conceptmaps.io User Guide

1 Getting Started

1.1 Welcome! 4

1.2 What is a Concept Map? 5

1.3 Create your first Concept Map 8

1.4 Describe the Concepts in your Map 13

2 Exploring Large Domains

2.1 Browse Published Concept Maps 17

2.2 This map is too big! Understanding Summary and Detail views 18

2.3 You have to start somewhere: focusing on a single Concept 21

2.4 Grow your understanding: adding Concepts Of Interest 23

3 Using Capstone

3.1 Add structure and style to your descriptions 27

3.2 Two heads are better than one: collaborating on Concept Maps 31

3.3 Communicate clearly with well known predicates 34

3.4 Making several changes at once with plain text editing 40

3.5 Summarise your Domain with Key Concepts 44

3.6 Oops! Renaming Concepts and Concept Maps 45

3.7 What just happened? Tracking changes to a domain using RSS 47

3.8 Printing 48

4 Frequently Asked Questions

4.1 Frequently Asked Questions 52

Getting Started

Welcome!

Welcome to conceptmaps.io! conceptmaps.io is a web application that allows users to share their knowledge using concept maps. Don't worry if you don't know what a concept map is; you'll soon be an expert after a quick skim through this guide. We hope you'll find it extremely easy to learn new things quickly by looking at concept maps that others have created, and to share your own expertise by creating some of your own.

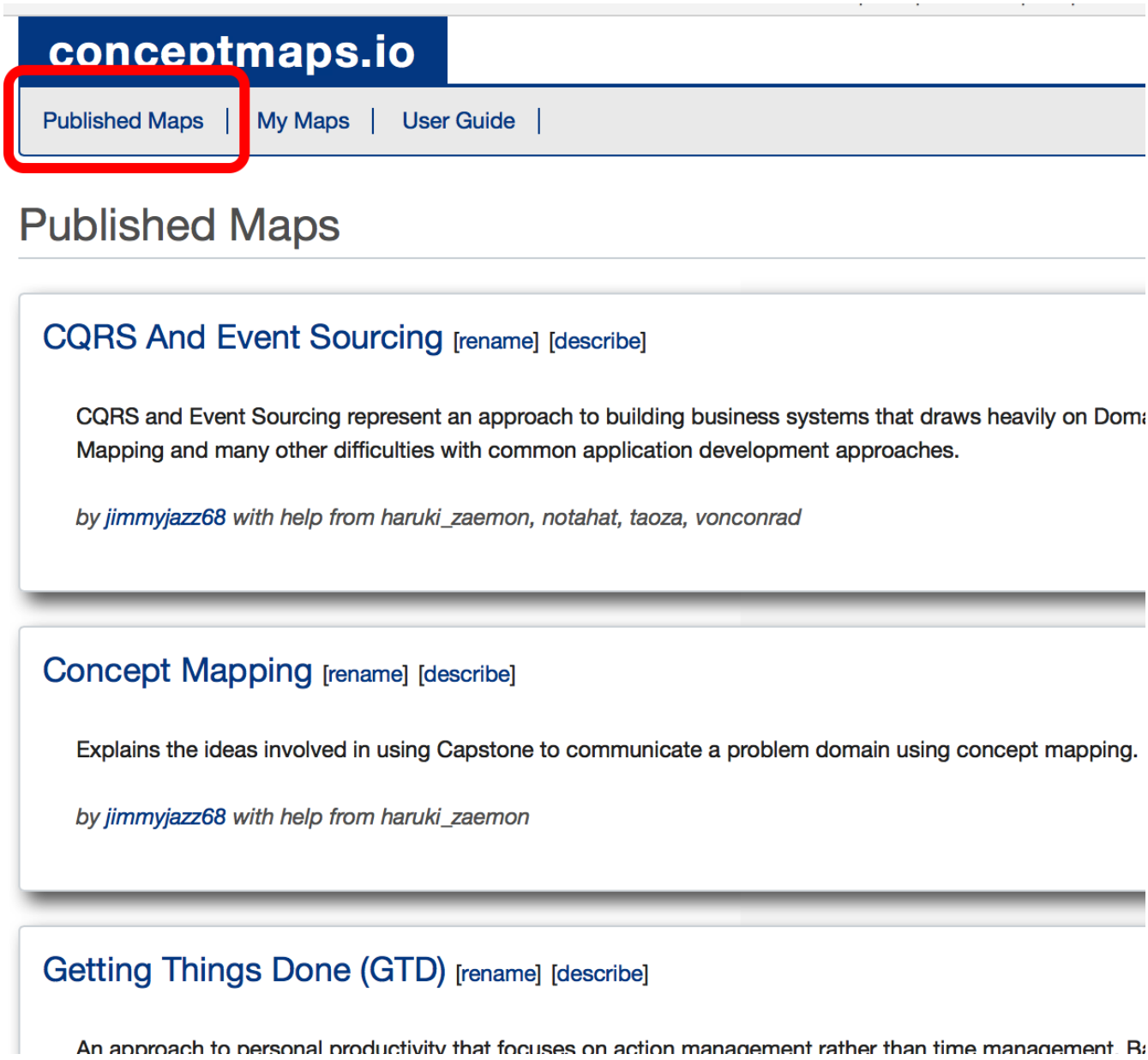
We'd love to hear from you

If you have questions or feedback, don't hesitate to let us know. Just click the Send Feedback link at the bottom of any page on conceptmaps.io to get in touch.

What is a Concept Map?

conceptmaps.io captures knowledge in Concept Maps. A concept map is a visual representation of the connections between concepts in a particular domain of knowledge. Examples might include Asset Management, Customer Service, Product Management, Order Processing or anything else you can come up with that can be thought of as an area of expertise. They can include business domains like Accounts Receivable, technical domains like Web Application Architecture, design domains like Mobile UI Screen Flow, just to name a few.

What Concept Maps do we have?



conceptmaps.io provides a list of concept maps that you can explore and learn from. Just click on the "Published Maps" link in the navigation bar to see a list of concept maps that have been published by other users.

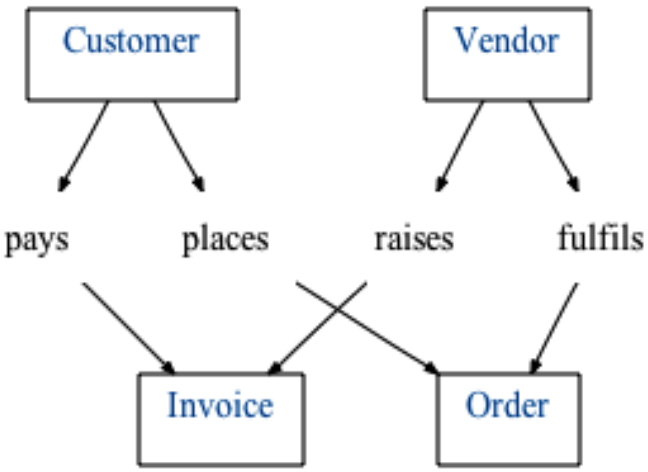
A simple example: Order Processing

The simplest concept map has two concepts and one arrow connecting them. The arrow has a label that represents the connection between the concepts.

In the example, we have two concepts: Customer and Order. We would generally say that a customer "places" an order, so that is the label of the arrow, which also points in the direction that matches the way we would say it out loud.

Concept maps should closely match the way experts talk about concepts in the given domain.

Adding more Concepts: Vendor and Invoice



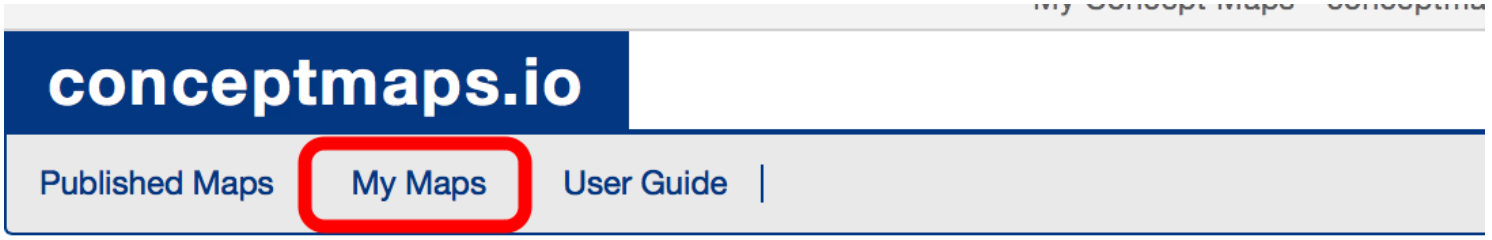
Concept maps quickly grow to represent all the connections between the concepts in a domain. Even domains that you might initially think would be very simple can have a lot of concepts and connections when you create a concept map. This is a good thing as it makes an expert's tacit knowledge more

explicit so that it can be shared with the rest of us!

Create your first Concept Map

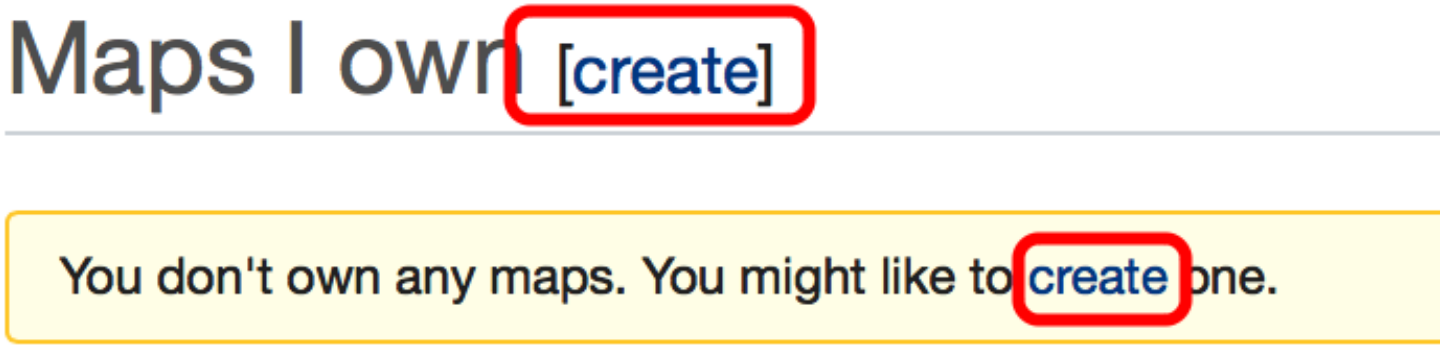
This lesson will show you how to create your first concept map using conceptmaps.io.

Go to the "My Maps" page



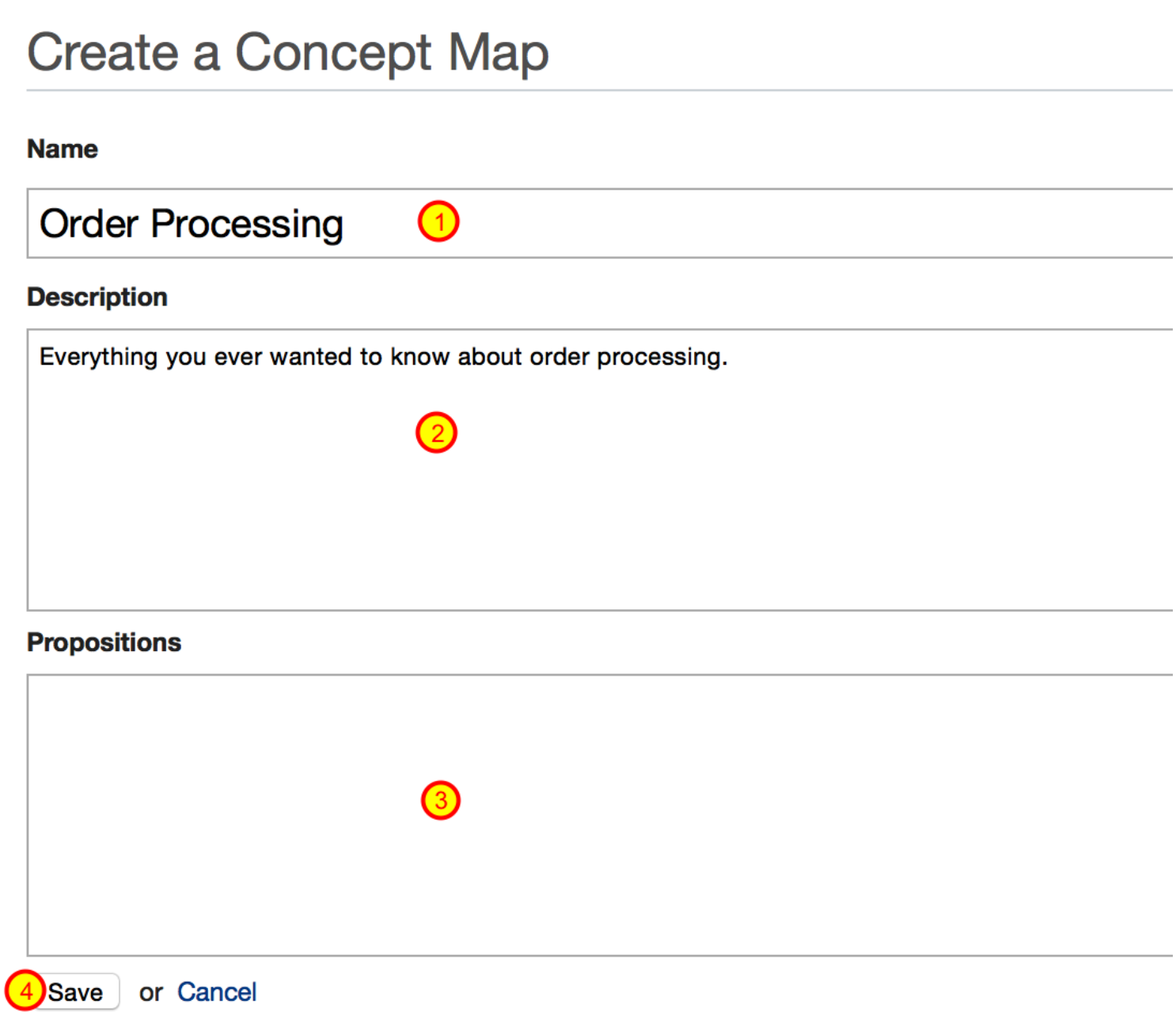
Click on "My Maps" in the navigation bar.

Create your new concept map



Click on one of the "create" links to create a new concept map.

Describe the "Order Processing" concept map



1. Give the map a name
2. Give the map a brief description
3. Ignore the "Propositions" field for now
4. Click the "Save" button

What can we say about a Customer?

Concept Map » Order Processing [rename] [describe]

Everything you ever wanted to know about order processing.

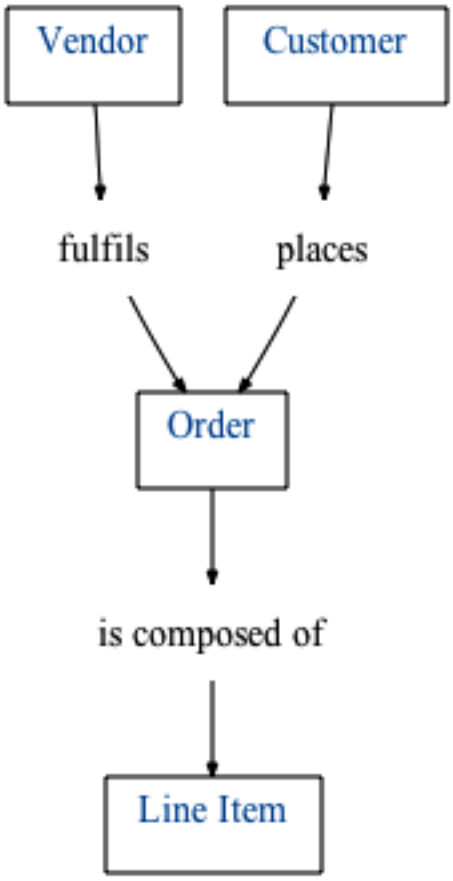
Diagram [edit] [print]

A concept map is built up one proposition at a time. A fundamental idea in our Order Processing domain is that a customer places an order. In this case, the two concepts are "Customer" and "Order" and the connecting phrase (also known as a "predicate") is "places".

Add the proposition "Customer places Order" to your domain as follows:
1. Enter "Customer" in the first (subject) field
2. Enter "places" in the second field
3. Enter "Order" in the third field
4. Click "Assert"

The concept map will update to reflect this change.

