

Test type: Web Performance Test

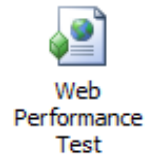
Visual Studio 2010

<http://www.pluralsight.com/>



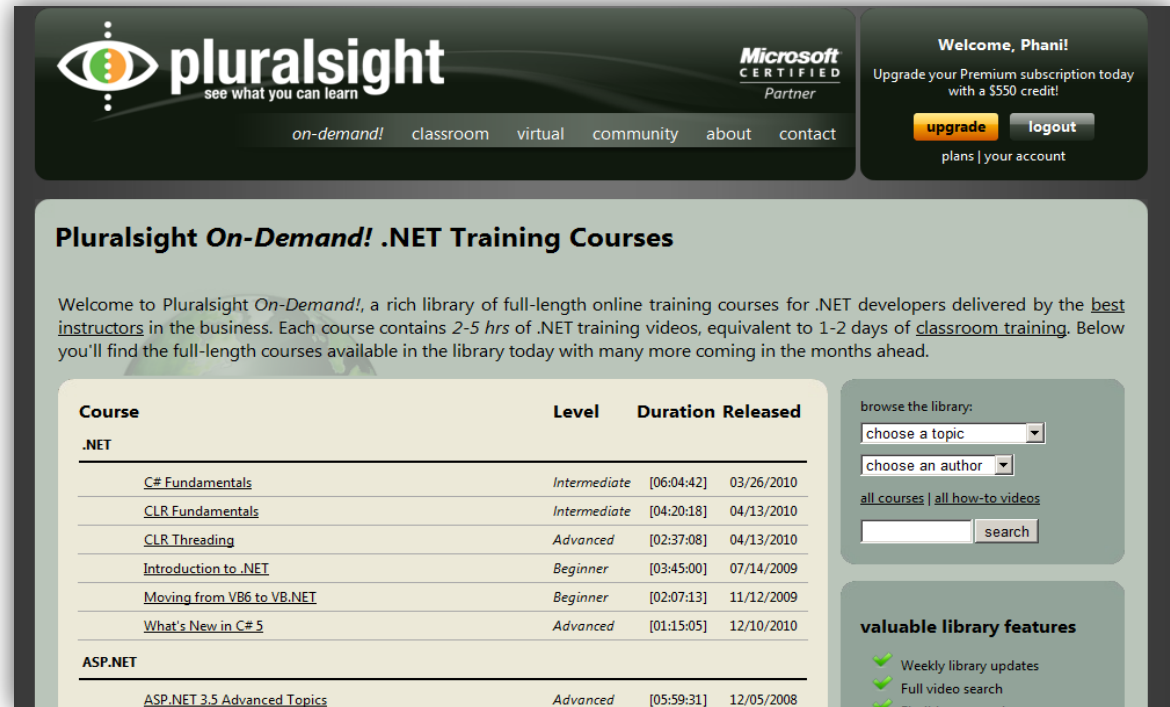
In this Module

- **Web Performance Test**



Testing Web Applications

- Functional tests that exercise your Web applications
- Data-driven tests
- Performance tests



The screenshot shows the Pluralsight website interface. At the top, there's a navigation bar with the Pluralsight logo (an eye icon with three colored dots) and the tagline "see what you can learn". To the right of the logo is the "Microsoft CERTIFIED Partner" badge. Below the logo, there are links: "on-demand!", "classroom", "virtual", "community", "about", and "contact". On the far right of the header, there's a user greeting "Welcome, Phani!" and a message "Upgrade your Premium subscription today with a \$550 credit!". Below this are buttons for "upgrade" and "logout", and a link for "plans | your account".

The main content area is titled "Pluralsight On-Demand! .NET Training Courses". Below the title, there's a welcome message: "Welcome to Pluralsight On-Demand!, a rich library of full-length online training courses for .NET developers delivered by the best instructors in the business. Each course contains 2-5 hrs of .NET training videos, equivalent to 1-2 days of classroom training. Below you'll find the full-length courses available in the library today with many more coming in the months ahead."

Below the welcome message is a table of .NET training courses. The table has four columns: "Course", "Level", "Duration", and "Released". The courses are listed under the heading ".NET".

