

XPages Development 1

An Introduction to XPages

A Legacy Notes Developer's Journey into Madness

Devin S. Olson

Target Audience

- Experienced Notes & Domino Developers
- Some familiarity with web development.
- New to XPages considering XPages as a solution
- Masochists

narcissism – Devin S. Olson



- Grand Rapids, MI (USA)
- Married with 2 children
- Developing software for over 25 years (have actually coded using punch cards)
- CNA, MCP, PCLP (SA&AD)
R4 – R7, lots of other TLAs

narcissism – Devin S. Olson



- Instructor, Consultant, IBM Business Partner, Customer, Author
- Czarnowski Display Services
- Installing & Configuring Domino 9 on CentOS 6
- Anheuser-Busch Certified Brewmaster

Agenda

- Brief History of XPages
- Basic Concepts and Technologies
- Explore Domino Designer for Eclipse (DDE)
- Configure DDE for REAL work.
- Scope and Scope Variables
- Build a working CRUD Application

A Brief History of XPages

September 1993

- NSCA Mosaic graphical web browser released

October 1994

- Netscape releases Navigator – the internet explodes

July 1995

- IBM purchases Lotus - to acquire Notes technology

August 1995

- Microsoft releases Internet Explorer – the browser wars begin

A Brief History of XPages

January 1996

- Lotus releases Notes 4 and InterNotes
- Sun Microsystems forms JavaSoft group
- Microsoft releases ASP (add-on to IIS in NT 4 Option Pack)

A Brief History of XPages

December 1996

- IBM releases Notes 4.5, the Domino Server
- Includes Java 1.1 support
- Microsoft releases ASP 1.0 as part of IIS

September 1997

- Microsoft releases ASP 2.0

December 1998

- Sun Microsystems releases J2EE

A Brief History of XPages

January 1999

- IBM Releases Lotus Notes & Domino R5 (work the web)
- Competition for Enterprise Customers gets fierce, IBM, Microsoft, Sun, and many others begin serious work on web server technologies.

A Brief History of XPages

January 1999

- Trilog Group (IBM Business partner) develops FlowBuilder XSP, an OO RAD based on J2EE, XML, and Open Standards.

