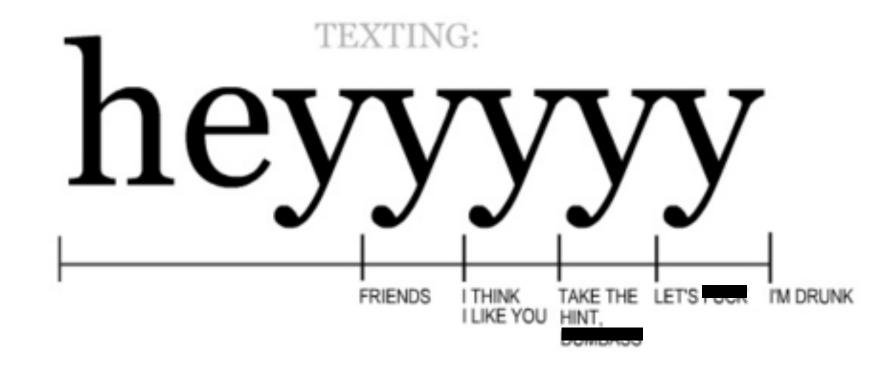
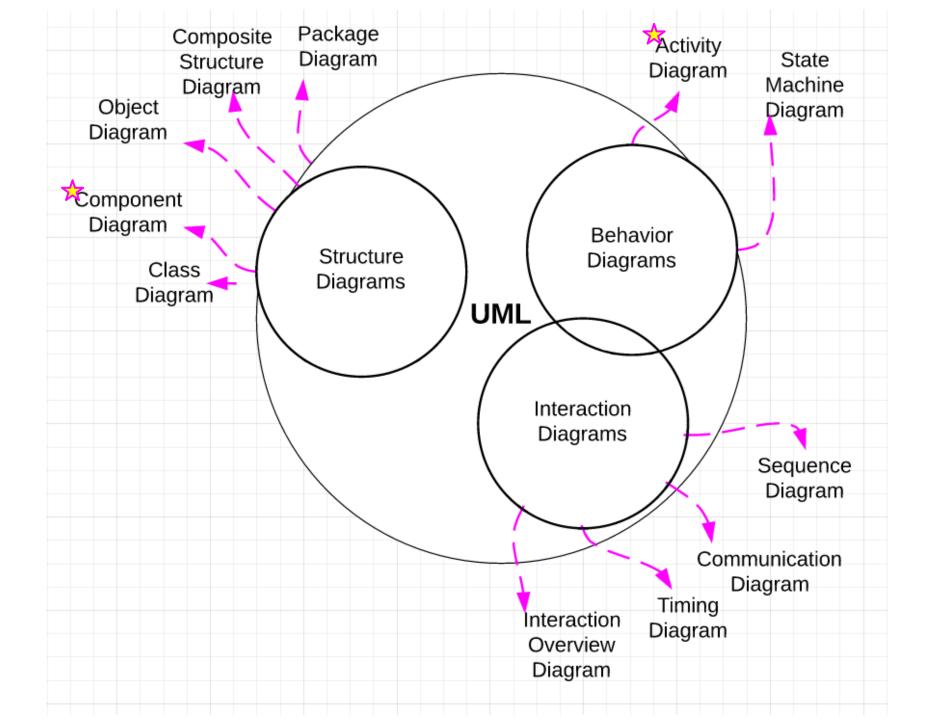
Making Models

