Writing Beautiful RESTful APIs

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RESTful API

Best Practices: Nouns Over Verbs

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- Use nouns instead of verbs

- An example

- Leveraging the HTTP protocol

Use nouns instead of verbs

- RESTful APIs emphasize the use of nouns over verbs

- This is a important distinction as it differs from traditional SOAP services that previously emphasized verbs

- We can simply apply the operation of the RESTful request and apply this to our resource, rather than defining the action we'd like to take

An example

A developer wants to provide the following actions on his resource:

- Create a new order
- Retrieve an existing order
- Retrieve all of my previous orders
- Cancel an open order
- Update my order

SOAP services might follow this convention with their service actions:

- CreateOrder
- GetOrder
- GetAllOrders
- DeleteOrder
- UpdateOrder

An example (cont.)

But with REST, we have the operations that are defined as part of the HTTP protocol: GET, POST, PUT, PATCH, DELETE. So our requests may look like this:

POST /orders
GET orders/123
GET /orders
DELETE /orders/123
PUT /orders/123

This provides the ability to greatly simplify the API and create a much more consistent design. Where it would have previously been up to the developer to name the entire operation, it is now just up to them to select the appropriate operation and use the existing resource name.

Leveraging the HTTP protocol

Resource	GET	POST	PUT	DELETE
orders	Get all orders	Create a new order	Update all orders *	Delete all orders *
orders/123	Get single order	Error	Update existing order	Delete existing order
* Typically not implemented due to security concerns				