

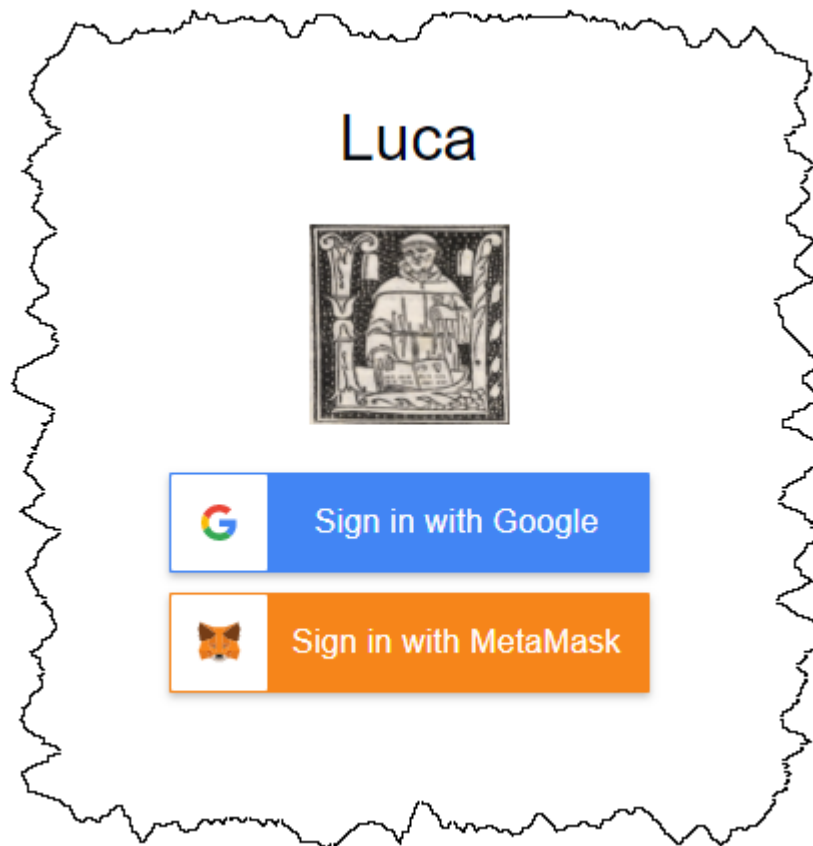
MINI Financial Reporting Scheme Tutorial

This tutorial walks you through creating a basic financial report for the **MINI Financial Reporting Scheme**¹ using a web application called Luca.

This tutorial introduces two new ideas. First, it introduces the notion of an XBRL-based financial reporting scheme. Second, we will begin to understand the internal workings of an XBRL-based financial report.

To use the Luca web application, navigate to the following URL in your browser:

<http://luca.yaxbri.com/>



Currently you can sign in using Google sign in or you can use the MetaMask crypto currency wallet. Simply click "Sign in with Google", select the Google account (gmail account) that you want to sign in with, and you will be logged into the application using that Google account. Alternatively, you can sign in using MetaMask by connecting Luca to your MetaMask wallet.

¹ *Common Elements of Financial Statements*,
http://xbri.site.azurewebsites.net/2020/intermediate/common/common_ModelStructure.html

If you don't have MetaMask, you can use *How to Install and Use MetaMask*² to understand that.

Note that the **Accounting Equation Tutorial**³ showed you how to input information into Luca manually. The **SFAC 6 Tutorial**⁴ taught you how to use the Luca import functionality. The Common Elements of Financial Report helped you import something that looked close to a very basic financial report. It is highly recommended that you work through all of those tutorials before you undertake this tutorial.

Luca is not just a GUI application. There is also an API interface to Luca. And with Luca, you can generate XBRL-based financial reports or (coming soon) generate a PDF, HTML, Microsoft Word, or Google Documents version of such reports. Fundamentally, Luca is a rules-based expert system API and a GUI for creating financial reports.

There are five primary objectives of this tutorial.

- The first objective is to make sure you are comfortable creating an entire XBRL-based financial report from importing information from Excel spreadsheets.
- The second objective is to help you build on your understanding the terms used to describe the logical model of a financial report.
- The third objective is to consolidate your understanding an XBRL-based financial reporting scheme.
- The fourth objective is to help you begin to move around within an XBRL-based financial report and understand the role of hypercubes in those reports by helping you get very familiar with a report that does not use hypercubes.
- The fifth objective is to introduce you to the notion of an extension concept.

The next step you will take when you undertake the PROOF Tutorial will be a very big leap. To prepare you for that leap, we want to set a rock-solid foundation for you. The MINI Tutorial will help set that solid foundation.

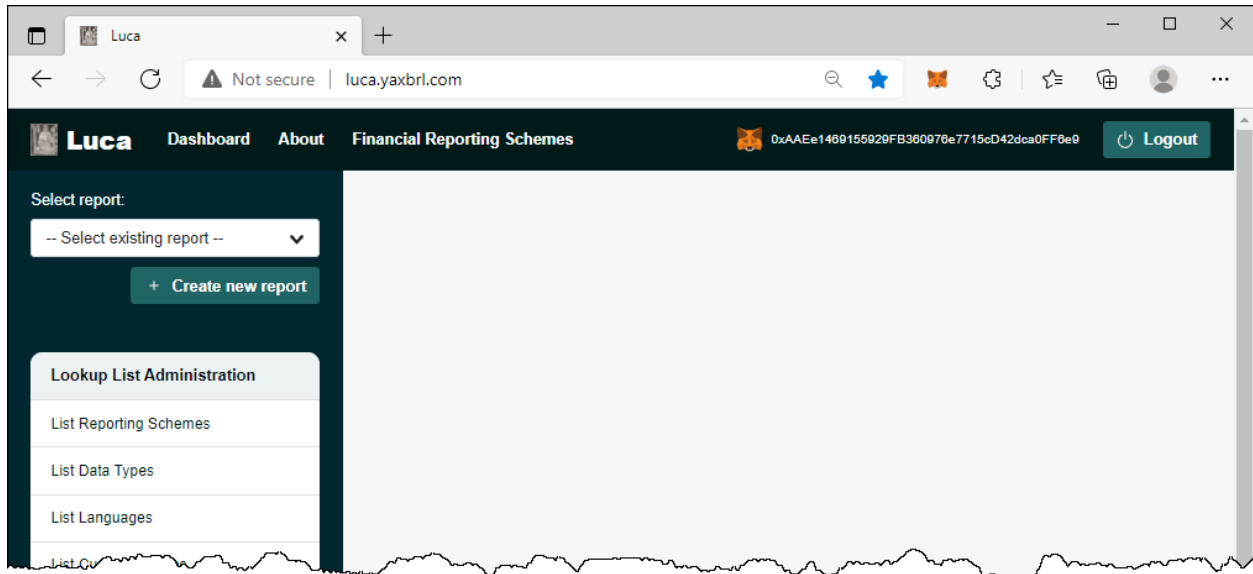
Start here:

After you sign in, in your browser window you will see something similar to the following:

² WeTrust, *How to Install and Use MetaMask*, <https://blog.wetrust.io/how-to-install-and-use-metamask-7210720ca047>

³ Accounting Equation Tutorial, <http://xbrlsite.azurewebsites.net/2021/luca/AccountingEquation-Tutorial.pdf>

⁴ SFAC 6 Tutorial, <http://xbrlsite.azurewebsites.net/2021/luca/SFAC6-Tutorial.pdf>



