

Asp.Net Core Web API

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What are Web Services

- Web Services are applications that:
 - Are hosted in web servers
 - Expose an Application Programming Interface (API)
 - Sends and retrieves data, not pages or views
 - Intent is to allow other programs to consume service resources
 - Examples are:
 - Google maps, twitter feeds, ...

Web Service Technologies

- XML web services use:
 - Simple Object Access Protocol (SOAP), defines an XML message structure that is usually embedded in HTTP message bodies.
 - Platform independent Format for sending and receiving messages.
 - Provides an Remote Procedure Call (RPC) model.
- Web API
 - Messaging based on HTTP.
 - Uses GET, POST, PUT, DELETE as action verbs
 - Uses Urls to define the targets for those actions.
- REST
 - Representational State Transfer is a Web API with some additional constraints, e.g., no session management.

Why Web Services?

- Share data with remote clients.
 - Desktop applications
 - Traditional websites
 - Mobile applications
- Example – Travel Agency
 - Pulls data from many sources into a single custom application
 - Airline schedules and bookings
 - Auto rental bookings
 - Hotel reservations
 - Theme park reservations

Why Web Services for our Final Projects?

- Acquire fundamental web development experience.
- Upload and download files
- Project #1 – Personal Website
 - Manage documents and projects
- Project #2 – eBook Reader
 - Convert Uploaded PDF files to ePub format
- Project #3 – Stories Site
 - Integrate a story block into an existing time-line

Asp.Net Core Web API

- An MVC structured site
 - Instead of views, data flows based on user requests
 - Has Controller(s), Models, and Data
 - Uses GET to retrieve Index like data as well as details
 - Uses POST to create new data items
 - Uses PUT (DELETE and POST) to modify items
 - Uses DELETE to remove items
 - Uses JSON Web Tokens instead of cookies for authentication
- Web API clients
 - Usually based on HttpClient

That's All Folks