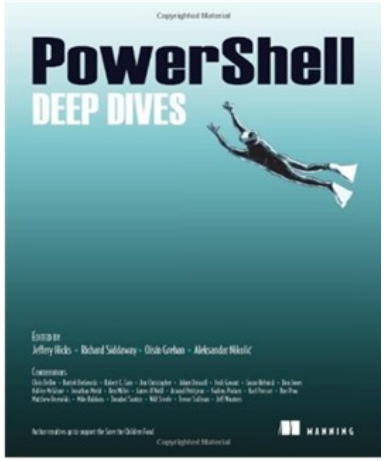
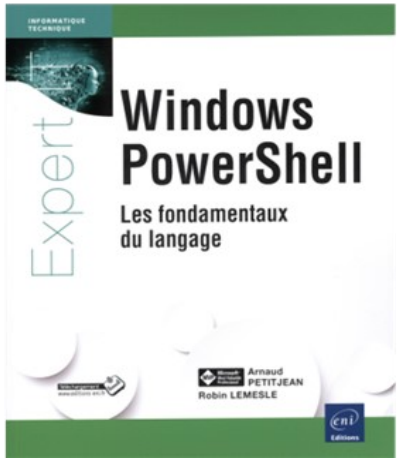
Bibliography

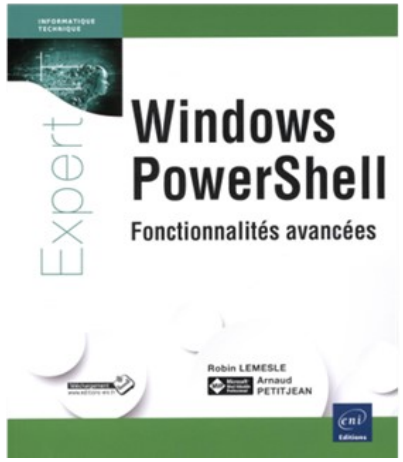


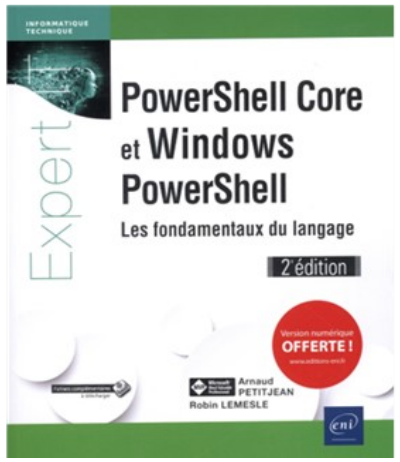


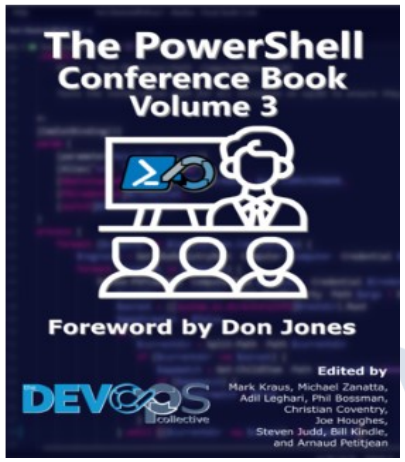












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What is a REST API?

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- REST/RESTful = REpresentational State Transfer
- Communication is stateless = the server does not keep track of the context
  - State is only kept by the client
  - Easy to scale
  - Allows good fault tolerance
  - Easy to implement
- REST is not a standard
- REST is a software architecture style (based on the Web)

General principles

- REST terminology
  - **CRUD**
    - **C**reate, **R**ead, **U**pdate, **D**elete
    - A REST API has to implement this functions
  - **Routing**
    - URLs gives you the path to the data
    - Examples :
      - https://jsonplaceholder.typicode.com/posts
      - http://www.omdbapi.com/?s=batman