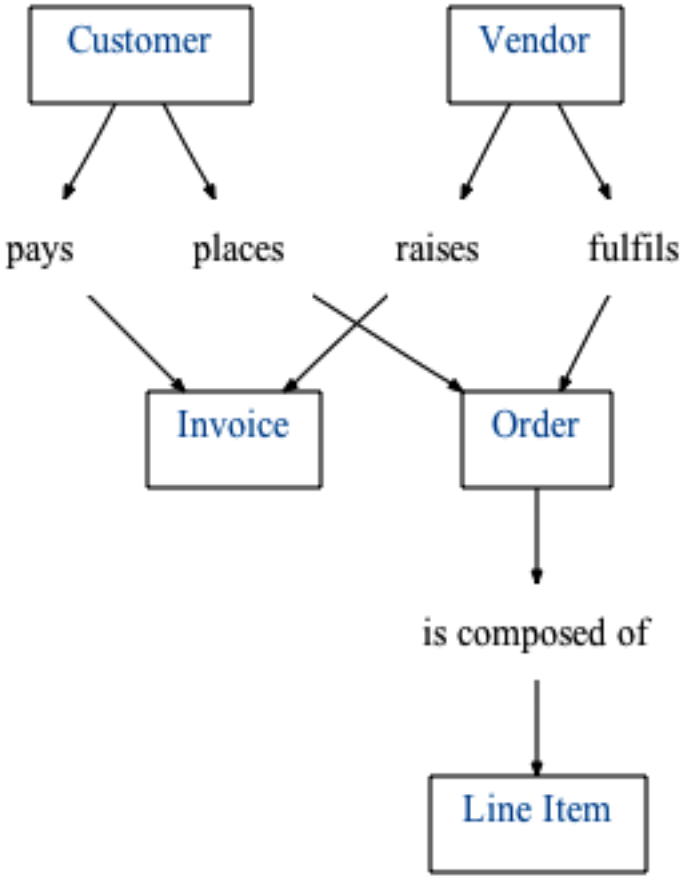
What can we say about an Order?



Let's add a couple of propositions about the Order concept:
"Vendor fulfils Order"
"Order is composed of Line Item"

Your concept map should now look like the example above.

What can we say about an Invoice?



Invoices are another important concept in the Order Processing domain. Let's add some propositions about invoices like so:
"Vendor raises Invoice"
"Customer pays Invoice"

Your concept map should now look like the example above.

Congratulations!

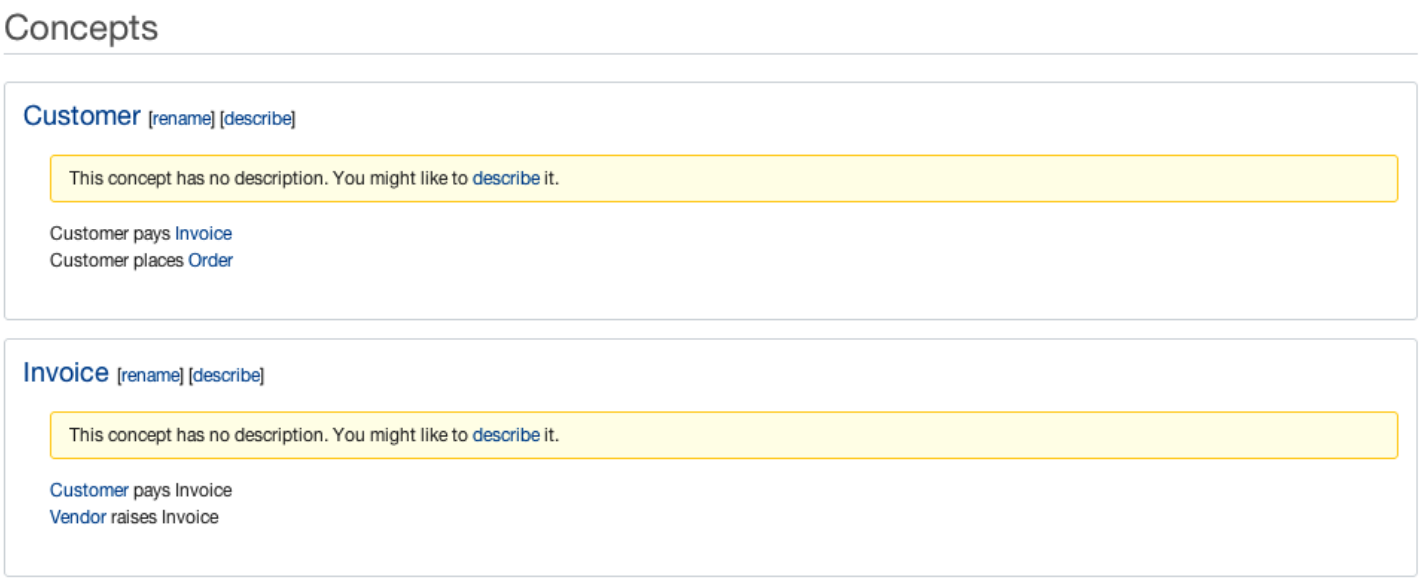
You have just created your first concept map using conceptmaps.io. You now know about:

* the "My Maps" page
* creating a new concept map
* adding propositions to a concept map

Describe the Concepts in your Map

You can (and should) describe each concept in your map to make it even more understandable to your readers. This lesson will show you how.

If you scroll down below the graphical representation of your concept map, you will see a section called "Concepts". Each concept from the map will be listed here, each having a description and a summary of the propositions that relate to it.



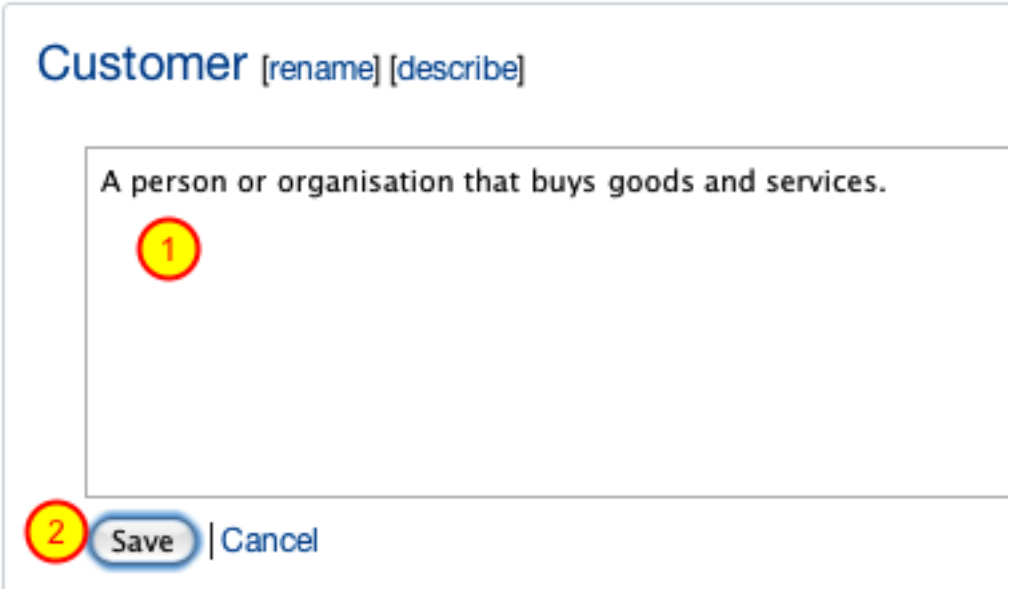
Concepts that lack a description will have a suggestion to provide one.

Describe a Concept

Find the concept you want to describe and click one of the "describe links".

A form will appear in which you can provide a multi-line description of the concept.

Tip: try to avoid repeating in the description things that are already stated in propositions!



1. Type in a description for the concept.
2. Click the "Save" button.

Congratulations

You now know how to provide descriptions for the concepts in your concept map. If you do this for all of the concepts you create, your readers will thank you!

Concepts

Customer [rename] [describe]

A person or organisation that buys goods and services.

Customer pays Invoice
Customer places Order

Invoice [rename] [describe]

A list of goods sent or services provided, with a statement of the sum due for these.

Customer pays Invoice
Vendor raises Invoice

Line Item [rename] [describe]

An entry that appears on a separate line in a commercial document.

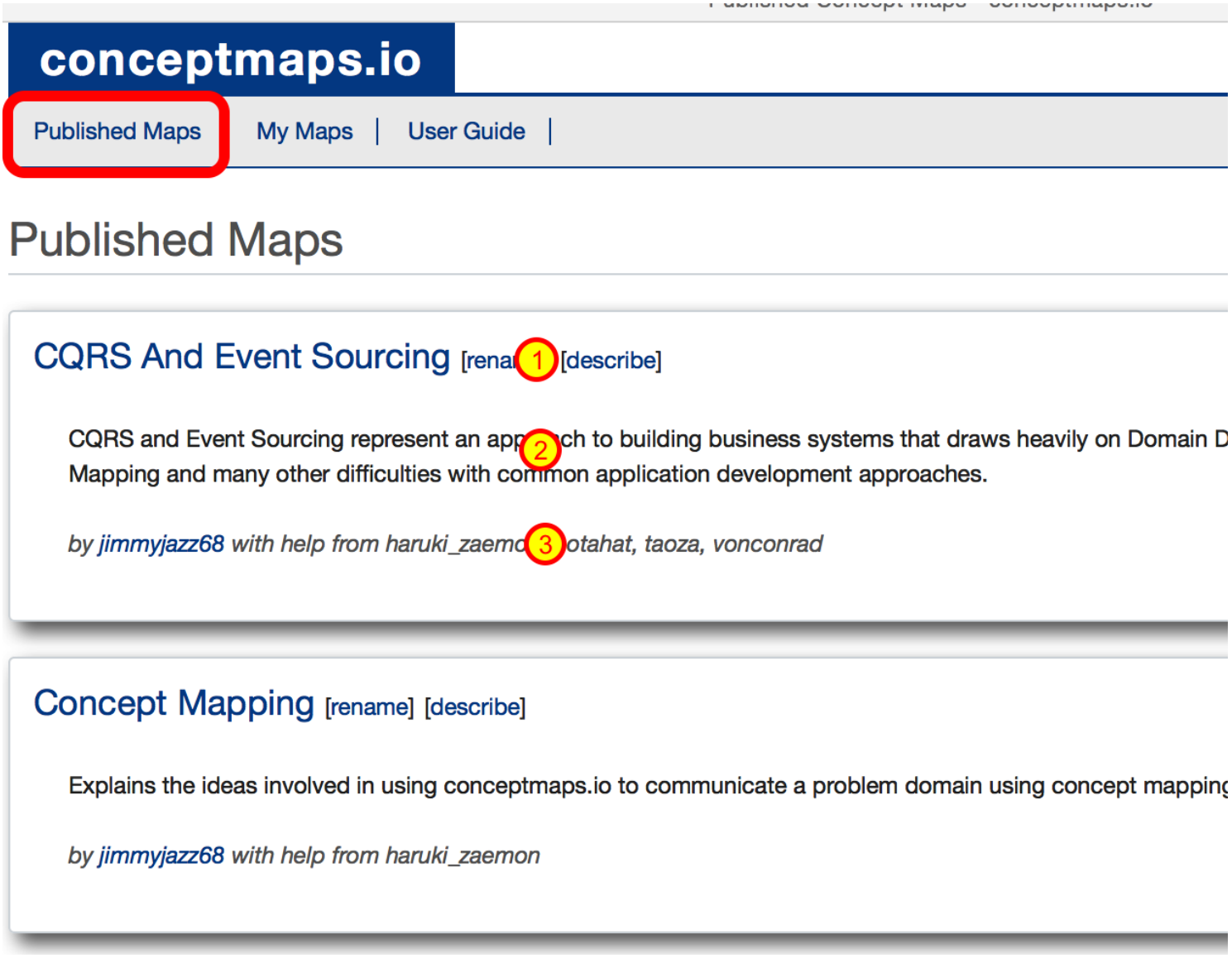
Order is composed of Line Item

Exploring Large Domains

Browse Published Concept Maps

Concept maps that are considered high quality and of general interest can be published on conceptmaps.io so that they are visible to all users. This lesson shows you how to browse the published maps that are available.

Select "Published Maps" in the navigation bar



A list of published concept maps is presented. Each map has the following sections:

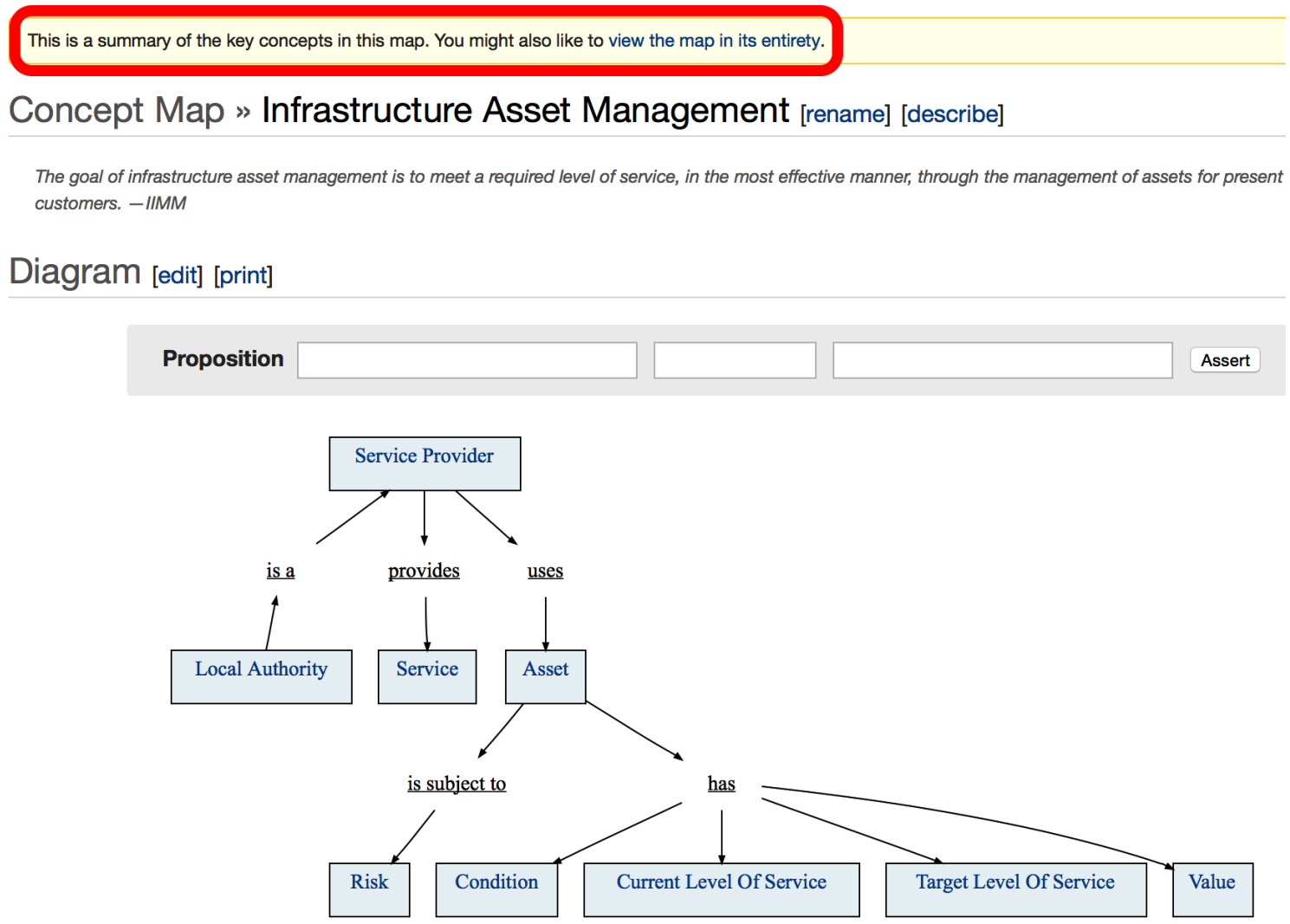
1. The name of the map, which is a link to view its contents
2. A brief description for the map
3. User names of collaborators who can edit (and presumably know about) this map

Click on the name of any concept map to browse its contents.

This map is too big! Understanding Summary and Detail views

Concept maps can quickly become too large to be comfortable for new users. conceptmaps.io has several features that make large domains more approachable. This lesson shows you how to switch between summary and detail views of a large concept map.

