«Aikau-based development worst practices»
or
«Make it work till friday»

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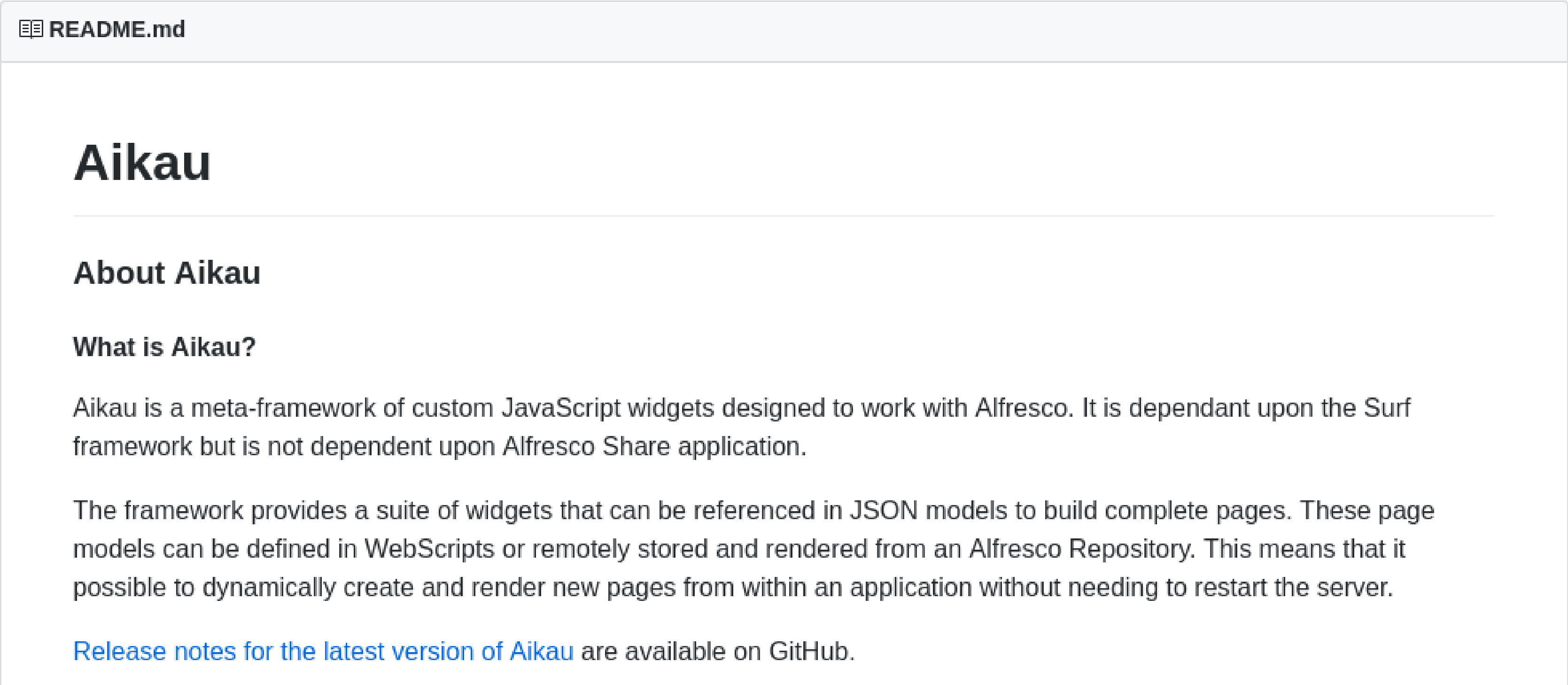


README.md

Aikau

About Aikau

What is Aikau?

Aikau is a meta-framework of custom JavaScript widgets designed to work with Alfresco. It is dependant upon the Surf framework but is not dependent upon Alfresco Share application.

The framework provides a suite of widgets that can be referenced in JSON models to build complete pages. These page models can be defined in WebScripts or remotely stored and rendered from an Alfresco Repository. This means that it possible to dynamically create and render new pages from within an application without needing to restart the server.

Release notes for the latest version of Aikau are available on GitHub.

Why are we speaking about worst practices?

I don't wanna a miracle....
just something that works, dammit!
quickmeme.com

Worst practice #1: Fork vs Extend

Two ways to develop new widget or service:

- ✓ Accurately extend widget or service
- ✓ Copy original widget or service and change functions you need

Worst practice #1: Fork vs Extend

Extend:

