Summary

The mobile offline web service provides the function for the users to make list inquiry and detailed inquiry and for the managers to manage posts online and offline.

This component is relatively similar to the online ebook service.

The user can read ebook offline the same as online.

The offline web service is realized using the offlineweb technology of HTML5.

The page that will be viewed offline can be designated using offlineweb.

In terms of offlineweb utilization of HTML5, the 'mobile synchronization service' component and 'mobile offline web service' starts from the same service of using offlineweb. However, the 'synchronization service' expanded the utilization by adding web storage on the offlineweb of HTML5; whereas, the offlineweb service is created only by the HTML5 offlieweb technology.

*Function Flow



The development and testing of the mobile screen of this component is completed. It is also noted in development since the supports on HTML5 and CSS3 vary between the PC browser and mobile browser in the same brand.

The tested device and browsers are GalaxyS2, GalaxyS, iPad2, iPhone4, GalaxyTab1 and the web browsers for Android, Firefox, Safari and Opera Mobile.

The test results are as following.

Android

The operation of HTML5, CSS3 and components of the Firefox(6.xx) and opera mobile was stable in android OS 2.3(gengerbread).

However, in the lower version browsers, android 2.1, 2.2, the operation of components was unstable and UI realization was not smooth due to insufficient HTML5 and CSS3 supports.

For Opera Mobile, it caused problems in colors and event processing in UI. Therefore, it was excluded from the subject. Galaxy, GalxyS2 and GalaxyTab1 were chosen as test mobile devices.

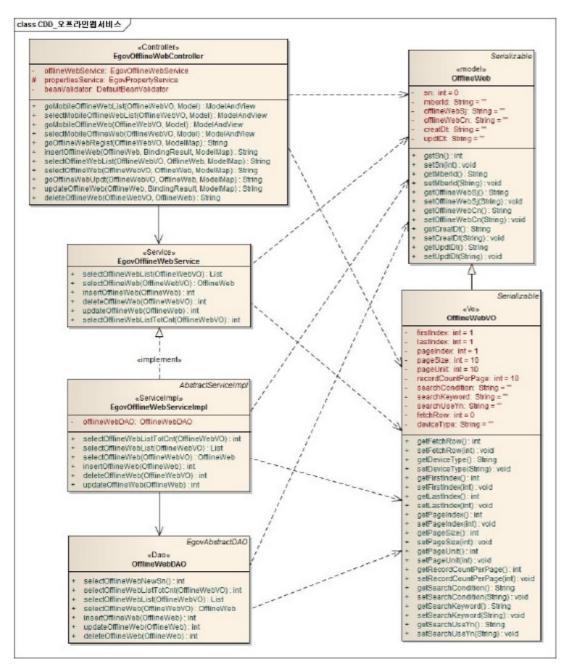
iOS

The iOS is one of three supported browsers and was tested in versions 4.2 and 4.3. The support for HTML5 and CSS3 were relatively smooth. iPhone4 and iPad2 were chosen as test mobile devices.

Description

The offline web service is composed of management functions – offline web list inquiry, detailed inquiry, register, update and delete – and user functions – offline web list inquiry and detailed inquiry. (Refer to Related Functions)

Class Diagram



Related sources

Туре	Target sources	Notes
C ontroller	egovframework.mbl.com.ows.web.EgovOfflineWebC ontroller.java	Offline web C ontroller C lass
Service	egovframework.mbl.com.ows.service.EgovOfflineWebService.java	Offline web Service C lass
ServiceImpl	egovframework.mbl.com.ows.service.impl.EgovOfflineWebServiceImpl.java	Offline webServiceImpl C lass
Model	egovframework.mbl.com.ows.service.OfflineWeb.java	Offline web Model C lass
VO	egovframework.mbl.com.ows.service.OfflineWebVO.java	Offline web VO C lass
DAO	egovframework.mbl.com.ows.service.impl.OfflineWebDAO.java	Offline web Dao C lass
JSP	/WEB-INF/jsp/egovframework/mbl/com/ows/EgovMobileOfflineWebList.jsp	Offline web mobile list inquiry page
JSP	/WEB-INF/jsp/egovframework/mbl/com/ows/EgovMobileOfflineWeb.jsp	Offline web mobile detail inquiry
JSP	/WEB-INF/jsp/egovframework/mbl/com/ows/EgovOfflineWebList.jsp	Offline web list inquiry page
JSP	/WEB-INF/jsp/egovframework/mbl/com/ows/EgovOfflineWebDetail.jsp	Offline web detail inquiry page
JSP	/WEB-INF/jsp/egovframework/mbl/com/ows/EgovOfflineWebInsert.jsp	Offline web registration page
JSP	/WEB-INF/jsp/egovframework/mbl/com/ows/EgovOfflineWebUpdate.jsp	Offline web modification page
QUERY XML	resources/egovframework/sqlmap/mbl/com/ows/EgovOfflineWeb_SQL_XXX.xml	Offline web QUERY XML
Validator Rule XML	resources/egovframework/validator/validator-rules.xml	XML that defines Validator Rule
Validator XML	resources/egovframework/validator/mbl/com/ows/EgovOfflineWeb.xml	Offline web Validator XML

