

AngularJS for OpenEdge Developers



Kendo UI
THE ART OF WEB DEVELOPMENT



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Consultingwerk Ltd.



- Independent IT consulting organization
- Focusing on **OpenEdge** and **related technology**
- Located in Cologne, Germany
- Customers in Europe, North America, Australia and South Africa
- Vendor of tools and consulting programs
- 26 years of Progress experience (V5 ... OE11)
- Specialized in GUI for .NET, OO, Software Architecture, Application Integration

Agenda

- **HTML**
- CSS
- Bootstrap
- AngularJS
- Kendo UI
- JSDO



HTML

- First definition public 3 November 1992 (CERN)
- HTML is a **markup** language for **describing** web documents (web pages).
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- A markup language is a set of **markup tags**
- HTML documents are described by **HTML tags**
- Each HTML tag **describes** different document content
- <http://www.w3schools.com/html/default.asp>

Demo

- Sample 1 Show the obvious 😊

Agenda

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CSS

- **CSS** stands for **Cascading Style Sheets**
- CSS describes **how HTML elements are to be displayed on screen, paper, or in other media**
- **CSS saves a lot of work.** It can control the layout of multiple web pages all at once
- External stylesheets are stored in **CSS files**

Demo

- Sample 2 Enhance the obvious a bit

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Bootstrap

- Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first web sites.
- Bootstrap is completely free to download and use!

Demo

- Show responsiveness on Navigation Page
- Show code of the page

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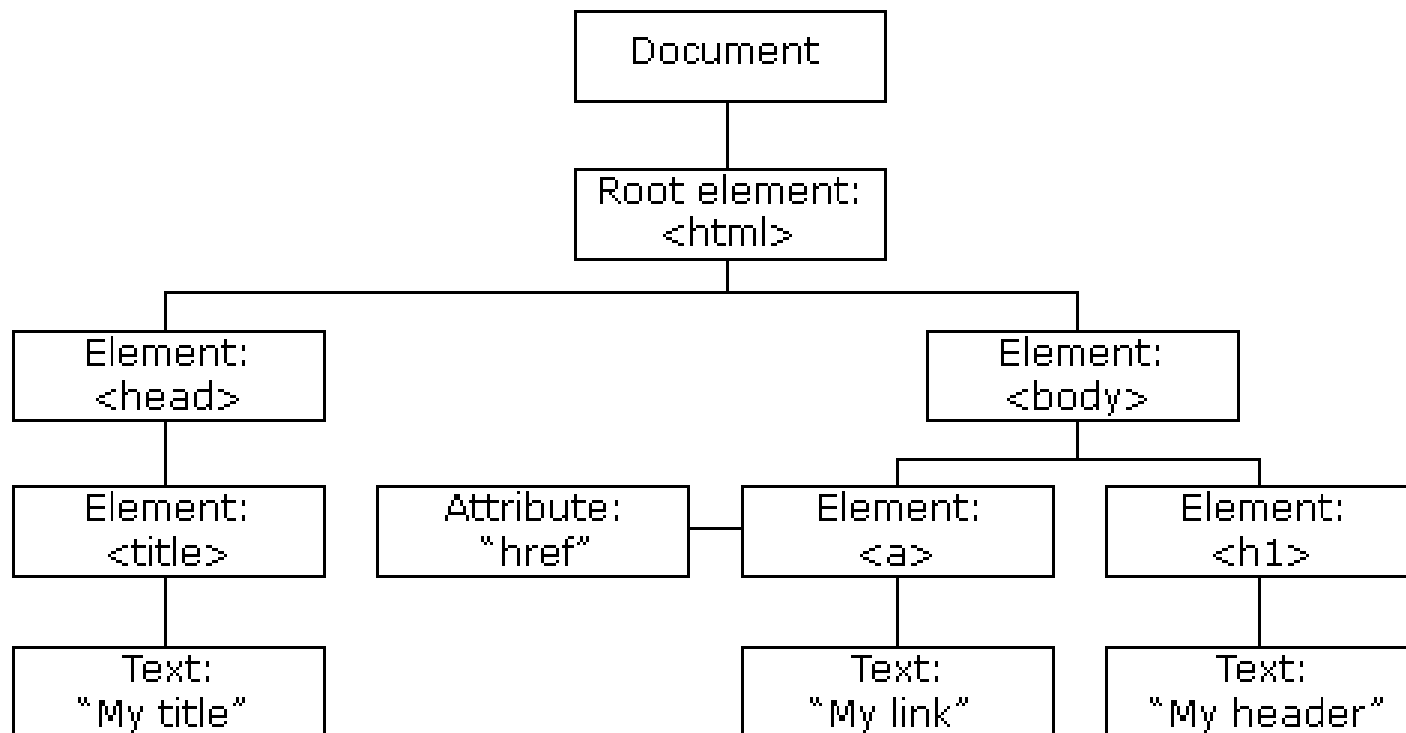


AngularJS

- AngularJS is a structural framework for dynamic web apps
- AngularJS extends HTML with new attributes.
- AngularJS is perfect for Single Page Applications (SPAs).
- AngularJS is “kind of” easy to learn.
- It’s all about **DOM**

AngularJS

- When a web page is loaded, the browser creates a **Document Object Model** of the page.