✓ If you plan to update Aikau later during the project

✓ When you need to add one small function, change CSS or template

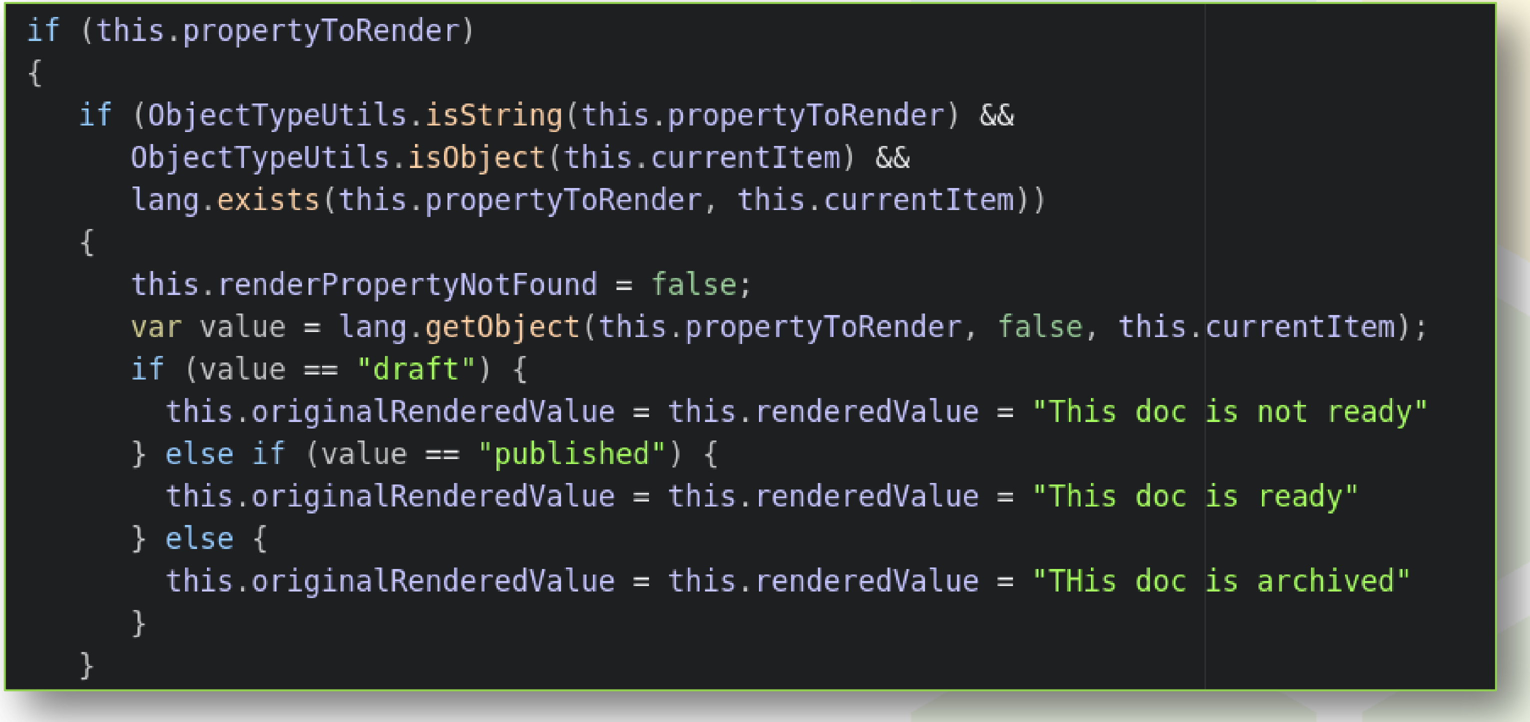
Worst practice #1: Fork vs Extend

Fork:

- ✓ When your customization will contain more lines of code than original widget
- ✓ If you are not too lazy to check all your forks while updating Aikau or Share version

Worst practice #1: Fork vs Extend

alfresco/renderers/Property fork sample:



```
if (this.propertyToRender)
{
   if (ObjectTypeUtils.isString(this.propertyToRender) &&
      ObjectTypeUtils.isObject(this.currentItem) &&
      lang.exists(this.propertyToRender, this.currentItem))
   {
      this.renderPropertyNotFound = false;
      var value = lang.getObject(this.propertyToRender, false, this.currentItem);
      if (value == "draft") {
        this.originalRenderedValue = this.renderedValue = "This doc is not ready"
      } else if (value == "published") {
        this.originalRenderedValue = this.renderedValue = "This doc is ready"
      } else {
        this.originalRenderedValue = this.renderedValue = "THis doc is archived"
      }
   }
```

