

# Readme

## Requirements

XTEXT 2.9

Apache Maven: Latest Version

Java Developer Kit: 1.8.25

OS name: windows 7, arch: "x86"

Default locale: en\_US, platform encoding: Cp1252

## Folder Structure

```
|-----cloud.mini.wdsl.parent
      |-----cloud.mini.wdsl
            |-----model
            |-----src
            |-----target
|-----src-gen
      |-----NavigationalLayer
|-----install.bat
|-----compile.bat
|-----pom.xml
```

## Installation (Automated)

Step 1: Extract the archive in a folder close to the root

e.g. C:/Xtext

Step 2: Open windows command prompt and Change directory

CD C:\Xtext\cloud.mini.wdsl.parent

Step 3: launch the batch file

Type "install"

## Installation (Manual)

Step 1: Extract the archive in a folder close to the root

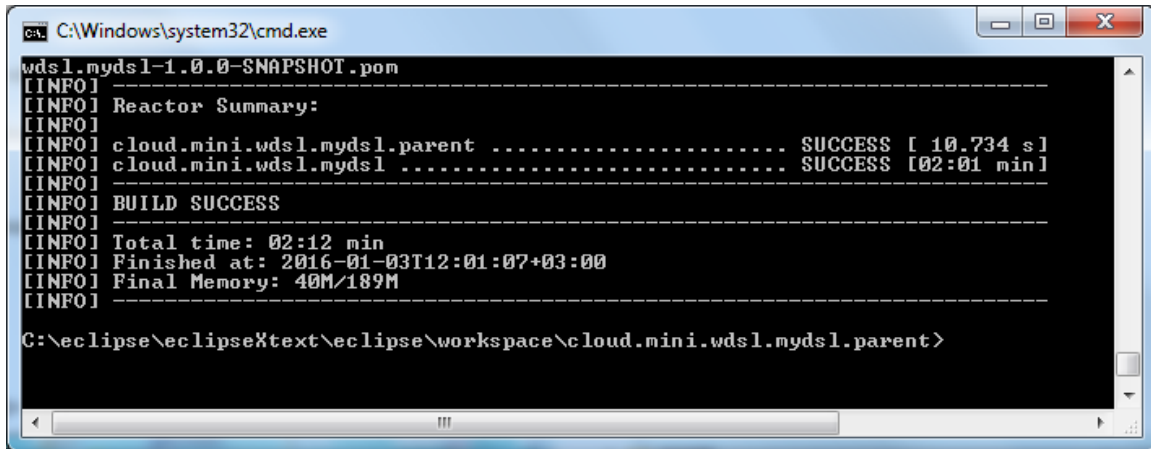
e.g. root/Xtext

Step 2: Change directory to

/Xtext/cloud.mini.wdsl.parent

Step 3: To Generate the compiler

mvn clean install



```
C:\Windows\system32\cmd.exe
wdsl.mydsl-1.0.0-SNAPSHOT.pom
[INFO] -----
[INFO] Reactor Summary:
[INFO] -----
[INFO] cloud.mini.wdsl.mydsl.parent ..... SUCCESS [ 10.734 s]
[INFO] cloud.mini.wdsl.mydsl ..... SUCCESS [02:01 min]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 02:12 min
[INFO] Finished at: 2016-01-03T12:01:07+03:00
[INFO] Final Memory: 40M/189M
[INFO] -----
C:\eclipse\eclipseXtext\eclipse\workspace\cloud.mini.wdsl.mydsl.parent>
```