AngularJS

- Data binding, as in `{{}}`.
- DOM control structures for repeating, showing and hiding DOM fragments.
- Support for forms and form validation.
- Attaching new behavior to DOM elements, such as DOM event handling.
- Grouping of HTML into reusable components.

AngularJS

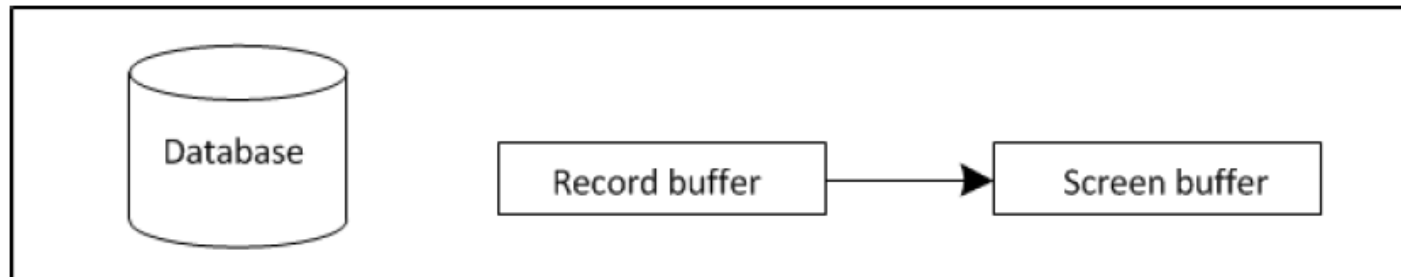
- App (Module)
The application to be executed
- Controller
Defines the behavior of parts of the App
Sets initial state of \$scope
- Directive
Attaches specific behavior to a DOM element
(event listener, datasources, ...)

AngularJS

DISPLAY statement

Moves data to a screen buffer and displays the data on the screen or other output destination. The AVM uses frames to display data. A frame describes how constant and variable data is arranged for display and data entry. You can let ABL construct default frames or you can explicitly describe frames and their characteristics.

Data movement

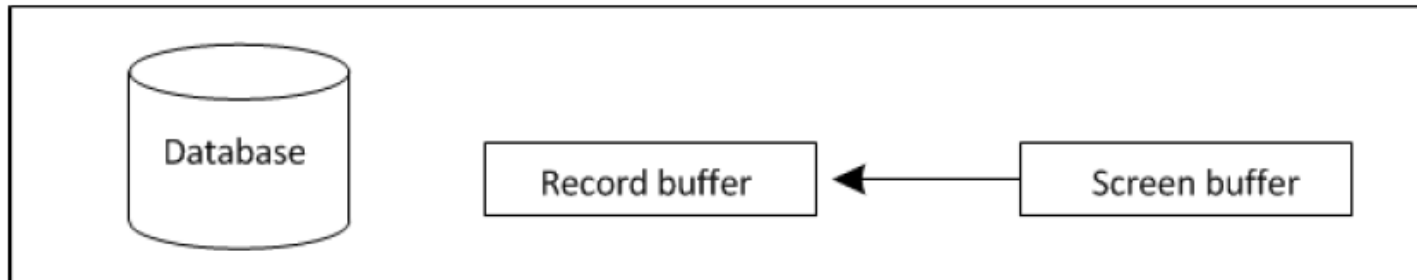


AngularJS

ASSIGN statement

Moves data previously placed in the screen buffer by a data input statement or moves data specified within the ASSIGN statement by an expression to the corresponding fields and variables in the record buffer.

Data movement



Demo

- Sample 4 Shopping list with static JSON Datasource
- Sample 5 Ability to add items to the list

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Kendo UI

- JQuery and HTML5 based Widgets for browser based and mobile applications
- 70+ Widgets
- Integrates with AngularJS (MVVM Framework) and Bootstrap (responsive UI)
- Optimized for Performance and Resource Usage
- Themable and Localizable
- Server Side Wrappers for ASP.NET, JSP, PHP

Telerik Online Demos

- <http://demos.telerik.com/kendo-ui/>
- Access to Documentation (API reference) from demos

JavaScript?