Worst practice #2: Use custom API from repo

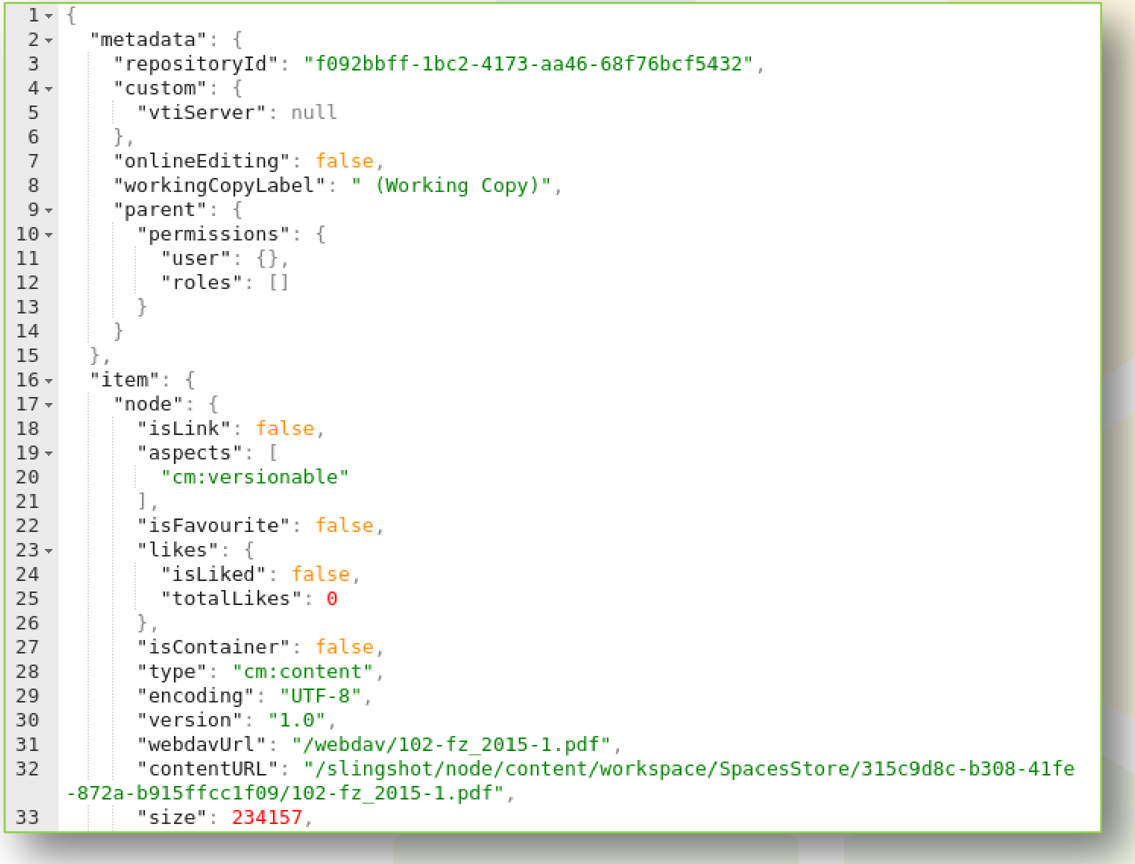
Two ways to retrieve data from repo:

✓ Use out-of-the-box APIs

✓ Write small repo-side webscript that provides all the data you need

Worst practice #2: Use custom API from repo

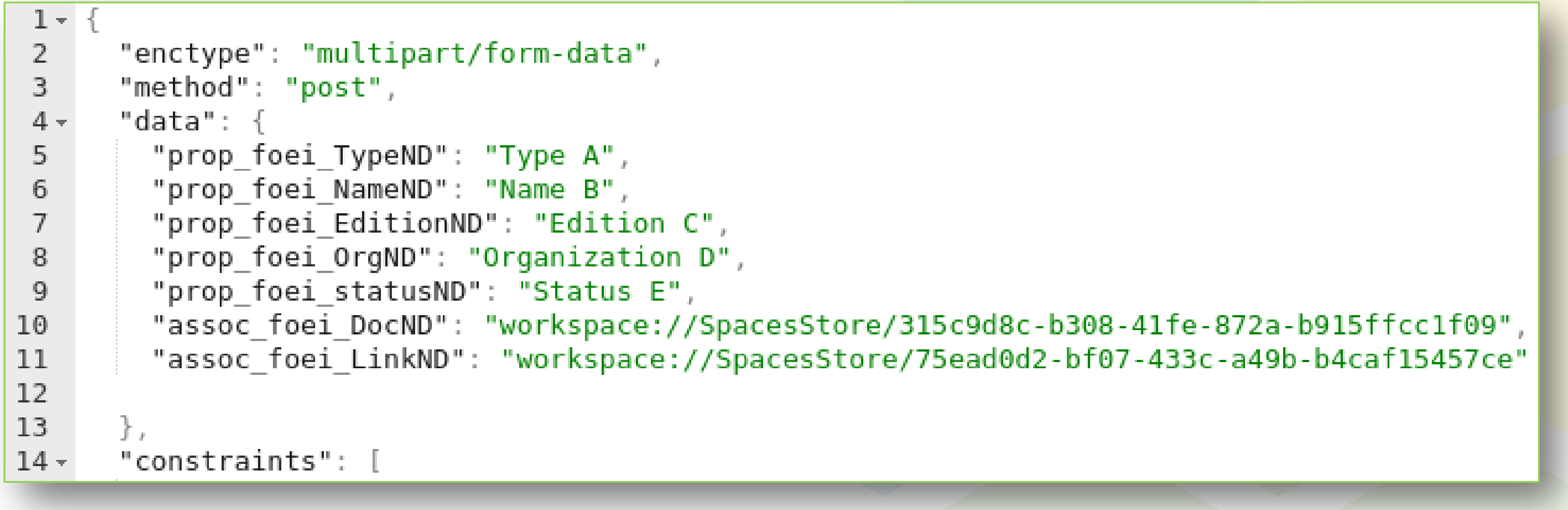
- ✓ Slingshot API



```
{
  "metadata": {
    "repositoryId": "f092bbff-1bc2-4173-aa46-68f76bcf5432",
    "custom": {
      "vtiServer": null
    },
    "onlineEditing": false,
    "workingCopyLabel": " (Working Copy)",
    "parent": {
      "permissions": {
        "user": {},
        "roles": []
      }
    }
  },
  "item": {
    "node": {
      "isLink": false,
      "aspects": [
        "cm:versionable"
      ],
      "isFavourite": false,
      "likes": {
        "isLiked": false,
        "totalLikes": 0
      },
      "isContainer": false,
      "type": "cm:content",
      "encoding": "UTF-8",
      "version": "1.0",
      "webdavUrl": "/webdav/102-fz_2015-1.pdf",
      "contentURL": "/slingshot/node/content/workspace/SpacesStore/315c9d8c-b308-41fe-872a-b915ffcc1f09/102-fz_2015-1.pdf",
      "size": 234157,
```