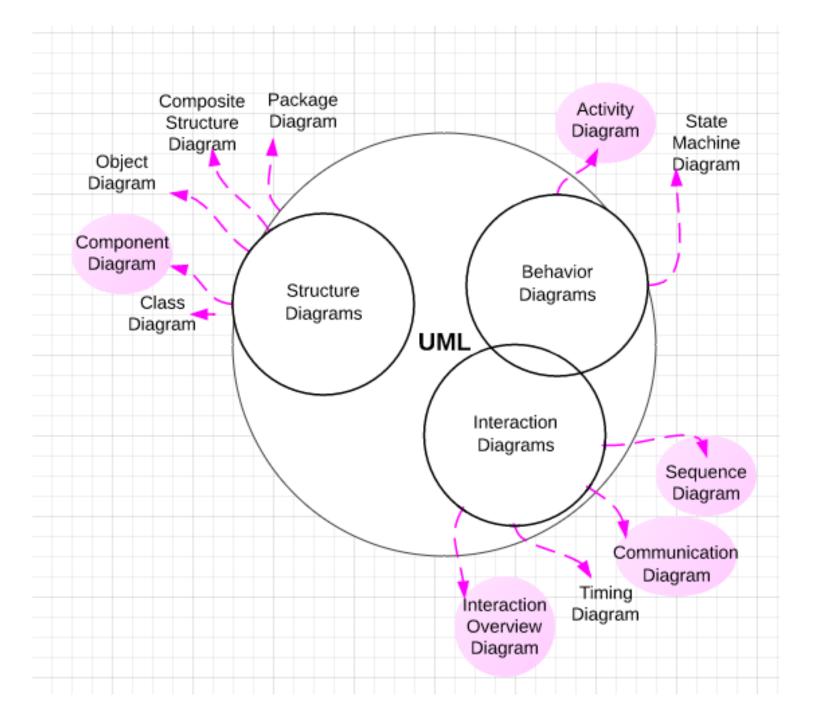
Diagrams: Social Cues



UML uses

- Model business processes
- Show application structure
- Describe system architecture
- Capture system behavior
- Model data structure
- Sketch out ideas
- Build a detailed specification of a system
- Diagram an interaction sequence





Component Diagram: iPhone5



If this were labeled, it would be a more sufficient Component Diagram

SOURCE: "iPhone 5 Layout" by Andrew Optimus Goldberg Licensed under CC BY-NC-SA 3.0

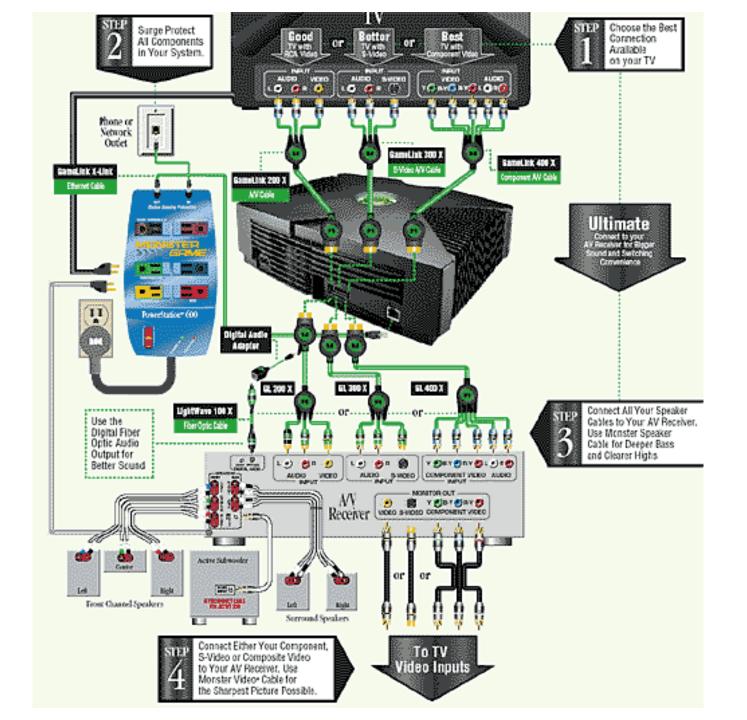
Component Diagram

This Component Diagram is much better!

You should make ones like this.



Possible Output Targets



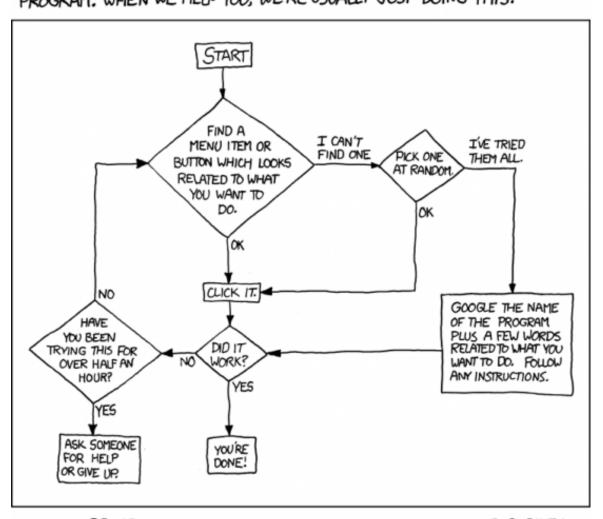
Activity Diagram

DEAR VARIOUS PARENTS, GRANDPARENTS, CO-WORKERS, AND OTHER "NOT COMPUTER PEOPLE."