Figure 1: Generation of Compiler

### Compiling (Automated)

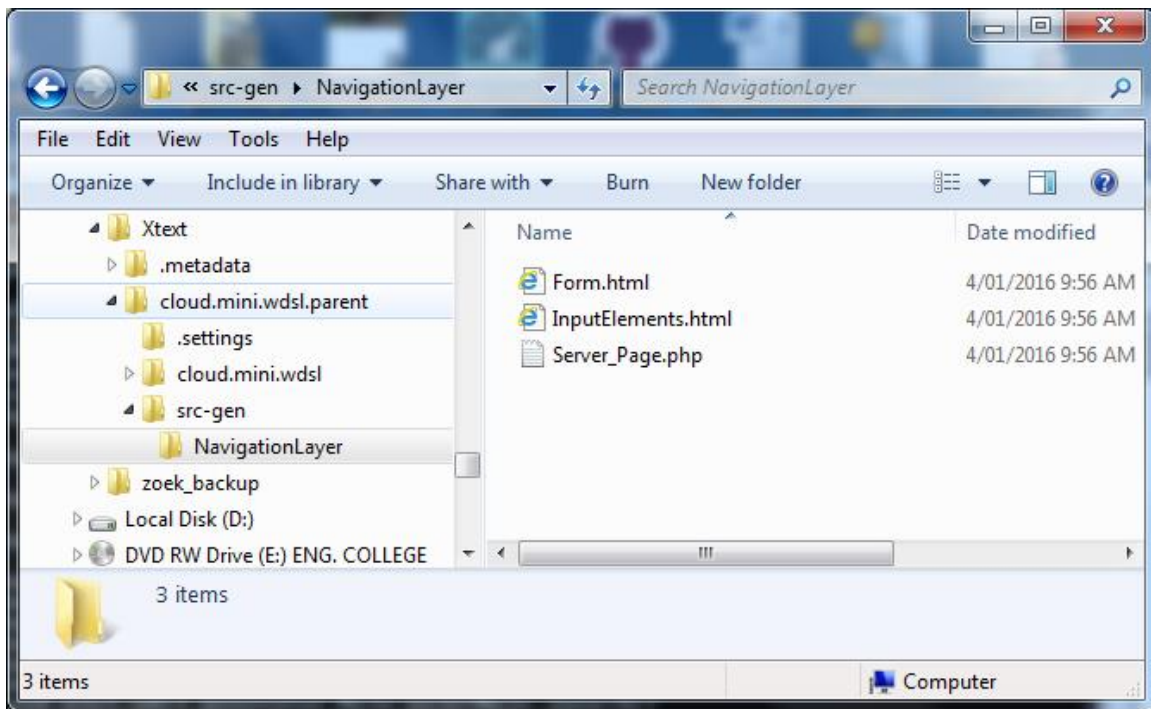
C:\Xtext\cloud.mini.wdsl.parent

Run the “compile” bat file

### Compiling (Manual)

java -jar cloud.mini.wdsl\target\cloud.mini.wdsl-1.0.0-SNAPSHOT.jar

cloud.mini.wdsl\src\wDsl\Form.wdsl



**Figure 2: Generated HTML files**

# Developer's Guide

## Installation

There are two options for getting Xtext in eclipse, install using “install new software” within eclipse or download a pre-configured eclipse from items. The mini project is based on version Xtext 2.9, alternatively a full feature version of xtext download is available from items.