Worst practice #2: Use custom API from repo

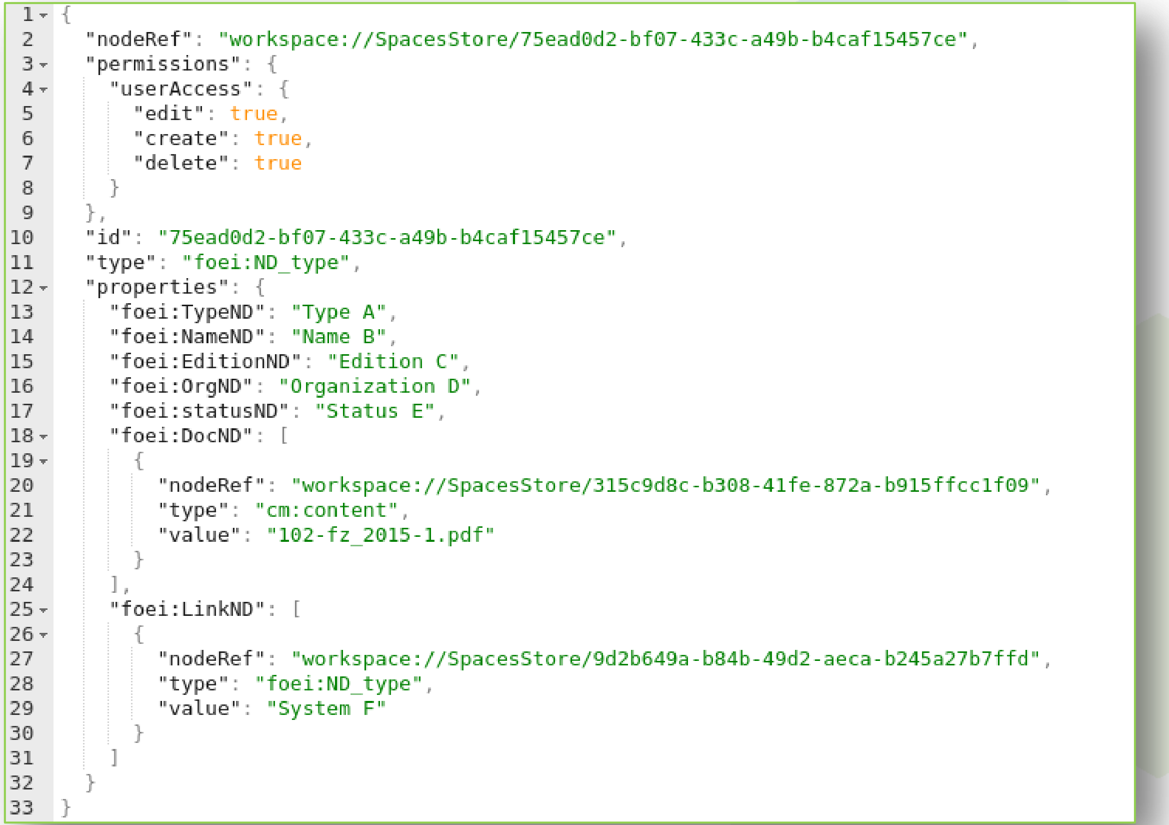
- ✓ FormService



```
{
  "enctype": "multipart/form-data",
  "method": "post",
  "data": {
    "prop_foei_TypeND": "Type A",
    "prop_foei_NameND": "Name B",
    "prop_foei_EditionND": "Edition C",
    "prop_foei_OrgND": "Organization D",
    "prop_foei_statusND": "Status E",
    "assoc_foei_DocND": "workspace://SpacesStore/315c9d8c-b308-41fe-872a-b915ffcc1f09",
    "assoc_foei_LinkND": "workspace://SpacesStore/75ead0d2-bf07-433c-a49b-b4caf15457ce"

  },
  "constraints": [
```