Course	Level	Duration	Released
C# Fundamentals	Intermediate	[06:04:42]	03/26/2010
CLR Fundamentals	Intermediate	[04:20:18]	04/13/2010
CLR Threading	Advanced	[02:37:08]	04/13/2010
Introduction to .NET	Beginner	[03:45:00]	07/14/2009
Moving from VB6 to VB.NET	Beginner	[02:07:13]	11/12/2009
What's New in C# 5	Advanced	[01:15:05]	12/10/2010

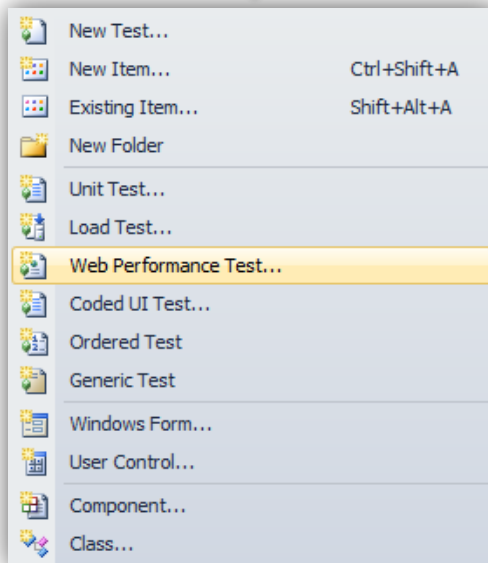
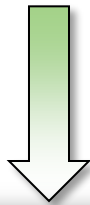
Below the table, there's a section for "ASP.NET" with one course listed:

Course	Level	Duration	Released
ASP.NET 3.5 Advanced Topics	Advanced	[05:59:31]	12/05/2008

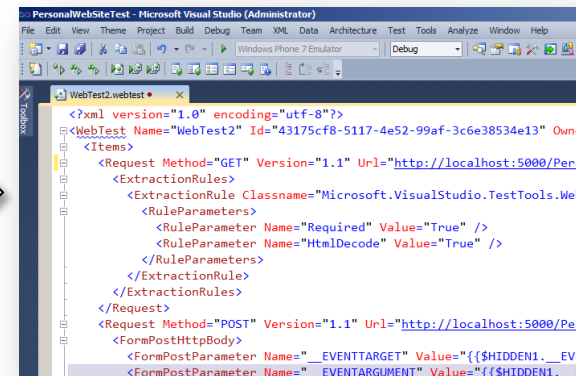
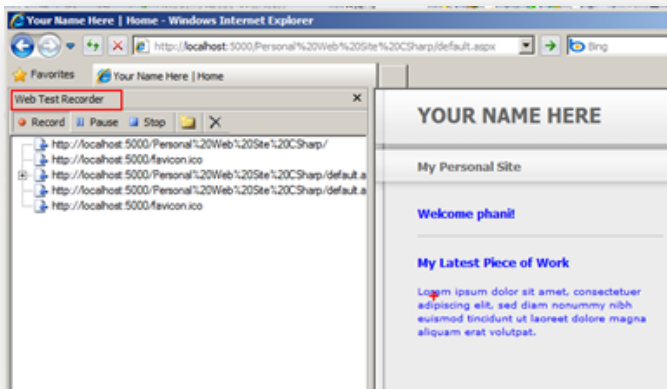
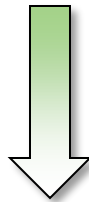
To the right of the table, there's a search section titled "browse the library:". It contains two dropdown menus: "choose a topic" and "choose an author". Below these are links for "all courses" and "all how-to videos". There's also a search box with a "search" button.

Below the search section, there's a section titled "valuable library features" with three green checkmarks and text: "Weekly library updates", "Full video search", and "Full video search".

