

Diagramming Tools

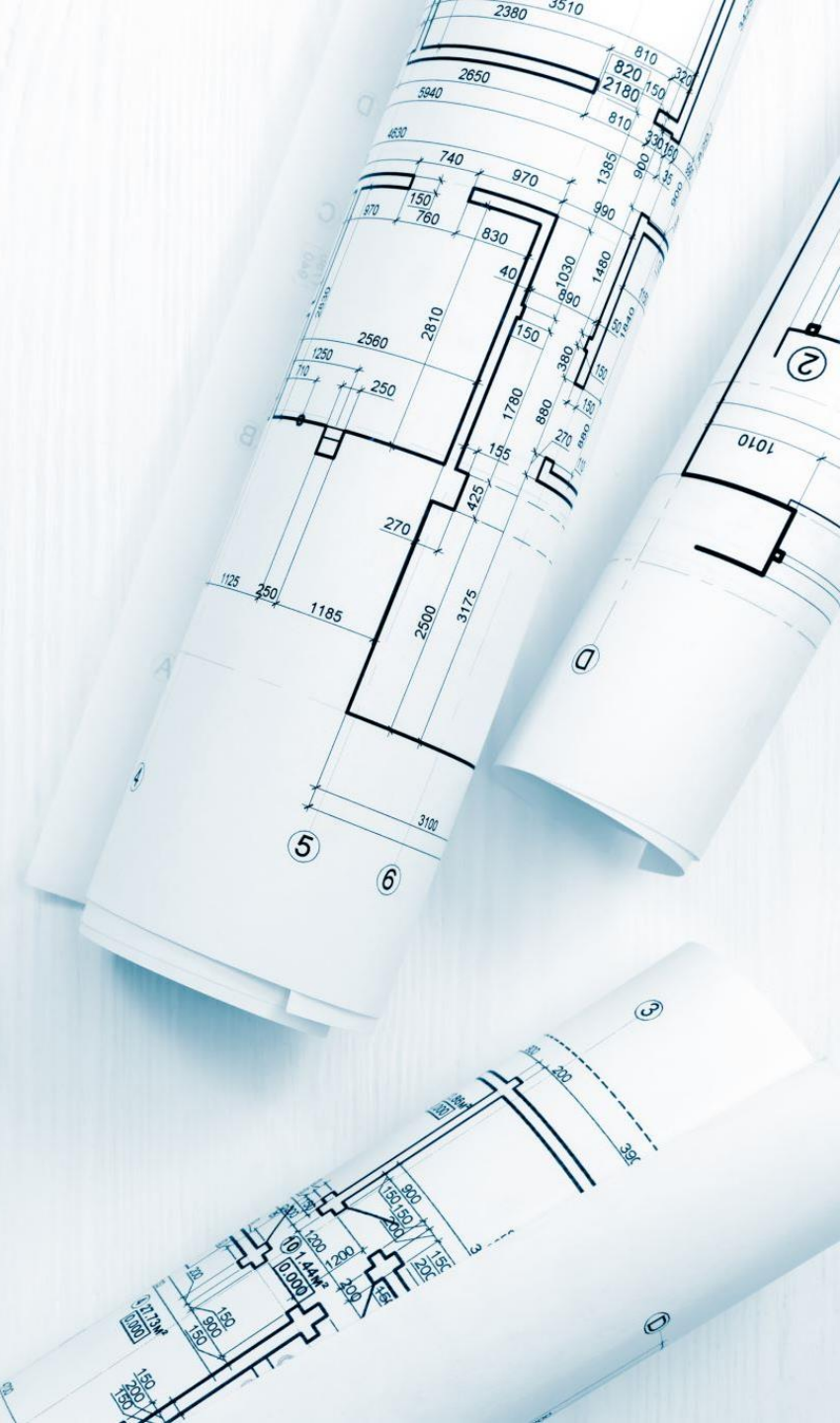
Outline

- ◇ Discussion: diagrams in daily life
- ◇ Discussion: diagrams in software design
- ◇ diagrams.net
- ◇ Drawing diagrams with the diagraming tool
- ◇ Discussion: good diagrams