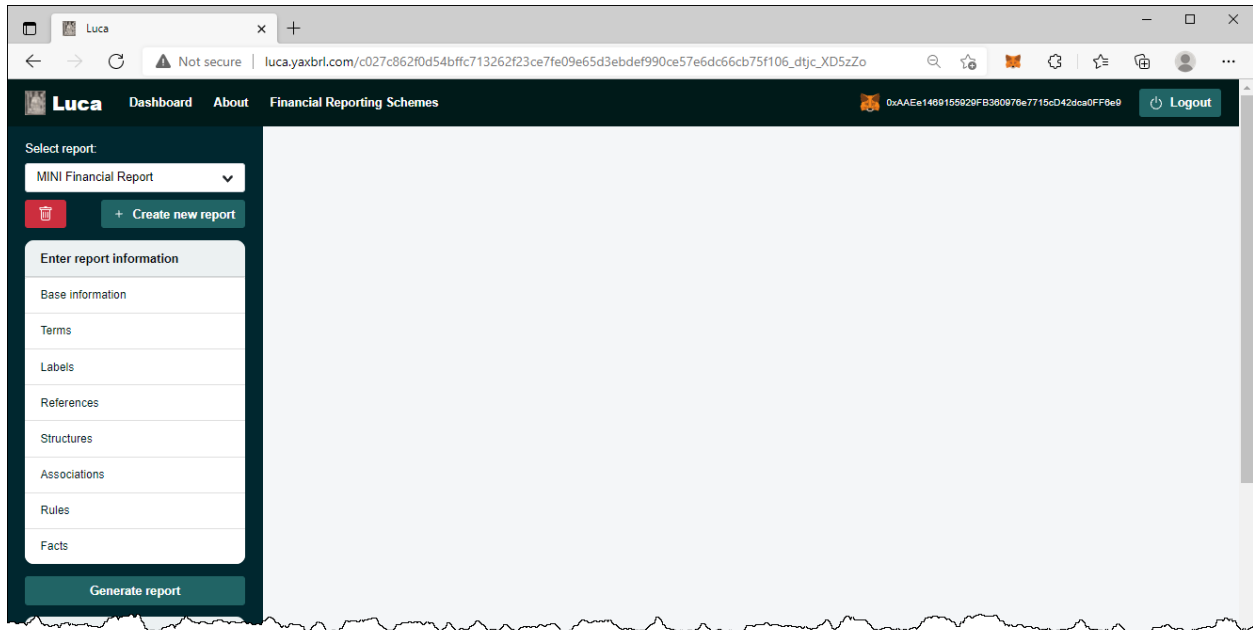
From the left and side of the screen notice the green “Create new report” button. Click that button to create a new report and the following form will be shown:

A screenshot of a modal window titled 'Add new report' with a close button (X) in the top right corner. Inside the modal, there is a text input field labeled 'Report name' containing the text 'MINI Financial Report'. At the bottom right of the modal, there are two buttons: a green 'Save' button and a red 'Cancel' button.

In the report name field enter the name of the report which you would like to create. We will be creating the MINI financial report, so enter “MINI Financial Report” or something like that.

Press the green “Save” button to create the new report.

A shell has been created for your report and your browser application should look something like what you see below. Note your “MINI Financial Report” report is selected and there is a menu of information which needs to be entered to create the report displayed.



We are trying to keep this tutorial as simple as possible. We encourage you to follow each step exactly in order to get the most out of this tutorial. We will build on this foundation in further tutorials that increase the complexity of the financial report being created. This tutorial simply walks you through the basics of some specific tasks.

Also recognize that Luca is a work in progress and incremental improvements will be made to make the application easier to use and increase functionality.









Let's get started.

Step 1: Obtain the import files.

The first thing you need to do for this tutorial is to download the import files that will be used. You can get that ZIP archive here:

<http://xbri.site.azurewebsites.net/2021/luca/mini-import.zip>

Download the file, unzip the file into a folder, and your files should look something like this:

Name	Date modified	Type	Size
 mini-associations.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	16 KB
 mini-baseinformation.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	10 KB
 mini-facts.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	14 KB
 mini-labels.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	11 KB
 mini-references.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	10 KB
 mini-rules.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	11 KB
 mini-structures.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	10 KB
 mini-terms.xlsx	10/11/2021 8:38 AM	Microsoft Excel Worksheet	14 KB

We already covered the import steps in detail in the SFAC 6 tutorial and you repeated those steps in the Common Elements Tutorial. If you need a refresher on those exact steps, please work through those tutorials again. In this tutorial we not going to cover every detail.

Step 2: Import Basic information.

Import the base information: (mini-baseinformation.xlsx)

If you open the Excel spreadsheet you will see the information below:

Code	NamespacePrefix	NamespaceIdentifier	SchemaLocation	DefaultLanguage	TaxonomyDescription
Local	report	http://www.xbrlsite.com/report	report.xsd	en	Report using MINI Financial Reporting Scheme
Import	mini	http://accounting.auditchain.finance/mini	http://accounting.auditchain.finance/reporting-scheme/mini/base-taxonomy/mini.xsd	en	MINI Financial Reporting Scheme

We covered the difference between a Local taxonomy (your report model) and an Import taxonomy (a base taxonomy for a reporting scheme) in prior tutorials. The first row in the Base Information spreadsheet is your report model and the second row points to a *MINI Financial Reporting Scheme* which we will be using to create your report model.

We pointed you to a very basic view of a base taxonomy in the *Common Elements of Financial Statement* tutorial. We want to show you the similar HTML file for viewing the base taxonomy which you can see here⁵. (If you are curious, here is the XBRL taxonomy schema⁶ if you want to explore that.

⁵ MINI Financial Reporting Scheme Base Taxonomy, http://accounting.auditchain.finance/reporting-scheme/mini/base-taxonomy/mini_ModelStructure.html

⁶ MINI Financial Reporting Scheme XBRL taxonomy schema, <http://accounting.auditchain.finance/reporting-scheme/mini/base-taxonomy/mini.xsd>

Line	Label	Object Class	Period Type	Balance	Report ElementName
1	1001 - Document - Document Information	Network			http://accounting.auditchain.finance/mini/role/level4/DocumentInformation
2	Document Information [Hypercube]	Hypercube			mini:DocumentInformationHypercube
3	Document Information [Line Items]	LineItems			mini:DocumentInformationLineItems
4	Document Information [Set]	Abstract			mini:DocumentInformationSet
5	Reporting Style Code	Concept (xbrli:itemType)	For Period		mini:ReportingStyleCode
6	Document Title	Concept (Text/String)	For Period		mini:DocumentTitle
7	Balance Sheet Date	Concept (Date)	For Period		mini:BalanceSheetDate
8	Income Statement Start Period	Concept (Date)	For Period		mini:IncomeStatementStartPeriod
9	Document Identifier	Concept (Text/String)	For Period		mini:DocumentIdentifier
10	Document Fiscal Period Focus	Concept (xbrli:itemType)	For Period		mini:DocumentFiscalPeriodFocus
11	Document Fiscal Year Focus	Concept (xbrli:itemType)	For Period		mini:DocumentFiscalYearFocus
12	1101 - Document - Entity Information	Network			http://accounting.auditchain.finance/mini/role/level4/EntityInformation
13	Entity Information [Hypercube]	Hypercube			mini:EntityInformationHypercube
14	Entity Information [Line Items]	LineItems			mini:EntityInformationLineItems
15	Entity Information [Set]	Abstract			mini:EntityInformationSet
16	Economic Entity Name	Concept (Text/String)	For Period		mini:EconomicEntityName
17	Economic Entity Identifier	Concept (xbrli:itemType)	For Period		mini:EconomicEntityIdentifier
18	1102 - Statement - Balance Sheet	Network			http://accounting.auditchain.finance/mini/role/level4/BalanceSheet
19	Balance Sheet [Hypercube]	Hypercube			mini:BalanceSheetHypercube
20	Balance Sheet [Line Items]	LineItems			mini:BalanceSheetLineItems
21	Assets [Roll Up]	Abstract			mini:AssetsRollUp
22	Current Assets [Roll Up]	Abstract			mini:CurrentAssetsRollUp
23	Cash and Cash Equivalents	Concept (Monetary)	As Of Debit		mini:CashAndCashEquivalents
24	Receivables	Concept (Monetary)	As Of Debit		mini:Receivables
25	Inventories	Concept (Monetary)	As Of Debit		mini:Inventories
26	Current Assets	Concept (Monetary)	As Of Debit		mini:CurrentAssets
27	Noncurrent Assets [Roll Up]	Abstract			mini:NoncurrentAssetsRollUp
28	Property, Plant and Equipment	Concept (Monetary)	As Of Debit		mini:PropertyPlantAndEquipment
29	Noncurrent Assets	Concept (Monetary)	As Of Debit		mini:NoncurrentAssets
30	Assets	Concept (Monetary)	As Of Debit		mini:Assets
31	Liabilities and Equity [Roll Up]	Abstract			mini:LiabilitiesAndEquityRollUp