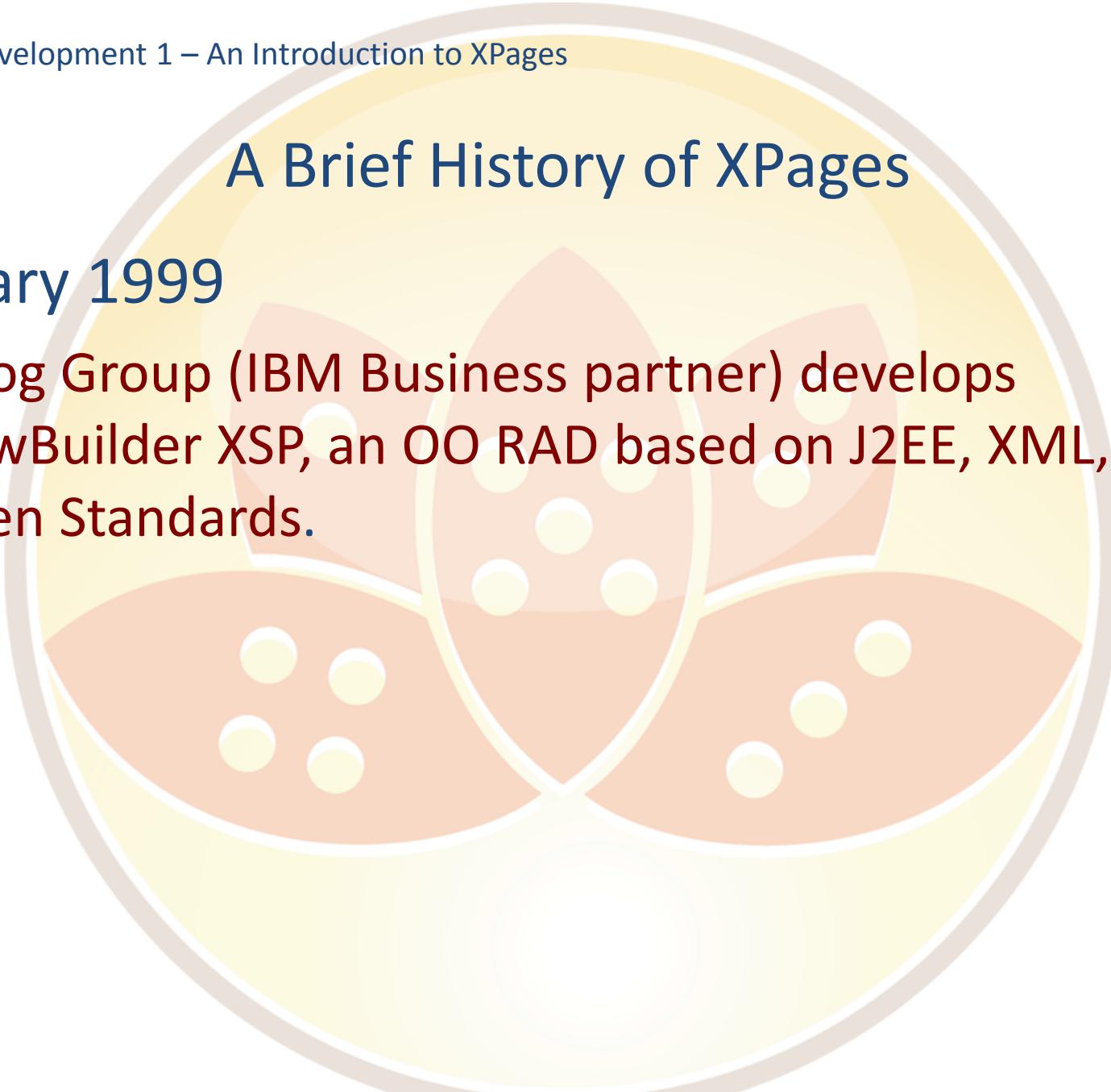
August 2004

- IBM acquires XSP technology and rights from Trilog Group.

A Brief History of XPages

January 1999

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A Brief History of XPages

2005 – 2007

IBM Lotus Workplace Designer (fail)

IBM Lotus Component Designer (fail)

Lotusphere 2008

- **Martin Donnelly and Rocky Oliver present a preview of XPages (XML Server Pages)**

Lotusphere 2009

- IBM Releases Lotus Notes Domino 8.5 – with XPages (terrible)

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A Brief History of XPages

October 2009

- IBM Releases 8.5.1 - somewhat better, but still painful to work with

August 2010

- IBM Releases 8.5.2

HALLELUIA! XPages finally reliable!

Current Version 9.0.1

- **Lots of way cool client stuff**
- **Domino Server improvements**
- **Domino Designer cleaned up**
- **Mature and stable platform**

Basic Concepts and Technologies

XPages developers work with the following:

- HTML
- CSS
- Javascript, Dojo, JSON
- XML
- Expression Language (EL)
- Java
- NSF, other Data architectures, and a whole lot more