General principles

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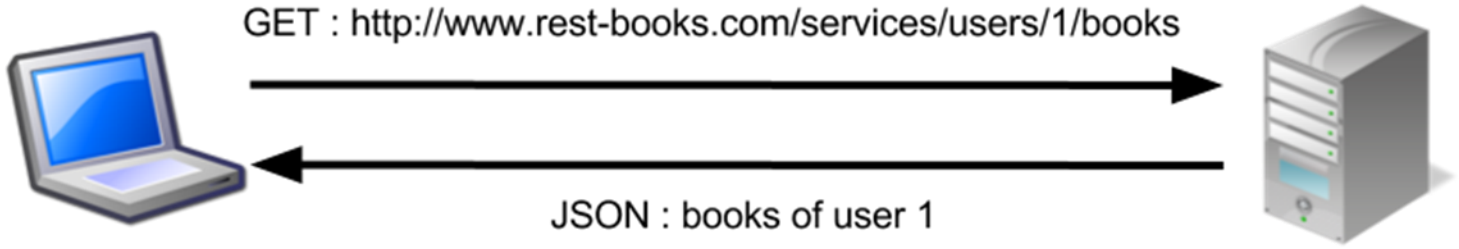
- REST Terminology
  - **Mapping** : Association a CRUD function and a REST Method

REST Method	Web Service Function
Create	POST
Read	GET
Update	PUT
Delete	DELETE

General principles



- Return of a REST API call is text
- JSON : JavaScript Object Notation
- JSON is easy to learn
- JSON is lightweight (≠ XML)

General principles

Examples :

- `GET: http://www.rest-books.com/api/user/1`
  - Return information about the user with id 1
- `GET: http://www.rest-books.com/api/user/?id=1`
  - Return information about the user with id 1 (same as above)
- `GET: http://www.rest-books.com/api/user/1/book`
  - Return books of user with id 1
- `GET: http://www.rest-books.com/api/user/1/book/123`
  - Return book 123 of user 1
- `DELETE: http://www.rest-books.com/api/user/1`
  - Delete user 1

Principles' Schema

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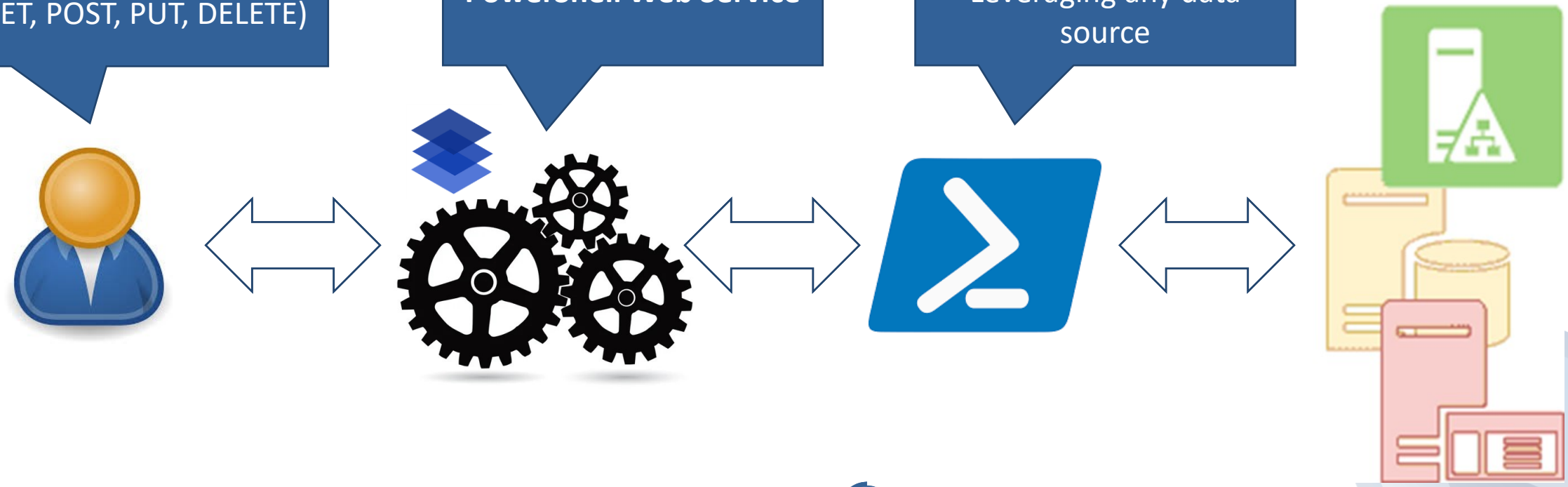
Invoke-RestMethod
(GET, POST, PUT, DELETE)

PowerShell Web Service

PowerShell code
Leveraging any data source



Demos

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Q&A

15 minutes

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