Start in Summary view



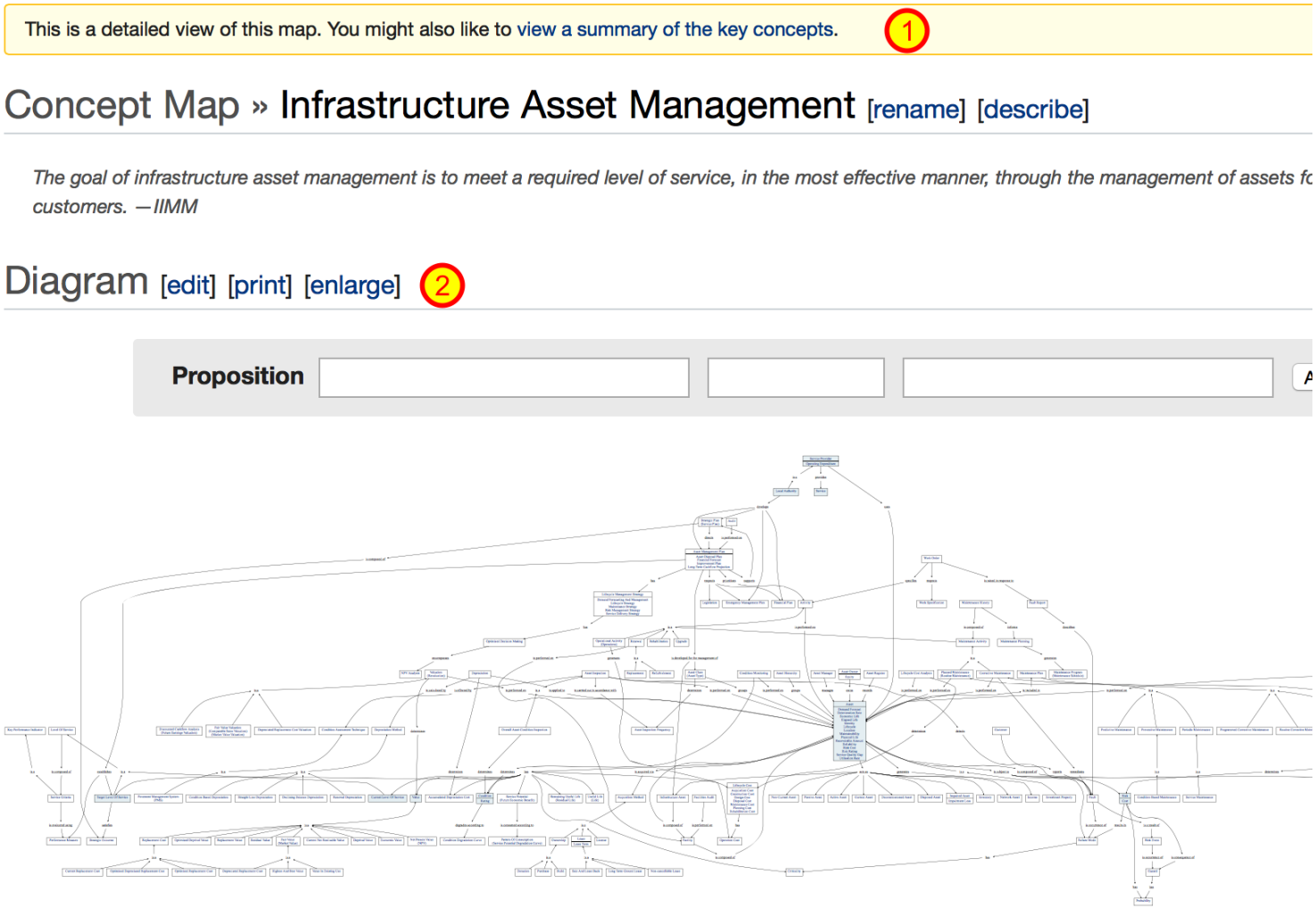
If the author(s) of a concept map has chosen to provide it, the Summary view of the map will appear by default when you view its contents.

The concept map on the Summary view only shows the key concepts from the domain. It is up to the author(s) of the domain to decide which concepts are the key concepts; they should be those that enable someone unfamiliar with the domain to quickly grasp its scope. Key concepts have a slightly different colour than other concepts.

At the top of the page is a note advising you that you are looking at a summary of the domain and

offering a link to switch to the detail view. Click on this link to try it out, but be warned that this can be overwhelming!

Detail view can be overwhelming

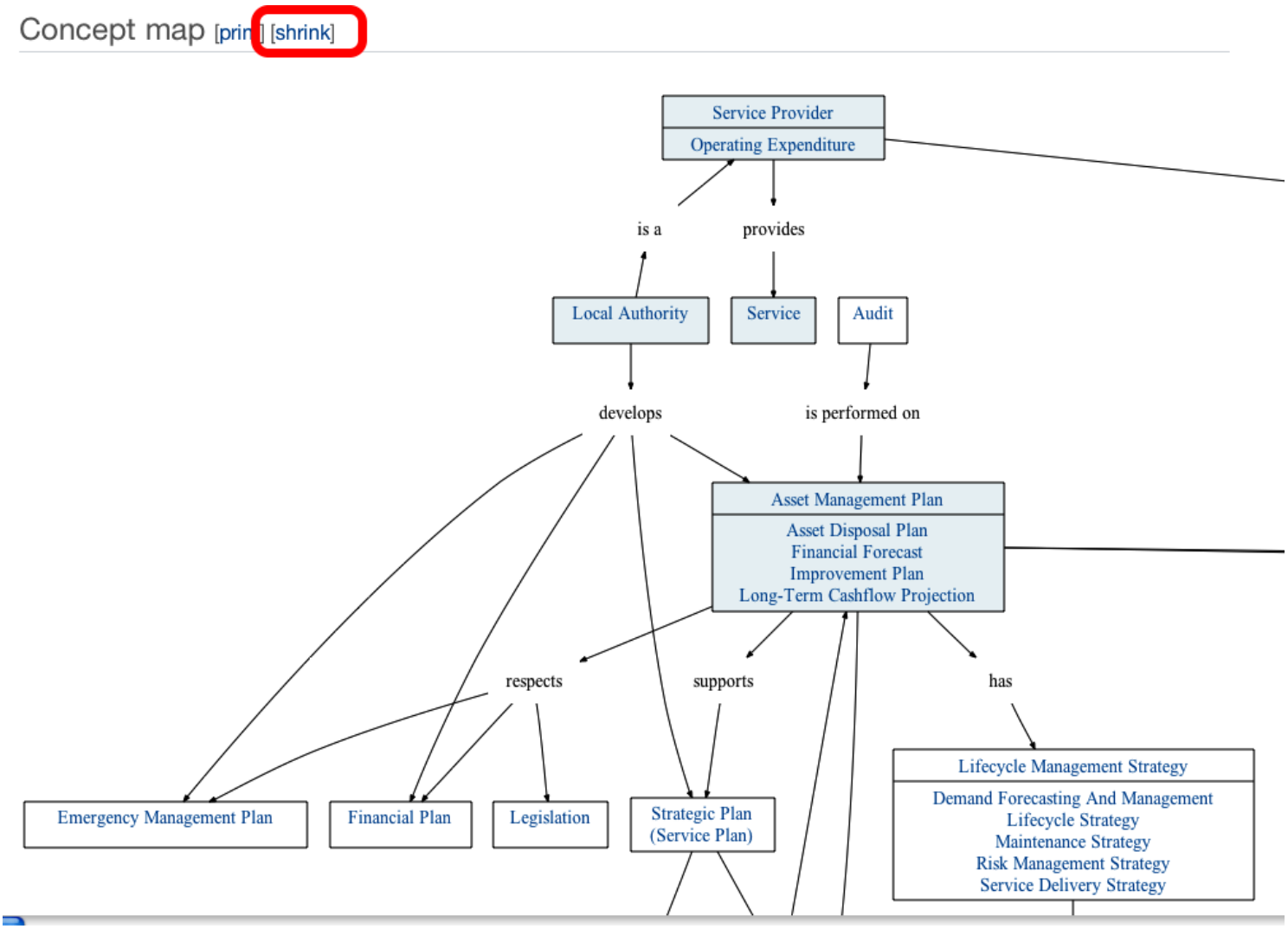


The Detail view shows every concept and every relationship between concepts in the map, and does its best to show the whole concept map on one page. This can be overwhelming (and sometimes impossible to read) at first, but bear with us; Capstone provides ways to approach large domains like this. For the moment, notice the following:

1. There is a link at the top of the page to return to the Summary view
2. There is an "enlarge" link to make the concept map easier to read

Click on the "enlarge" link now to see what it does.

Enlarged concept maps are easier to read



When you enlarge a concept map, it becomes easier to read but also harder to see in its entirety. You will need to scroll your window both horizontally and vertically to browse the entire map.

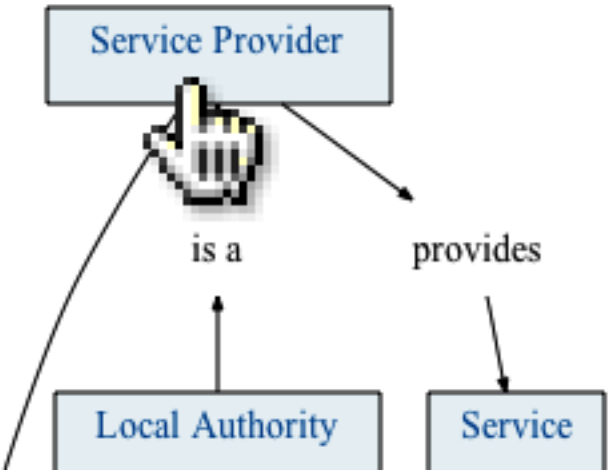
A "shrink" link is provided to return to the smaller view of the concept map.

Tip: you can use your browser's text search capabilities to find concepts in the concept map. This is probably quicker than trying to find them with manual scrolling if you know what you are looking for.

You have to start somewhere: focusing on a single Concept

One of the best ways to approach a large concept map (and to help others approach it) is to focus on one concept at a time. This lesson will show you how.

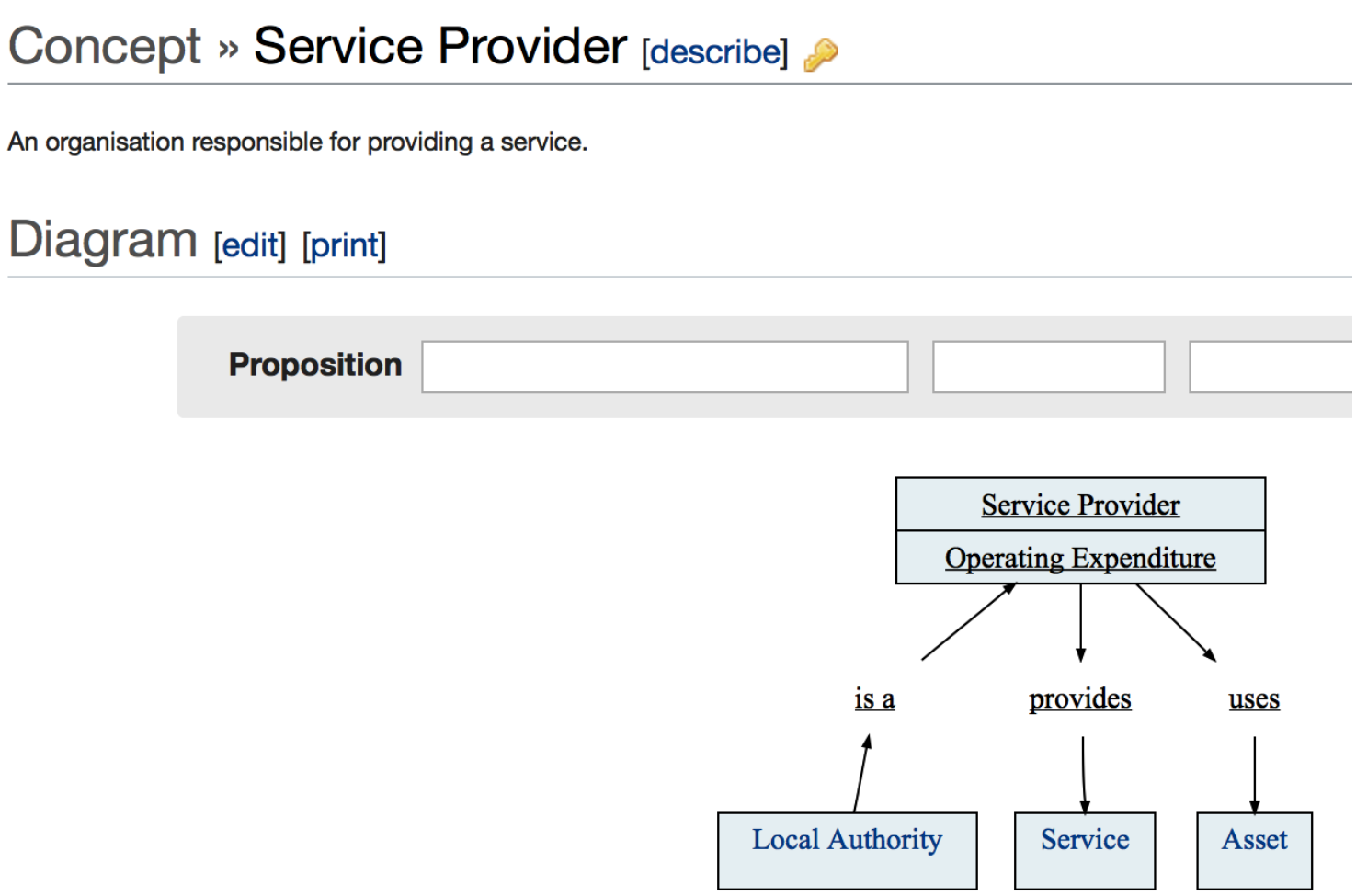
Click on any Concept in a Concept Map to focus on it



Every concept in a concept map is a clickable link, as is every concept name in the list of concepts below each concept map.

In the example above, we want to focus on the "Service Provider" concept, so we click on it.

View a Concept page



We are now viewing an individual concept page, which is very similar to the concept map pages we have been viewing up to now. The concept we are focused on is named at the top of the page followed by its description.

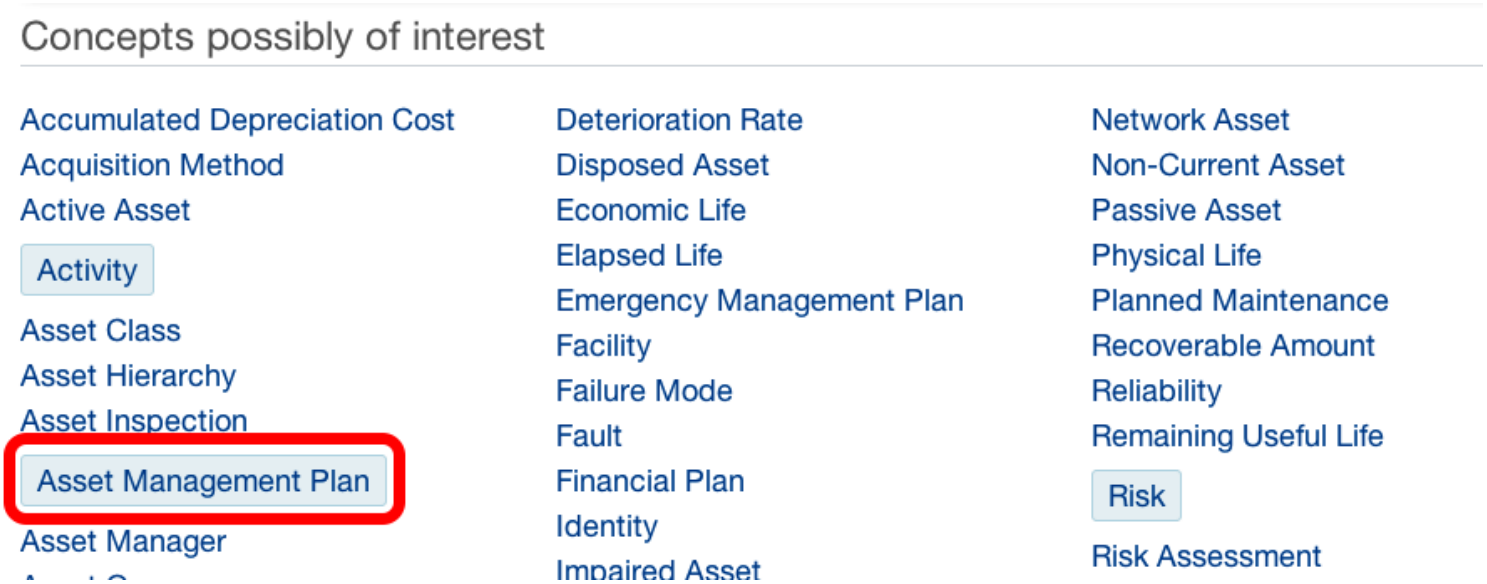
The diagram on this page shows only those concepts that are directly related to the concept we are focused on. The list of related concepts below the concept map also includes only those concepts that are included in the diagram. This allows us to understand one small piece of the domain without worrying about all the parts we don't understand just yet.

Tip: printing a concept page makes for small, portable and effective explanatory material.

Grow your understanding: adding Concepts Of Interest

conceptmaps.io makes it easy to grow your understanding one concept at a time. This lesson will show you how.