Process of Web Testing

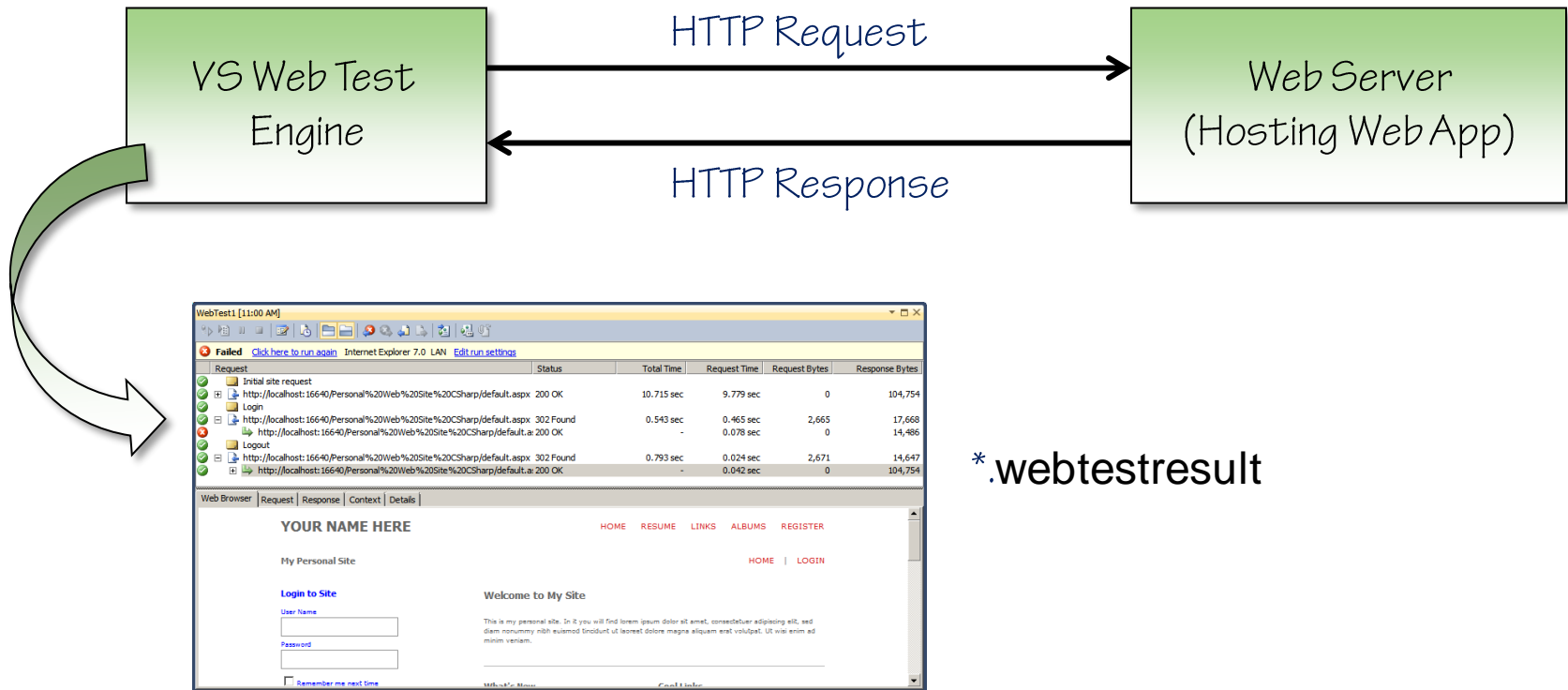


Process of Web Testing

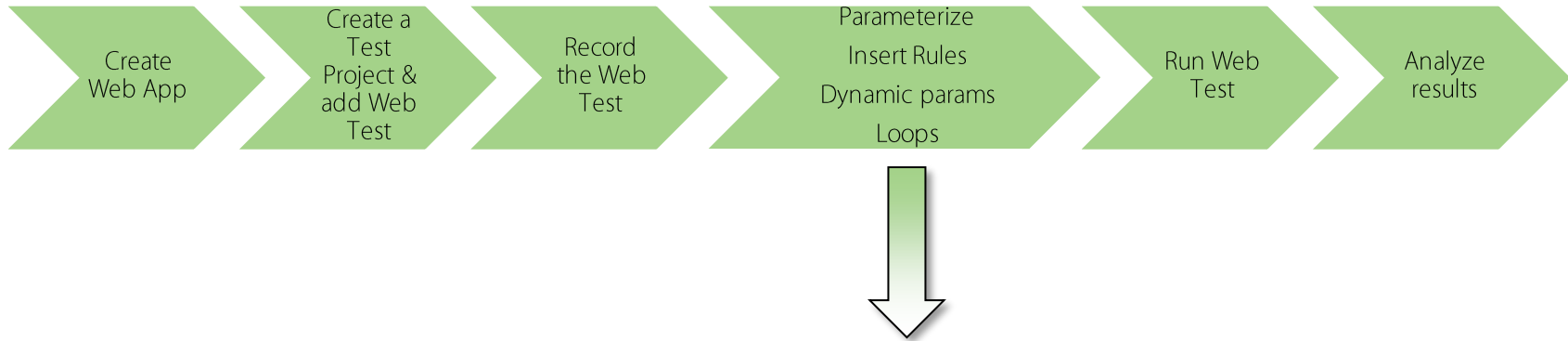


So, What are we talking about!