<http://www.itemis.com/en/xtext/download/>

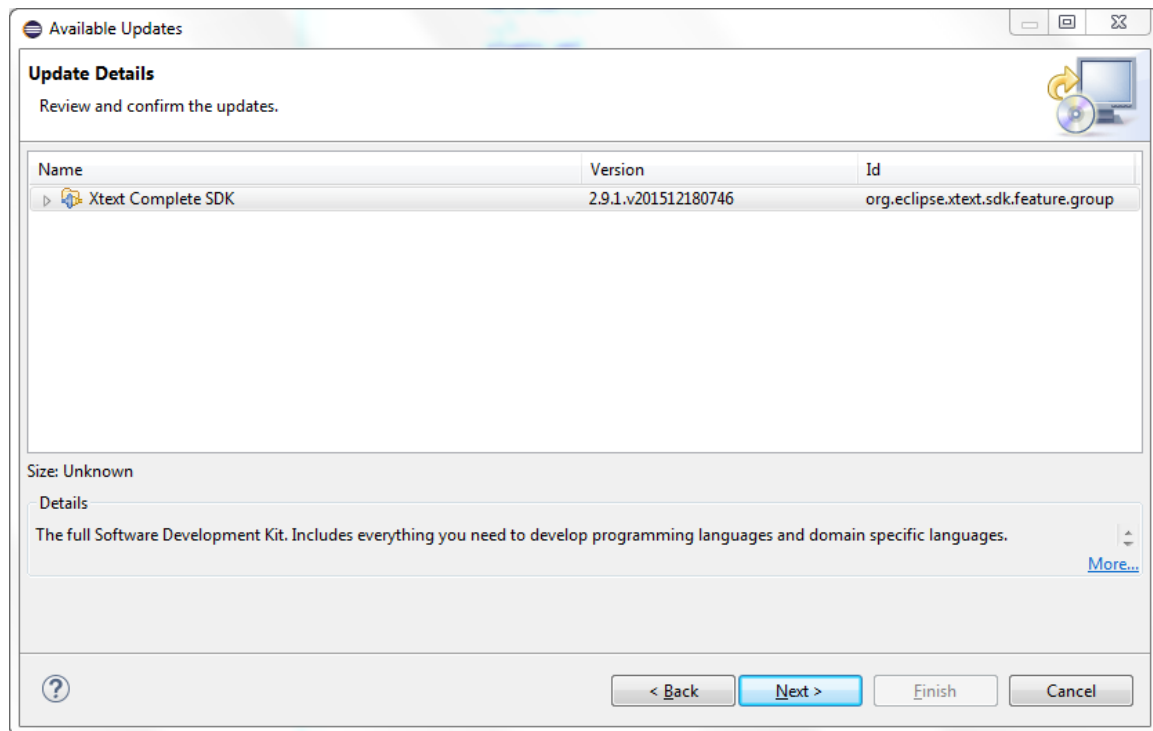


Figure 2: Getting Xtext latest version.

## Import Project in eclipse

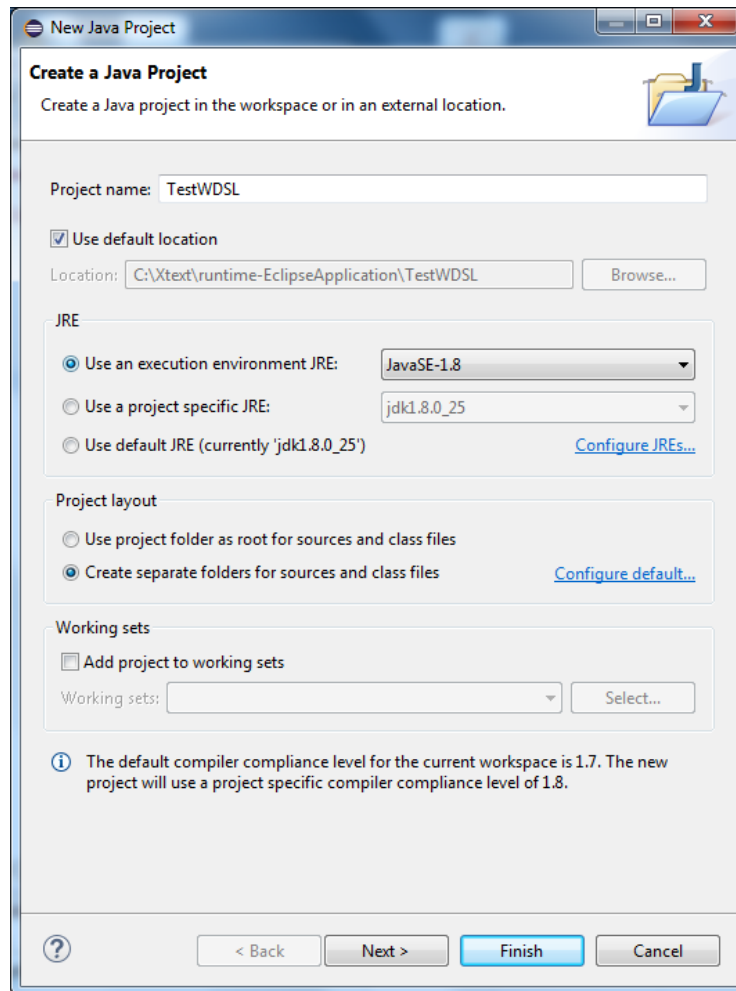
If you're using itemis Full Eclipse IDE, Gradle options are already included. Otherwise, you need to have Buildship installed, which is available via the Eclipse Marketplace,

<http://marketplace.eclipse.org/content/buildship-gradle-integration>

File - > import -> locate the project and import in eclipse

Right click on project "cloud.mini.wdsl" Run As 'Eclipse Application'

Create new Java Project "TestWdsl"



Right click on "TestWdsl" - > configure - > Add Xtext Nature

Create a new file in the *src* folder: From the context menu of the folder choose *New* → *File*, call it *Frames.wdsl*