Concepts possibly of interest

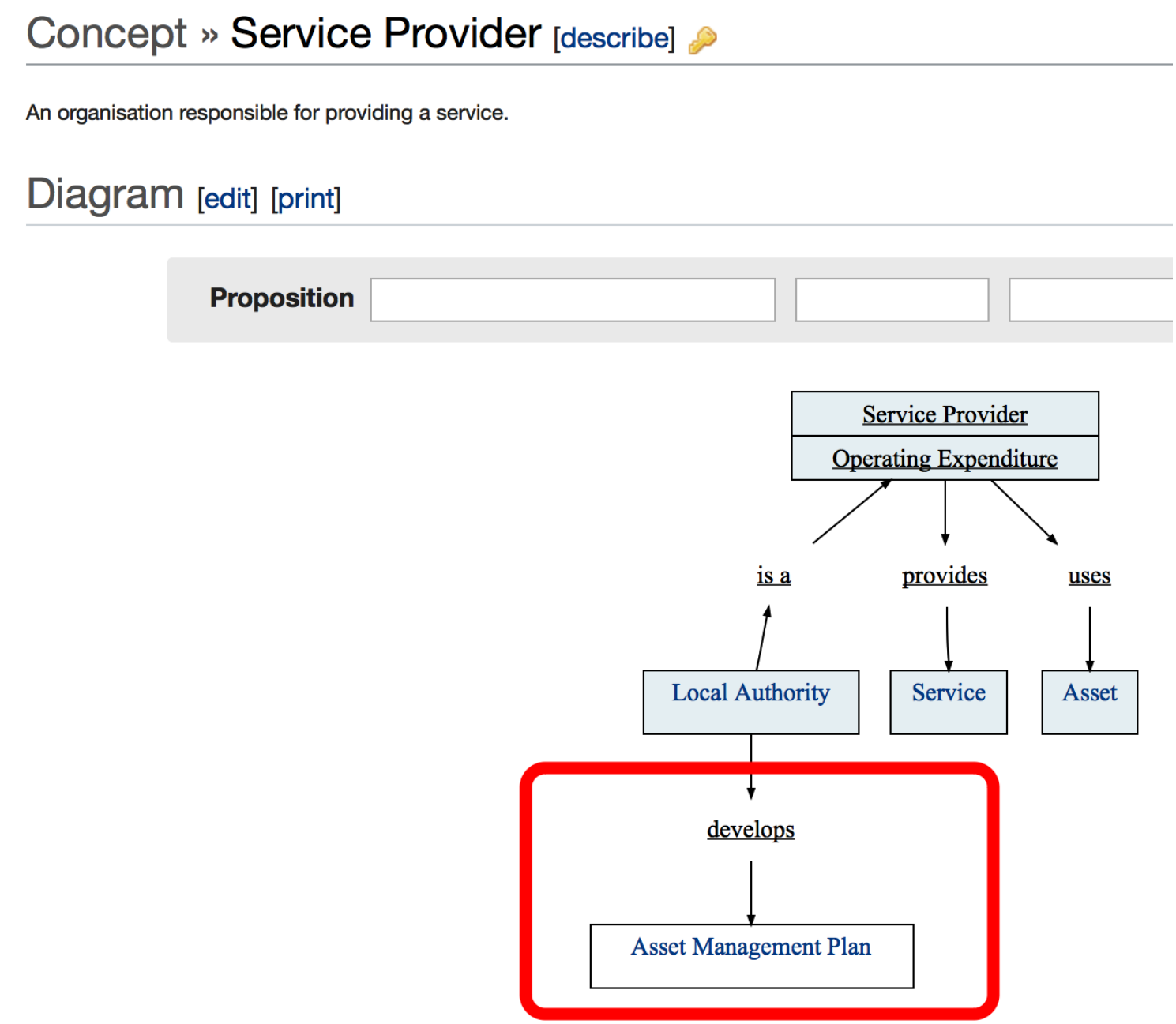


Each concept map and individual concept page in conceptmaps.io has a section at the bottom called "Concepts possibly of interest". This section invites you to expand your current view by adding concepts to it.

For example, the diagram above shows the concepts we may be interested in when looking at the "Service Provider" concept page from the previous lesson. Note that key concepts are highlighted in this list and may be a good place to start.

Let's add the key concept called "Asset Management Plan" to our concept page by clicking on it.

View the expanded concept map



The Service Provider concept map has now expanded to include Asset Management Plan.

Note that the "Concepts possibly of interest" list at the bottom of the page will change as you add concepts to the diagram. This is because new opportunities to grow the diagram come into play as it grows.

As another example, we'll add the concept of "Risk" to this diagram.

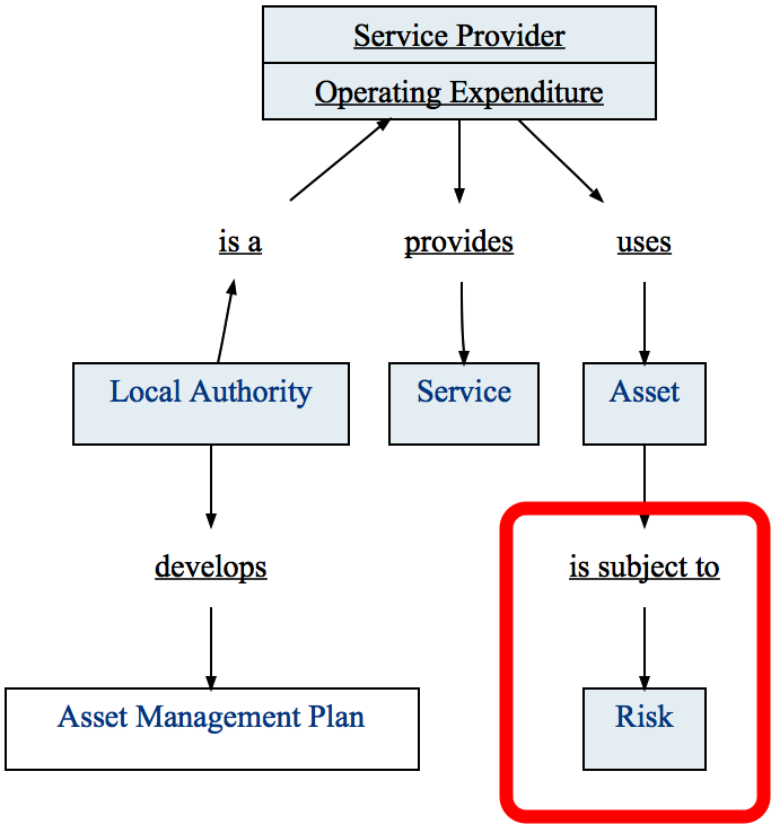
Service Provider concept page with Risk added

Concept » Service Provider [describe]

An organisation responsible for providing a service.

Diagram [edit] [print]

Proposition



The diagram has expanded to include the concept of Risk. You can continue adding concepts until you get a meaningful subset of the domain into view for communication, explanation or review.

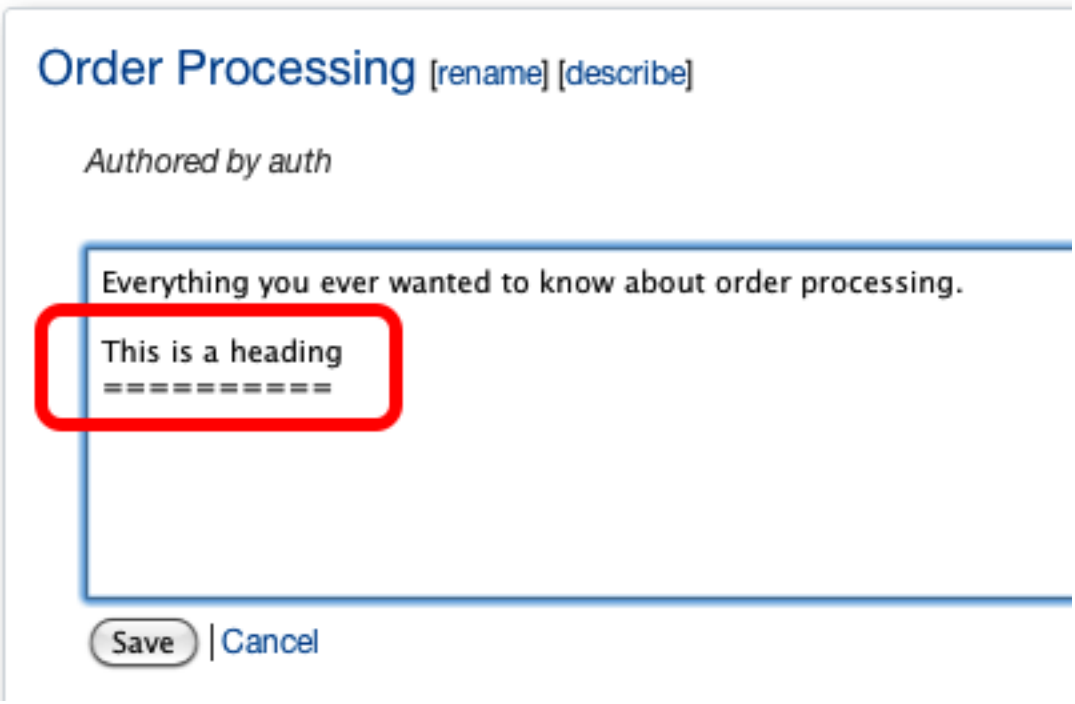
Tip: pages built in this way are bookmarkable in your browser since all the concepts you add become part of the URL for the page.

Using Capstone

Add structure and style to your descriptions

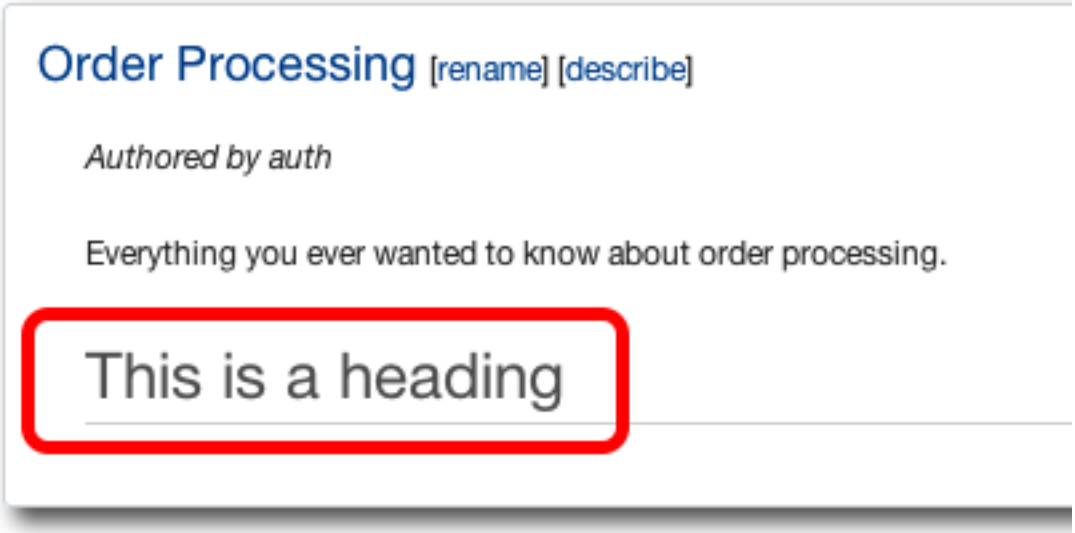
conceptmaps.io allows you to style descriptions of maps and concepts using wiki-style markup. This lesson will show you how.

Add a heading to a description

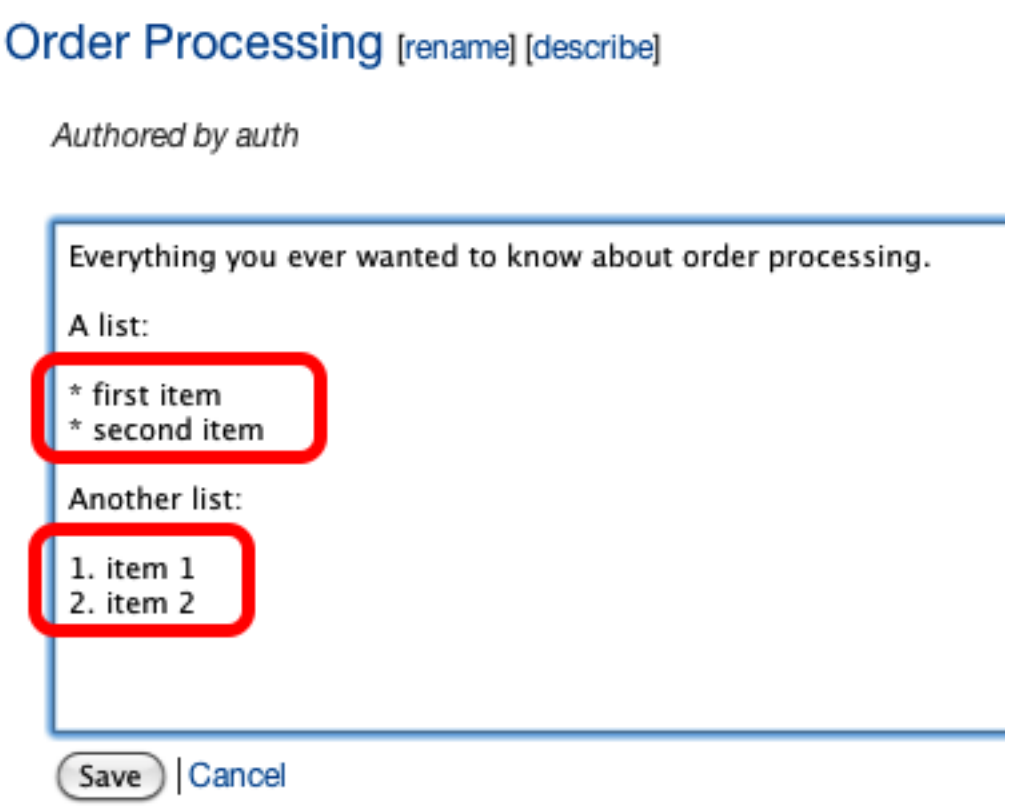


You can add a heading to a description by putting a line of equal signs under the heading text as shown above.

When the description is saved, the heading will be displayed by the browser as shown below.

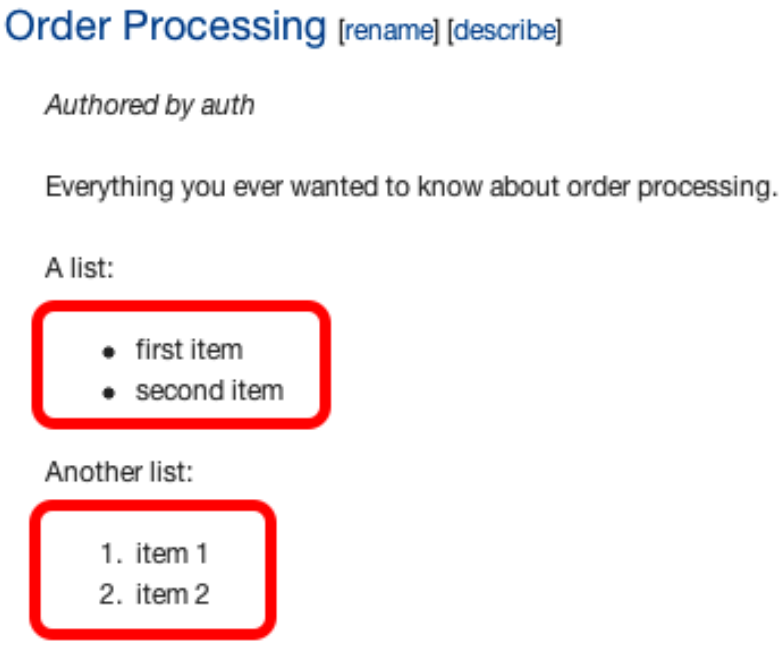


Add a list of bulleted or numbered points

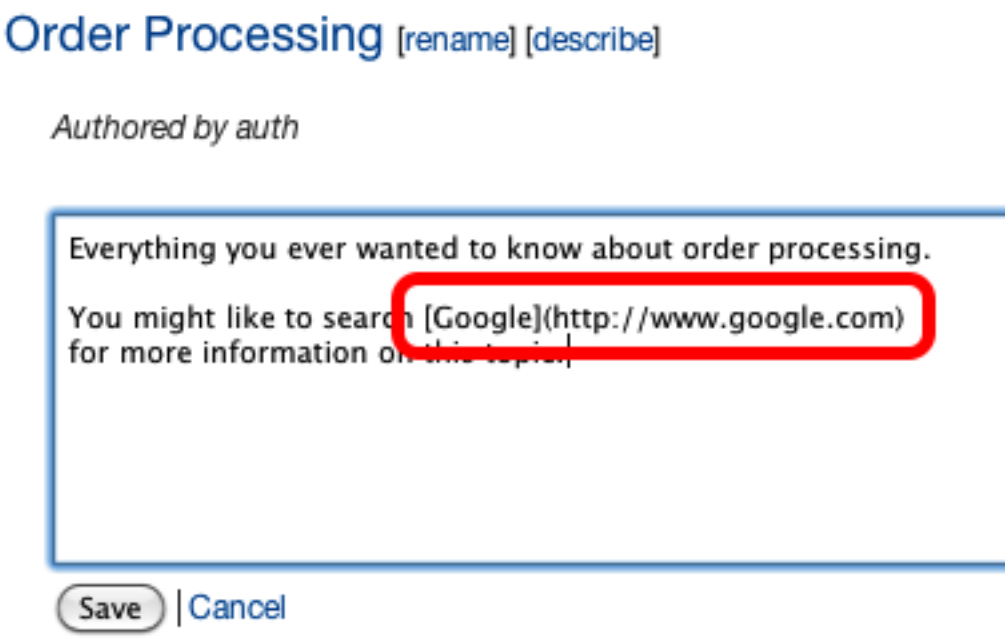


You can add a list of items to your descriptions in Capstone by using asterisks or lines starting with a number and a period character as shown above.

The resulting output when the description is saved is shown below.