Worst practice #2: Use custom API from repo

- ✓ Custom API



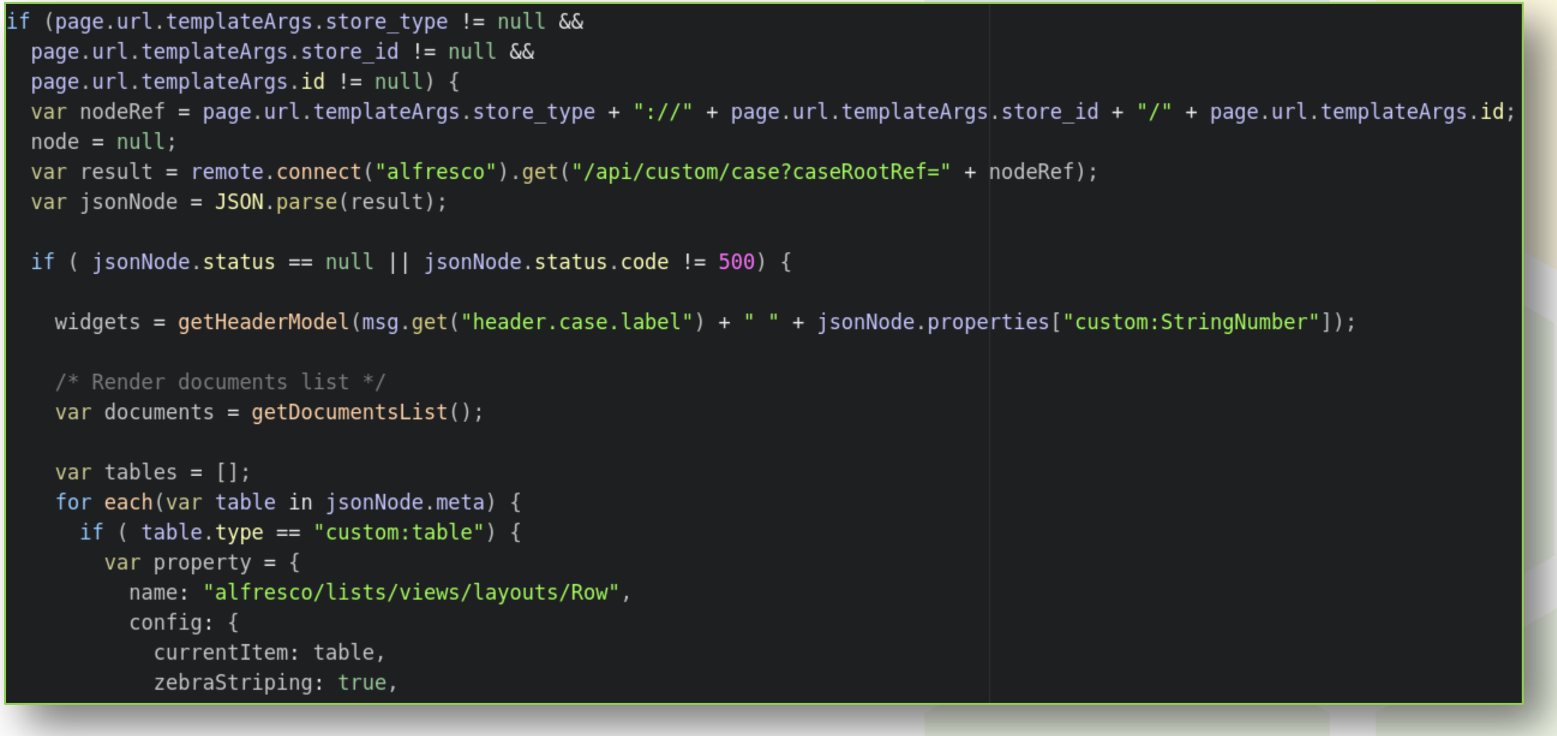
```
{
  "nodeRef": "workspace://SpacesStore/75ead0d2-bf07-433c-a49b-b4caf15457ce",
  "permissions": {
    "userAccess": {
      "edit": true,
      "create": true,
      "delete": true
    }
  },
  "id": "75ead0d2-bf07-433c-a49b-b4caf15457ce",
  "type": "foei:ND_type",
  "properties": {
    "foei:TypeND": "Type A",
    "foei:NameND": "Name B",
    "foei:EditionND": "Edition C",
    "foei:OrgND": "Organization D",
    "foei:statusND": "Status E",
    "foei:DocND": [
      {
        "nodeRef": "workspace://SpacesStore/315c9d8c-b308-41fe-872a-b915ffcc1f09",
        "type": "cm:content",
        "value": "102-fz_2015-1.pdf"
      }
    ],
    "foei:LinkND": [
      {
        "nodeRef": "workspace://SpacesStore/9d2b649a-b84b-49d2-aeca-b245a27b7ffd",
        "type": "foei:ND_type",
        "value": "System F"
      }
    ]
  }
}
```