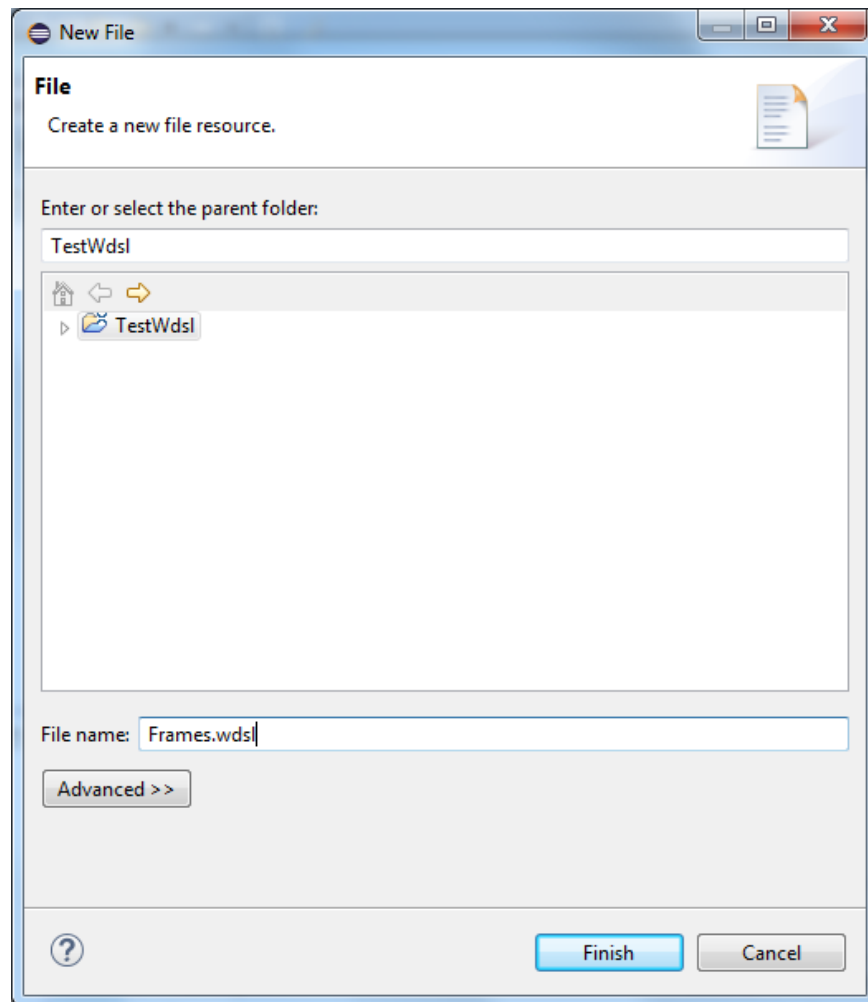
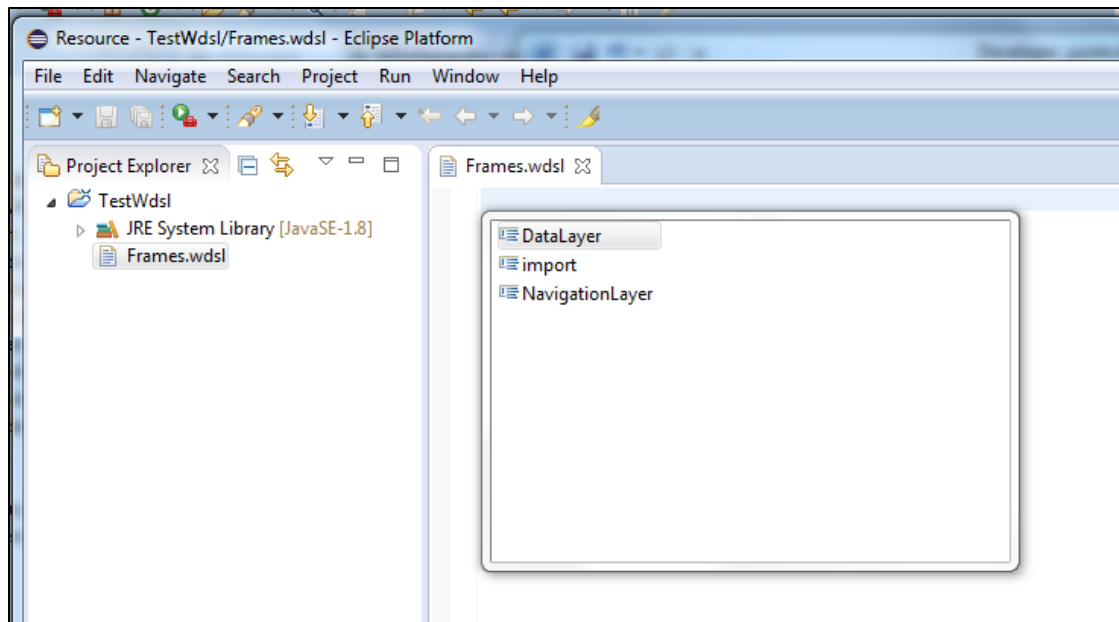