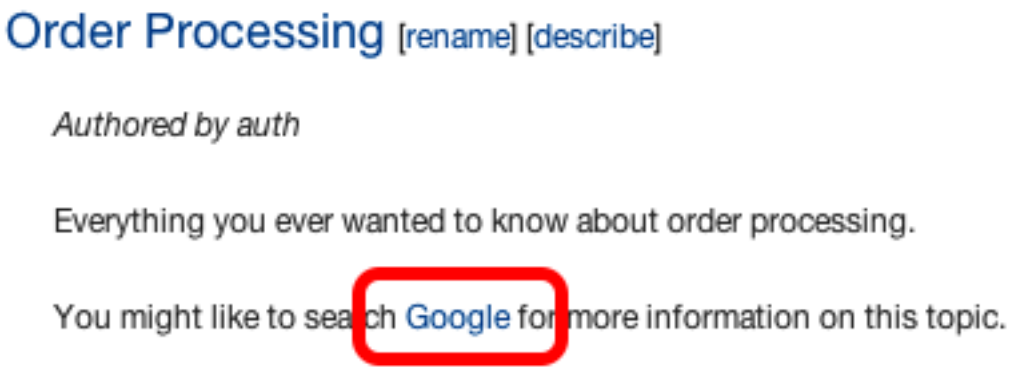


Add a link to an external web page

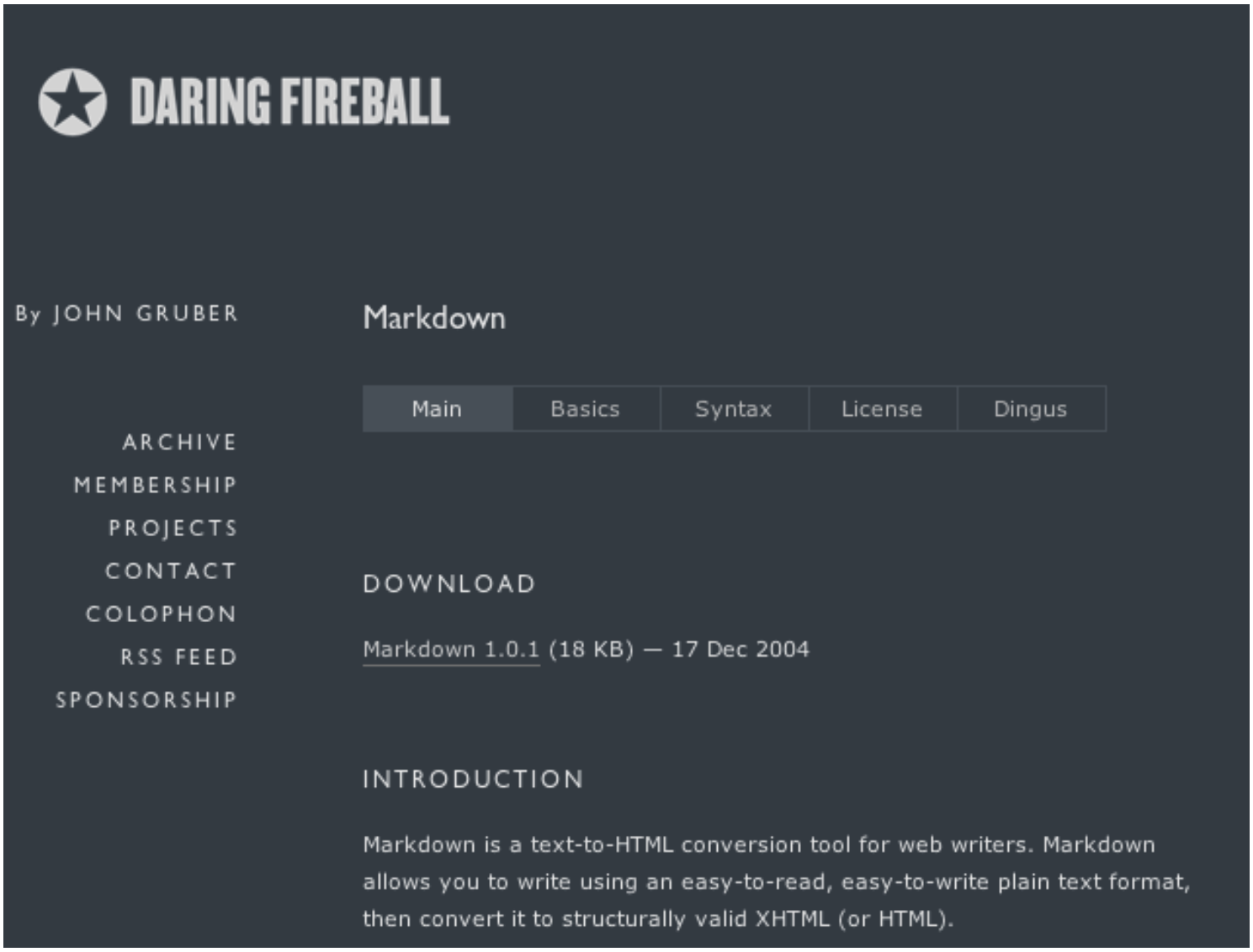


You can add hyperlinks to your descriptions using the syntax shown above. The text for the link is contained in square brackets, followed by the URL in parentheses.

The resulting description displayed by the browser is shown below.



What else can I do?



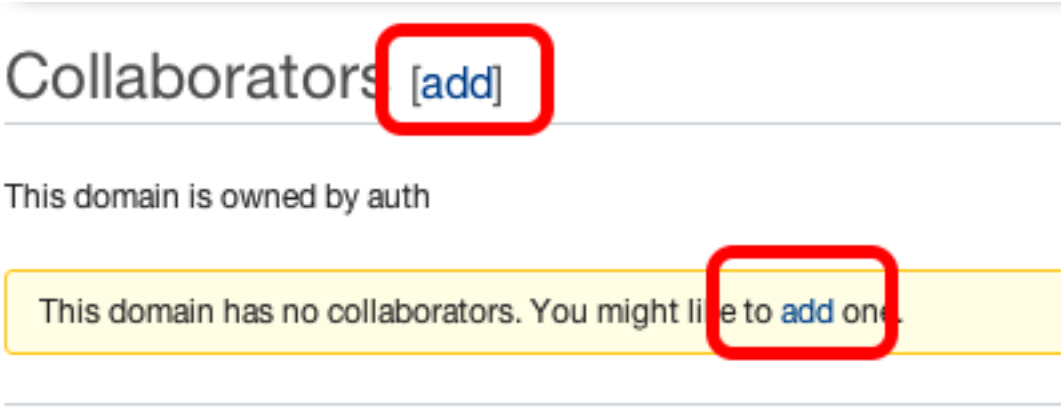
Capstone uses a third party tool called Markdown to support styling of text. If you are interested in the gory details, you can view the Markdown web site at:

http://daringfireball.net/projects/markdown/

Two heads are better than one: collaborating on Concept Maps

Capstone lets you collaborate with other users by giving them the right to edit a domain that you own. This lesson will show you how.

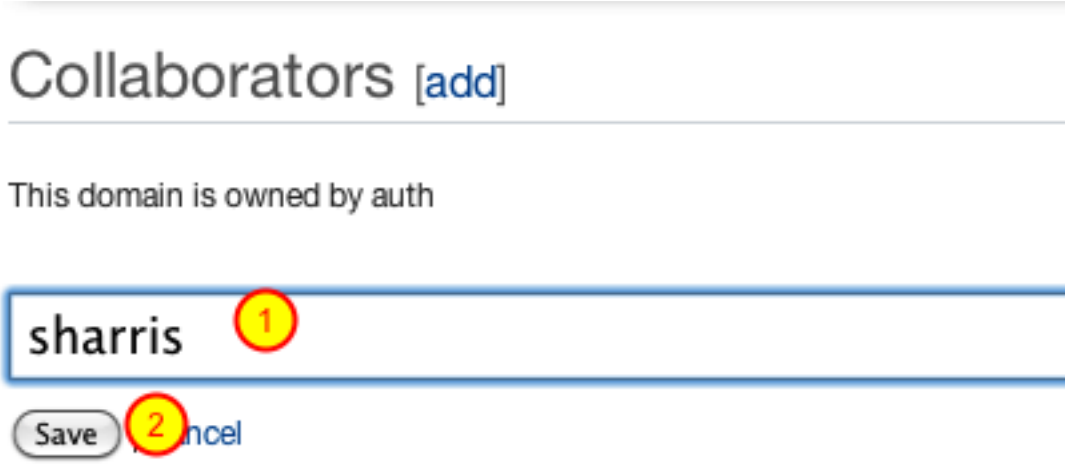
Locate the Collaborators section of the map



At the bottom of each map's page is a section named "Collaborators". Note that you will only be able to change this section for maps that you own. If you want to collaborate on a concept map owned by someone else, you will need to ask them to add you as a collaborator using these instructions.

To add a collaborator, click one of the "add" links shown above.

Add a collaborator

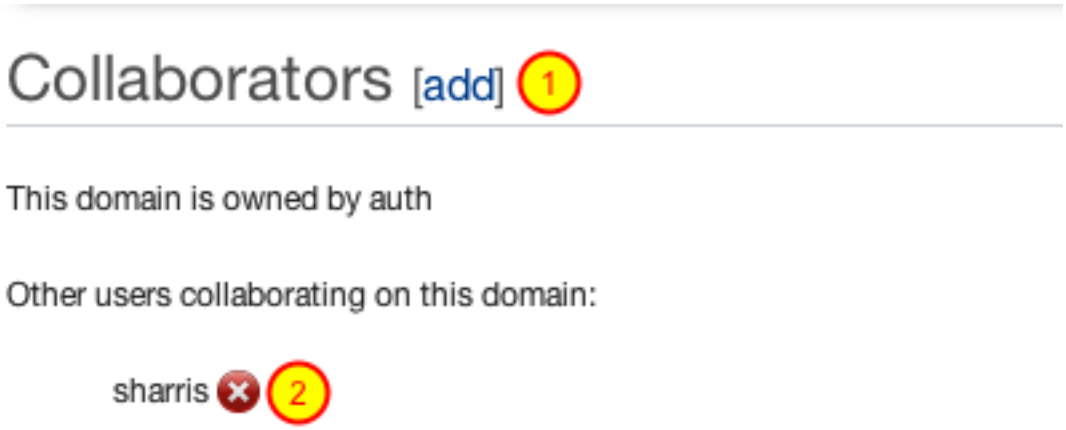


To add a collaborator, follow these steps:
1. Type in the user name of your collaborator
2. Click the "Save" button

Note: This is the same user name your collaborator uses to log in to Capstone, so ask them if you are not sure what it is. Currently there is no lookup facility or validation (sorry about that).

To add another collaborator, repeat the preceding steps.

View your collaborators



Once you have collaborators in place, you can:
1. Add another collaborator by clicking the "add" link
2. Remove a collaborator by clicking on the red "X" icon

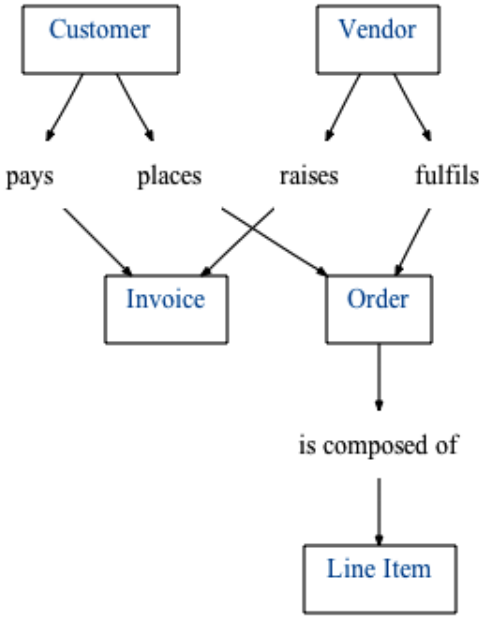
Find maps you are collaborating on

Any domains you are collaborating on will be listed on your "My Domains" page in the section named "Domains I am collaborating on". Simply click on the name of a domain to start working on it.

Communicate clearly with well known predicates

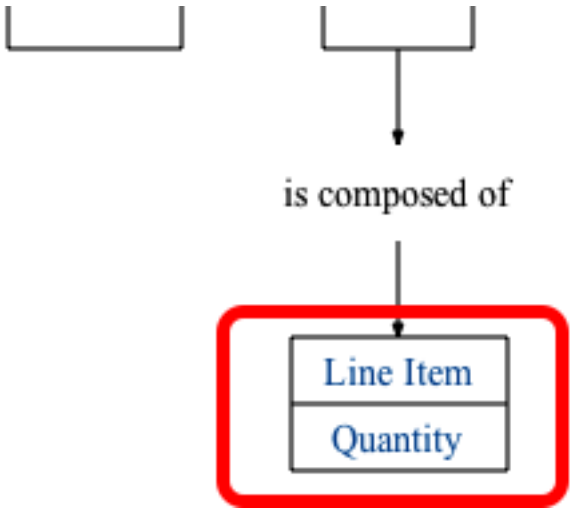
conceptmaps.io has built-in support for certain predicates that tend to appear in many concept maps. These are called "well-known" predicates. This lesson will show you how to use them in your concept maps and understand them in concept maps built by others.

Add an attribute to a concept with the "has" predicate



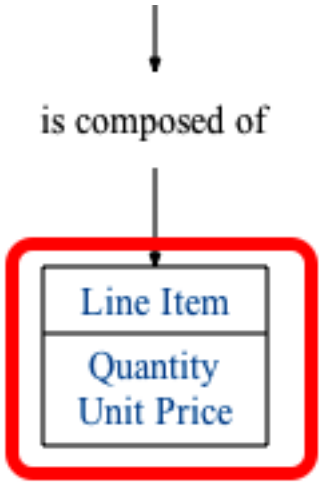
A common pattern in concept maps is to define a set of attributes for a concept. Capstone supports this by letting you make propositions of the form "Line Item has Quanity", "Vendor has ABN", etc.

In the example above, we are adding an attribute to the Line Item concept.



The concept map updates to show the new attribute in the lower section of the box containing the concept. This is to save space on large concept maps and is typical of other notations such as UML.

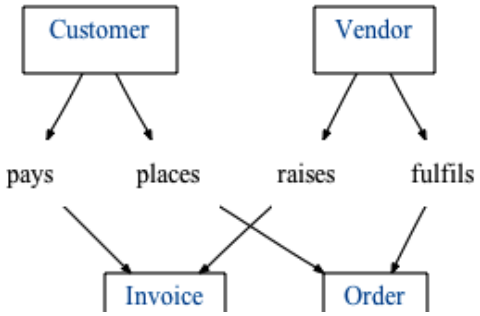
Let's add a Unit Price attribute to our Line Item concept as well.



The concept now has two attributes as shown here.

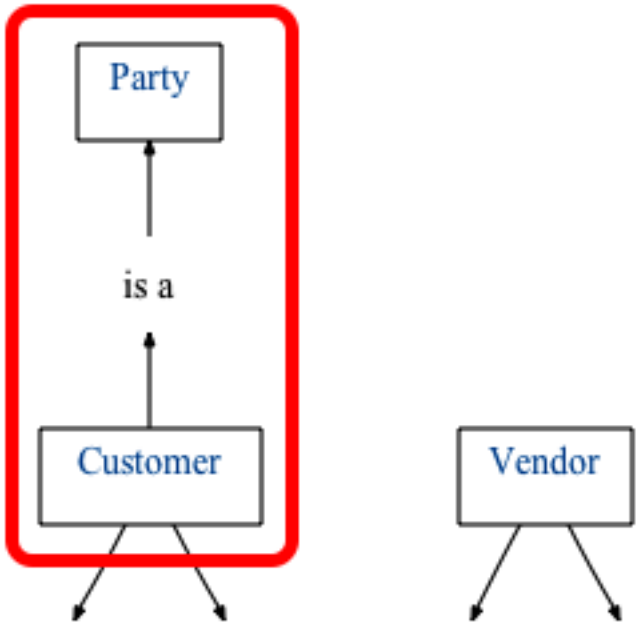
Note: if you make a proposition about an attribute (for example, "Unit Price is measured in Australian Dollars", the attribute will no longer be presented inside the lower section of the concept it belongs to, but will become a separate node to allow relationships to be represented. Try it out if you like to see what happens.

Group Concepts together with the "is a" predicate



It is common in concept maps for concepts to share characteristics and for us to want to give that shared concept a name. Capstone lets you make propositions of the form "Customer is a Party" and "Vendor is a Party" to deal with this situation.

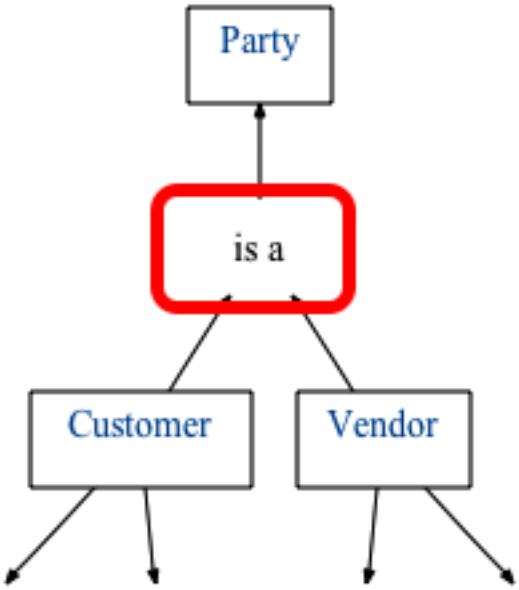
Let's extend our Order Processing domain with the proposition "Customer is a Party"



The concept map updates as shown above.

Note: unlike most arrows in Capstone concept maps, the arrow in this case points upward. This is to support the principle that more general concepts should be placed towards the top of concept maps and more specific concepts towards the bottom.