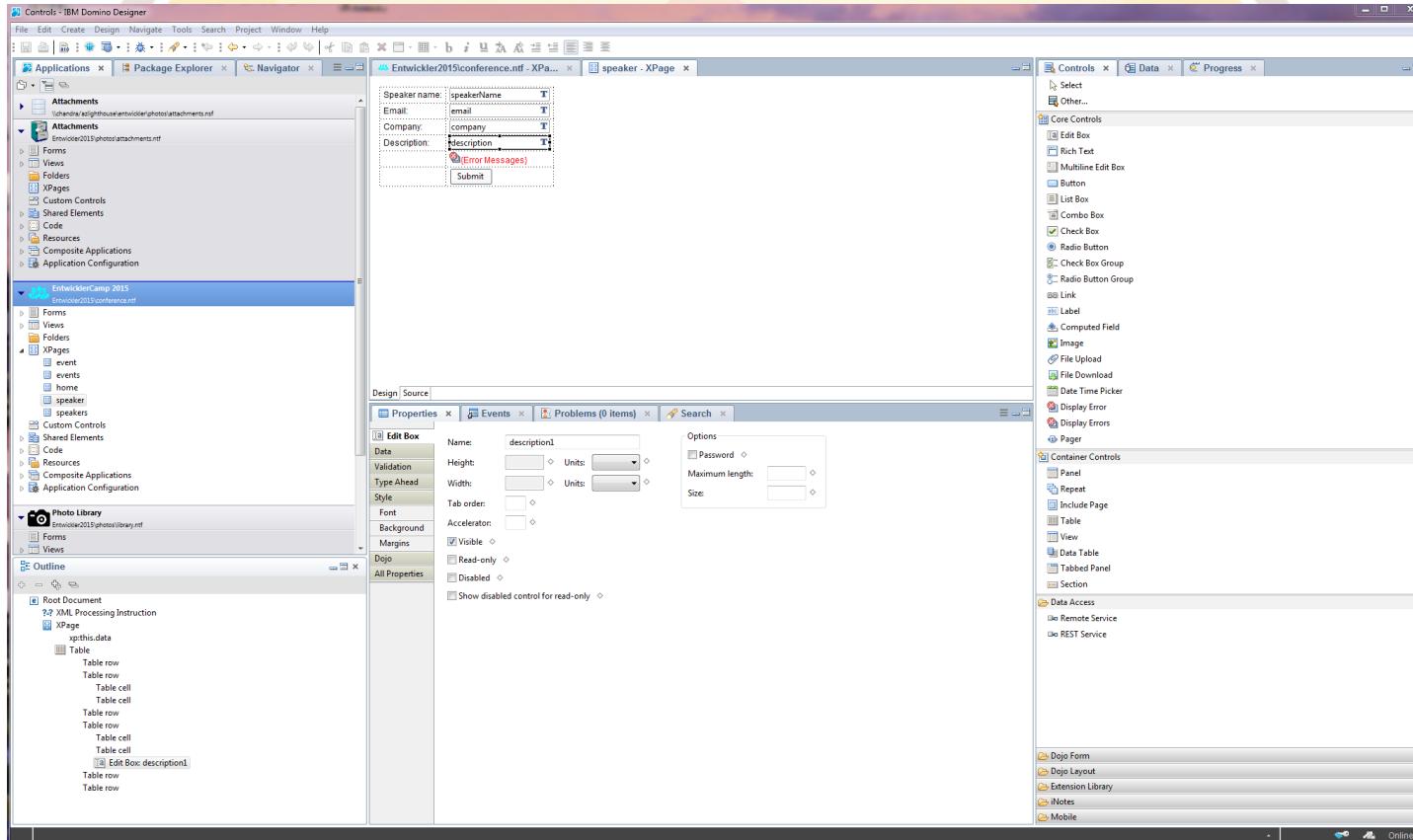
Basic Concepts and Technologies

DDE is a Java based client

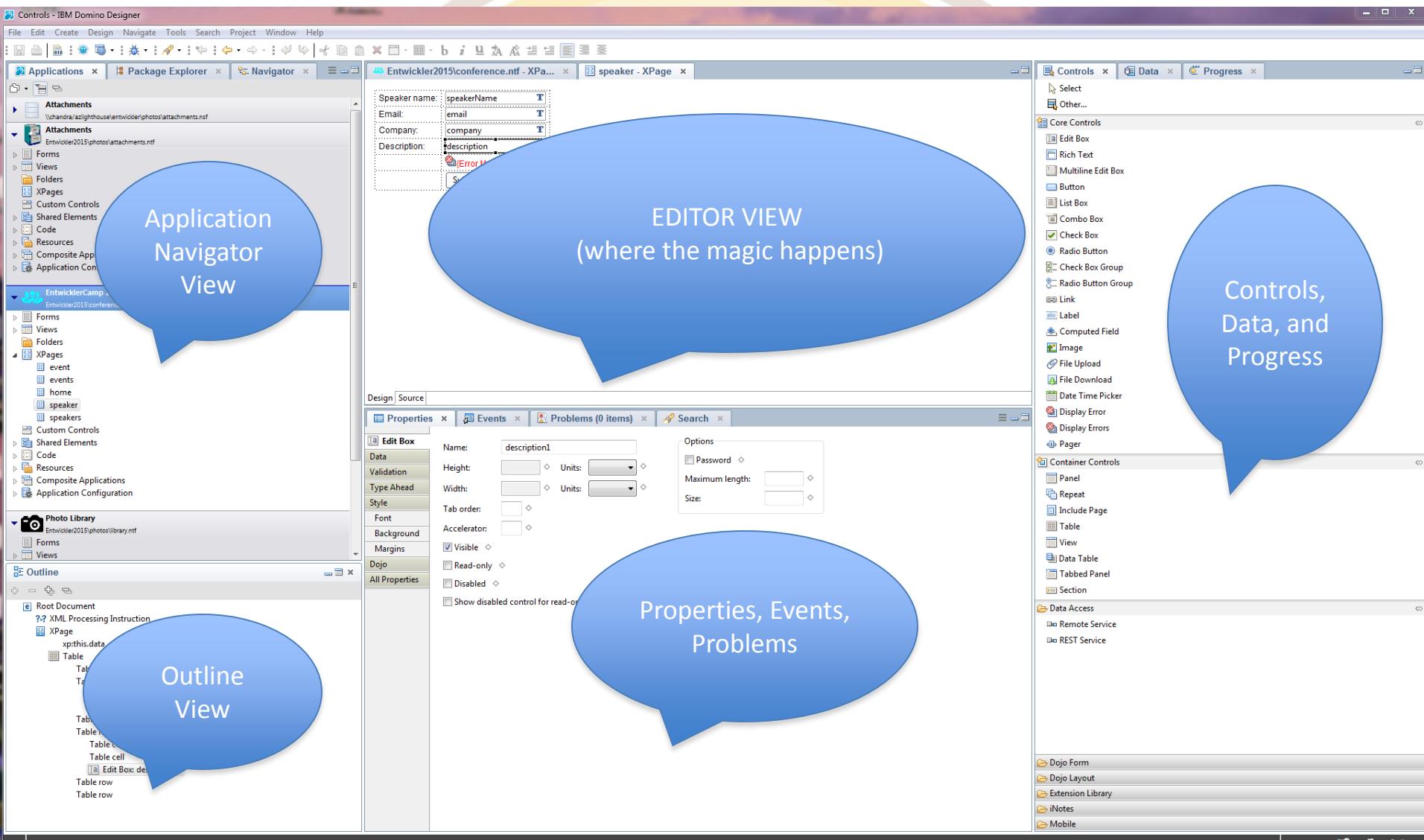
XSP Command Manager (started by HTTP task) executes the XPages on the server.

Everything you write in XPages is either Java, or is converted to Java.

Domino Designer for Eclipse



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DDE is fully customizable

Views can be

- Resized
- Moved
- Detached
- Deleted
- Added

Explore Domino Designer 9

DEMONSTRATION

Configuring Domino Designer

CONFIGURE MEMORY - Ref: IBM Technote 1617708

File:

<Program Dir>/framework/rcp/deploy/jvm.properties

- vmarg.Xmx: Max Memory for JVM
- vmarg.Xms: Minimum Memory for JVM
- vmarg.Xmca: Block Size for increases

Configuring Domino Designer

DEFAULT

- `vmarg.Xmx=Xmx256m`
- `vmarg.Xms=Xmx48m`
- `vmarg.Xmca=Xmca8k`

OPTIMUM

- `vmarg.Xmx=Xmx1024m`
- `vmarg.Xms=Xmx512m`
- `vmarg.Xmca=Xmca512k`

Configuring Domino Designer

DEMONSTRATION

Scope and Scoped Variables

4 special memory maps, within which variables live for a specific duration only.