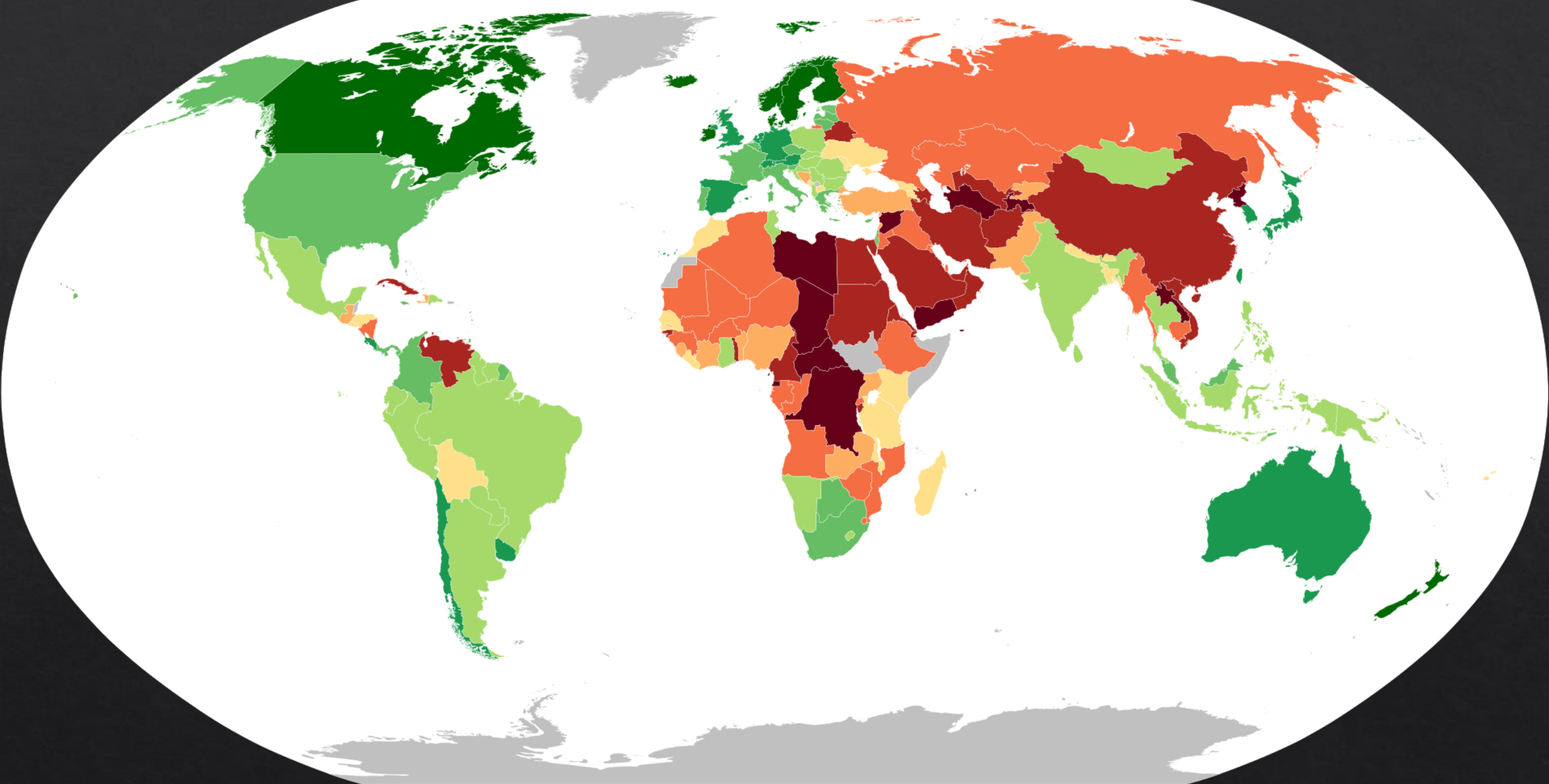
What is a diagram?

A simplified drawing showing the appearance, structure, or workings of something; a schematic representation.

