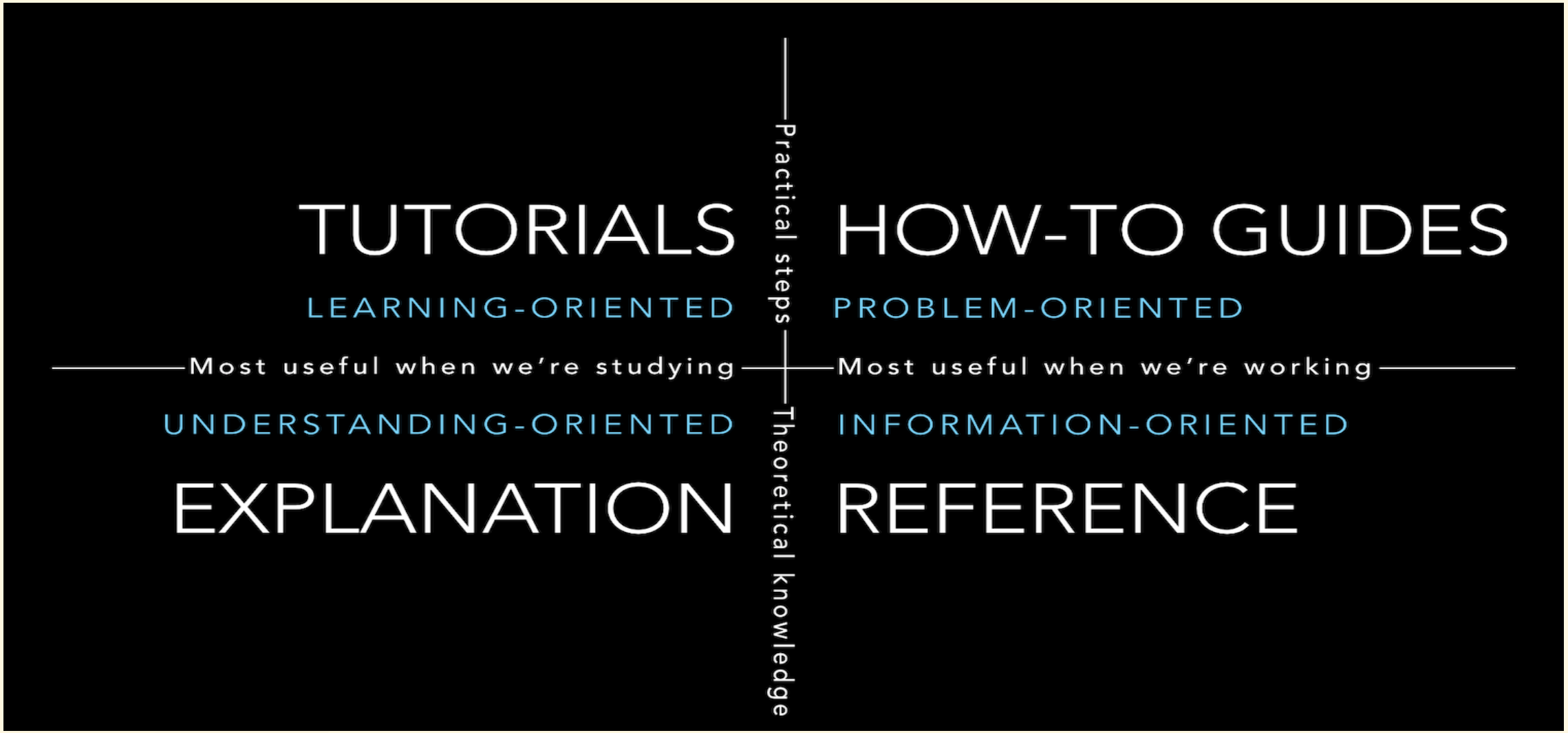
Documentation structure

Documentation needs to include and be structured around its four different functions: tutorials, how-to guides, technical reference and explanation. Each of these kinds of documentation has only one job

	Tutorials	How-to guides	Reference	Explanation
oriented to	learning	a goal	information	understanding
must	allow the newcomer to get started	show how to solve a specific problem	describe the machinery	explain
its form	a lesson	a series of steps	dry description	discursive explanation
analogy	teaching a small child how to cook	a recipe in a cookery book	a reference encyclopaedia article	an article on culinary social history

In a nutshell



Tutorials

- Guide the reader by the hand through a series of steps to complete a project of some kind.
- wholly learning-oriented, towards learning how
- the student will execute a series of actions to achieve some end.
- the end has to be meaningful, but also achievable for a complete beginner.