- **Request:** GET or PUT only, length of the request.
- **View:** Duration the current XPage is being viewed.
- **Session:** Duration of the User Session. Session Scope variables are available across View boundaries.
- **Application:** Duration the Application is loaded in Server Memory.

Scope and Scoped Variables

```
1var count = applicationScope.get("totalreads");
2if (isNaN(count)) { count = 0; }
3count++;
4applicationScope.put("totalreads", count);
5
6
7sessionScope.put("currentuser", "John Smith");
8sessionScope.get("currentuser");
9
10viewScope.put("docID", param.get("docID"));
11
```

Scope and Scoped Variables

Never ever ever, no matter what your reasoning or thought process, no matter if you are told to do so by a senior developer, no matter what you think, no matter what no matter how no matter when never Never NEVER NEVER NEVER.....

Scope and Scoped Variables

**NEVER PLACE A
DOMINO OBJECT IN
A SCOPE REPOSITORY**



Enough Talk, Let's
BUILD SOMETHING

Building a Simple Application

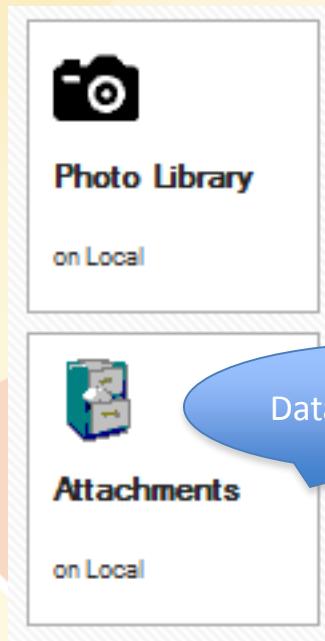
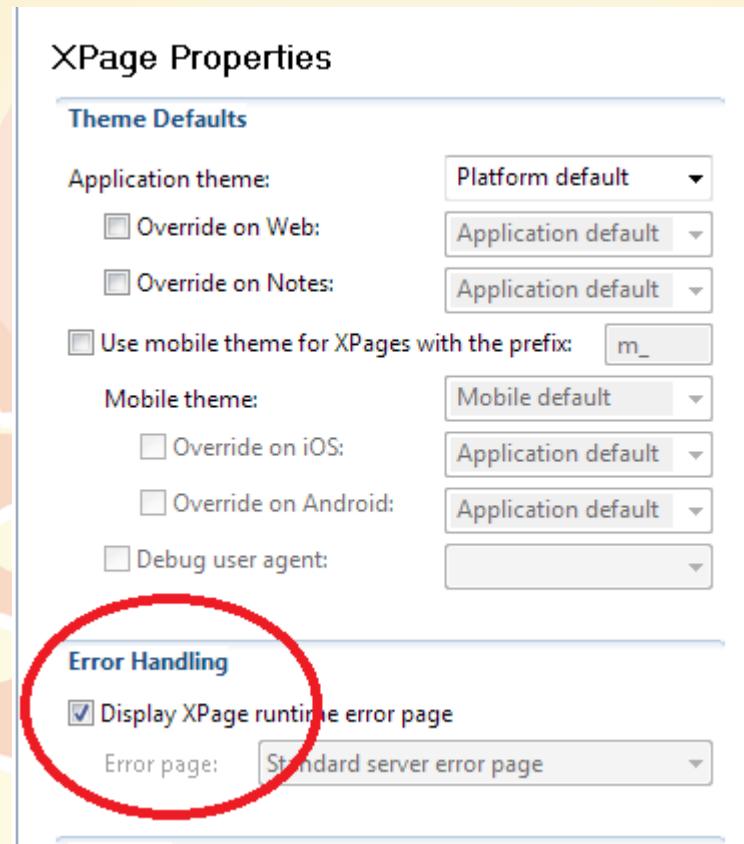


Photo Library

Basic Photo storage and sharing application.

