

Chapter 10: Finance Company Support and User Experience

Learning Bluemix & Blockchain

Bob Dill, IBM Distinguished Engineer, CTO Global Technical Sales
David Smits, Senior Certified Architect, IBM Blockchain



The Plan: 30 minute Chapters with an hour or two of practice

Chapter 1:	What is Blockchain? Concept and Architecture overview
Chapter 2:	What's the story we're going to build
Chapter 2.1:	Architecture for the Story
Chapter 3:	Set up local HyperLedger V1 development environment
Chapter 4:	Build and test the network
Chapter 5:	Administration User Experience
Chapter 6:	Buyer Support and User Experience
Chapter 7:	Seller Support and User Experience
Chapter 8:	Shipper Support and User Experience
Chapter 9:	Provider Support and User Experience
Chapter 10:	Finance Company Support and User Experience
Chapter 11:	Combining for Demonstration
Chapter 12:	Events and Automating for Demonstration



Finance Company View

- Display a simple list of all orders in the network

Zero to Blockchain Tutorial Select Language Admin Pkts Home

Order #	Status	Total	Buyer: not found
903	Order Created: 2017-10-24T13:28:07.968Z	\$38900.00	No Action Execute
904	Order Created: 2017-10-24T13:28:07.962Z	\$9125.00	No Action Execute
905	Order Created: 2017-10-24T13:28:09.403Z	\$9095.00	No Action Execute
906	Order Created: 2017-10-24T13:28:09.301Z	\$38900.00	No Action Execute
907	Order Created: 2017-10-24T13:28:09.230Z	\$9125.00	No Action Execute
908	Order Created: 2017-10-24T13:28:09.319Z	\$9095.00	No Action Execute
909	Order Created: 2017-10-24T13:28:09.303Z	\$38900.00	No Action Execute
abbykidhiendlyinc.com1508851790076	Order Cancelled: 2017-10-24T13:33:01.373Z	\$2770.00	No Action Execute
Order #	Status	Total	Buyer: not found

connect

Show order details on request

- Expand any order to show it's history upon request
- This uses a CSS 'accordion' action to open the detail when the order # is clicked and to close the detail when either the detail window or an order number is clicked.

UUB

Order Created: 2017-10-24T13:28:09.353Z

\$3000.00

No Action

Execute

Order #

Status

Total

Buyer not found

000

Order Created: 2017-10-24T13:28:09.353Z

\$3000.00

No Action

Execute

Order #

Status

Total

Buyer not found

abbykidfriendlyinc.com1508651710076

Order Cancelled: 2017-10-24T13:30:11.373Z

\$2770.00

No Action

Execute

Order #

Status

Total

Buyer not found

abbykidfriendlyinc.com1508651713650

Order Disputed: 2017-10-24T13:33:13.325Z
no 1Tb drives delivered

\$14905.00

No Action

Execute

Current Status: Order Disputed

Current Status:	By	Date	Comments
Created	resource:org.acme.Z28TestNetwork.Buyer#abby@kdfriendlyinc.com	2017-10-24T13:28:09.375Z	
Cancelled??		(not Cancelled)	
Purchased	resource:org.acme.Z28TestNetwork.Buyer#abby@kdfriendlyinc.com	2017-10-24T13:28:41.601Z	
3rd Party Order	resource:org.acme.Z28TestNetwork.Seller#Erin@2ndlifersystemsinc.com	2017-10-24T13:30:17.353Z	
Reordered??		(not Reordered)	
Shipping Requested	resource:org.acme.Z28TestNetwork.Provider#info@schardwarenowise.com	2017-10-24T13:31:41.700Z	
Shipping Started	resource:org.acme.Z28TestNetwork.Shipper#speedymatters@asterdyltr.com	2017-10-24T13:31:37.826Z	
Delivered	resource:org.acme.Z28TestNetwork.Shipper#speedymatters@asterdyltr.com	2017-10-24T13:31:36.248Z	
Payment Requested		2017-10-24T13:32:34.360Z	
Dispute Raised	resource:org.acme.Z28TestNetwork.Buyer#abby@kdfriendlyinc.com	2017-10-24T13:33:13.326Z	no 1Tb drives delivered
Dispute Resolved		Dispute is Unresolved	
Refund?		(No Refund in Process)	
Payment Approved		(No Approval from Buyer)	
Paid		(UnPaid)	