Another more enhanced view of the MINI Financial Reporting Scheme base taxonomy and other related information can be found here⁷ and looks like what you see in the screenshot below:

Term	Category
Accounts Payable	Concept
Accounts Payable [Roll Forward]	Abstract
Accounts Payable [Roll Up]	Abstract
Accounts Payable Note [Hypercube]	Table
Accounts Payable Note [Line Items]	Abstract
Accounts Payable Note [Text Block]	Concept
Accounts Payable Policies [Text Block]	Concept
Accounts Payable Roll Forward [Hypercube]	Table
Accounts Payable Roll Forward [Line Items]	Abstract

If you look at each of the Excel spreadsheets from the set of files you downloaded for the MINI Tutorial, you will notice that information in those Excel spreadsheets is the same as what you see in the HTML page that you see above and the enhanced information for the full financial reporting scheme. The

⁷ MINI Financial Reporting Scheme, <http://accounting.auditchain.finance/reporting-scheme/mini/documentation/Terms.html>

report that you will be creating DOES DEFINE one report element of it's own; all of the other report elements are referenced from taxonomy, *MINI Financial Reporting Scheme*, which is the base XBRL taxonomy of the report we are creating.

So, the MINI Financial Reporting Scheme is acting similar to the base XBRL taxonomies for US GAAP or IFRS. It is small and contains fewer report elements, labels, references, structures, and associations; but the ideas are exactly the same. We are simply keeping our example small to help you understand the basic ideas of XBRL-based financial reports.

Explore the MINI Financial Reporting Scheme pieces. Consider modifying the Excel import spreadsheets to create a different report.

Notice something as you explore. Notice that the MINI Financial Reporting Scheme itself does provide hypercubes in the definition of the financial reporting scheme. But the report we are creating does not make use of any of those hypercubes. Just be aware of them for now, we will explain all this in later tutorials. If you are curious and need to explore this more, please refer to the document *Representing Structures*⁸ in *Mastering XBRL-based Digital Financial Reporting*⁹. That is enough about hypercubes for now, let's move on.

Note that Luca does not currently have an interface for reading base taxonomies or creating things like associations with report elements. That functionality will be added eventually. A lot more functionality will be added¹⁰. Be patient, we want to get the foundation right.

Don't worry about this any more than we have mentioned right now. We will dive into this in much more detail in another tutorial.

Good job, we imported the base information and you can see what a base taxonomy looks like. Let's import everything else.

Step 3: Import Terms information.

Import the base information: (mini-terms.xlsx)

Category	StandardLabel	Prefix	ReportElementName	Data Type	BalanceType	PeriodType
Concept	Accounts Payable	mini	AccountsPayable	Monetary	Credit	Instant
Abstract	Accounts Payable [Roll Forward]	mini	AccountsPayableRollForward			
Concept	Additional Long-term Borrowings	mini	AdditionalLongtermBorrowings	Monetary	Debit	Duration
Concept	Additional Long-term Borrowings 2	mini	AdditionalLongtermBorrowings2	Monetary	Credit	Duration
Concept	Assets	mini	Assets	Monetary	Debit	Instant
Abstract	Assets [Roll Up]	mini	AssetsRollUp			
Concept	Capital Additions of Property, Plant and Equipment	mini	CapitalAdditionsPropertyPlantAndEquipment	Monetary	Credit	Duration
Concept	Capital Additions of Property, Plant and Equipment 2	mini	CapitalAdditionsPropertyPlantAndEquipment2	Monetary	Debit	Duration
Concept	Cash and Cash Equivalents	mini	CashAndCashEquivalents	Monetary	Debit	Instant
Abstract	Cash and Cash Equivalents [Roll Forward]	mini	CashAndCashEquivalentsRollForward			
Abstract	Cash Flow Statement [Roll Forward]	mini	CashFlowStatementRollForward			

Step 4: Import Labels information.

Import the base information: (mini-labels.xlsx)

⁸ *Representing Structures*,

http://www.xbrlsite.com/mastering/Part02_Chapter05.H_RepresentingStructuresUsingHypercubes.pdf

⁹ *Mastering XBRL-based Digital Financial Reporting*, <http://xbrl.squarespace.com/mastering-xbrl/>

¹⁰ Recommender Systems, <http://xbrl.squarespace.com/journal/2021/9/19/recommender-systems.html>

Term	Language	LabelRole	Label
mini:AccountsPayable	en	PeriodEnd	Accounts Payable, Ending Balance
mini:AccountsPayable	en	PeriodStart	Accounts Payable, Beginning Balance
mini:AccountsPayable	en	Negated	Accounts Payable
mini:AdditionalLongtermBorrowings	en	Negated	Additional Long term Borrowings
mini:CapitalAdditionsPropertyPlantAndEquipment2	en	Negated	Capital Additions of Property, Plant and Equipment 2
mini:CapitalAdditionsPropertyPlantAndEquipment	en	Negated	Capital Additions of Property, Plant and Equipment
mini:CashAndCashEquivalents	en	PeriodEnd	Cash and Cash Equivalents, Ending Balance

Step 5: Import References information.

Import the base information: (mini-references.xlsx)

ReportElementName	ReferenceRole	Publisher	Name	Number	Paragraph	URI	URIDate	Sequence
mini:Assets	Standard	TEST	Test	1	1	http://xbrlsite.azurewebsites.net/2021/library/reference.html	2021-02-14	1
mini:Equity	Standard	TEST	Test	1	1	http://xbrlsite.azurewebsites.net/2021/library/reference.html	2021-02-14	2
mini:Liabilities	Standard	TEST	Test	1	1	http://xbrlsite.azurewebsites.net/2021/library/reference.html	2021-02-14	3

Step 6: Import Structures information.

Import the base information: (mini-structures.xlsx)

NetworkIdentifier	NetworkTitle	Sequence
BalanceSheet	1110 - Statement - Balance Sheet	1
IncomeStatement	1120 - Statement - Income Statement	2
CashFlowStatement	1130 - Statement - Cash Flow Statement	3
ChangesInEquity	1140 - Statement - Statement of Changes in Equity	4
BalanceSheet	1150 - Statement - Balance Sheet	5

Step 7: Import Associations information.

Import the base information: (mini-associations.xlsx)

StructureType	NetworkIdentifier	AssociationFromName	AssociationRole	AssociationToName	CalculationPolarity	PreferredLabelRole	Sequence
Presentation	BalanceSheet	mini:AssetsRollUp	Parent-Child	mini:CurrentAssetsRollUp			2
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:CashAndCashEquivalents			3
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:Receivables			4
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:Inventories			5
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:CurrentAssets			6
Presentation	BalanceSheet	mini:AssetsRollUp	Parent-Child	mini:NoncurrentAssetsRollUp			7
Presentation	BalanceSheet	mini:NoncurrentAssetsRollUp	Parent-Child	mini:PropertyPlantAndEquipment			8
Presentation	BalanceSheet	mini:NoncurrentAssetsRollUp	Parent-Child	mini:NoncurrentAssets			9
Presentation	BalanceSheet	mini:AssetsRollUp	Parent-Child	mini:Assets			10

Step 8: Import Rules information.