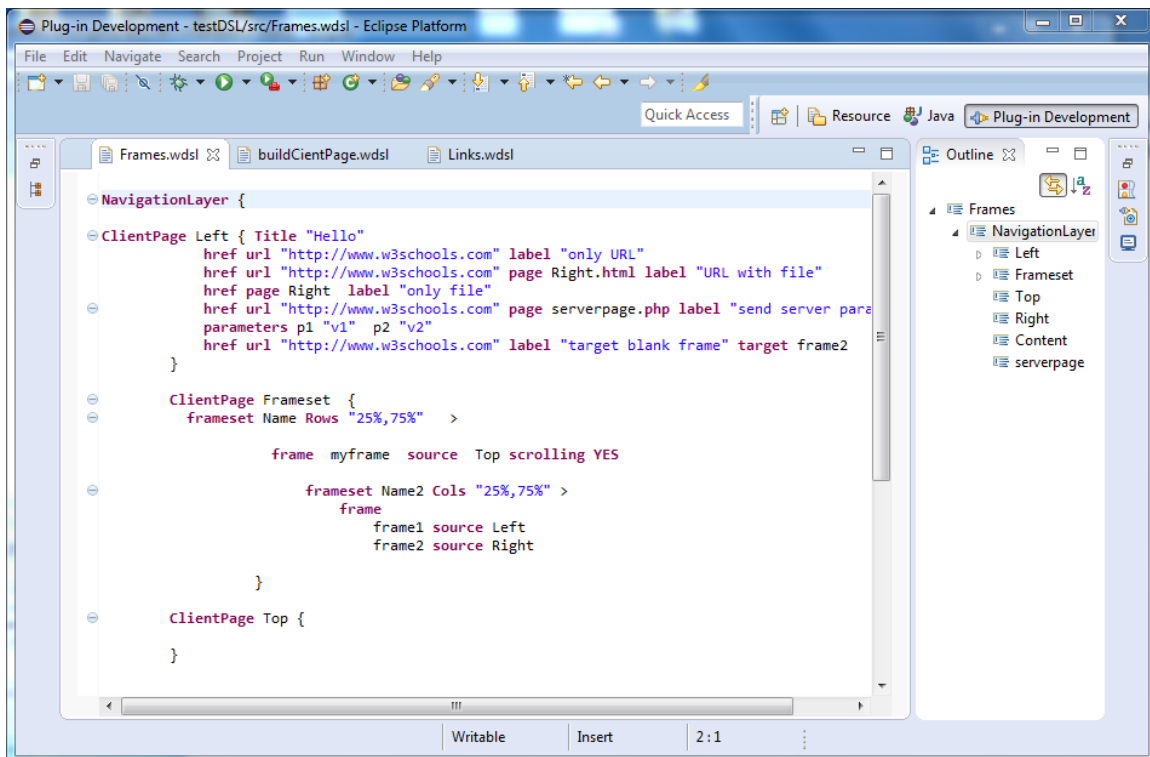
Figure 3: Create new wdsl file

Press control + Space on the “Frame.wdsl” you will see the following options

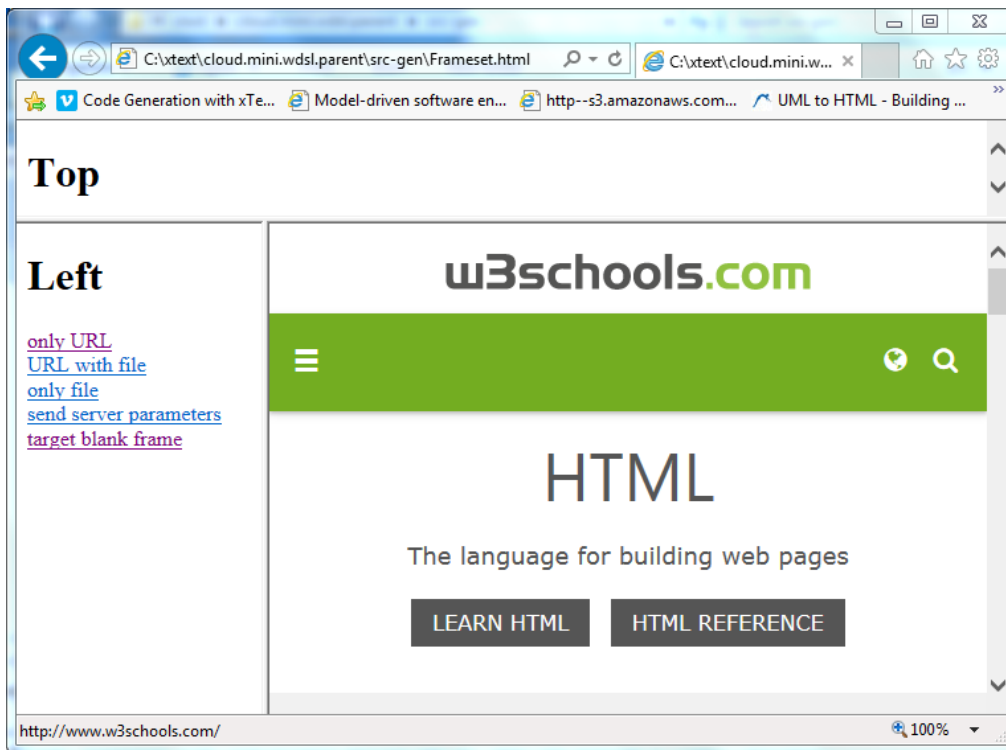


**Figure 4:** Working on wdsl files

The following code for “frames.wdsl” available in /cloud.mini.wdsl/src/wDSL