- Web Tests work at HTTP Layer



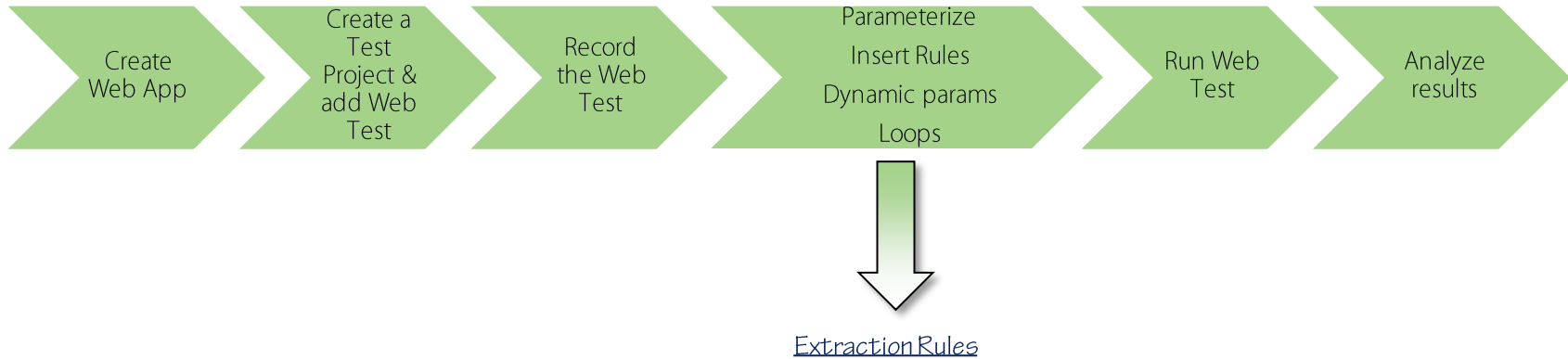
Process of Web Testing



Parameterization of Web Server

- Development Server
- Staging Server
- Production Server

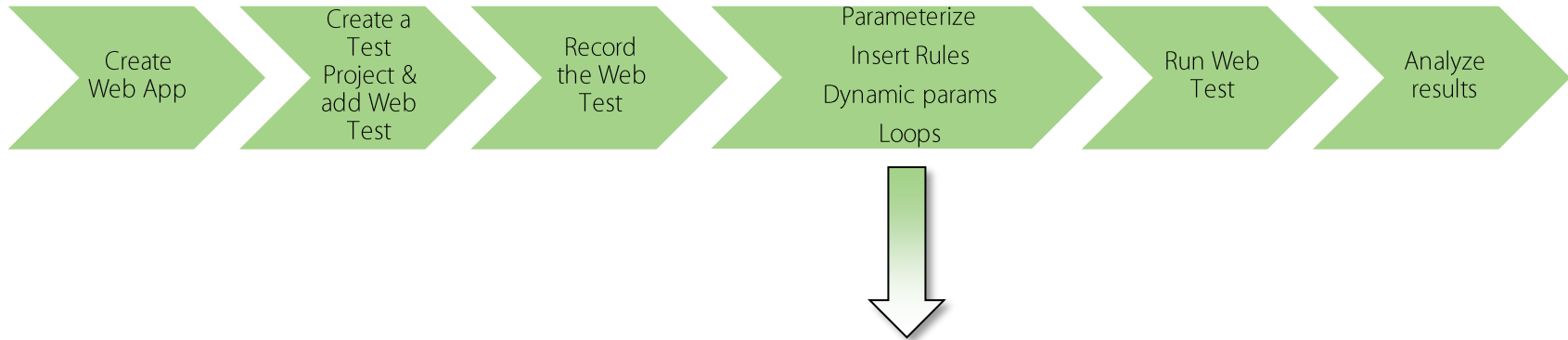
Process of Web Testing



- Extract a small bit of data from a web response
- Extract data from
 - Form fields
 - Hidden fields
 - Text
 - HTML attributes
 - Headers
 - Regular expression matches

Microsoft.VisualStudio.TestTools.WebTesting.ExtractionRule

Process of Web Testing



Validation Rules

- Extract a small bit of data from a web response
- Validate that data against a rule
- Verify the existence of:
 - Specific text
 - HTML tags and attributes
 - Form fields and values

`Microsoft.VisualStudio.TestTools.WebTesting.ValidationRule`

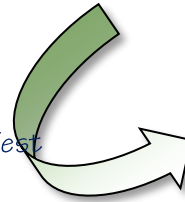
Process of Web Testing



Dynamic Parameters

- A parameter whose value is generated every time that a user runs the application
- Dynamic parameter can cause your Web performance test playback to fail

Web Performance Test
Engine



- Cookie
- Hidden Fields/ View State
- Query string or FORM Post params

Data Binding

- **Bind WebRequest components to a data source**
 - CSV files
 - XML
 - Database

Coded Web Tests

- Convert a Web Test Script to code
- Return an enumeration of WebRequests to the test runtime
- Add any logic you wish

Summary

- **Web Performance Tests**

- Functional Testing Aspect
 - Extraction and Validation Rules
 - Dynamic Parameter identification and extraction
 - Data source for Web Tests
 - Coded Web Tests
- Could also be considered as prerequisite for understanding load testing using Visual Studio