DEMONSTRATION

Building a Simple Application



DEMONSTRATION

Building a Simple Application

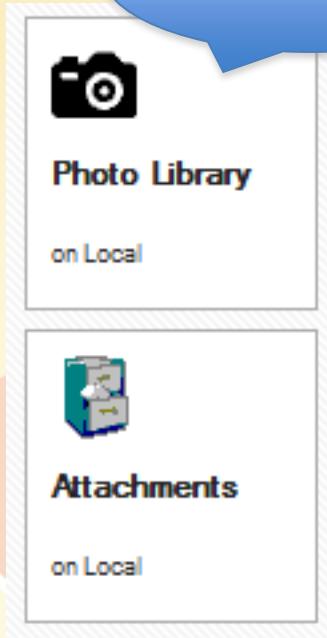


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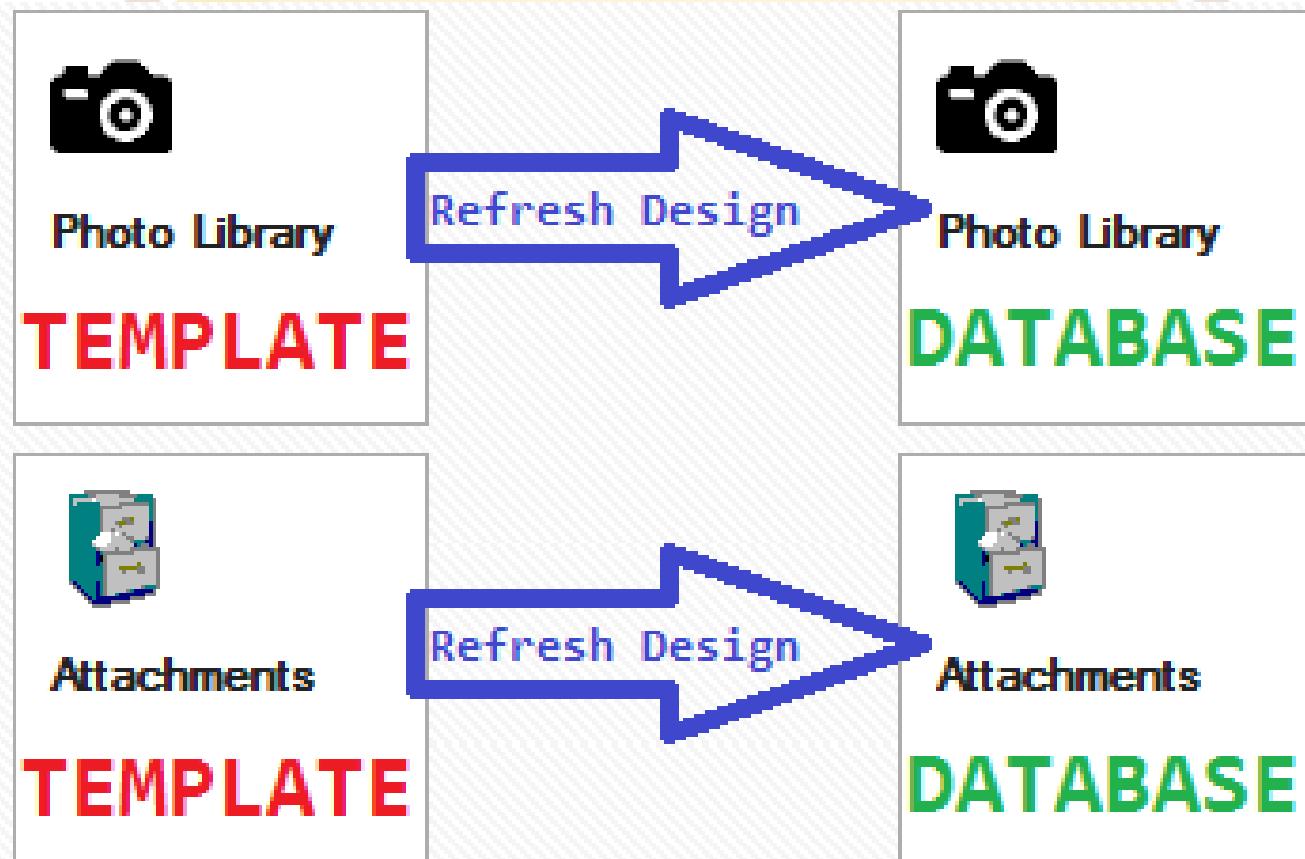
DEMONSTRATION