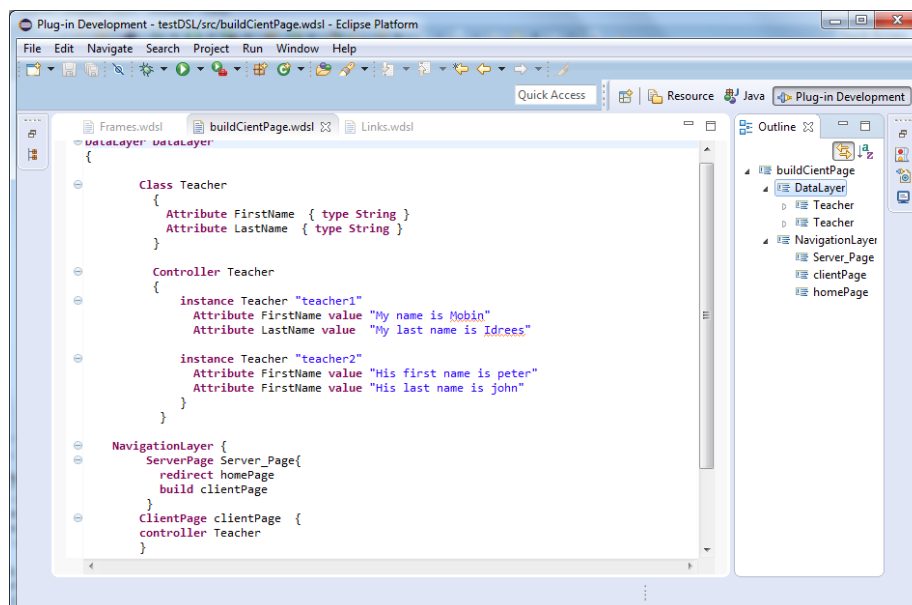
**Figure 5:** Developer’s source code



**Figure 6:** Generated HTML for Target Frame

### **Builds for Cloud-based Applications**

The following code is to build client pages that can be deployed on cloud application, it uses data layer, controller layer and navigational layer.