Related Tables

Table name	Table name (English)	Notes
Offline web	C OMTN OFFLINEWEB	Manage offlineweb

Login / membership management / permission management

Offline webservice requires the administrator authentication inoffline postlist inquiry ,detail inquiry, registration ,modification and deletion.

For authentication, you can connect with login, membership management and permission management components. If you use Spring Security for authentication, make change as in the followings..

web.xml

```
<!-- 2. Spring Security Setup -->
    <filter-name>springSecurityFilterChain</filter-name>
    <filter-class>org.springframework.web.filter.DelegatingFilterProxy</filter-class>
<filter-mapping:
    <filter-name>springSecurityFilterChain</filter-name>
<url-pattern>/*</url-pattern>
</filter-mapping>
stener>
    </listener:
<!-- security end -->
<!-- 4. Filter setup for Spring Security logout setup -->
    <filter-name>EgovSpringSecurityLogoutFilter</filter-name>

<
<filter-mapping>
    <filter-name>EgovSpringSecurityLogoutFilter</filter-name>
<url-pattern>/uat/uia/actionLogout.do</url-pattern>
</filter-mapping>
<!-- 4. Filter setup for Spring Security login setup-->
<filter>
    <filter-name>EgovSpringSecurityLoginFilter</filter-name>
     <filter-class>egovframework.com.sec.security.filter.EgovSpringSecurityLoginFilter</filter-class>
</filter>
<url-pattern>*.do</url-pattern>
</filter-mapping>
```

As in the above, add Spring Security filter to web.xml.

For details on login/membership management/permission management, refer to the followings.

login:general login

Membership management: <u>user management</u> Permission management: <u>Permission management</u>

The following pages need the user/administrator permission.

Permission type Page path Administrat@mbl/com/syn/selectOfflineWebList.mdo Screen of list inquiry of the offline post $Administrat \phi \textbf{m} bl/com/syn/select Offline Web.mdo$ Screen of detail inquiry of the offline post Administrat@mbl/com/syn/goOfflineWebRegist.mdo Screen of offline post registration Administrat@mbl/com/syn/insertOfflineWeb.mdo offline post registration Administratembl/com/syn/goOfflineWebUpdt.mdo offline post modification screen Administrat@mbl/com/syn/updateOfflineWeb.mdo offline post modification Administrat@mbl/com/syn/deleteOfflineWeb.mdo offline post deletion

Offline settings and notes for offline web

*The currently distributed mobile common component adopts HTML5 and CSS3 and this means that it doesn't support the standards for mobile web site validity check of MobileOK

and W3C. For details on correct validity check, please contact the competent professional institute.

*Security verification is under progress on the currently distributed mobile component. We plan to complete security verification as soon as possible to release a new security-patched version.

To use html5Offline web, some setting information is required.

- In web.xml, set the mime type.
- Create the xxxx.manifest file under the root and write - in the top of the page to be used offline.
- Write the page to be applied in /xxxx.manifest.

For the standard framework, since the spfile is written in the WEB-INF folder, if it is written in a format of /WEB-INF/xx/xx.jsp,it will not be a subject of offline work. The xx.css, xx.js, xx.jpg andxxxx.manifest, including jsp used under root can be subjects of offline work.