Building a Simple Application

```
return "../attachments.nsf/0/" + document1.getDocument().getUniversalID() + "$FILE/image.jpg";
```

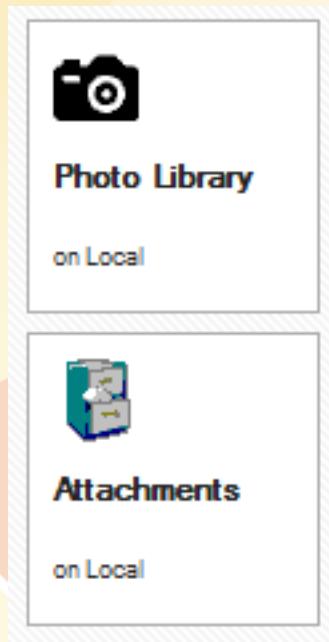
DEMONSTRATION

Building a Simple Application



DEMONSTRATION

Building a Simple Application



**Before demonstrating the
(working?) app...**

**Questions on what
we have covered so
far?**

Building a Simple Application

```
<?xml version="1.0" encoding="UTF-8"?>
<xp:view xmlns:xp="http://www.ibm.com/xsp/core" pageTitle="Photos"
    pageIcon="/photos.png" xmlns:xc="http://www.ibm.com/xsp/custom">
    <xp:this.data>
        <xp:dominoView
            databaseName="Entwickler2015\photos\attachments.ntf" var="view1"
            viewName="lkp_attachmentsBySubject" />
    </xp:this.data>
```

