

AUDC 2013

Avetica Users & Developers Conference

RESTful xWEB Introducing REST Services Tech TOMORROW

SAY HELLO TO OUR TEAM

Meet your amazing team!



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RESTful xWeb

- REST Overview
- REST Services in xWeb
- Consuming RESTful xWeb (POSTMAN Demo)
- Demo Application Development
- Questions...



REST Overview

- Maps to the HTTP Verbs
 - POST (CREATE)
 - GET (READ)
 - PUT (UPDATE)
 - DELETE (DELETE)
- URL represents a resource
 - <http://somedomain.com/api/resource/id>
 - <http://mysite.com/api/user/1>



REST Overview

- GET
 - Retrieving a single resource:
 - <http://mysite.com/api/user/1>
 - Retrieving a list of resources:
 - <http://mysite.com/api/user>
 - xWeb will also return a pagination block at the end of a list to help you page through long lists



REST Overview

- POST vs. PUT
 - POST creates a new object
 - <http://mysite.com/api/user> <- creates a new user
 - Request body is all of the required fields for a new object
 - PUT updates existing object
 - <http://mysite.com/api/user/1> <- updates user 1
 - Request body is only the fields that you want to update.



REST Overview

- DELETE
 - DELETE soft deletes existing object
 - <http://mysite.com/api/user/1> <- soft deletes user 1
 - Coming in future build



RESTful xWeb

- Currently available
 - GET, PUT, POST
 - Schemas
 - Filtering
 - Basic relationships
 - Output formats: XML and JSON
- Future availability
 - DELETE
 - Advanced relationships (PUT and POST to resources)
 - Etc...



RESTful xWeb

- Base URL Structure
 - <http://netforumsite.com/xweb/rest>
- Resources are grouped by module
 - co/individual
 - co/organization
 - ev/event
- Special setup collection of resources
 - setup/address_type



RESTful xWeb

- SESSION (Authenticate)
 - Get a token by POSTING to /SESSION
 - <http://netforuminstall.com/xweb/rest/session>
 - Include
 - Headers
 - **Authorization:** HTTP Basic Auth with xWeb User and Password
 - **Accepts:** What format you want back – ‘application/json’
 - Returns:

```
{  
  "access_token": "7463f512-4f94-47a3-b3a1-9102cc001986",  
  "token_type": "Bearer"  
}
```



RESTful xWeb

- Requests
 - Add **Authorization** header with Bearer token contents from SESSION POST.
 - Example:
 - Authorization: Bearer 7463f512-4f94-47a3-b3a1-9102cc001986
 - Note the “space” between Bearer and access token
 - Other headers
 - Accepts – the response format you want
 - Content-Type – the format your request body is in



RESTful xWeb

- Filtering (OData) /resource?filter=
- http://netforuminstall.com/xweb/rest/co/individual?filter=first_name eq 'Daniel' or last_name eq 'Ward'

Eq	Equal	/individual?filter=first_name eq 'Daniel'
Ne	Not equal	/individual?filter=first_name ne 'Daniel'
Gt	Greater than	/individual?filter=age gt 30
Ge	Greater than or equal	/individual?filter=age ge 30
Lt	Less than	/individual?filter=age lt 30
Le	Less than or equal	/individual?filter=age le 30
And	Logical and	/individual?filter=first_name eq 'Daniel' and last_name eq 'Smith'
Or	Logical or	/individual?filter=first_name eq 'Daniel' or last_name eq 'Smith'



RESTful xWeb

- Schemas – what's available
- Only in XML
- See all resources available
 - /xweb/rest/
- Specific Resource Structure
 - /xweb/rest/schema/{prefix}/{resource}



RESTful xWeb

- Tools
 - POSTMAN (Chrome Extension)
 - REST Object Mapper
 - (we'll use RestKit for iOS in our examples)



DEMO

- POSTMAN Examples
- iOS Directory Example App on iPhone



THANK YOU

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