When applying the files for offline work to xxxx.manifestfile, you will not have to write css andjsfiles and imported file into the jsp file in the xxxx.manifestfile.

But if the path of the imported file is not correct, offline application may not work. Pay attention to the path of the file to be imported.

When you modify and test the fileset up in the xxxx.manifestfile, you have to delete the browser cache.

If you just refresh the browser after modifying the code, the code may not be applied.

web.xmlSettings

xxxx.manifestSettings

CACHE MANIFEST # version 1.0.01 # 2011.09.21

Explicitly cached CACHE: ./css/egovframework/mbl/cmm/jquery.mobile-1.0b3.min.css ./css/egovframework/mbl/cmm/EgovMobile.css ./css/egovframework/mbl/cmm/EgovMobile.css ./css/egovframework/mbl/mcomd/egovMcomd.css
./js/egovframework/mbl/cmm/jquery-1.6.2.min.js ./js/egovframework/mbl/cmm/jquery.mobile-1.0b3.min.js ./js/egovframework/mbl/cmm/EgovMobile.js ./js/egovframework/mbl/cmm/datepicker/jquery.mobile.datebox.js
./mbl/com/ows/goMobileOfflineWebList.mdo ./mbl/com/ows/goMobileOfflineWeb.mdo # Display fallback.html for all uncached pages FALLBACK: # Following resources require network connection. NETWORK: *

Offline webcoding Tip

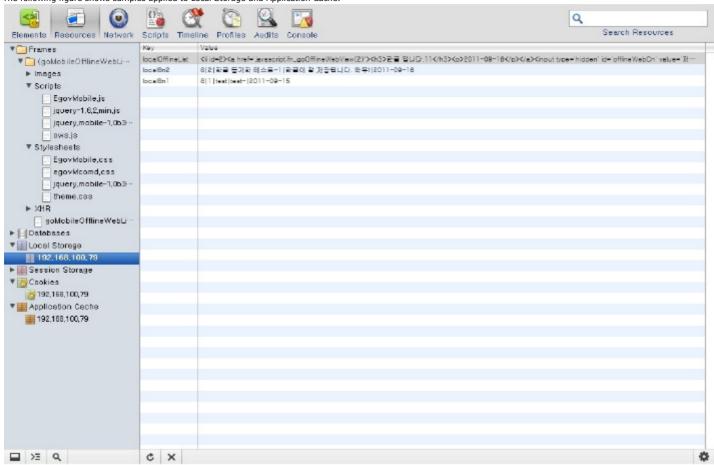
In implementing HTML5Offline web services, by right-clicking on the Chrome browser and selecting the Inspect Element to use the developer's tool, you can reduce the problems caused by the browser cache or xxxx.manifestfile.

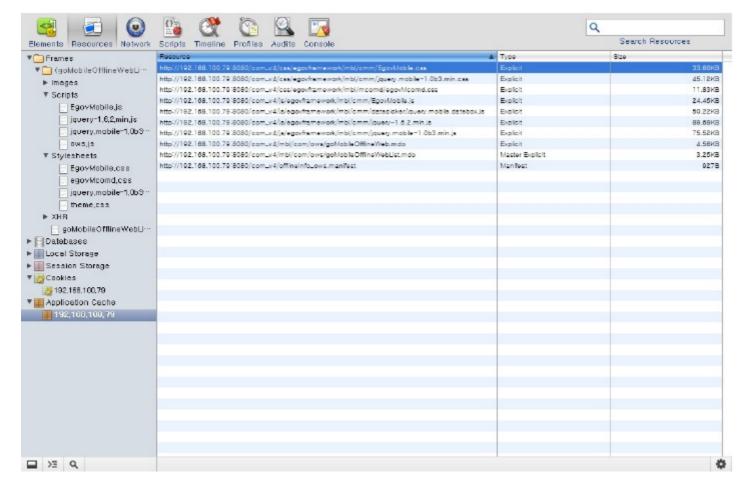
For instance, by selecting Resource tab of the Chromebrowser's developer tool, you can check Local Storage and Application Cache. By clicking and expanding Application Cache, you can view the pages for offline web written in xxxx.manifest.

If there is nothing written in xxxx.manifest in Application Cache, it means that the offline web is not applied.