-- a definition from Oxford Languages

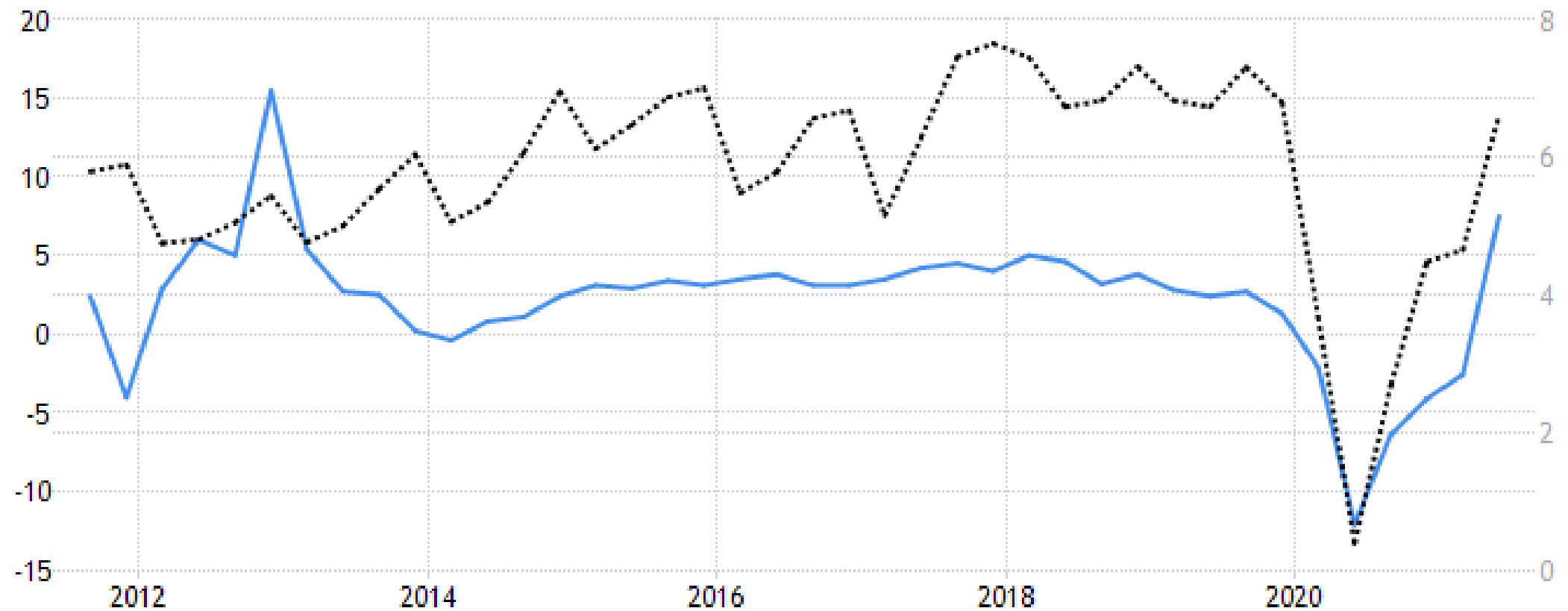


How often do we use
diagrams in our daily life?