Import the base information: (common-rules.xlsx)

StructureType	NetworkIdentifier	AssociationFromName	AssociationRole	AssociationToName	CalculationPolarity	PreferredLabelRole	Sequence
Presentation	BalanceSheet	mini:AssetsRollUp	Parent-Child	mini:CurrentAssetsRollUp			2
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:CashAndCashEquivalents			3
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:Receivables			4
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:Inventories			5
Presentation	BalanceSheet	mini:CurrentAssetsRollUp	Parent-Child	mini:CurrentAssets			6
Presentation	BalanceSheet	mini:AssetsRollUp	Parent-Child	mini:NoncurrentAssetsRollUp			7
Presentation	BalanceSheet	mini:NoncurrentAssetsRollUp	Parent-Child	mini:PropertyPlantAndEquipment			8
Presentation	BalanceSheet	mini:NoncurrentAssetsRollUp	Parent-Child	mini:NoncurrentAssets			9
Presentation	BalanceSheet	mini:AssetsRollUp	Parent-Child	mini:Assets			10

Notice that there are two types of rules: ConsistencyRules and RollForwardRules. We will explain that later, for now just be aware of the difference.

Step 9: Import Facts information.

Import the base information: (common-facts.xlsx)

ReportingEntityAspect	CalendarPeriodAspect	ConceptAspect	FactValue	Units	Rounding	Sequence
30810137d58f76b84afd http://standards.iso.org/iso/17442	2019-12-31	mini:AccountsPayable	1595349.42	iso4217:USD	2	1
30810137d58f76b84afd http://standards.iso.org/iso/17442	2019-12-31	mini:CashAndCashEquivalents	398937.76	iso4217:USD	2	2
30810137d58f76b84afd http://standards.iso.org/iso/17442	2019-12-31	mini:Inventories	467010.2	iso4217:USD	2	3
30810137d58f76b84afd http://standards.iso.org/iso/17442	2019-12-31	mini:LongtermDebt	361285.69	iso4217:USD	2	4
30810137d58f76b84afd http://standards.iso.org/iso/17442	2019-12-31	mini:PropertyPlantAndEquipment	1266995.32	iso4217:USD	2	5
30810137d58f76b84afd http://standards.iso.org/iso/17442	2019-12-31	mini:Receivables	1231338.47	iso4217:USD	2	6
30810137d58f76b84afd http://standards.iso.org/iso/17442	2019-12-31	mini:RetainedEarnings	1407646.64	iso4217:USD	2	7
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-12-31	mini:AccountsPayable	2689452.31	iso4217:USD	2	8
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-12-31	mini:CashAndCashEquivalents	-648551.94	iso4217:USD	2	9
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-12-31	mini:Inventories	451842.19	iso4217:USD	2	10
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-12-31	mini:LongtermDebt	338349.05	iso4217:USD	2	11
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-12-31	mini:PropertyPlantAndEquipment	1245567.16	iso4217:USD	2	12

Step 10: Generate Report (your XBRL taxonomy schema, XBRL linkbases, and XBRL instance)

You have successfully imported everything. Now, we will generate the report model and the report.

To do that, from the main form press the green “Generate report” button on the left side and you will see:

Generate XSD

Generate LAB

Generate PRE

Generate REF

Generate DEF

Generate CAL

Generate FOR

Generate INS

```

<?xml version="1.0" encoding="UTF-8"?>
<!-- Generated by http://lucy.xbrl.com -->
<!-- 2021-10-11 16:16:43 -->
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:link="http://www.w3.org/1999/link"
  xmlns:linkbase="http://www.xbrl.org/2003/linkbase"
  xmlns:instance="http://www.xbrl.org/2003/instance"
  xmlns:num="http://www.xbrl.org/2003/numeric"
  xmlns:nonnum="http://www.xbrl.org/2003/non-numeric"
  xmlns:brdt="http://xbrl.org/2005/brdt"
  xmlns:generic="http://xbrl.org/2008/generic"
  elementFormDefault="qualified" targetNamespace="http://www.xbrl.com/report" xmins:report="http://www.xbrl.com/report" xmins:mini="http://accounting.auditchain.finance/mini" >

  <xsd:annotation>
    <xsd:appinfo>
      <link:linkbaseRef xlink:type="simple" xlink:role="http://www.xbrl.org/2003/role/labelLinkbaseRef" xlink:arcrole="http://www.w3.org/1999/link/properties/linkbase" xlink:href="report-lab.xml" xlink:title="Label Links, all" />
      <link:linkbaseRef xlink:type="simple" xlink:role="http://www.xbrl.org/2003/role/presentationLinkbaseRef" xlink:arcrole="http://www.w3.org/1999/link/properties/linkbase" xlink:href="report-pre.xml" xlink:title="Presentation Links, all" />
      <link:linkbaseRef xlink:type="simple" xlink:role="http://www.xbrl.org/2003/role/calculationLinkbaseRef" xlink:arcrole="http://www.w3.org/1999/link/properties/linkbase" xlink:href="report-cal.xml" xlink:title="Calculation Links, all" />
      <link:linkbaseRef xlink:type="simple" xlink:role="http://www.xbrl.org/2003/role/definitionLinkbaseRef" xlink:arcrole="http://www.w3.org/1999/link/properties/linkbase" xlink:href="report-def.xml" xlink:title="Definition Links, all" />
    </link:linkbaseRef>
    <link:linkType roleURI="http://www.xbrl.com/role/BalanceSheet" id="BalanceSheet">
      <link:linkDefinition>1110 - Statement - Balance Sheet</link:linkDefinition>
      <link:linkOn>link:presentationLink</link:linkOn>
      <link:linkOn>link:calculationLink</link:linkOn>
      <link:linkOn>link:definitionLink</link:linkOn>
      <link:linkOn>generic:link</link:linkOn>
    </link:linkType>
    <link:linkType roleURI="http://www.xbrl.com/role/IncomeStatement" id="IncomeStatement">
      <link:linkDefinition>1120 - Statement - Income Statement</link:linkDefinition>
      <link:linkOn>link:presentationLink</link:linkOn>
      <link:linkOn>link:calculationLink</link:linkOn>
      <link:linkOn>link:definitionLink</link:linkOn>
      <link:linkOn>generic:link</link:linkOn>
    </link:linkType>
    <link:linkType roleURI="http://www.xbrl.com/role/CashFlowStatement" id="CashFlowStatement">
      <link:linkDefinition>1130 - Statement - Cash Flow Statement</link:linkDefinition>
      <link:linkOn>link:presentationLink</link:linkOn>
      <link:linkOn>link:calculationLink</link:linkOn>
      <link:linkOn>link:definitionLink</link:linkOn>
      <link:linkOn>generic:link</link:linkOn>
    </link:linkType>
    <link:linkType roleURI="http://www.xbrl.com/role/ChangesInEquity" id="ChangesInEquity">
      <link:linkDefinition>1140 - Statement - Statement of Changes in Equity</link:linkDefinition>
      <link:linkOn>link:presentationLink</link:linkOn>
      <link:linkOn>link:calculationLink</link:linkOn>
      <link:linkOn>link:definitionLink</link:linkOn>
      <link:linkOn>generic:link</link:linkOn>
    </link:linkType>
    <link:linkType roleURI="http://www.xbrl.com/role/CashAndCashEquivalents" id="CashAndCashEquivalents">
      <link:linkDefinition>1210 - Disclosure - Cash and Cash Equivalents Roll Forward</link:linkDefinition>
    </link:linkType>
  </xsd:annotation>
</xsd:schema>

```

Download All

Download file

You could download each individual file by pressing the appropriate button on the left side for the file, then the “Download file” button in the lower right hand corner.