Analogy from cooking - Tutorial

Consider an analogy of teaching to cook.

- What you teach to cook isn't really important.
- What's important is that student finds it enjoyable, and gains confidence, and wants to do it again.
- will learn important things about cooking - what it is like to be in the kitchen, to use the utensils, to handle the food.
- When we learn a new craft or skill, we begin learning it by doing.

See more

How-to guides

- takes the reader through the steps needed to solve a problem.
- They are recipes, directions to achieve a specific end
- They are wholly goal-oriented.

How-to guides are wholly distinct from tutorials:

- A tutorial is what you decide a beginner needs to know.
- A how-to guide is an answer to a question that only a user with some experience could even formulate.
- In a how-to guide, you can assume some knowledge and understanding.

Analogy from cooking - How-To

- Think about a recipe, for preparing something to eat.
  - A recipe has a clear, defined end.
  - It addresses a specific question.
- It shows someone - who has some basic knowledge already - how to achieve something.
- Someone who never cooked before can’t follow a recipe
- => recipe is not a substitute for a cooking lesson.
- someone who reads a recipe does not need to to teach basics

See more

Reference guides

- technical descriptions of the machinery and how to operate it.
- have one job only: to describe.
- Reference material is information-oriented.
- should contain examples to illustrate usage
- it should not explain basic concepts, or how to achieve common tasks.
- not to be confused with a how-to guide - describing correct usage of software (technical reference) is not the same as showing how to use it to achieve a certain end (how-to documentation).

Analogy from cooking - reference

- Consider an encyclopaedia article about an ingredient, say ginger.
- reference work gives you information about the ingredient - its provenance, its behaviour, its constituents, how it can be cooked.
- You expect that whatever ingredient you look up, the information will be presented in a similar way.
- you expect to be informed of basic facts (ginger is a member of the family that includes turmeric and cardamom.)
- you'd expect to be alerted about potential problems, such as: ginger ican provoke heartburn

See more

Explanation

- clarify and illuminate a particular topic.
- broaden the documentation’s coverage of a topic.
- They are understanding-oriented.
- taking a wider view, illuminating it from a higher level or even from different perspectives.

This section of documentation is rarely explicitly created, and instead, snippets of explanation are scattered amongst other sections.

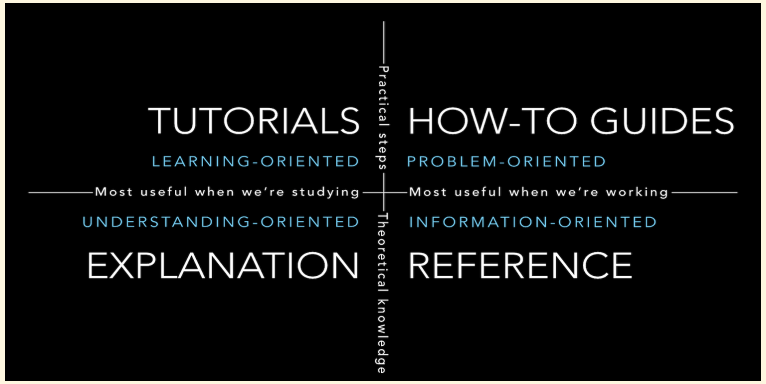
Analogy from cooking - explanation

- work that discusses food and cooking in the context of history, science and technology. It's about cooking and the kitchen.
- It doesn't teach, it's not a collection of recipes, and it doesn't just describe.
- it analyses from multiple perspectives: why it is we now do things the way we do, or even describe bad ways of doing things
- It deepens our knowledge and makes it richer, even if it isn't knowledge we can actually apply in any practical sense - but it doesn't need to be, in order to be valuable.