WE DON'T MAGICALLY KNOW HOW TO DO EVERYTHING IN EVERY PROGRAM. WHEN WE HELP YOU, WE'RE USUALLY JUST DOING THIS:

funmeme.com

Remind you of somthing?



PLEASE PRINT THIS FLOWCHART OUT AND TAPE IT NEAR YOUR SCREEN. CONGRATULATIONS; YOU'RE NOW THE LOCAL COMPUTER EXPERT!

Decision Diagram

You click on the right arrow to go to the next room only to see blackness.

You click on door to escape only to realize its locked.

This Decision Diagram is of first draft quality.

You click around frantically until you give up and lay on the ground until you die.

You click on the left arrow to go to the left room.

You wake up in a gray room with a Che Guevera poster on the

wall.

This only count in the 'Ideation' phase of your

work.

You go to the right room to try flash light and realize it needs a battery. So you have to go back to left room and get it.

You click on the flash light to put it into your inventory.

You combine battery and flash light. Else=

You notice battery on floor and pick it up.

You get scared by skeleton.

You go to left room and use flash light. Else₹

You notice key and pick it up.

You try to escape out window.

You use key on door and escape only to find the absence of cake.

Decision Diagram

You do not look around you and choose a trail at notice random.

You look around you and notice trail map which you go to read before proqeding down a trail.

This Decision Diagram is much neater.

Hit hazards and get lost in dream and wander forever. You proceeded down the right trail avoiding hazards. The road will split however.

You wake up on a dirt road at night. You notice that you have your boy scout uniform on. You

check your pockets and find

You should make ones like these.

At split you take wrong path and hit hazard becoming lost in dream forever.

Remember the trail map and take correct path avoiding hazards and end up at tree with knife stuck in it.

How else can it be improved?

You do not take the knife and head down trail only to hit hazard (dream monster think body of bear and head of jackalope) that requires knife and you get stuck in dream for ever.

Take knife because boyscouts are always prepared. In doing so realize that there is a compass on nandle of knife.

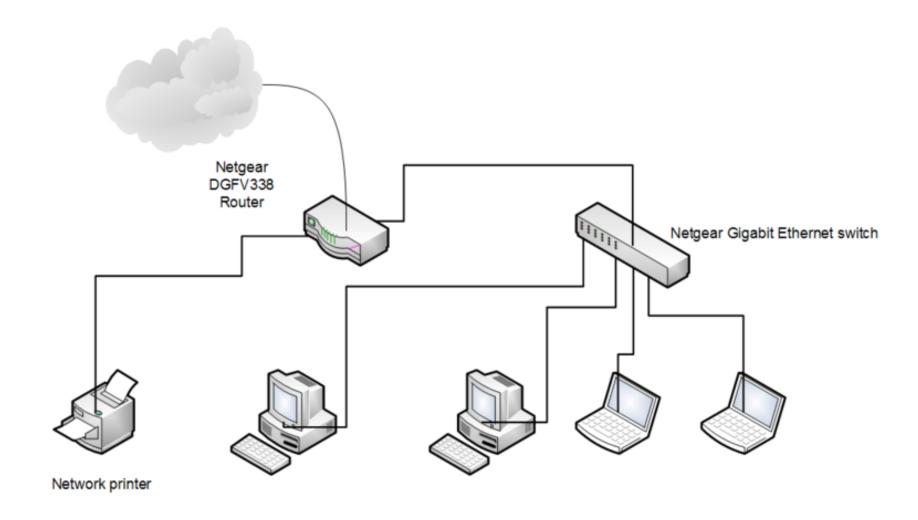
Ignore compass on knife and take wrong path on which you lose your sanity and become Inceptioned further into dream.

Get past hazard by killing bear-alope who whispers before he dies head north. Then you come to fork in road.