Alternatively, press the “Download All” button at the bottom LEFT of the form to download a ZIP archive that contains all XBRL files generated. Alternatively on the RIGHT you can download each file individually.

Step 10: Verify the information output into that XBRL format.

Several XBRL files will be generated that contain the information that you entered into the Luca application. You can open these files using any XBRL tool.

For this example, I will show taking the ZIP archive of files downloaded, upload the files to verify the report and report model XBRL files created by Luca using XBRL Cloud's *CleanScore*¹¹ browser-based tool which generates an *Evidence Package* for humans to review such reports.

I have an account with XBRL Cloud, so I simply log into my account, create a subdirectory, and then upload the ZIP file that I received from Luca into that subdirectory:

¹¹ XBRL Cloud, *CleanScore*, <https://www.xbrlcloud.com/evidence-package.html>

Here I have chosen the file to upload:

The screenshot shows the XBRL Cloud Directory Listing interface. The browser address bar displays the URL: <https://cleanscore.xbrlcloud.com/rest/path;/user;share:me.com;ATEST>. The page header includes the XBRL Cloud logo and navigation links: CleanScore, GAAPWatch, EDGAR Dashboard, and USFAC Dashboard. The user's name, Charles Hoffman, is displayed in the top right corner. The main content area shows a directory listing with columns: File Name, Last Modified, and Options. A red box highlights the 'Choose File' dropdown menu, which is open, showing the file 'all-reports.zip' selected. Below the dropdown, there are buttons for 'Upload' and 'Create Folder'. The footer contains copyright information: Copyright (c) 2019 - 2021 XBRL Cloud, Inc. All Rights Reserved. Terms of Service | Privacy Policy | Send us feedback.

Here, the files have been uploaded:

The screenshot shows the XBRL Cloud Directory Listing interface after the files have been uploaded. The browser address bar displays the URL: <https://cleanscore.xbrlcloud.com/rest/path;/user;share:me.com;ATEST>. The page header includes the XBRL Cloud logo and navigation links: CleanScore, GAAPWatch, EDGAR Dashboard, and USFAC Dashboard. The user's name, Charles Hoffman, is displayed in the top right corner. The main content area shows a directory listing with columns: File Name, Interactive Reviewer, Evidence Package, Validate, Taxonomy Excel, All Reports, Last Modified, and Options. The table lists the following files:

File Name	Interactive Reviewer	Evidence Package	Validate	Taxonomy Excel	All Reports	Last Modified	Options
instance.xml	Interactive Reviewer	Evidence Package (Excel)	Validate (Excel)	Taxonomy Excel	All Reports...	Sun Oct 10 23:00:10 UTC 2021	Delete
report-cal.xml					All Reports...	Sun Oct 10 23:00:11 UTC 2021	Delete
report-def.xml					All Reports...	Sun Oct 10 23:00:11 UTC 2021	Delete
report-for.xml					All Reports...	Sun Oct 10 23:00:11 UTC 2021	Delete
report-lab.xml					All Reports...	Sun Oct 10 23:00:10 UTC 2021	Delete
report-pre.xml					All Reports...	Sun Oct 10 23:00:10 UTC 2021	Delete
report-ref.xml					All Reports...	Sun Oct 10 23:00:10 UTC 2021	Delete
report.xsd				Taxonomy Excel	All Reports...	Sun Oct 10 23:00:11 UTC 2021	Delete

Below the table, there are buttons for 'Upload' and 'Create Folder'. The footer contains copyright information: Copyright (c) 2019 - 2021 XBRL Cloud, Inc. All Rights Reserved. Terms of Service | Privacy Policy | Send us feedback.

I can do a quick check to see a summary report that lets me know if any issues were found with the XBRL-based report model or report:

Validation Summary

Severity	Signal	Count
ERROR		0
WARNING		0
REVIEW		0
INCONSISTENCY		0
BEST_PRACTICE		0
INFORMATION		0
Total		0

No Validation Errors!

Or, I can get an Evidence Package that provides a human-readable view of the report: (I have provided a copy of this so you can download¹² the Evidence Package or view it online¹³)

Component Perspective

Overview Perspective

▼ Statements - Detail (4)

1110 - Statement - Balance Sheet

Rendering | Model Structure | Fact Table

Business Rules | Combined

1120 - Statement - Income Statement

Rendering | Model Structure | Fact Table

Business Rules | Combined

1130 - Statement - Cash Flow Statement

Rendering | Model Structure | Fact Table

Business Rules | Combined

1140 - Statement - Statement of Changes in Equity

Rendering | Model Structure | Fact Table

Business Rules | Combined

► Notes - Level 4 Detail (9)

► All Components (13)

Rendering

Component: (Network and Table)

Network

1110 - Statement - Balance Sheet
(http://www.xbrlsite.com/role/BalanceSheet)

Table

(Implied)

Slicers (applies to each fact value in each table cell)

Reporting Entity [Axis]

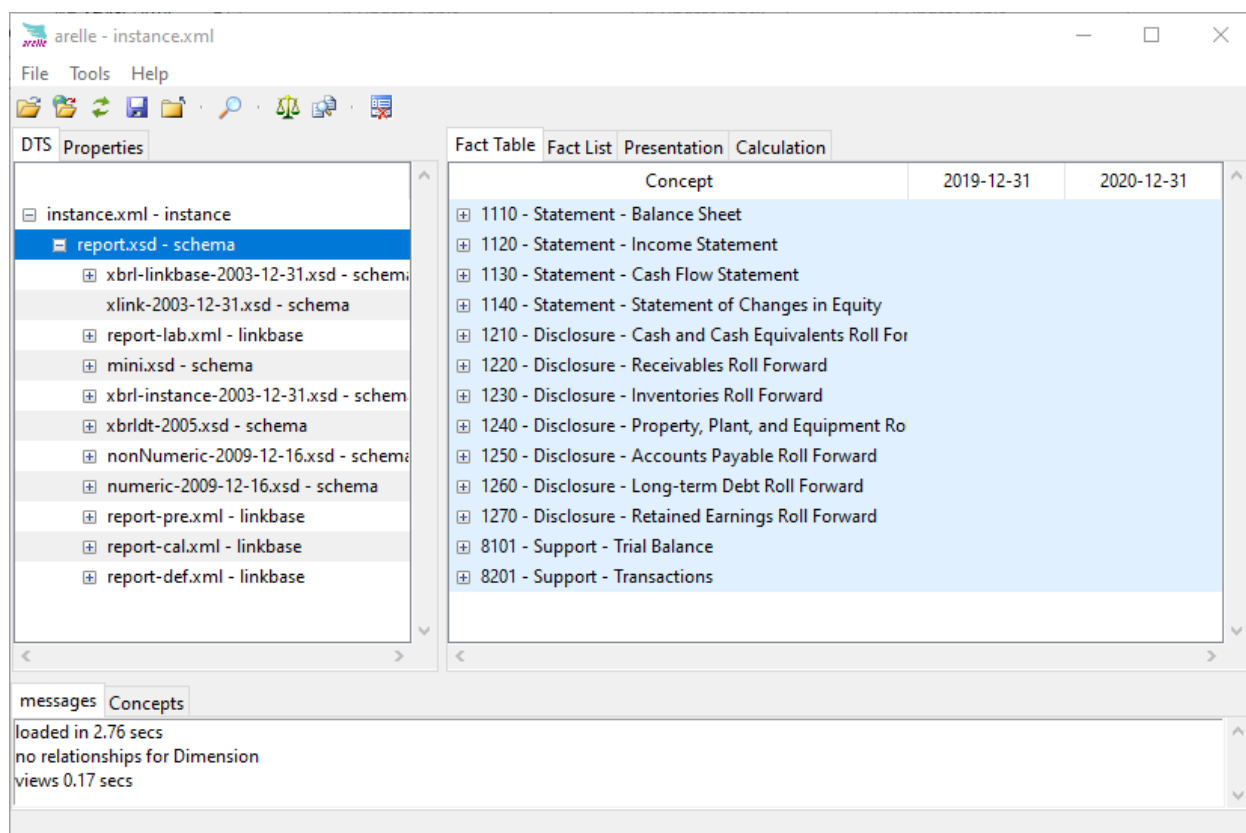
30810137d58f76b84afd (http://standards.iso.org/iso/17442)