DEMONSTRATION

Building a Simple Application

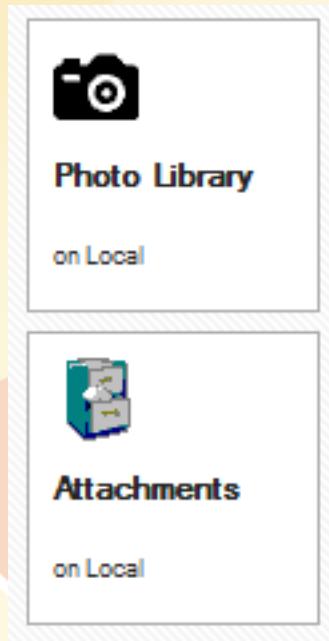
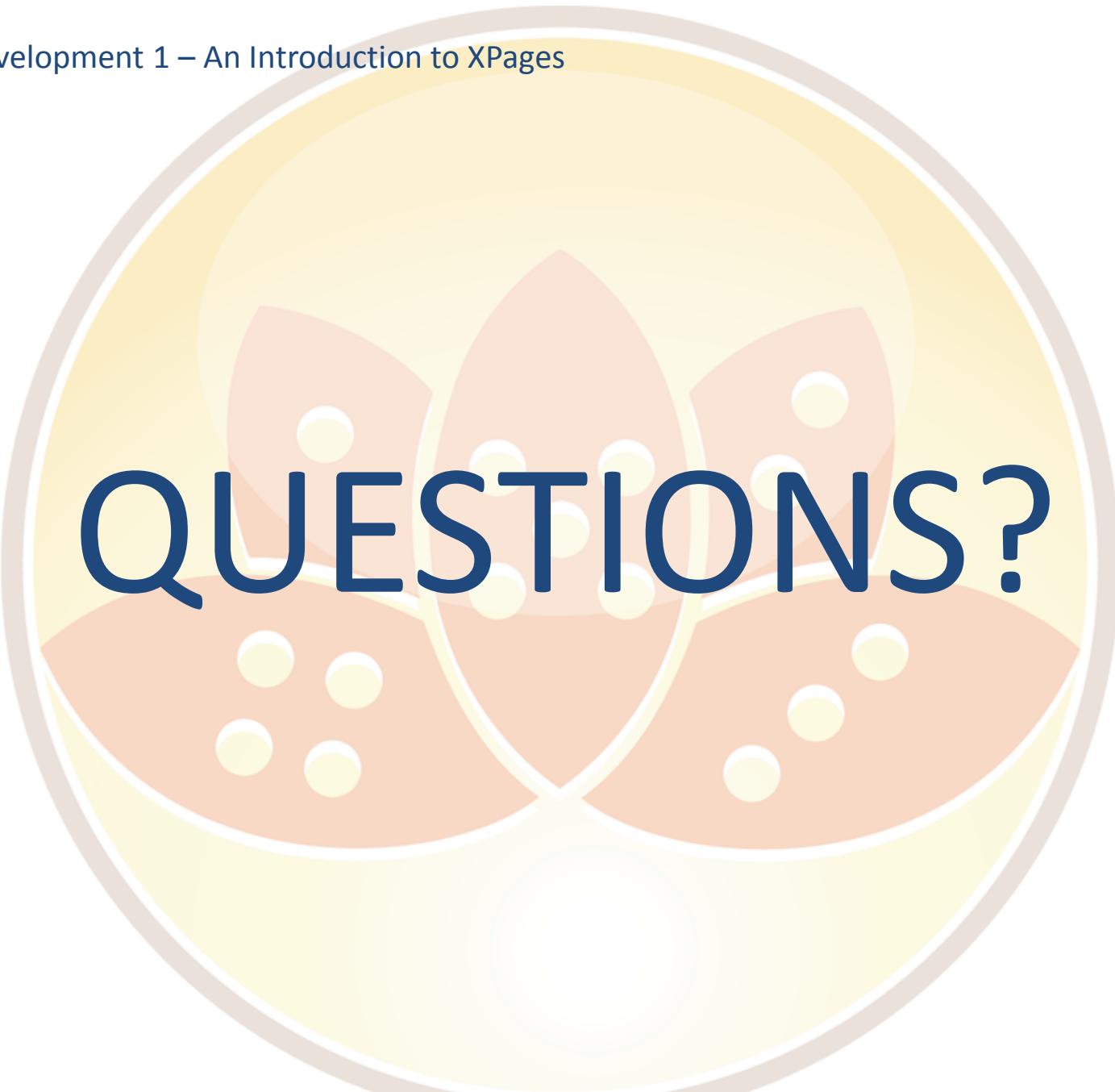


Photo Library

Basic Photo storage and sharing application.

APPLICATION DEMONSTRATION



QUESTIONS?

THANK YOU FOR ATTENDING

Please complete an evaluation

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Additional Resources

- LearningXPages <http://learningXPages.com>
- XPages.info
- OpenNTF.org
- XPages Development Wiki (URL is too long, Google it)
- PlanetLotus.org
- Mastering XPages – IBM Press
- XPages Extension Library – IBM Press
- The Rabbit Hole <http://nathantfreeman.wordpress.com>
- NotesIn9 <http://notesin9.com>