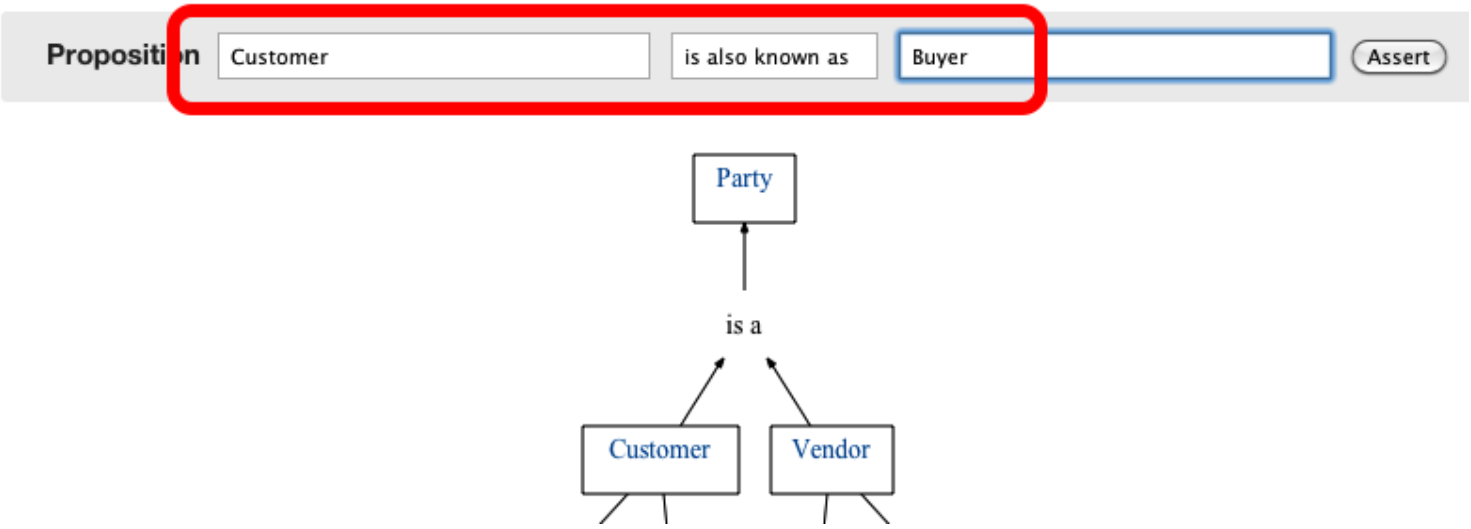
Let's complete this example with the proposition "Vendor is a party".



The concept map updates as shown above.

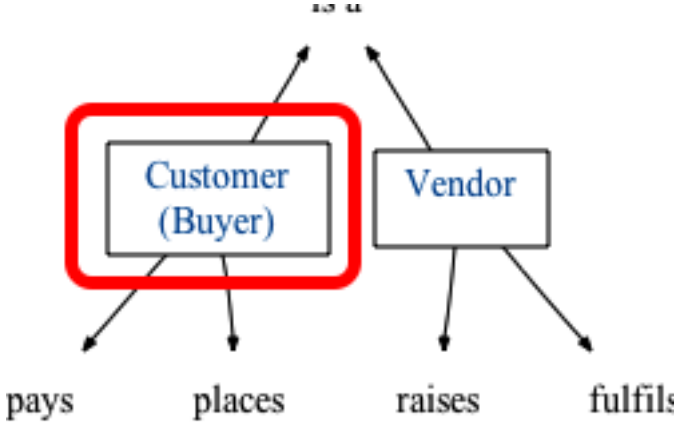
Note: to aid readability, the two "is a" predicates have their arrows converging so that only a single arrow head connects to the "Party" concept.

Allow multiple names for the same Concept with the "is also known as" predicate



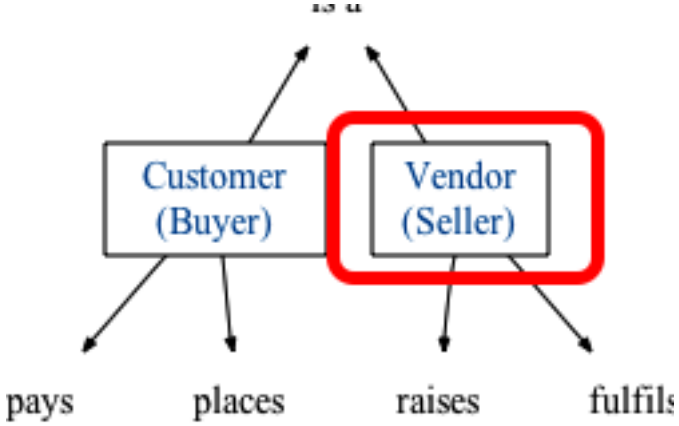
It is often the case that different people have different names for the same concept. Capstone allows for this by letting you make propositions of the form "Customer is also known as Buyer" and "Vendor is also known as Seller".

Let's extend our Order Processing Domain with the proposition "Customer is also known as Buyer" as shown above.



The concept map updates as shown here. The alternative concept name is shown in parentheses inside the box for the original concept. This is to save space on large concept maps and to aid readability.

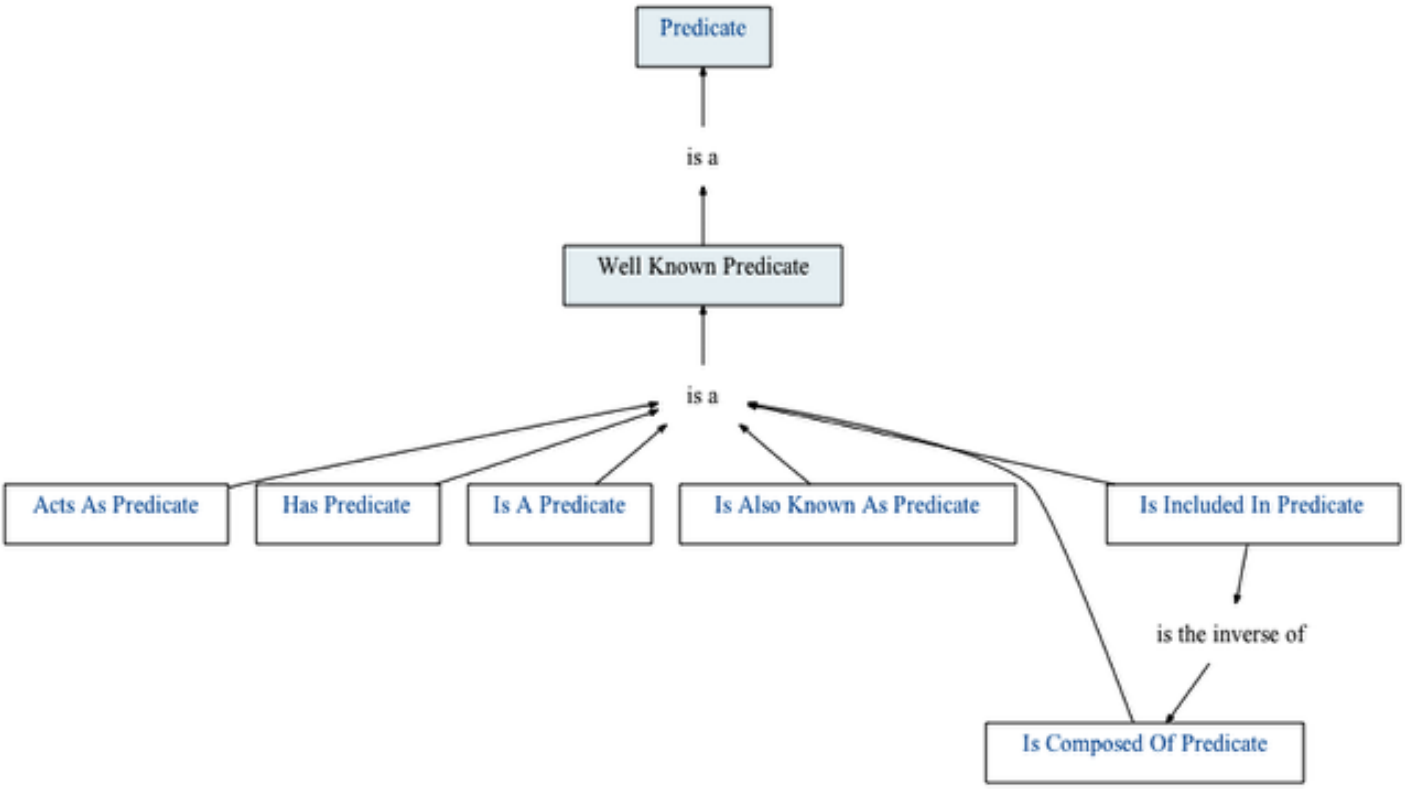
Let's provide an alternative name for the Vendor by adding "Vendor is also known as Seller" to our domain.



The concept map updates as shown.

Note: if you make propositions about the alternative name (for example, "Seller is represented by Agent"), then the alias will no longer appear inside the box for the original concept; it will become a separate node on the diagram to make relationships clear.

If you want to know more

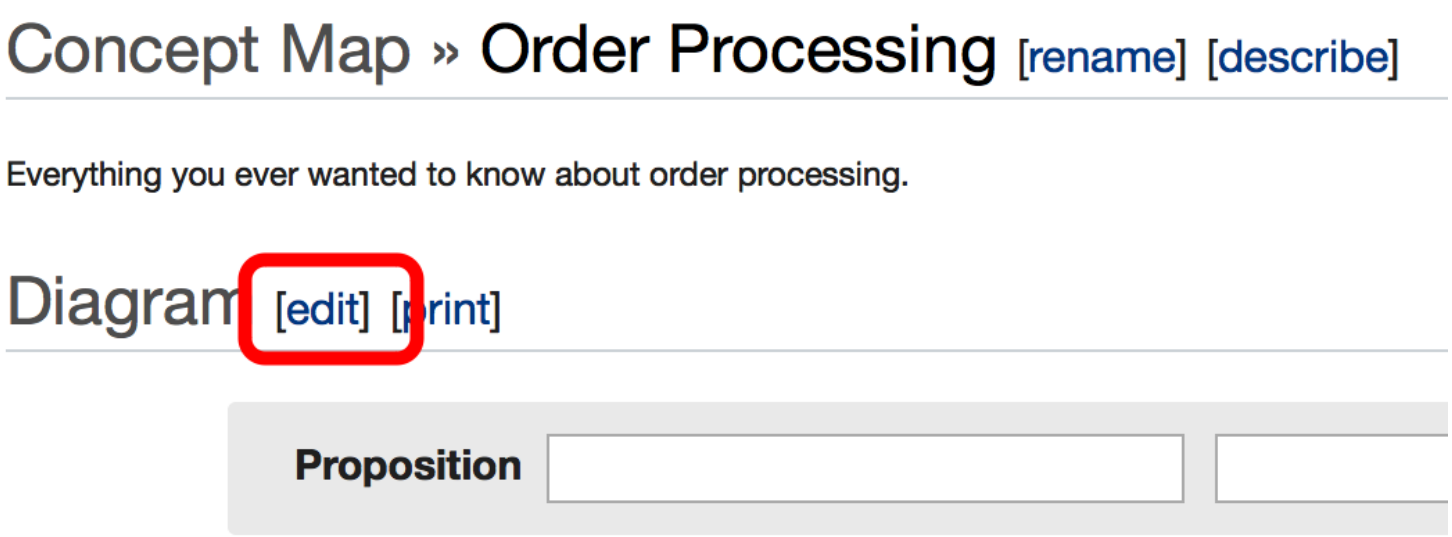


The best place to find out about all the well-known predicates is not here in this user guide, but in the "Capstone Concept Modelling" domain which is a published domain just like any other in Capstone. Feel free to check it out; look for the concept "Well Known Predicate" and go from there.

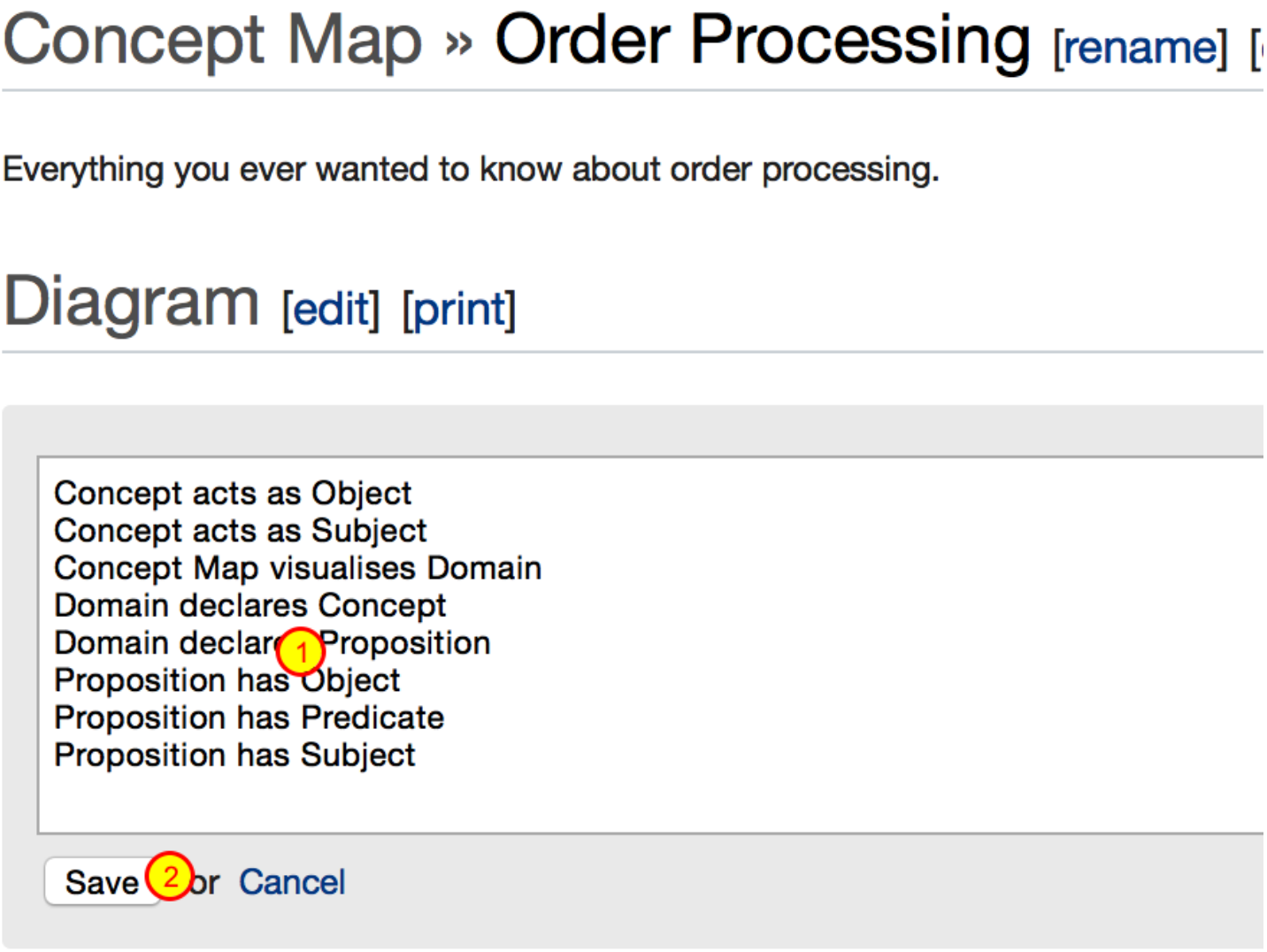
Making several changes at once with plain text editing

Capstone allows you to see all the propositions for a domain or a concept at once and edit them using simple plain text. This lesson shows you how.

Edit the propositions for an entire concept map



To edit the propositions for a domain, click the "edit" link as shown above.

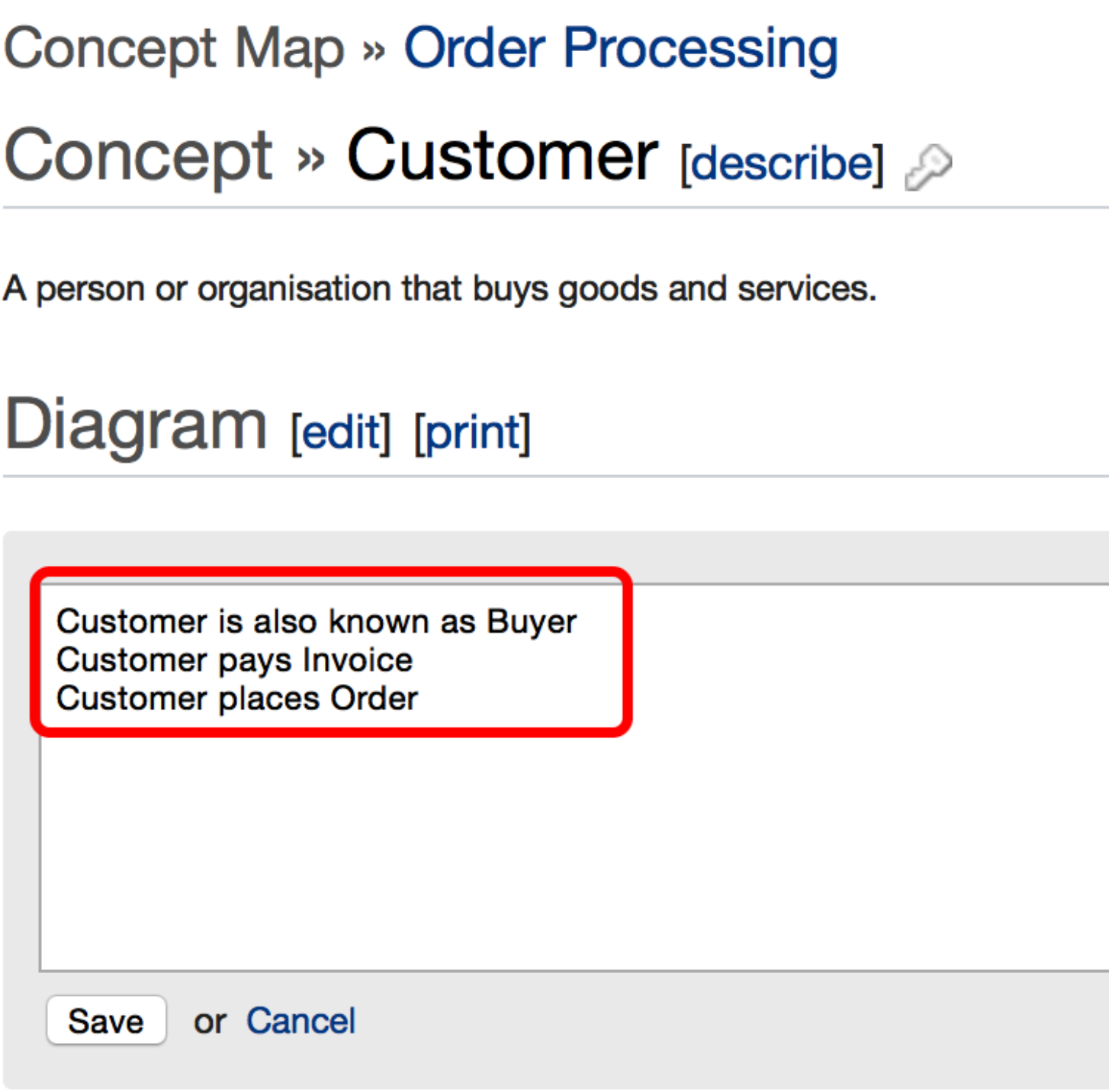


A text box appears with all the propositions for the domain available for editing. You can:

1. Add, modify or delete any propositions you want
2. Click Save or Cancel as appropriate to save or abandon your changes

Tip: you can hit "Escape" on your keyboard to cancel and "Ctrl-Enter" to save if you find it easier.