Worst practice #3: Share tier vs browser

- ✓ Share tier
- ✓ Web-browser tier

Worst practice #3: Share tier vs browser

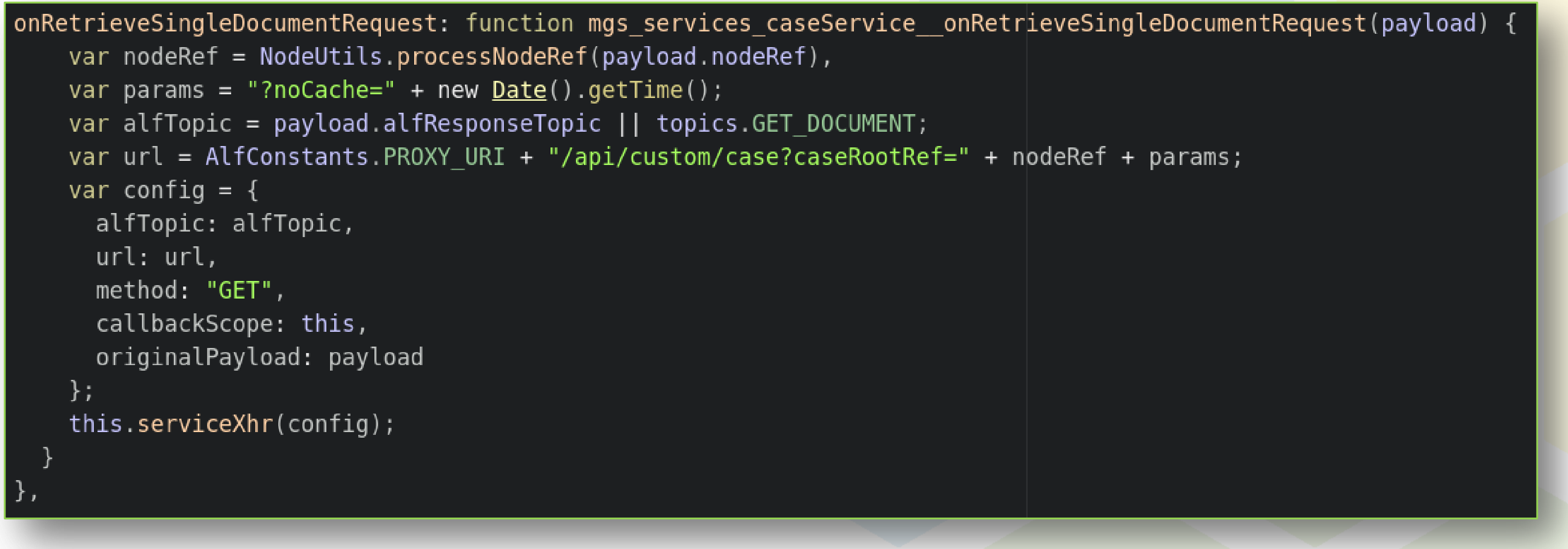
✓ Share tier: your lovely Share without logs and any way to debug it



```
if (page.url.templateArgs.store_type != null &&
  page.url.templateArgs.store_id != null &&
  page.url.templateArgs.id != null) {
  var nodeRef = page.url.templateArgs.store_type + "://" + page.url.templateArgs.store_id + "/" + page.url.templateArgs.id;
  node = null;
  var result = remote.connect("alfresco").get("/api/custom/case?caseRootRef=" + nodeRef);
  var jsonNode = JSON.parse(result);

  if ( jsonNode.status == null || jsonNode.status.code != 500) {

    widgets = getHeaderModel(msg.get("header.case.label") + " " + jsonNode.properties["custom:StringNumber"]);

    /* Render documents list */
    var documents = getDocumentsList();

    var tables = [];
    for each(var table in jsonNode.meta) {
      if ( table.type == "custom:table") {
        var property = {
          name: "alfresco/lists/views/layouts/Row",
          config: {
            currentItem: table,
            zebraStriping: true,
```

Worst practice #3: Share tier vs browser

- ✓ Browser tier: Fast client-side execution, but sometimes you meet dojo that you don’t know