Concept	Period [Axis]	
	2020-12-31	2019-12-31
Assets [Roll Up]		
Current Assets [Roll Up]		
Cash and Cash Equivalents	(648,551.94)	398,937.76
Receivables	2,035,468.27	1,231,338.47
Inventories	451,842.19	467,010.20
Current Assets	1,838,758.52	2,097,286.43
Noncurrent Assets [Roll Up]		
Property, Plant and Equipment	1,245,567.16	1,266,995.32
Noncurrent Assets	1,245,567.16	1,266,995.32
Assets	3,084,325.68	3,364,281.75
Liabilities and Equity [Roll Up]		
Liabilities [Roll Up]		
Current Liabilities [Roll Up]		
Accounts Payable	2,689,452.31	1,595,349.42
Current Liabilities	2,689,452.31	1,595,349.42
Noncurrent Liabilities [Roll Up]		
Long-term Debt	338,349.05	361,285.69
Noncurrent Liabilities	338,349.05	361,285.69
Liabilities	3,027,801.36	1,956,635.11
Equity [Roll Up]		
Retained Earnings	56,524.32	1,407,646.64
Equity	56,524.32	1,407,646.64
Liabilities and Equity	3,084,325.68	3,364,281.75

¹² XBRL Cloud Evidence Package Download, <http://xbrlsite.azurewebsites.net/2021/Luca/mini/evidence-package.zip>

¹³ XBRL Cloud Evidence Package available online, <http://xbrlsite.azurewebsites.net/2021/Luca/mini/evidence-package>

Alternatively, you can download the open source XBRL processor GUI Arelle¹⁴ and use that to verify the XBRL-based financial report you created using Luca:



Arelle is a bit technical oriented...ok, well; it is quite technical oriented. It does most of what you need, but you have to invest in learning how to use the tool effectively. The price is good (i.e. free).

Step 11: Viewing Report and Report Model.

Next, you can view the report model and report you created using the free working proof of concept Pesseract¹⁵. You can download and use Pesseract free for non-commercial purposes. Contact me (Charles.Hoffman@me.com) and ask me for a license and I will send you a license. This application does require Windows 7 or 10. Pesseract does some XBRL syntax verification, but it is not yet a fully conformant XBRL processor.

Here is what the report and the report model look like in Pesseract:

¹⁴ Arelle Download, <https://arelle.org/arelle/pub/>

¹⁵ Pesseract, <http://pesseract.azurewebsites.net/>

Report:

The screenshot displays the 'XBRL-based general business reports' application. The main window shows a financial statement report for '1110 - Statement - Balance Sheet'. The report is structured as a table with columns for 'Reporting Entity [Axis]', 'Unit [Axis]', and 'Period [Axis]'. The data is presented for the period 2020-12-31 and 2019-12-31. The report includes sections for 'Assets [Roll Up]', 'Liabilities and Equity [Roll Up]', and 'Equity [Roll Up]'. The 'Assets' section is further divided into 'Current Assets' and 'Noncurrent Assets'. The 'Liabilities and Equity' section is divided into 'Current Liabilities' and 'Noncurrent Liabilities'. The 'Equity' section is divided into 'Equity' and 'Noncurrent Liabilities'. The report is displayed in a table format with a 'Table' component selected in the 'Component View'.

Reporting Entity [Axis]	Unit [Axis]	Period [Axis]	2020-12-31	2019-12-31
30810137d5876b84afd http://standards.iso.org/iso/17442	USD			
Assets [Roll Up]				
Current Assets [Roll Up]				
Cash and Cash Equivalents			(648,552)	398,938
Receivables			2,035,468	1,231,338
Inventories			451,842	467,010
Current Assets			1,838,759	2,097,286
Noncurrent Assets [Roll Up]				
Property, Plant and Equipment			1,245,567	1,266,995
Noncurrent Assets			1,245,567	1,266,995
Assets			3,084,326	3,364,282
Liabilities and Equity [Roll Up]				
Liabilities [Roll Up]				
Current Liabilities [Roll Up]				
Accounts Payable			2,689,452	1,595,349
Current Liabilities			2,689,452	1,595,349
Noncurrent Liabilities [Roll Up]				
Long-term Debt			338,349	361,286
Noncurrent Liabilities			338,349	361,286
Liabilities			3,027,801	1,956,635
Equity [Roll Up]				

Report model:

The screenshot displays the 'XBRL-based general business reports' application in the 'Taxonomy View'. The main window shows a table of report models. The table has columns for 'Prefix', 'Label', 'Name', 'Element Type', 'Data Type', 'Balance', and 'Period Type'. The report models are listed in a tree view on the left, with '1110 - Statement - Balance Sheet' selected. The 'Properties' panel on the right shows the details for the selected report model, including 'Name', 'Type', 'Substitution Group', 'Period Type', 'Balance', 'Abstract', 'Nilable', and 'Prefix'. The 'Labels' panel on the right shows the labels for the selected report model, including 'Role', 'Label', 'Language', and 'Text'.

Prefix	Label	Name	Element Type	Data Type	Balance	Period Type
mini	Accounts Payable	AccountsPayable	Element	Monetary	credit	instant
mini	Accounts Payable [Roll Forward]	AccountsPayableRollForward	Abstract	String		duration
mini	Accounts Payable [Roll Up]	AccountsPayableRollUp	Abstract	String		duration
mini	Accounts Payable Note [Hypercube]	AccountsPayableNoteHypercube	Abstract	String		duration
mini	Accounts Payable Note [Line Items]	AccountsPayableNoteLineItems	Abstract	String		duration
mini	Accounts Payable Note [Text Block]	AccountsPayableNoteTextBlock	Element			duration
mini	Accounts Payable Policies [Text Block]	AccountsPayablePoliciesTextBlock	Element			duration

Understanding and Navigating the Report

We want to point out a handful of features of digital financial reports. The reports are made up of thousands of pieces of information that form what can be thought of as a knowledge graph¹⁶. These knowledge graphs offer some interesting and useful capabilities. For example, notice the report element “Cash and Cash Equivalents”. When you click on the report element, information about that report element is shown:

The screenshot shows a digital financial report interface. A table titled 'Current Assets [Roll Up]' is visible, with 'Cash and Cash Equivalents' highlighted in yellow. A 'Report Element Properties' dialog box is open, showing the following information:

Properties	Labels	References	Occurrences	To Do
Report Standard	Cash and Cash Equivalents			
Base Standard I				
Documentation	No definition provided.			
Properties				
Class	[Concept] Monetary			
Prefix	mini			
Name	mini:CashAndCashEquivalents			
Other				
Balance Type	Debit			
Period Type	As Of (instant)			
Data Type	Monetary (xbrli:monetaryItemType)			
ID	mini_CashAndCashEquivalents			

Similar information can be shown for each reported fact:

The screenshot shows the same digital financial report interface. A 'Fact Characteristics and Properties' dialog box is open, showing the following information:

Properties	Occurrences	To Do
Reporting Entity	30810137d58f76b84afd http://standards.iso.org/iso/1...	
Period	2020-12-31	
Concept	Cash and Cash Equivalents	
Name	mini:CashAndCashEquivalents	
Prefix	mini	
Balance Type	Debit	
Period Type	As Of (instant)	
Data Type	Monetary (xbrli:monetaryItemType)	
Fact Value	-648551.94	
Units	iso4217:USD	
Decimals (rounding)	2	
Nil	<input type="checkbox"/>	

¹⁶ Financial Report Knowledge Graphs,
<http://xbrlsite.azurewebsites.net/2021/Library/FinancialReportKnowledgeGraphs.pdf>

You can also navigate to every occurrence of a report element or fact in a report. Below you see that the report element “Cash and Cash Equivalents” has been selected and we are provided a list of every occurrence of that report element:

The screenshot shows a financial reporting software interface. On the left, there is a 'Blocks (16)' panel with a tree view of report elements. The 'Assets [Roll Up]' block is selected. In the center, a 'Report Element Properties' dialog box is open, showing the 'Occurrences' tab. It lists several report elements, with 'Cash and Cash Equivalents [Roll Forward]' highlighted. On the right, a 'Fact Table' is displayed, showing a balance sheet for the reporting entity '30810137d58f76b84afd' for the period '2020-12-31' and '2019-12-31'. The table includes columns for 'Assets [Roll Up]', 'Current Assets [Roll Up]', 'Noncurrent Assets [Roll Up]', and 'Assets'. The 'Cash and Cash Equivalents' row is highlighted in yellow.