Editing propositions for a single concept



In a very large domain with hundreds of propositions, it may be easier to edit the propositions for a single concept at a time.

Each concept's page has an "edit" link you can click to edit just the propositions for that concept.

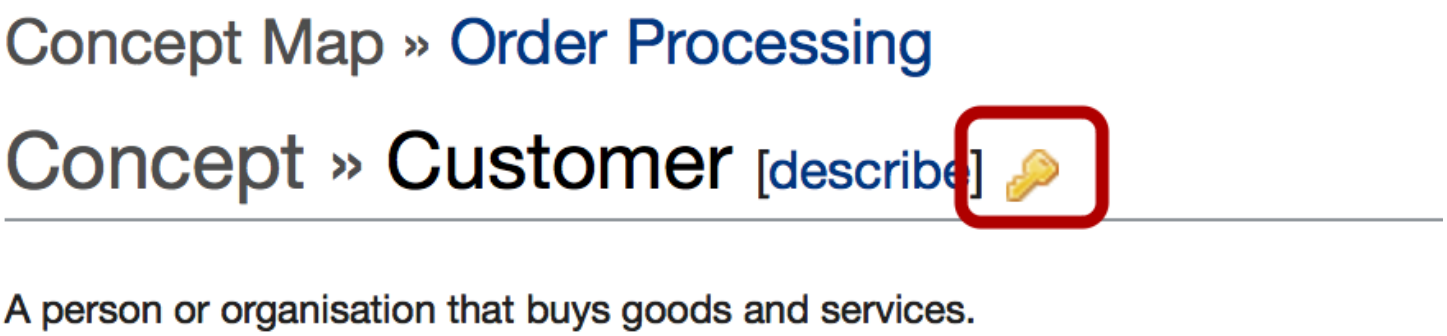
Tip: You can add propositions about any concept in the domain in this mode; you don't have to limit

yourself to those propositions concerning the concept you started with.

Summarise your Domain with Key Concepts

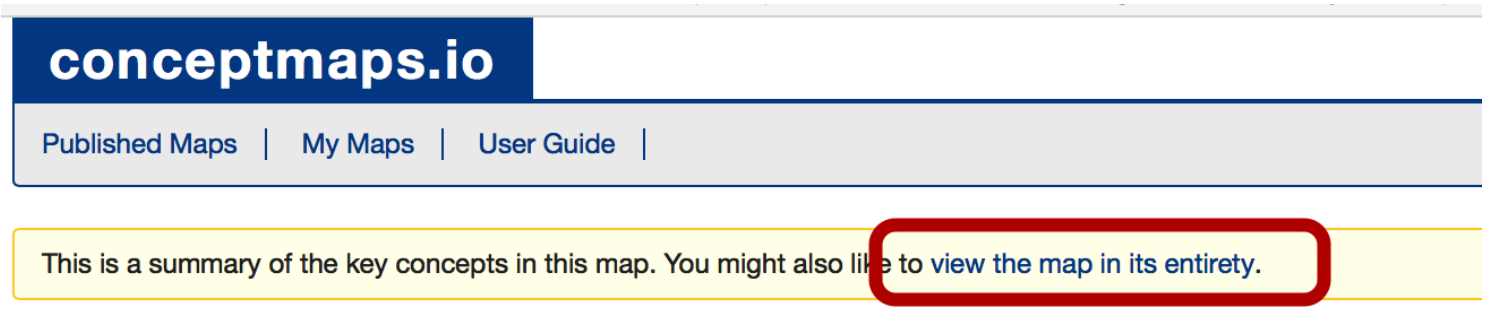
conceptmaps.io lets you nominate certain concepts in your domain as more important than others. This makes it easier for your readers to approach a complex domain by first focusing on just the key concepts. This lesson will show you how.

Mark a concept as a "key" concept



On each concept page there is a small key icon as shown above. You can click on this key to toggle this concept being recognised as a key concept in your domain. As soon as you have at least one key concept in your map, you will be able to switch between summary and detail view on the map's page.

Switch between summary and detail views of your map

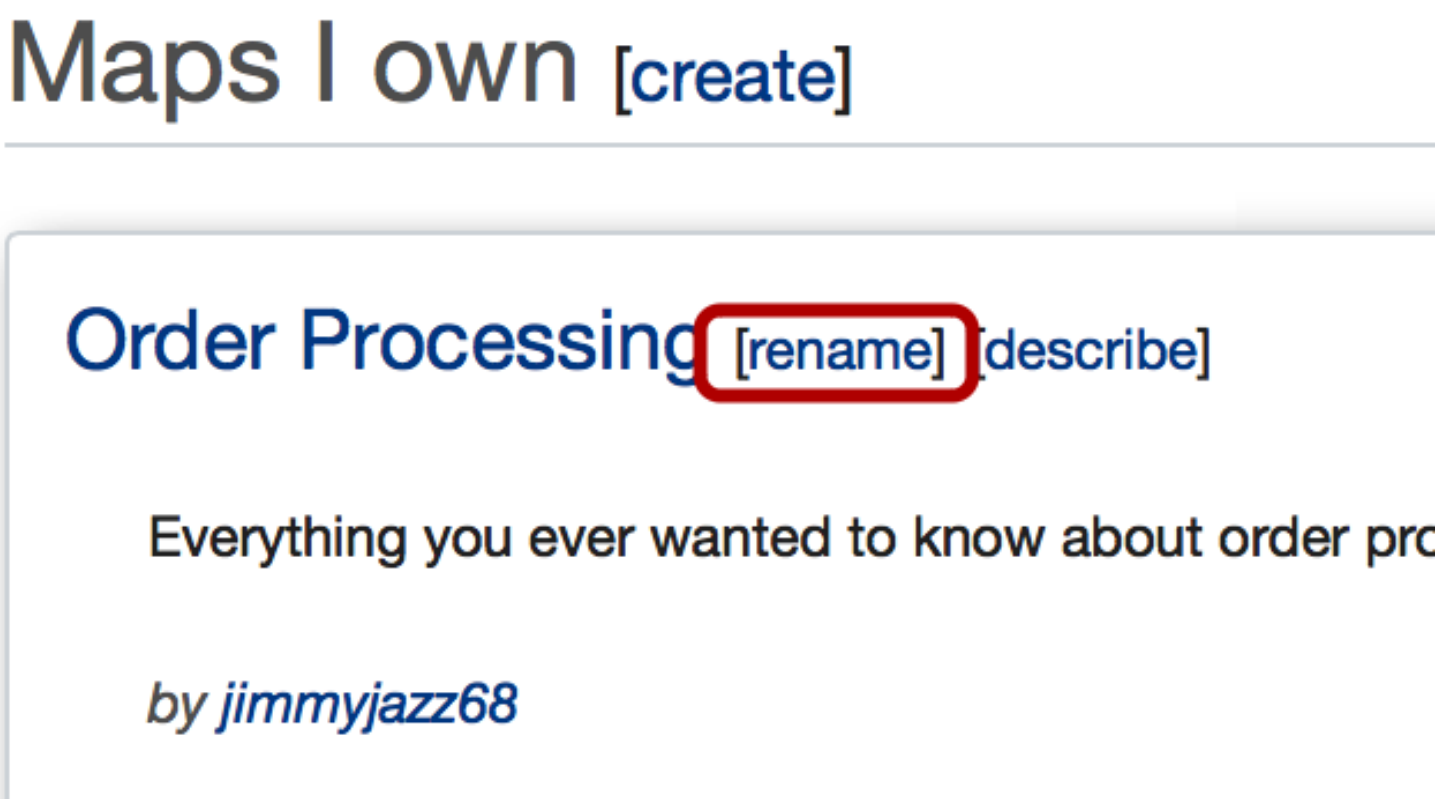


Any key concepts in your map will be included in the summary view of your map. Click the link as shown above to switch between summary and detail views.

Oops! Renaming Concepts and Concept Maps

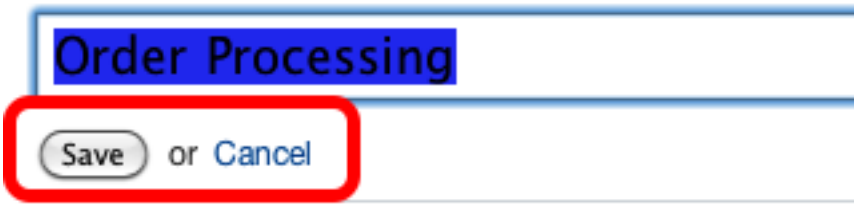
Capstone allows you to easily rename domains and concepts. This lesson will show you how.

Click the "rename" link in your "My Maps" list



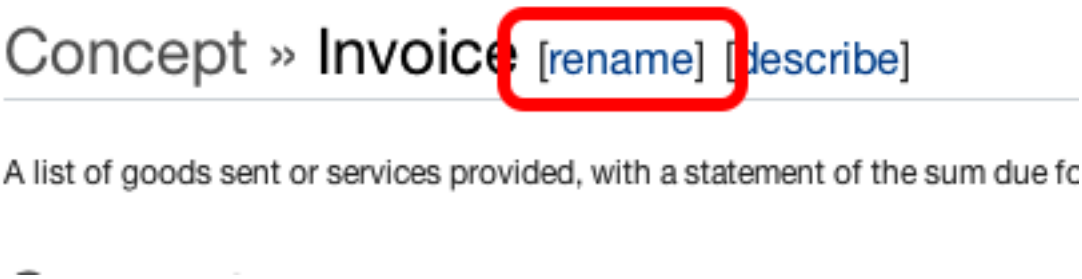
Any domain that you own will have a "rename" link next to it in your My Domains list. Click this link to rename the domain.

Type a new name and click Save



Type a new name for the domain and click the Save button. You may also click the Cancel link or hit Escape to abandon your changes.

Rename a concept

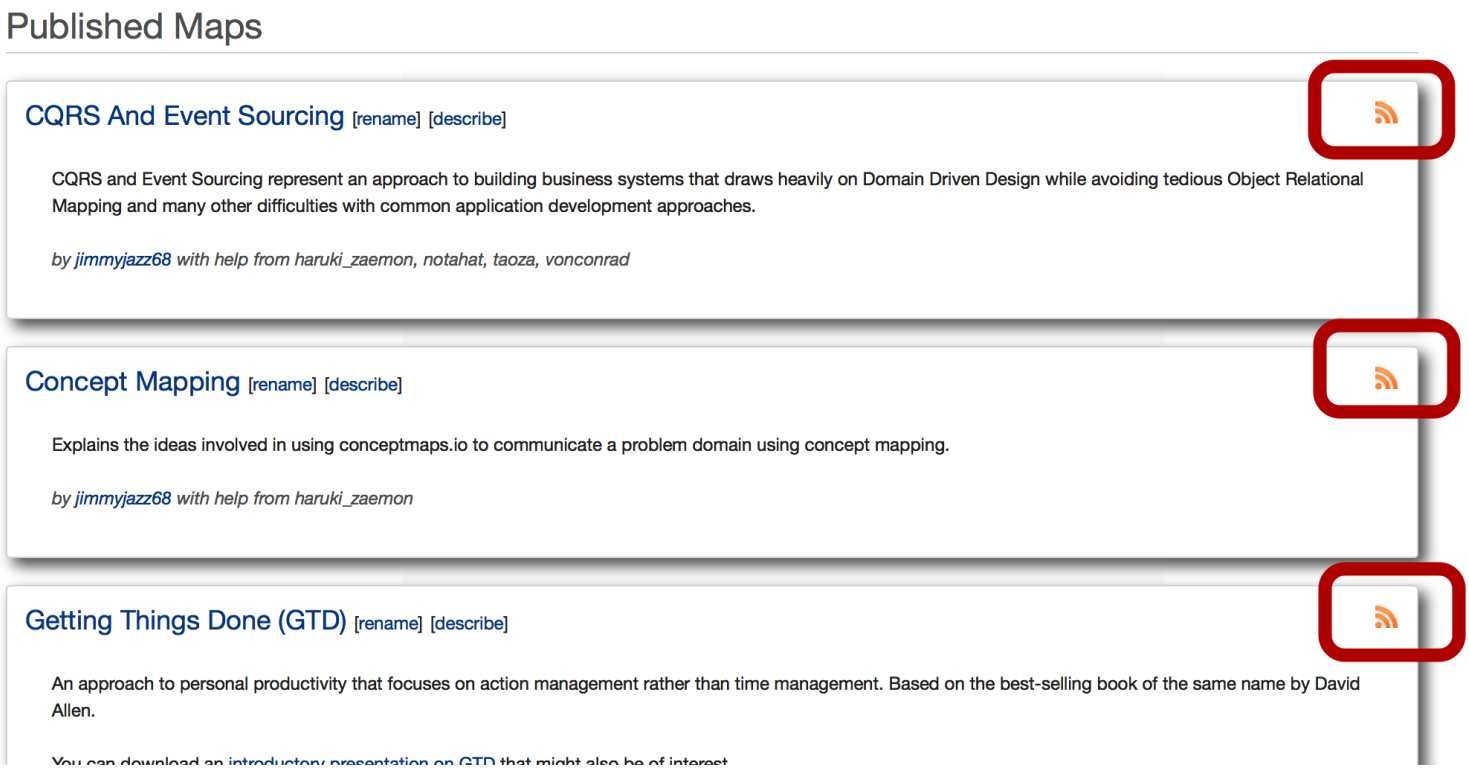


Similarly, each concept page allows the concept to be renamed with a "rename" link.

What just happened? Tracking changes to a domain using RSS

Concept maps can grow and change quickly and it can be hard to keep up if you're not checking them frequently. conceptmaps.io lets you keep up with the changes to a concept map by providing an RSS feed of the changes that are made over time. This lesson will show you how to use them.