**Figure 7:** Server building the Client Pages



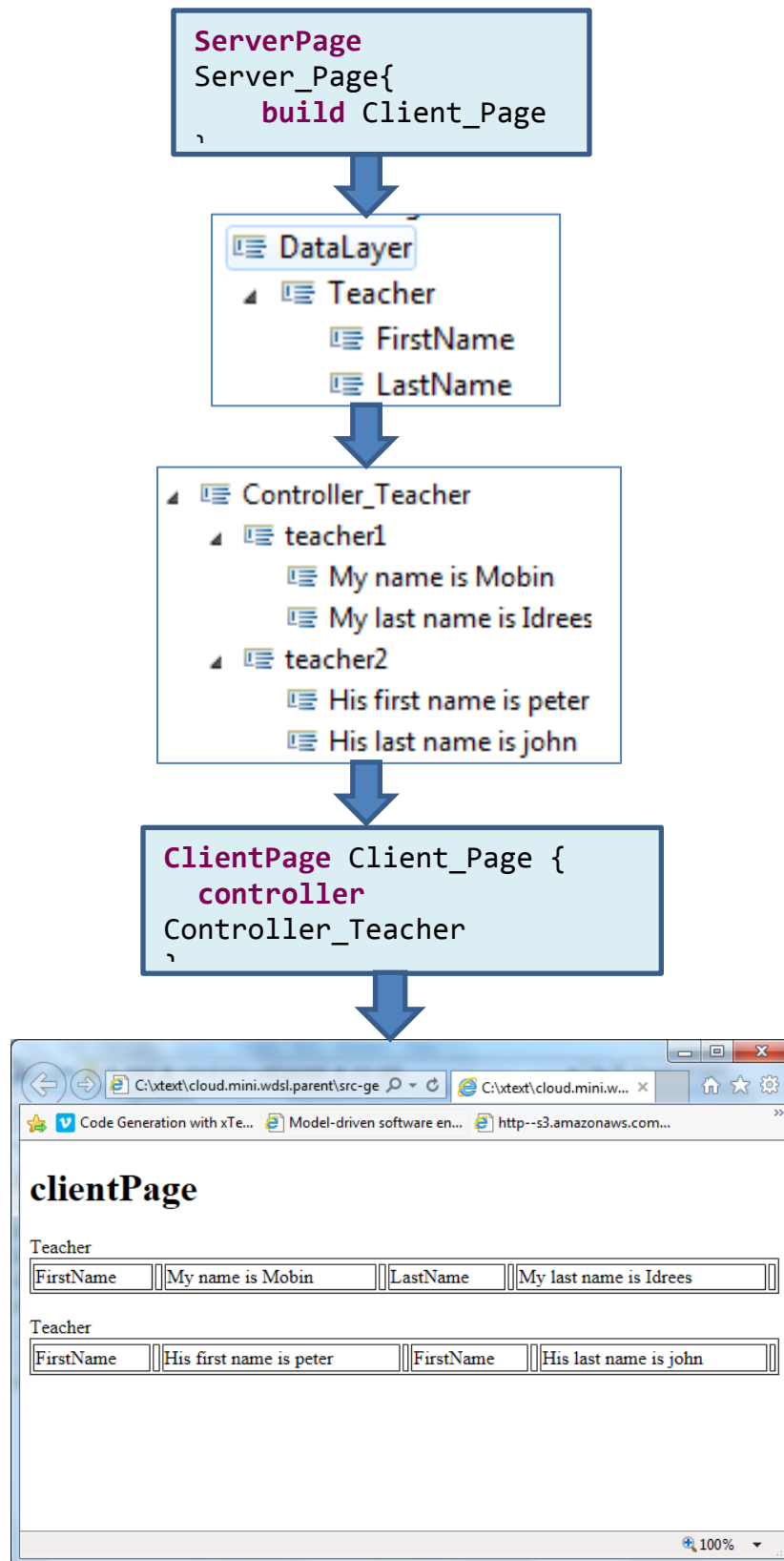


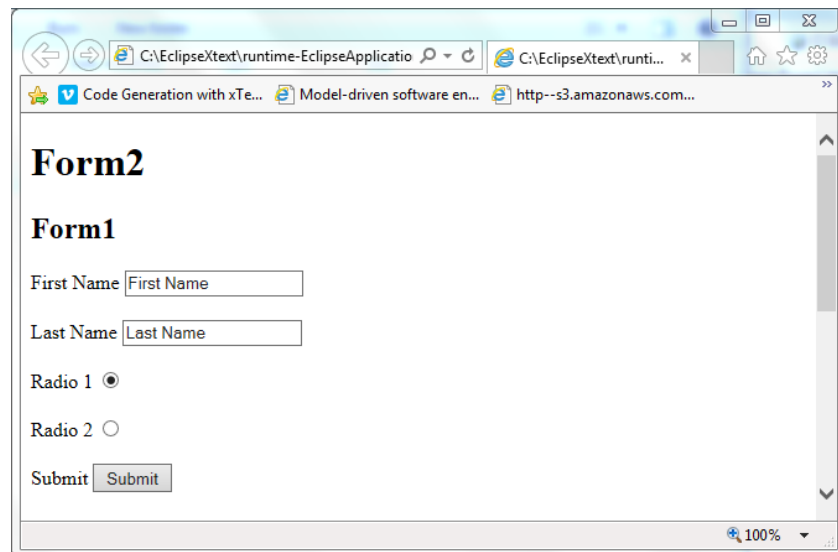
Figure 8: Build pages for cloud based applications

## The Form Concept

The following code will generate the HTML page with a single Form and a Server page in PHP that can be deployed on a web server. The php page will display the submitted form and redirect to “index.html” page.

```
NavigationLayer {  
  
    ServerPage Server_Page{ redirect index }  
  
    ClientPage Form2 {  
  
        form Form1 form {  
            method POST action Server_Page  
  
            inputs {  
                type text name input1 value "First Name" Label "First Name"  
                type text name input2 value "Last Name" Label "Last Name"  
                type radio name Radio1 value "Male" Label "Radio 1"  
                type radio name Radio2 value "female" Label "Radio 2"  