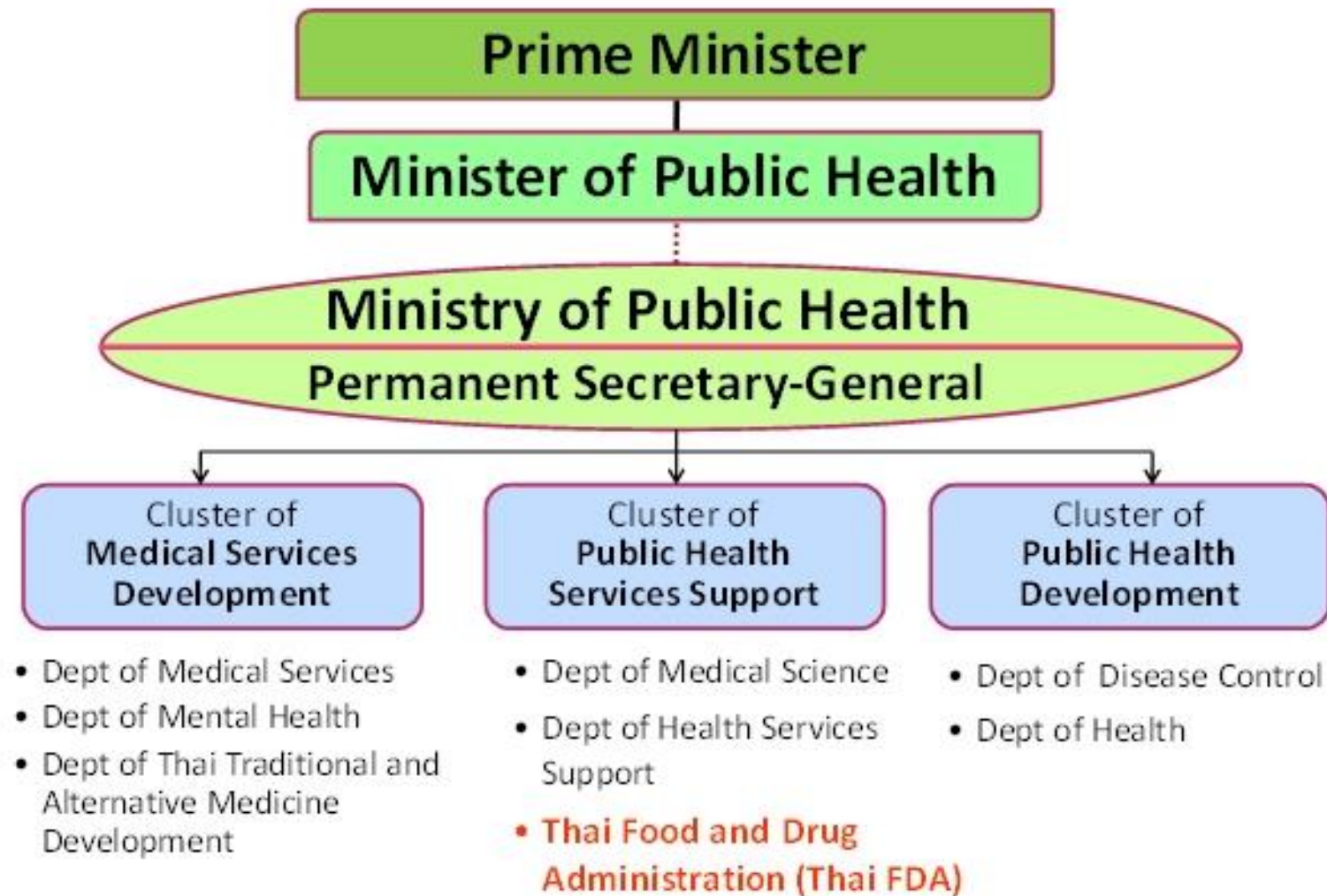


The 2020 Economist Intelligence Unit Democracy Index map

— THAILAND GDP ANNUAL GROWT... VIETNAM GDP ANNUAL GROWT...



SOURCE: [TRADINGECONOMICS.COM](https://tradingeconomics.com)