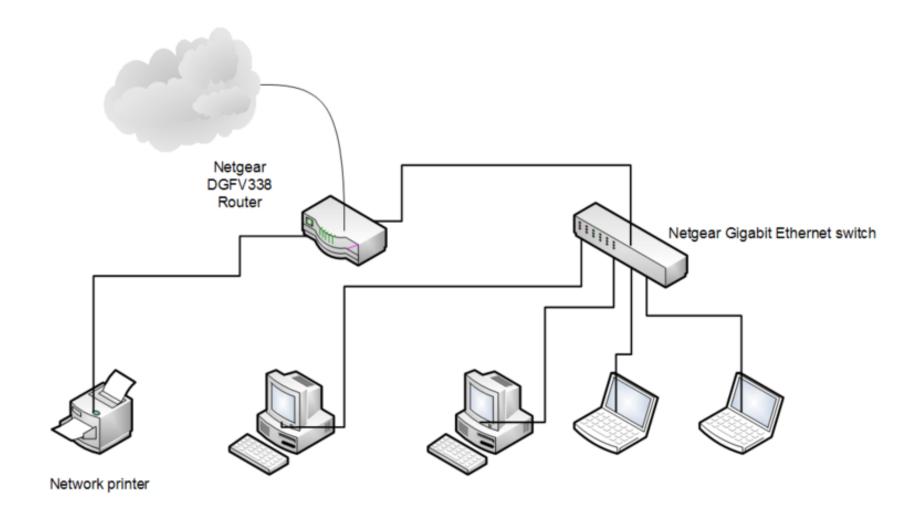
You look at your knife and take the right path heading north towards the morning light and wake up.