Order #

Status

Total

Buyer not found

abbykidfriendlyinc.com1508651713676

Payment Approved: 2017-10-24T13:33:17.631Z

\$5995.00

No Action

Execute

CSS for Accordion

- The magic of the accordion is accomplished through the combination of the acc_body class and either the on or off class.
 - acc_body + on displays the detail window
 - acc_body + off hides the detail window

```
.acc_header.on {  
    color: #000000;    border: .125em solid #298A08; font-size: 1.25em; text-align: center; font-style: bold;  
}  
.acc_body.on {  
    color: #298A08;    border: .125em solid #000000; visibility: visible;  
}  
.acc_header.off {  
    color: #000000;    border: .125em solid #E0F8E0; font-size: 1em; text-align:  
center; font-style: bold;  
}  
.acc_body.off {  
    color: #A4A4A4;    border: .125em solid #E0F8E0; visibility: hidden; height:  
0;  
}
```

javascript for Accordion

- This uses two routines:
 - accToggle activates or deactivates the current accordion. In our case, that means that this routine is invoked every time an order number is clicked to open the related detail window. It's also invoked when an open detail window is clicked.
 - But what happens when a detail window is opened and a different order number is clicked? The invoked behavior is to close the currently opened detail window. This is accomplished via the accOff function.

```
function accToggle(_parent, _body, _header)
{
    var parent = "#" + _parent;
    var body = "#" + _body;
    var header = _header;
    if ($(body).hasClass("on"))
    {
        $(body).removeClass("on"); $(body).addClass("off");
        $(parent).removeClass("on"); $(parent).addClass("off");
    } else
    {
        accOff(parent);
        $(body).removeClass("off"); $(body).addClass("on");
        $(parent).removeClass("off"); $(parent).addClass("on");
    }
}

/**
 *
 */
function accOff(target)
{
    var thisElement = $(target);
    var childNodes = thisElement.children();
    for (each in childNodes)
    {
        var node = "#" + childNodes[each].id;
        if (node != '#')
        {
            if ($(node).hasClass("on")) {$(node).removeClass("on");}
            $(node).addClass("off");
        }
    }
}
```

FinanceCo HTML

- As with the other user experience files, all text is abstracted to the prompts.json file and populated based on the selected language.

```
<h2 id="title"></h2>
|
|   <div class="scrollingPane showfocus finance">
|   |   <div class="showfocus container" id="financeC0orderDiv">
|   |   |   </div>
|   |   </div>
|   </div>
|   <div class="messagePane" id="finance_messages"></div>
|   <div class="bottom-hold"><button class="button-wide showfocus" id="financeC0clear"></button>
|   |   <button class="button-wide showfocus" id="financeC0orderStatus"></button></div>
```



FinanceCo javascript

- The magic of the accordion is accomplished here, at the end of the financeCo.js file. Two key lines have been added which invoke the accToggle function.

```
_target.append(_str);
for (let each in _orders)
  {(function(_idx, _arr)
    {
      $("#f_order"+_idx).on('click', function(){accToggle('financeC0orderDiv','order'+_idx+'_b', 'order'+_idx+'_h');});
      $("#order"+_idx+"_b").on('click', function(){accToggle('financeC0orderDiv','order'+_idx+'_b', 'order'+_idx+'_h');});
      $("#f_btn_"+_idx).on('click', function ()
      {
```



The Plan: 30 minute Chapters with an hour or two of practice

Chapter 1:	What is Blockchain? Concept and Architecture overview
Chapter 2:	What's the story we're going to build
Chapter 2.1:	Architecture for the Story
Chapter 3:	Set up local HyperLedger V1 development environment
Chapter 4:	Build and test the network
Chapter 5:	Administration User Experience
Chapter 6:	Buyer Support and User Experience
Chapter 7:	Seller Support and User Experience
Chapter 8:	Shipper Support and User Experience
Chapter 9:	Provider Support and User Experience
Chapter 10:	Finance Company Support and User Experience
Chapter 11:	Combining for Demonstration
Chapter 12:	Events and Automating for Demonstration



Chapter 11: Combining for Demonstration

Learning Bluemix & Blockchain

Bob Dill, IBM Distinguished Engineer, CTO Global Technical Sales
David Smits, Senior Certified Architect, IBM Blockchain