Locate the RSS feed you want

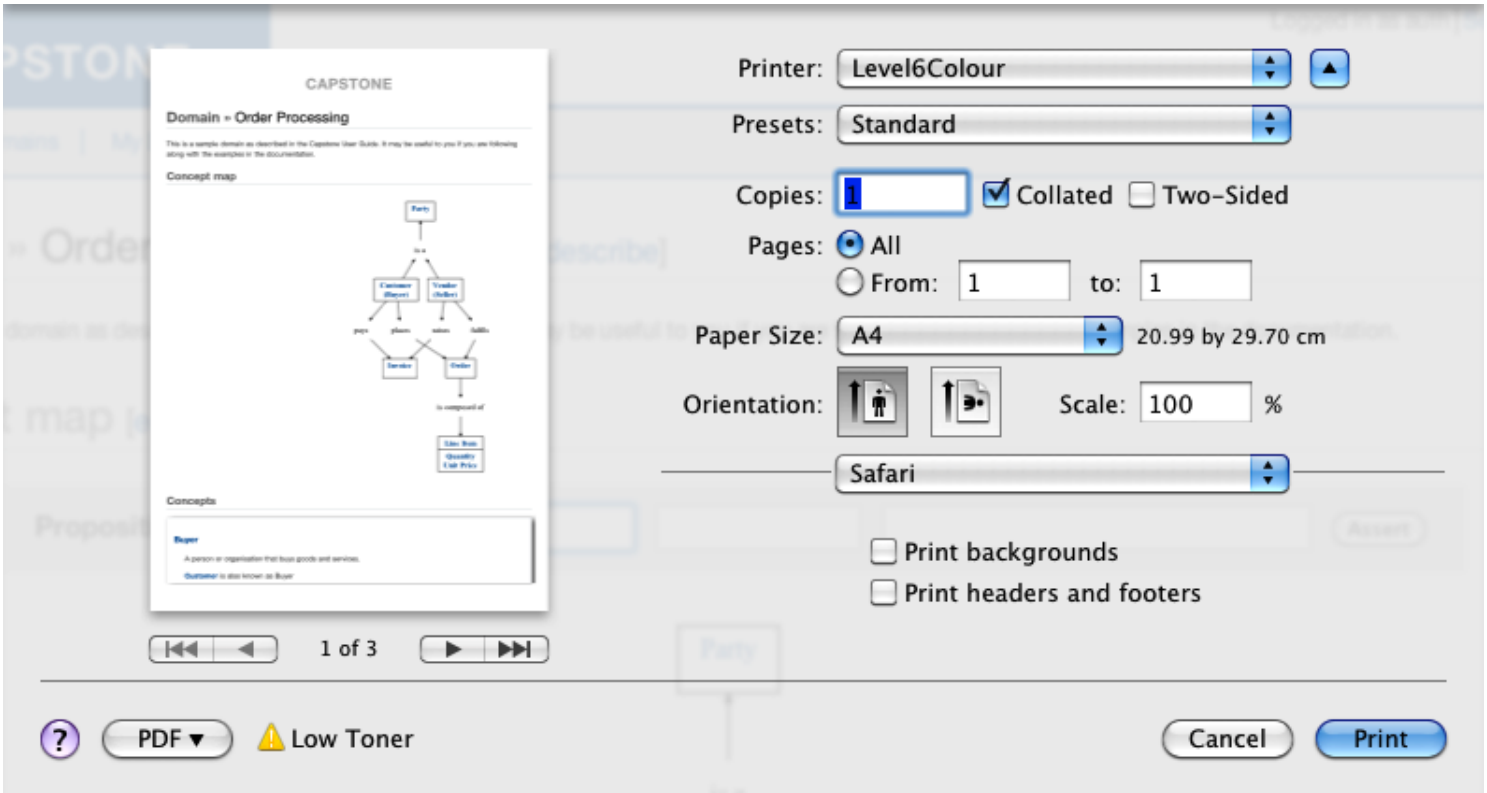


Each concept map in conceptmaps.io has its own RSS feed represented by an irange icon as shown above. How you use this link is going to depend heavily on your browser and your RSS reader. We'll assume here that you already know how to subscribe to an RSS feed and can do so on conceptmaps.io.

Printing

Concept maps can be very handy in hard copy. This lesson will show you how to print your concept maps.

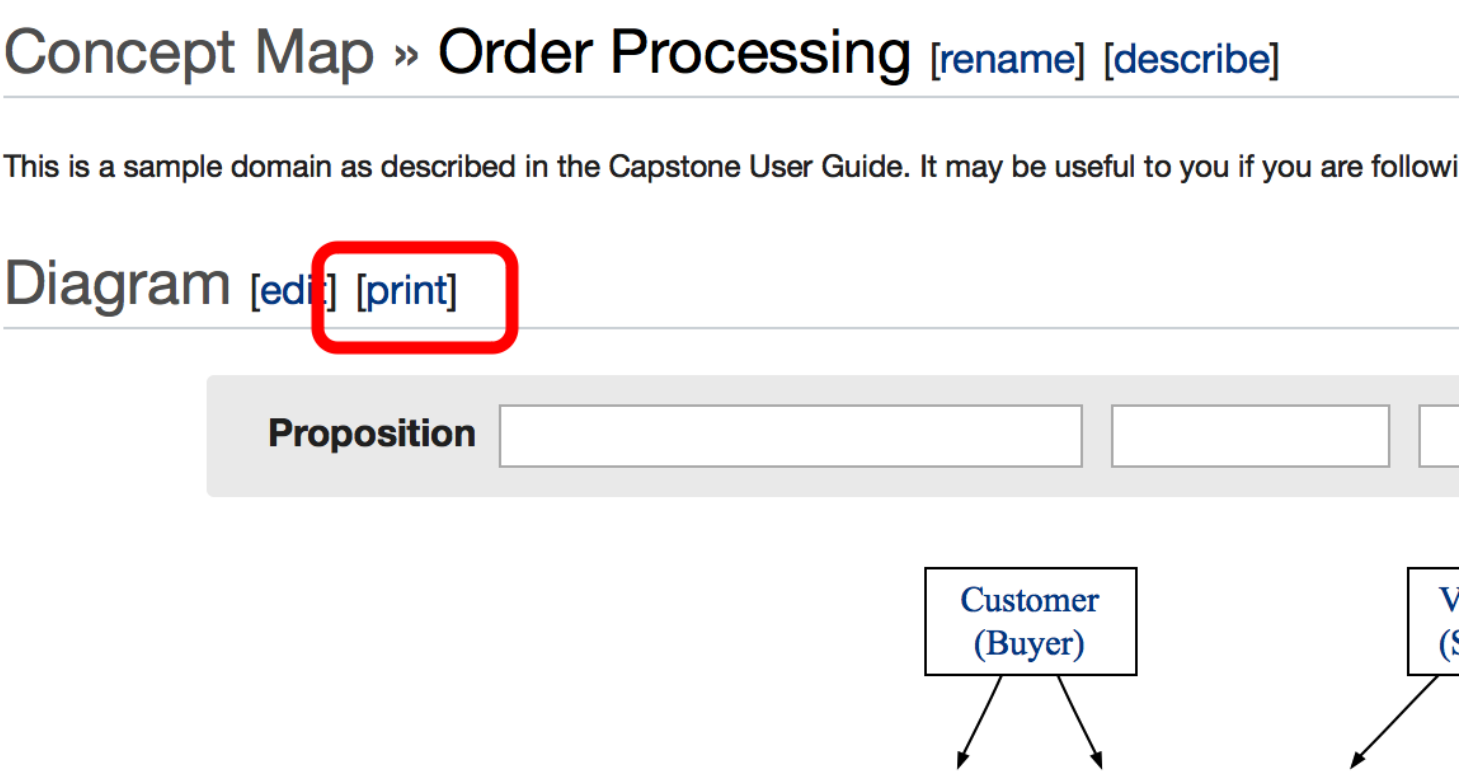
Print a concept map using your browser's standard printing feature



Using your browser's built-in ability to print web pages (usually on the File menu you can select the Print menu item), you can print any conceptmaps.io map or concept page. This can be especially useful if you have built a custom view of a domain by adding concepts of interest to a concept page.

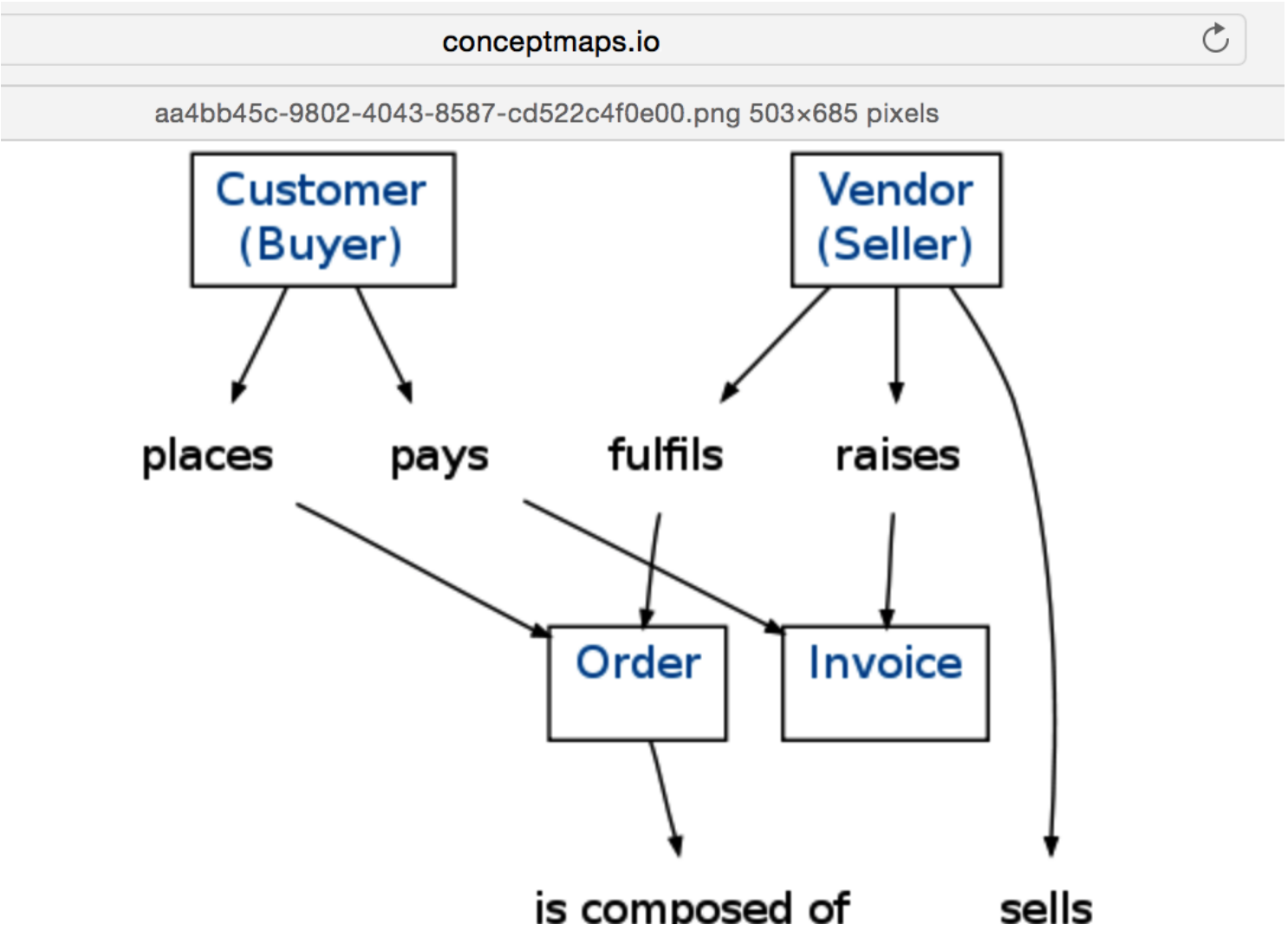
conceptmaps.io has a built-in print stylesheet that makes the printed version more than just a screen dump of the web page. For example, the navigation bar, links and data entry fields are removed when printing. If your computer is set up to be able to generate PDF's, you can also create a custom PDF of a map or concept.

Print only the graphical Concept Map



Each concept map in conceptmaps.io lets you print only the diagram without any of the surrounding content.

Click on the "print" link above a concept map diagram as shown above.



The browser presents a page that contains only the concept map diagram. You can use your browser's built-in print facility to print the map.

Use the "Back" button on your browser to return to the application.

Frequently Asked Questions

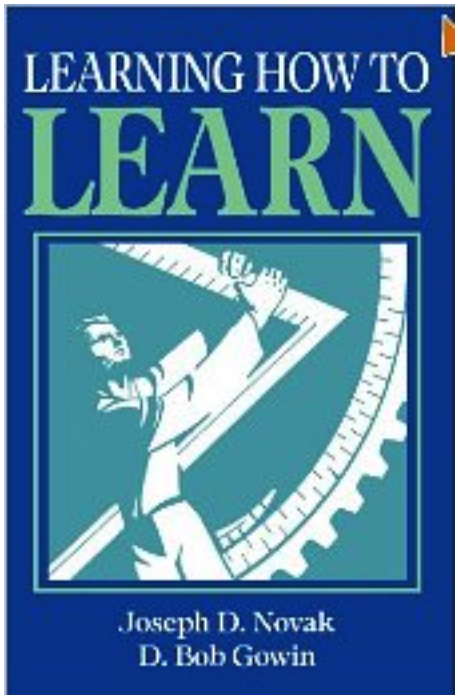
Frequently Asked Questions

This section contains answers to some of our frequently asked questions.

Where do Concept Maps come from?

Concept Maps have been used for decades and seem to have been most common in the education arena. Going back to the late 1970's, Joseph D. Novak has been writing about the benefits of concept maps for teaching and learning. The two books of his that have informed conceptmaps.io are "Learning How To Learn" and "Learning, Creating and Using Knowledge".

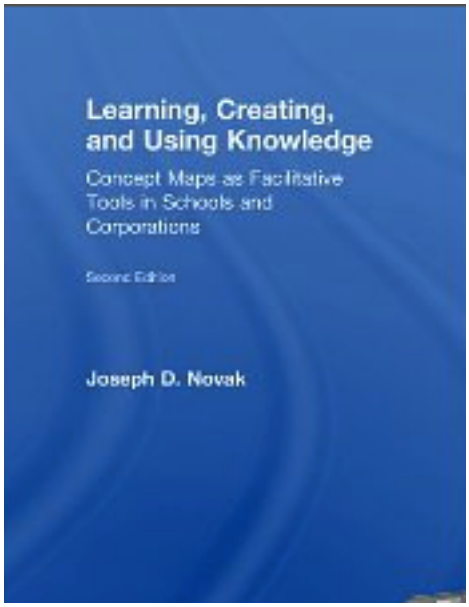
"Learning How To Learn" by Joseph D. Novak et al.



Paperback: 216 pages
Pu**blisher: Cam**bridge University Press; 1 edition (September 28, 1984)
Lang**uage: Engli**sh
ISBN-1**0: 0521319**269
ISBN-13: **978-0521**319263

Click here to see book details on Amazon.com

"Learning, Creating and Using Knowledge" by Joseph D. Novak et al.



Paperback: 272 pages
Pu**blisher: Rou**tledge; 1 edition (January 1, 1998)
Lang**uage: Engli**sh
ISBN-1**0: 0805826**262
ISBN-13: **978-08058**26265

Click here to see book details on Amazon.com

What makes a good Concept Map?

Here are a few guidelines that might help your concept maps work as effectively as possible for your readers.

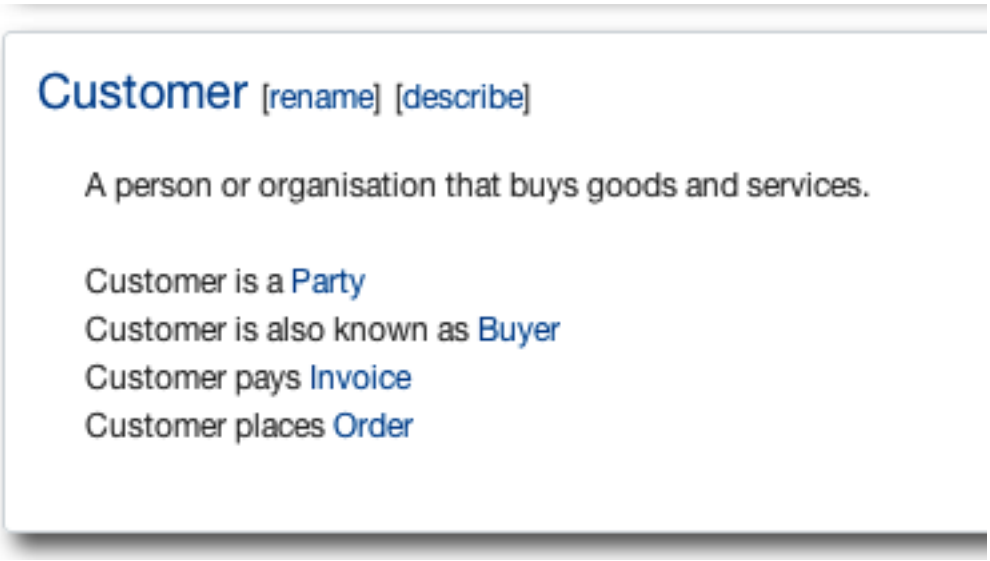
Try to make propositions that read like sentences you would say out loud. Examples might include "Customer places Order" and "Order has Total Value".

That being said, try to avoid articles before concepts ("a", "an", "the") as you will most likely tie yourself in knots wondering whether the articles are part of the concepts or the predicates. So you should not make a proposition like this: "A Customer places An Order".

Generally, concepts should be nouns or noun phrases and predicates should be verbs or verb phrases.

Try to avoid vague predicates like "is associated with", as in "Customer is associated with Sales Person". Try to nut out what the relationship is more specifically; for example, it might be better to say "Sales Person is assigned to Customer" or "Customer orders from Sales Person" depending on the context.

Every concept in your domain should have a description. However, you want to avoid descriptions that repeat what the reader can already learn from the propositions in your concept map. This means that concept descriptions tend to be short because the propositions also form part of the concept summary. An example is shown below.



When other people look at your map, they might suggest concepts or relationships that are missing. You may decide they are not required, but stay on the lookout for missing concepts and connections. This is a good thing to ask your collaborators to help with.

We tend to recommend concepts be singular, as in "Customer places Order" rather than plural, as in "Customers place Orders". This is because concepts tend to represent classes of things rather than groups of things. It's not a hard and fast rule, but it's a good rule of thumb.

How do maps get published?

It's an administrative function to publish concept maps at this stage, so if you have a map that you think is ready to be published, please just let us know and we'll work with you to get it done.

How do I delete a Concept?

The simplest way to delete a concept is to simply remove all the propositions that refer to it. See this lesson for details on batch editing of propositions.

How do I search for a Concept?

There is currently no facility for searching for a concept across maps. Let us know if this is a problem for you. In the meantime, simply use your browser's text searching feature to locate a concept on a domain page.

Can I add attachments and links to Concepts?

You can't upload attachments in conceptmaps.io, but you can add links to any resource for which you have a URL. See this lesson for how to do that.