Reporting Entity [Axis]	30810137d58f76b84afd	http://standards.iso.org/iso/17442
Unit [Axis]	USD	
Period [Axis]	2020-12-31	2019-12-31
Assets [Roll Up]		
Current Assets [Roll Up]		
Cash and Cash Equivalents	(648,552)	398,938
Receivables	2,035,468	1,231,338
Inventories	451,842	467,010
Current Assets	1,838,759	2,097,286
Noncurrent Assets [Roll Up]		
Property, Plant and Equipment	1,245,567	1,266,995
Noncurrent Assets	1,245,567	1,266,995
Assets	3,084,326	3,364,282

By simply clicking on one of the occurrences, you can navigate directly to that section of the report. There are many different views you can use to look at report information and the report model. You can search, sort, filter, slice, dice; you can think of this as a dynamic financial report specific pivot table.

The screenshot shows the same financial reporting software interface, but with the 'Fact Table' view selected. The table is a pivot table with columns for '#', 'Reporting Entity', 'Period', 'Concept', 'Fact Value', 'Unit', and 'Rounding'. The data is filtered for the reporting entity '30810137d58f76b84afd' and the period '2020-12-31'. The 'Concept' column lists various assets, and the 'Fact Value' column shows their values in USD.

#	Reporting Entity	Period	Concept	Fact Value	Unit	Rounding
1	30810137d58f76b84afd	2020-12-31	Cash and Cash Equivalents	-648551.94	USD	2
2	30810137d58f76b84afd	2019-12-31	Cash and Cash Equivalents	398937.76	USD	2
3	30810137d58f76b84afd	2020-12-31	Receivables	2035468.27	USD	2
4	30810137d58f76b84afd	2019-12-31	Receivables	1231338.47	USD	2
5	30810137d58f76b84afd	2020-12-31	Inventories	451842.19	USD	2
6	30810137d58f76b84afd	2019-12-31	Inventories	467010.2	USD	2
7	30810137d58f76b84afd	2020-12-31	Current Assets	1838758.52	USD	2
8	30810137d58f76b84afd	2019-12-31	Current Assets	2097286.43	USD	2
9	30810137d58f76b84afd	2020-12-31	Property, Plant and Equipment	1245567.16	USD	2
10	30810137d58f76b84afd	2019-12-31	Property, Plant and Equipment	1266995.32	USD	2
11	30810137d58f76b84afd	2020-12-31	Noncurrent Assets	1245567.16	USD	2
12	30810137d58f76b84afd	2019-12-31	Noncurrent Assets	1266995.32	USD	2
13	30810137d58f76b84afd	2020-12-31	Assets	3084325.68	USD	2
14	30810137d58f76b84afd	2019-12-31	Assets	3364281.75	USD	2

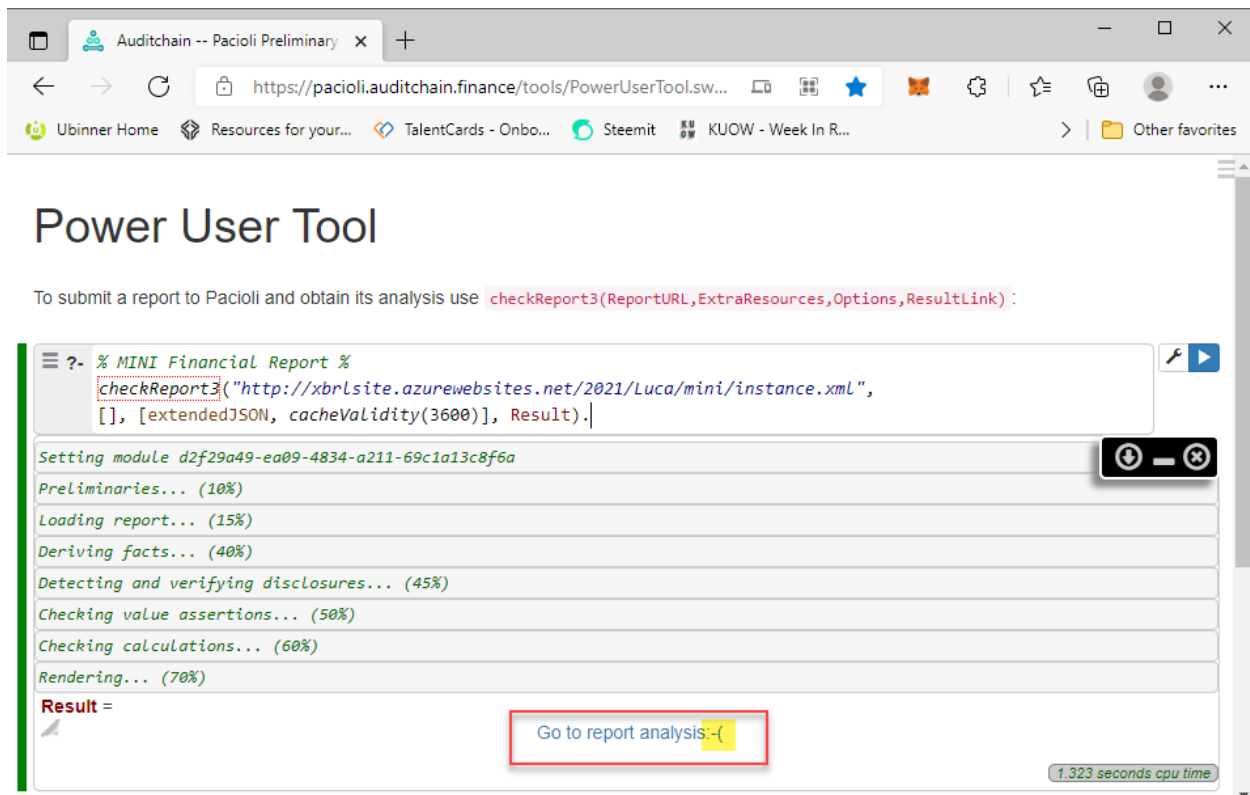
Pacioli Power User Tool Verification

We created our report, every validator said the report looks good (i.e. there are no inconsistencies that are being pointed out by XBRL Cloud, Arelle, or Pesseract. But let's run the report through the Pacioli Power User Tool verification process and see what happens. In order to run Pacioli at this time, I need to upload the files that were created using Luca to my website, which I did. Here is the XBRL instance¹⁷.