See more

Summary

Each of the quadrants is similar to its two neighbours:



- tutorials and how-to guides describe practical steps
- how-to guides and technical reference we need when we code
- reference guides and explanation focus on theoretical knowledge
- tutorials and explanation are most useful for studying

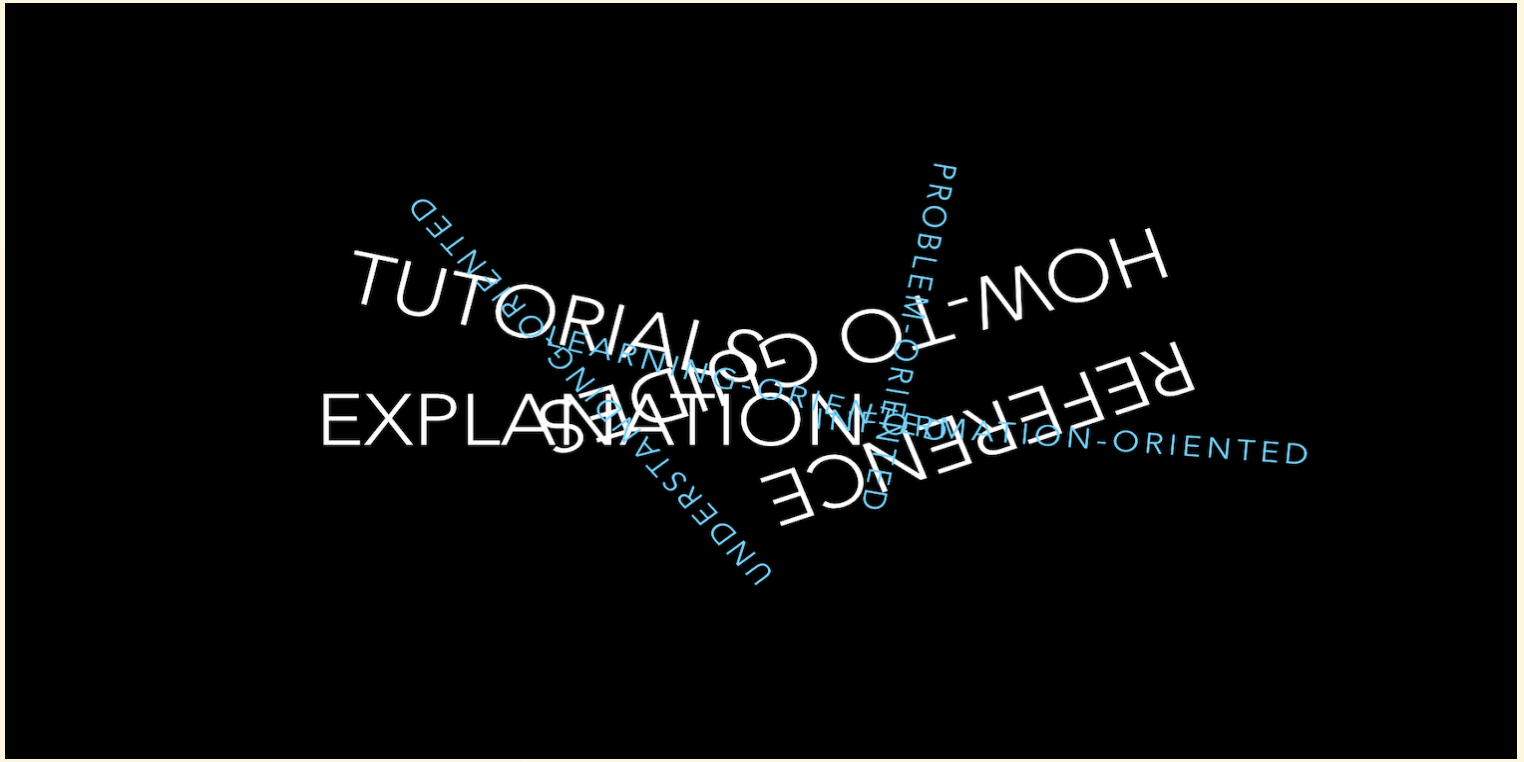
Example

An example of the documentation written using this structure is here.
It uses slightly modified names for the categories:

- Getting Started => Tutorials
- How-tos
- Reference
- Background => Explanations

Common issues

There is a natural gravitational pull of these distinct types of documentation to each other, and it is hard to resist



Naming convention

We will us the following prefixes for the Mardown names:

- `tut-` = Getting started, tutorial
- `how-to-` = How To
- `ref-` = Reference
- `bkg-` = Background, aka Explanation