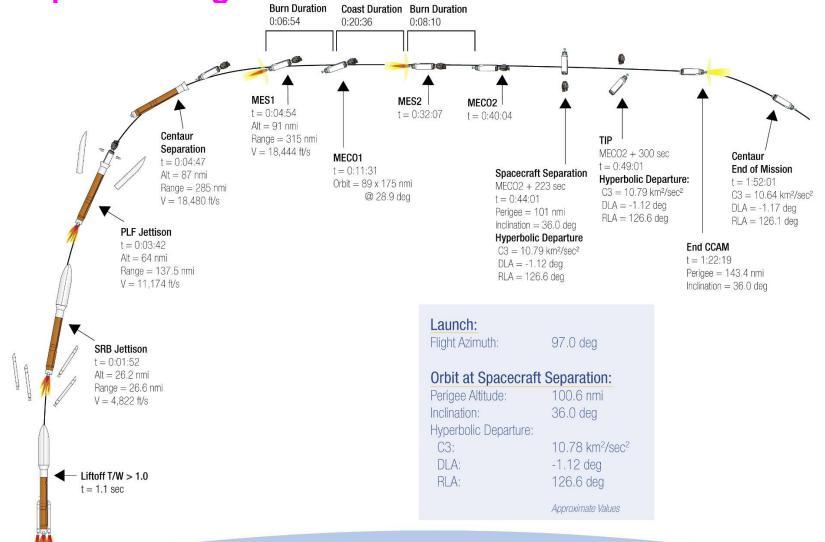
Communication Diagram



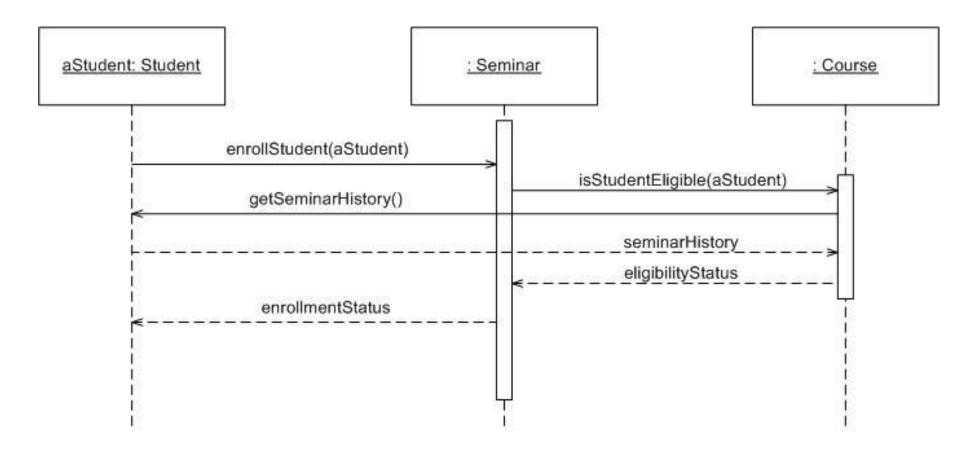
Interaction Overview Diagram



Sequence Diagram



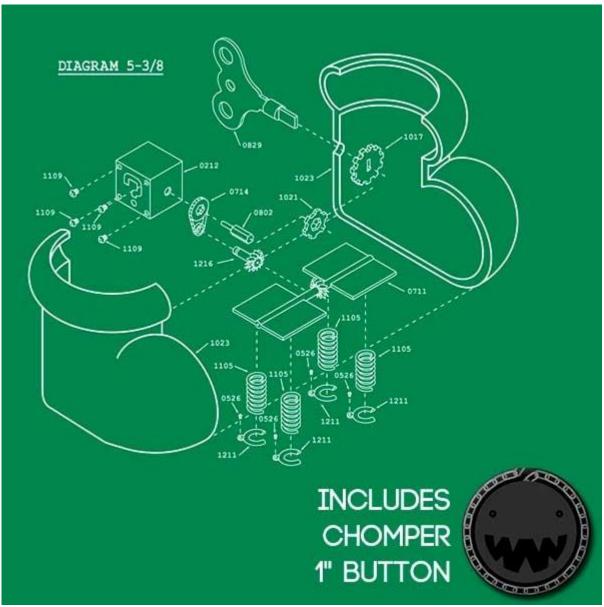
Sequence Diagram: industry



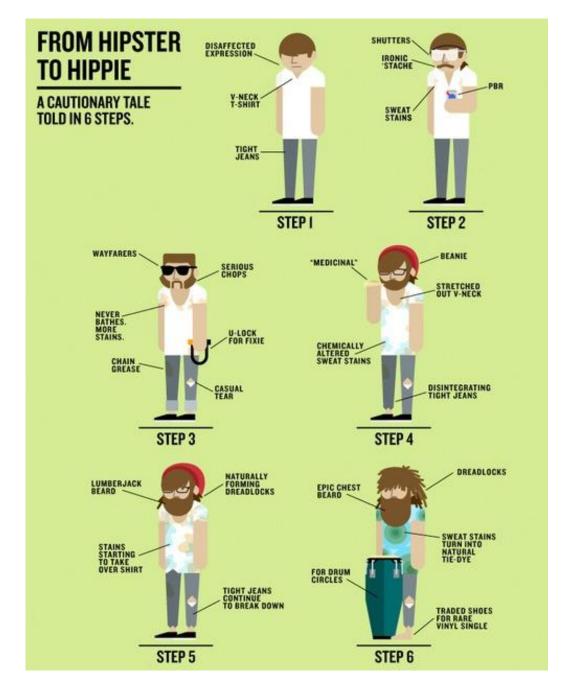
Exploded Diagram

While these are fun and can be quite beautiful, we won't be covering these in this course.

But as always, feel free to explore!



what diagram is this?



UML Diagram Glossary

STRUCTURE DIAGRAMS

- Class Diagram {static, structure, object-oriented modelling, computer science}: Describes the structure of a system by showing its classes, attributes, operations and relationships among classes.
- Component Diagram {static, structure, hardware, software}: Demonstrates how components are wired together to form larger components and or systems.
- Composite Structure Diagram {static, structure, computer science}: Shows the internal structure of a class. A composite structure is a set of interconnected elements that collaborate at runtime to achieve some purpose.
- Object Diagram {static, structure, computer science}:
 Shows a complete or partial view of the structure of a modeled system at a specific time.
- Package Diagram {static, structure, information architecture}: Shows the dependencies between packages that make up a model.

BEHAVIOR DIAGRAMS

- Activity Diagram {dynamic, behavioral}: Graphical representations of workflows of steps and actions, with support for choice, iteration, and concurrency. (decisions, versions, cooperative action).
- State Machine Diagram {computer science}: A type of diagram used in computer science and related fields to describe the behavior of systems. State diagrams require that the system described is composed of a finite number of states. A rigorous version of a flowchart.

INTERACTION DIAGRAMS (subset of Behavior Diagram)

- Communication Diagram {dynamic, behavioral}:
 Models the interactions between objects or parts in terms of sequenced messages.
- Sequence Diagram {dynamic, behavioral}:
 Demonstrates how processes operation with one another and in what order. Object interactions are arranged in a time sequence.
- Interaction Overview Diagram {dynamic, behavioral}:Similar to an Activity Diagram, the Interaction Overview Diagram is a larger version. An Activity Diagram can be nested inside.
- Timing Diagram {dynamic, behavioral}: This
 diagram's focus is on timing constraints and it is a
 special form of Sequence Diagram. The graphical
 representation of a Timing Diagram must be displayed
 from left to right with components arranged in
 separate compartments shown vertically.