- Kendo UI can be used without deep JavaScript knowledge – as long as you are not starting to write single-page-applications
- Lots of documentation and great forums
- Widgets are initialized using standard code pattern (jQuery widget constructor)
- Widgets are customized using JSON representation of properties
- Data can be provided using properties (arrays)
- Data can be accessed by calling into web server

Kendo UI Core – open source

- Subset of Controls released as open source
- 40+ Controls
- <http://www.telerik.com/kendo-ui/open-source-core>
- Apache 2.0 license
- No support

The screenshot displays three Kendo UI controls: a 'My Teammates' list, a calendar, and a dropdown menu. The team list shows two members: Andrew Fuller (Team Lead) and Nancy Leverling (Sales Associate). The calendar shows the month of January 2014, with the 14th highlighted. The dropdown menu is open, showing a list of fabric types: Polyester, Cotton, Polyester (highlighted), Cotton/Polyester, and Rib Knit.

Controls not included in open source

- BarCode
- **Charts**
- Editor
- Gauges
- **Grid**
- Map
- QRCode
- Scheduler
- StockChart
- Treeview
- Upload

Kendo is used by Progress Software

The screenshot shows a web browser window displaying the Progress OpenEdge Management console. The browser's address bar shows the URL: localhost:9090/pas/paswspdhandlers.jsp?key=localhost:resource.openedge.pas.oepas1&application=oepas1&web. The page title is "PROGRESS' OPENEDGE' MANAGEMENT". The user is logged in as "admin". The navigation menu includes Dashboard, Resources, Alerts (74), Library, Reports, Jobs, and Database Administration. The breadcrumb trail is: Resources / OpenEdge / Pacific Application Server / oepas1 / ABL Application: oepas1 / ABL WebApp: ROOT / WEB Transport Configuration. The main content area shows a status bar for "AdminServer: consultingwerk1" and "Pacific Application Server: oepas1" with a "WEB Transport Configuration" icon. A status indicator shows "Passed (18 Seconds)" with details: Last Poll: 09.03.2016 21:23:15, Last Failure: 09.03.2016 21:23:14, Poll Count: 2, Fail Count: 1 (50.0%). Below this is a table of handlers with columns for "Handler class" and "Handler URL". Each row has "Edit" and "Delete" buttons. A pagination bar at the bottom shows "1 - 5 of 5 items".

WEB Transport Configurati x

localhost:9090/pas/paswspdhandlers.jsp?key=localhost:resource.openedge.pas.oepas1&application=oepas1&web.

PROGRESS' OPENEDGE' MANAGEMENT Hello, admin

Dashboard Resources Alerts (74) Library Reports Jobs Database Administration

Resources / OpenEdge / Pacific Application Server / oepas1 / ABL Application: oepas1 / ABL WebApp: ROOT / WEB Transport Configuration

AdminServer: consultingwerk1
Pacific Application Server: oepas1
WEB Transport Configuration

Passed (18 Seconds)
Last Poll: 09.03.2016 21:23:15
Last Failure: 09.03.2016 21:23:14
Poll Count: 2 Fail Count: 1 (50.0%)

Handler class	Handler URL	
CustomerListWithSearchHandler	/CustomerSearch	Edit Delete
CustomerHandler	/Customer/{CustNum}	Edit Delete
DemoHandler	/Demo	Edit Delete
nullHandler	/AblWebAppProject	Edit Delete
nullHandler	/Data	Edit Delete

1 - 5 of 5 items

Kendo UI async Data Access

- Allows to read data in separate http request
- Possibly from a different server, using different caching settings
- Supports for server side filtering, sorting, paging without need to reload page
- Starting point for single-page-application (SPA)

Demo

- Sample 6 / 7
- Kendo UI Controls in action
- AngularJS for Data Binding

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Kendo UI and JSDO

- JSDO:
 - Open-Source JavaScript Library from PSC
 - Mimics ProDatasets in JavaScript
- <https://github.com/CloudDataObject/JSDO>
- Initially designed for AppServer and REST Adapter
- Open for other data provider – including WebSpeed
- It's just using a http protocol

Demo

- Kendo UI Grid
 - JSDO / REST Adapter / AppServer
 - Server side filtering, sorting paging
 - 200,000 customer records
-
- Chrome Developer Tools

Async Data Access for WebSpeed

- WebSpeed app could be combined with AppServer/REST Adapter
- Possible to implement JSDO protocol using WebSpeed (We did it for PASOE 11.6)
 - Requires JSON Catalog generation
 - Meta schema of ProDataset response
- Alternative: simple JSON Data Source, does also support server side filtering, sorting, paging

Questions