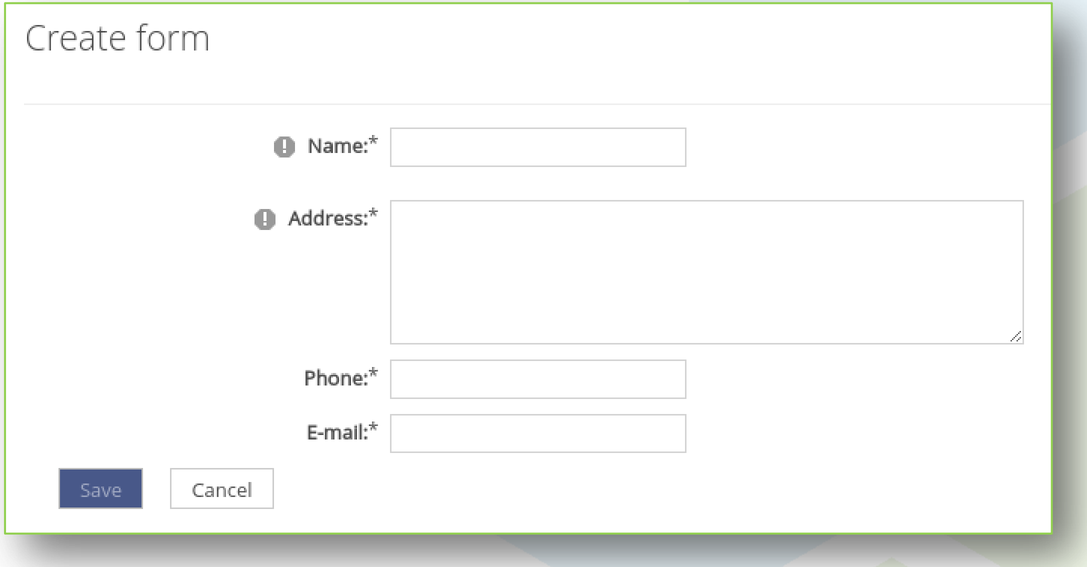
```
onRetrieveSingleDocumentRequest: function mgs_services_caseService__onRetrieveSingleDocumentRequest(payload) {
    var nodeRef = NodeUtils.processNodeRef(payload.nodeRef),
    var params = "?noCache=" + new Date().getTime();
    var alfTopic = payload.alfResponseTopic || topics.GET_DOCUMENT;
    var url = AlfConstants.PROXY_URI + "/api/custom/case?caseRootRef=" + nodeRef + params;
    var config = {
      alfTopic: alfTopic,
      url: url,
      method: "GET",
      callbackScope: this,
      originalPayload: payload
    };
    this.serviceXhr(config);
  }
},
```

Worst practice #4: using FormsRuntimeService

- ✓ It’s not ready (AKU-1014), but helps sometimes

Worst practice #4: using FormsRuntimeService

- ✓ Even if you don’t render form with it



Create form

Name:*

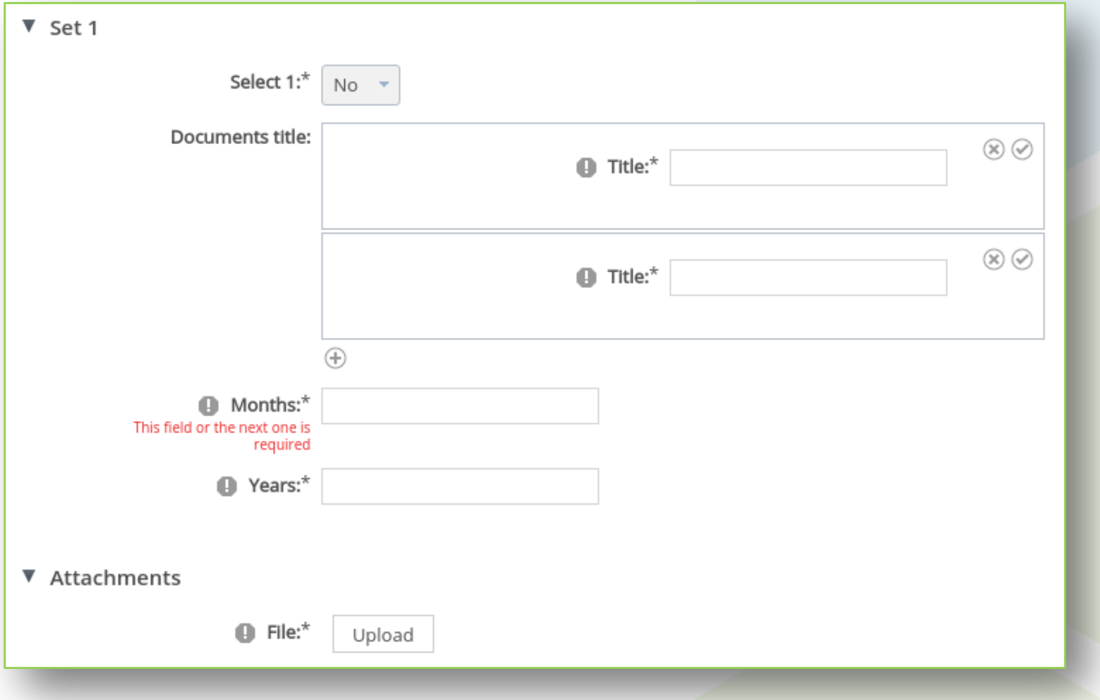
Address:*

Phone:*

E-mail:*

Worst practice #4: using FormsRuntimeService

- ✓ Even if you don't render form with it



▼ Set 1

Select 1:* No

Documents title:

Title:*

Title:*

Months:*

This field or the next one is required

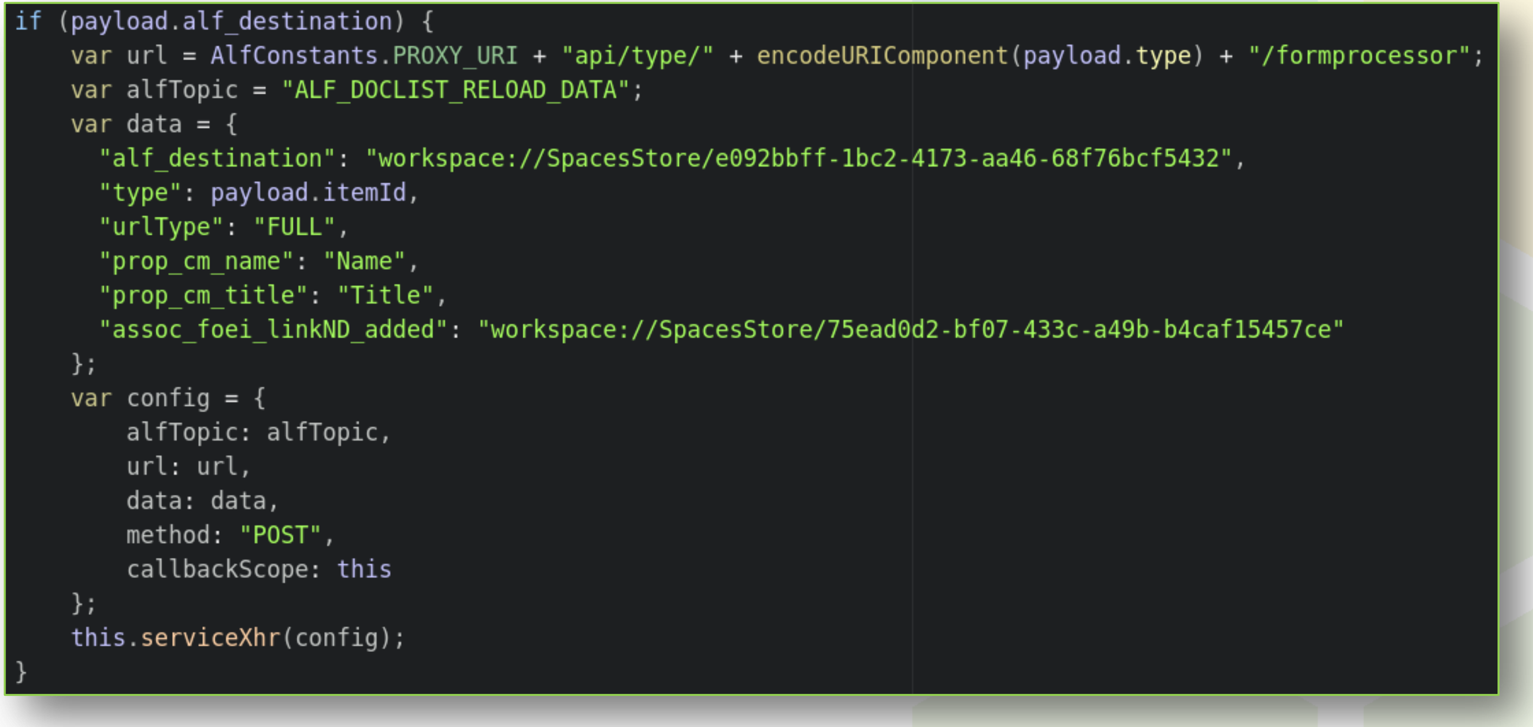
Years:*

▼ Attachments

File:* Upload

Worst practice #4: using FormsRuntimeService

✓ Even if you don’t render form with it



```
if (payload.alf_destination) {
    var url = AlfConstants.PROXY_URI + "api/type/" + encodeURIComponent(payload.type) + "/formprocessor";
    var alfTopic = "ALF_DOCLIST_RELOAD_DATA";
    var data = {
      "alf_destination": "workspace://SpacesStore/e092bbff-1bc2-4173-aa46-68f76bcf5432",
      "type": payload.itemId,
      "urlType": "FULL",
      "prop_cm_name": "Name",
      "prop_cm_title": "Title",
      "assoc_foei_linkND_added": "workspace://SpacesStore/75ead0d2-bf07-433c-a49b-b4caf15457ce"
    };
    var config = {
        alfTopic: alfTopic,
        url: url,
        data: data,
        method: "POST",
        callbackScope: this
    };
    this.serviceXhr(config);
}
```

Where to find samples of the code?

https://github.com/Alfresco/Aikau/tree/develop/aikau/src/test/resources/testApp/WEB-INF/classes/alfresco/site-webscripts/alfresco

Summary

You have only 2 hours before delivering demo

STOP

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