                type submit name input5 value "Submit" Label "Submit"}  
  
            textarea {  
                TextArea textarea {rows 20 cols 30 text "this is text"}  
            }  
        }  
    }  
}
```

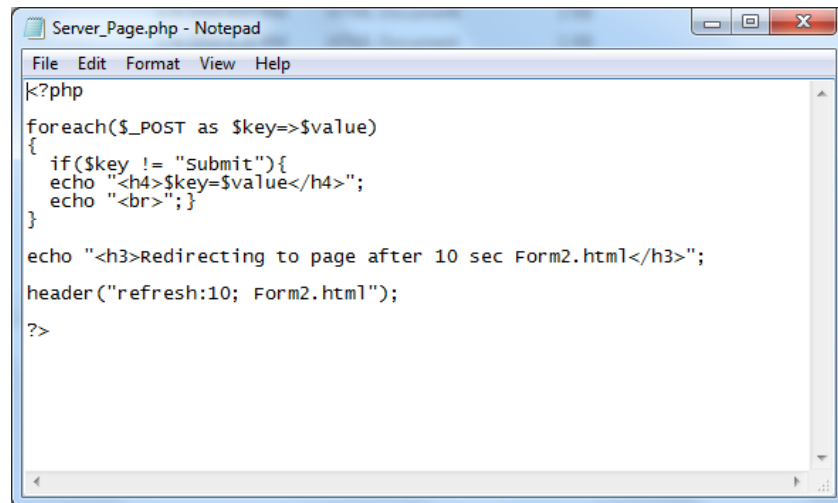
## OUTPUT



The screenshot shows a web browser window with the following content:

- Page Title: **Form2**
- Section Header: **Form1**
- Form Fields:
  - First Name:
  - Last Name:
  - Radio 1: ☒
  - Radio 2: ☐
  - Submit:

Figure 9 : Generated HTML Page



```
Server_Page.php - Notepad
File Edit Format View Help
<?php
foreach($_POST as $key=>$value)
{
    if($key != "submit"){
        echo "<h4>$key=$value</h4>";
        echo "<br>";
    }
}

echo "<h3>Redirecting to page after 10 sec Form2.html</h3>";
header("refresh:10; Form2.html");
?>
```

Figure 10: Generated PHP Server Page