If you use debugging using the Chromebrowser's developer tool in the development, you can have more stable offline webcoding.

The following figure shows samples applied to Local Storage and Application Cache.





Offline webmobilelist inquiry

Business rules

Offline web serviceuses ajax communication based json and form transfer types to process data.

Page navigation is totally based on the form type.

You can retrieve message lists for Offline web service.

By clicking View More button, you can add another five messages to a retrieved list.

You can move to Offline web serviceregistrationscreen.

If converted to the offline environment, thelist inquiry anddetail inquiry are carried out as in the online environment.

But the list inquiry should be carried out at least once in the online environment.

When the list inquiry is carried out online, the information contained in the list is stored the webstorage and this is used offline.

Related codes

localStorage.setItem("localOfflineList", html);
\$('div[id="list"] ul[data-role="listview"]').html(html).listview('refresh');

Action	URL	Controller method	QueryID
Moves to inquiry	/mbl/com/ows/goMobileOfflineWebList.mdo	goMobileOfflineWebList	
Inquiry	/mbl/com/ows/selectMobileOfflineWebList.mdo	selectMobileOfflineWebList	$\verb `OfflineWebDAO.selectOfflineWebList ''$
View more	/mbl/com/ows/selectMobileOfflineWebList.mdo	selectMobileOfflineWebList	"OfflineWebDAO.selectOfflineWebList"
Moves to detail	/mbl/com/ows/goMobileOfflineWeb.mdo	goMobileOfflineWeb	



Offline webmobiledetail inquiry

Business Rules

Offline web serviceuses ajax communication based json and form transfer types to process data. Page navigation is totally based on the form type.

Offline web service detail posts are being retrieved.

The detail posts are process by using web storage information acquired during the online list inquiry. Deletion is being carried out.

Related codes

N/A

Action	URL	Controller method	QueryID
List	/mbl/com/ows/goMobileOfflineWebList.mdo	goMobileOfflineWebList	



Offline weblist inquiry

Business Rules

You can use search conditions and key words to retrieve offline web service post lists. 10 rows are displayed on a page. When exceeding 10 rows, paging at the bottom is used.

Related codes

N/A

Action	URL	Controller method	QueryID
Inquiry	/mbl/com/ows/selectOfflineWebList.mdo	selectowsList	$\verb `OfflineWebDAO.selectOfflineWebList'' $
		"OfflineWebDAO.selectOfflineWebTotCnt"	
Moves to the registration page	/mbl/com/ows/goOfflineWebRegist.mdo	goowsRegist	



Offline webdetail inquiry

Business Rules

Offline web servicedetail posts are being retrieved.

Related codes

N/A

Action	URL	Controller method	QueryID
Delete	/mbl/com/ows/deleteOfflineWeb.mdo	deleteOfflineWeb	"OfflineWebDAO.deleteOfflineWeb"
Moves to modification page	/mbl/com/ows/goOfflineWebUpdt.mdo	goowsUpdt	
List	/mbl/com/ows/selectOfflineWebList.mdo	selectowsList	"OfflineWebDAO.selectOfflineWebList"



Offline webregistration

Business Rules

Offline web serviceposts are registered and titles and contents are inputted.

The title and content are required items.

Related codes

N/A

Action	URL	Controller method	QueryID
Register	/mbl/com/ows/insertOfflineWeb.mdo	insertOfflineWeb	"OfflineWebDAO.insertOfflineWeb"
Cancel			
List	/mbl/com/ows/selectOfflineWebList.mdo	selectowsList	"OfflineWebDAO.selectOfflineWebList"



Offline webmodification

Business Rules

Offline web serviceposts are modified and titles and contents are inputted.

The title and content are required items.

Related codes

N/A

Action	URL	Controller method	QueryID
Cancel			
Store	/mbl/com/ows/updateOfflineWeb.mdo	updateows	"OfflineWebDAO.updateOfflineWeb"
List	/mbl/com/ows/selectOfflineWebList.mdo	selectowsList	"OfflineWebDAO.selectOfflineWebList"



References

- Distribution and test: <u>Mobile Common Component System</u>and<u>distribution package plan</u>
- Related database structure and schema: related database structure and schema

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