I go to the Pacioli Power User Tool¹⁸, and I paste in the following verification script:

```
% MINI Financial Report %  
checkReport3("http://xbrlsite.azurewebsites.net/2021/Luca/mini/instance.xml",  
[], [extendedJSON, cacheValidity(3600)], Result).
```

I execute that script in Pacioli, and I see the following:



I see a frown so something is wrong. I click on "Go to report analysis" and I see the following: (Note that the URL below will work until November 10, 2021)

<https://pacioli.auditchain.finance/reportAnalysis/dc5295c6217a280fd23bc048aaa52bd4f5460471.report/index.html>

¹⁷ XBRL instance that I created using Luca, <http://xbrlsite.azurewebsites.net/2021/Luca/mini/instance.xml>

¹⁸ Pacioli Power User Tool, <https://pacioli.auditchain.finance/tools/PowerUserTool.swinb>

Table of Contents

	TERMS
	Mappings
	All FACTS (technical listing)
	Type-subtype graph
	Type-subtype table
1	1110 - Statement - Balance Sheet
2	1110 - Statement - Balance Sheet
3	1120 - Statement - Income Statement
4	1130 - Statement - Cash Flow Statement
5	1140 - Statement - Statement of Changes in Equity
6	1210 - Disclosure - Cash and Cash Equivalents Roll Forward
7	1220 - Disclosure - Receivables Roll Forward
8	1230 - Disclosure - Inventories Roll Forward
9	1240 - Disclosure - Property, Plant, and Equipment Roll Forward
10	1250 - Disclosure - Accounts Payable Roll Forward
11	1260 - Disclosure - Long-term Debt Roll Forward
12	1270 - Disclosure - Retained Earnings Roll Forward
13	8101 - Support - Trial Balance
14	8201 - Support - Transactions
	Graph of reasoning
	Blocks
	Blocks Graph
	All Rules Calculations
	Messages

Messages

#	Type	Stage	Message
1	error	amendPresentations	Network http://www.xbrlsite.com/role/BalanceSheet has two presentation roots: mini:AssetsRollUp and mini:LiabilitiesAndEquityRollUp
2	error	unpresented_facts	7 reported facts are not presented in any network, for example this fact

Pacioli has discovered two types of errors. I look at the report and I confirm that all 8 errors are, in fact, mistakes that I have made in creating the report.

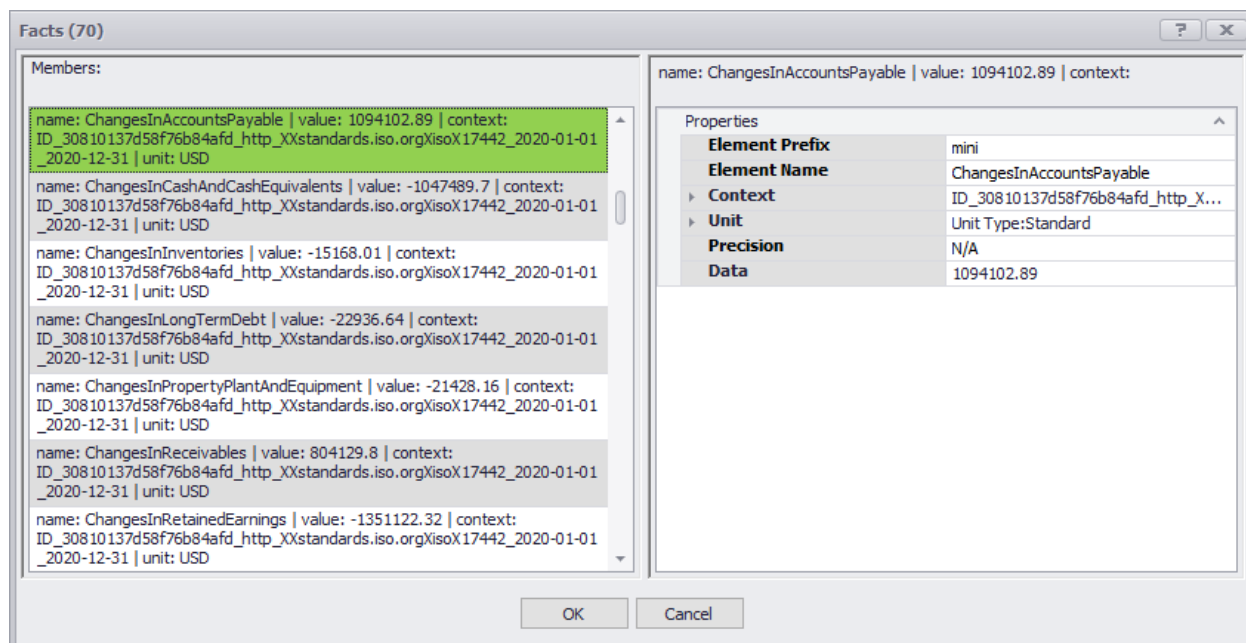
The first error relates to creating a set of relations that is not a directed acyclic graph. I neglected to create one “root” abstract presentation concept that hooks the “Assets [Roll Up]” and the “Liabilities and Equity [Roll Up]” to the balance sheet network.

Rendering	Model Structure	Fact Table	Business Rules Structure	Business Rules Validation Results	Elements
Label	Report Element Class	Period	Balance	Preferred Label Role	Name
Implied [Table]	[Table]	As Of		Standard Label	fro:ImpliedTable
Implied [Line Items]	[LineItems]	As Of		Standard Label	fro:ImpliedLineItems
> Assets [Roll Up]	[Abstract]			Standard Label	mini:AssetsRollUp
> Liabilities and Equity [Roll Up]	[Abstract]			Standard Label	mini:LiabilitiesAndEquityRollUp

The second set of 7 errors all relate to a set of facts that I accidentally included in the report that SHOULD NOT have been included. Those concepts are:

ReportingEntityAspect	CalendarPeriodAspect	ConceptAspect	FactValue	Units	Roundin	Sequen
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-01-01 2020-12-31	mini:ChangesInCashAndCashEquivalents	-1047489.7	iso4217:USD	2	64
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-01-01 2020-12-31	mini:ChangesInReceivables	804129.8	iso4217:USD	2	65
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-01-01 2020-12-31	mini:ChangesInInventories	-15168.01	iso4217:USD	2	66
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-01-01 2020-12-31	mini:ChangesInPropertyPlantAndEquipment	-21428.16	iso4217:USD	2	67
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-01-01 2020-12-31	mini:ChangesInAccountsPayable	1094102.89	iso4217:USD	2	68
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-01-01 2020-12-31	mini:ChangesInLongTermDebt	-22936.64	iso4217:USD	2	69
30810137d58f76b84afd http://standards.iso.org/iso/17442	2020-01-01 2020-12-31	mini:ChangesInRetainedEarnings	-1351122.32	iso4217:USD	2	70

Also, Pesseract shows these facts, but it does not clearly point them out to the user of Pesseract,



Opps!

Why is it that none of the other tools pointed out these logical inconsistencies? Well, mainly because the tools are not focused on logical inconsistencies, they are focused on XBRL technical syntax related issues. The XBRL technical syntax is fine; but I still make these 8 mistakes which I have confirmed.

How do you know THAT you should be checking a report for these sorts of issues? That is what my **Method**¹⁹ is all about. What other things should you be looking for? That is the subject for another tutorial...so keep going.

Some Final Thoughts

You might be asking yourself, “Why can’t I do all the things you walked me through here using three or four different software applications all within ONE software application?” And that would be an excellent question. Another excellent question might be, “Why can’t I import all those Excel spreadsheets at one time rather than importing them one-by-one?” That would be an excellent feature.

¹⁹ Method, <http://accounting.auditchain.finance/framework/MethodOverview.pdf>

The answer to that question is that we are getting there. XBRL-based digital financial reporting is evolving slowly. Software is getting easier to use and functionality is increasing. Software will get where it needs to be. If not, then XBRL-based digital financial reporting will remain a small niche.

But if software vendors figure out XBRL-based digital financial reporting, and I believe they will; then accountants will have a new way to create general purpose financial reports better, faster, and cheaper than today's contemporary approach.

Your next step is to try the PROOF Tutorial.