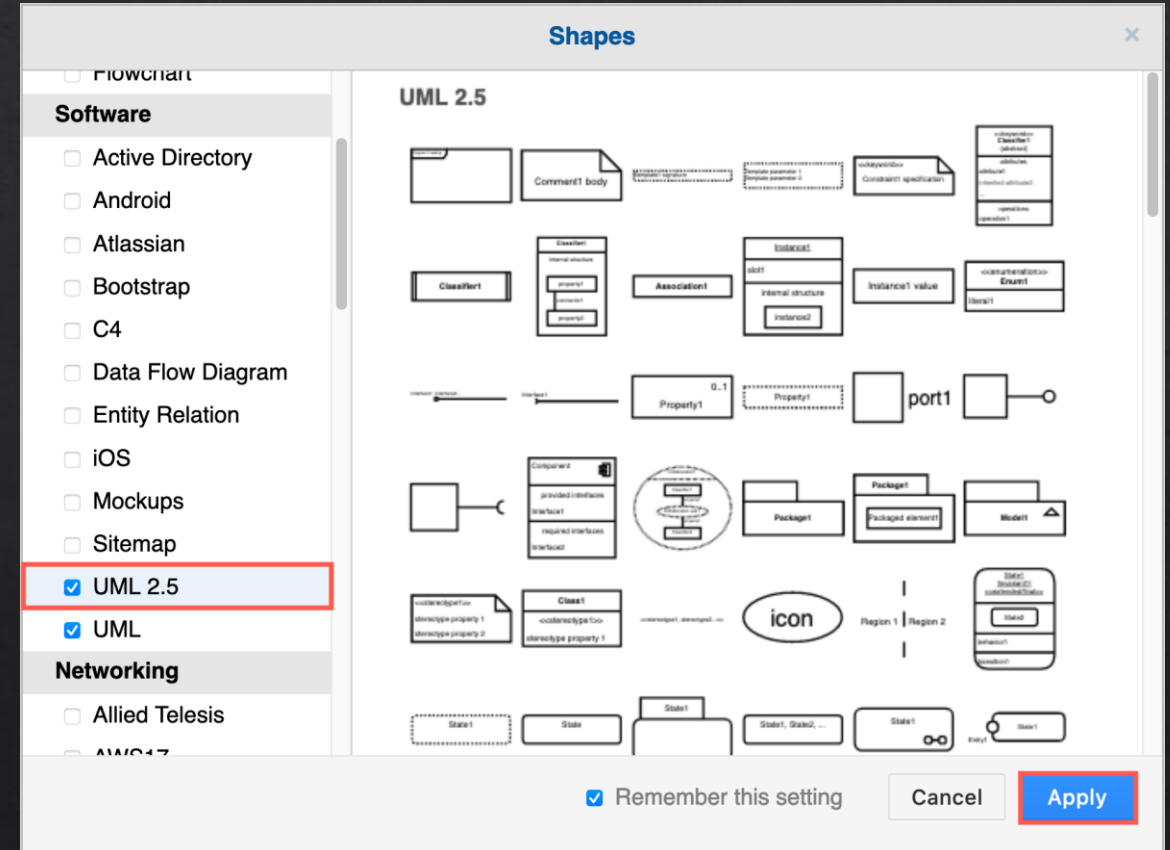
Provide at least 3 reasons
why **diagrams** are
important in software design?

diagrams.net

- ◇ diagrams.net/draw.io is an open-source technology stack for building diagramming applications.
- ◇ It is the world's most widely used browser-based end-user diagramming software.
- ◇ No login or registration required for browser-based software.
- ◇ Desktop application is also available.
- ◇ The shapes for UML 2.5 are provided.
- ◇ <https://www.diagrams.net/>

Enable the UML 2.5 shape library

1. Click on *More Shapes* at the bottom of the left panel in diagrams.net, scroll down and click on the checkbox next to the *UML 2.5* shape library in the *Software* section. You may want to also enable the *UML* shape library. Then click *Apply*.
2. The UML 2.5 shape library will appear in the left panel.



Let's get our hands dirty!!

Duke's Bookstore

- ◆ Duke's Bookstore is a simple online shopping web application.
- ◆ It provides a book catalog from which users can select books and add them to a shopping cart.
- ◆ Users can view and modify the shopping cart.
- ◆ When users are finished shopping, they can purchase the books in the cart.
- ◆ The data for Duke's Bookstore is maintained in a database.
- ◆ Let us assume that no security feature is needed. (e.g., no login page is required)

Try to draw diagram(s) from the description above. Let's start with no rule!!

Books in Duke's Bookstore

The Book entity defines attributes used in this example:

- ◇ A book ID
- ◇ The author's first name
- ◇ The author's surname
- ◇ The title
- ◇ The price
- ◇ Whether the book is on sale
- ◇ The publication year
- ◇ A description of the book

What makes a **good diagram**?

UNIFIED MODELING LANGUAGE SPECIFICATION VERSION 2.5

<https://www.omg.org/spec/UML/2.5/About-UML/>