

**ACCU
2021**
VIRTUAL EVENT

Bloomberg
Engineering

undo

 **mosaic**
CONSULTANTS TO FINANCIAL SERVICES

Example Mapping: A Structured, Collaborative Discovery Technique

Seb Rose

Example mapping

- a structured, collaborative discovery technique

Seb Rose

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Requirements

Have
you thought
about ...

Give me an
example.

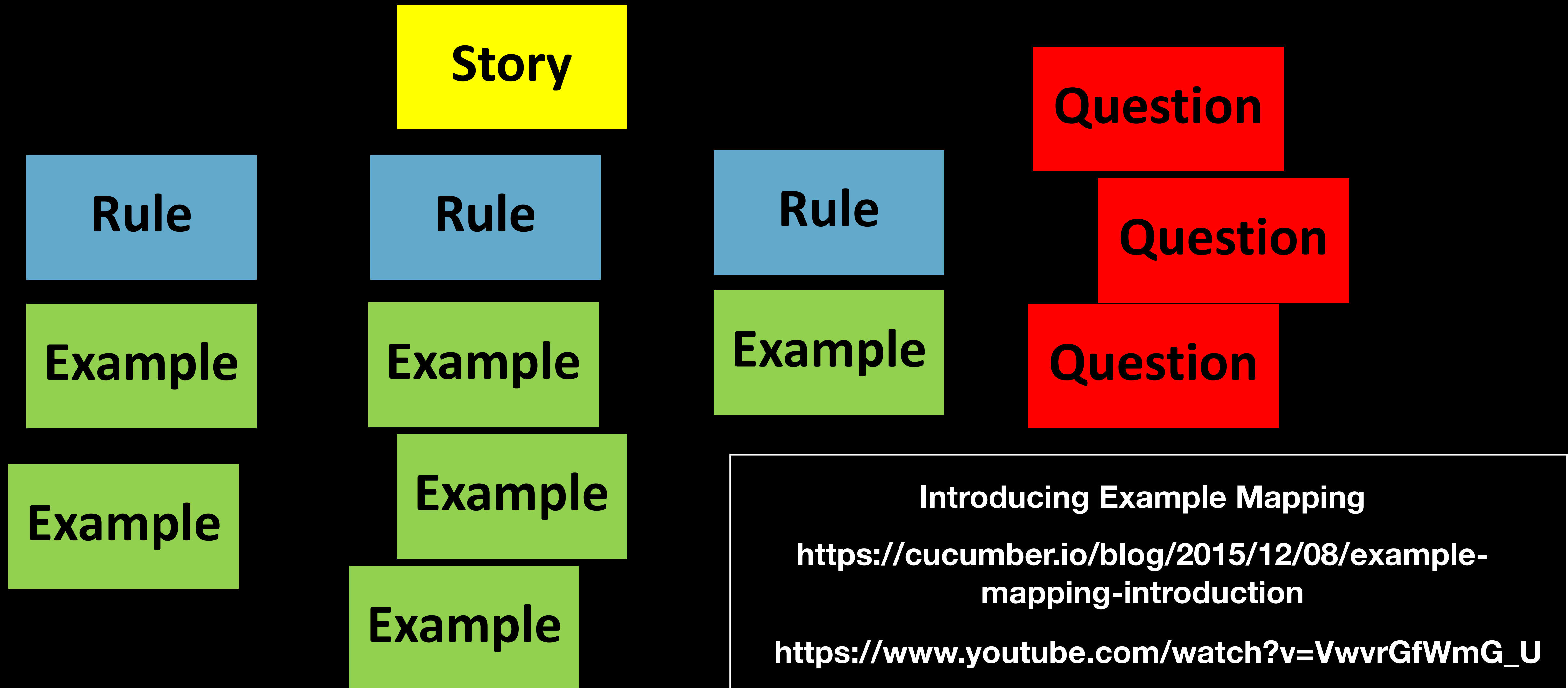
Is that
always true?

Requirements

Is there
something else
that needs to
happen?

What would
happen if ... ?

Example map



Synonyms

Rule

Synonyms

Requirement

Rule

Synonyms

Requirement

Rule

**Acceptance
criterion**

A sample rule

Only library members are permitted to reserve items

Reserving a book at the library

At the library, it's free to take out books that are on the shelves, but there is a charge of £1.00 if you want to reserve an item that's currently out on loan.

Reserving a book at the library

At the library, it's free to take out books that are on the shelves, but there is a charge of £1.00 if you want to reserve an item that's currently out on loan.

Apply reservation charges to library members

Members pay a reservation charge of £1

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**Andrew reserves a book
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Apply reservation charges to library members

Members pay a reservation charge of £1 *per item*

**Andrew reserves a book
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**Andrew reserves two books
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Reserving a book at the library

At the library, it's free to take out books that are on the shelves, but there is a charge of £1.00 if you want to reserve an item that's currently out on loan.

Is there a limit to the number of books that can be reserved?

Apply reservation charges to library members

Members pay a reservation charge of £1 per item

Andrew reserves a book
He is charged £1

Andrew reserves two books
He is charged ~~£1~~ £2

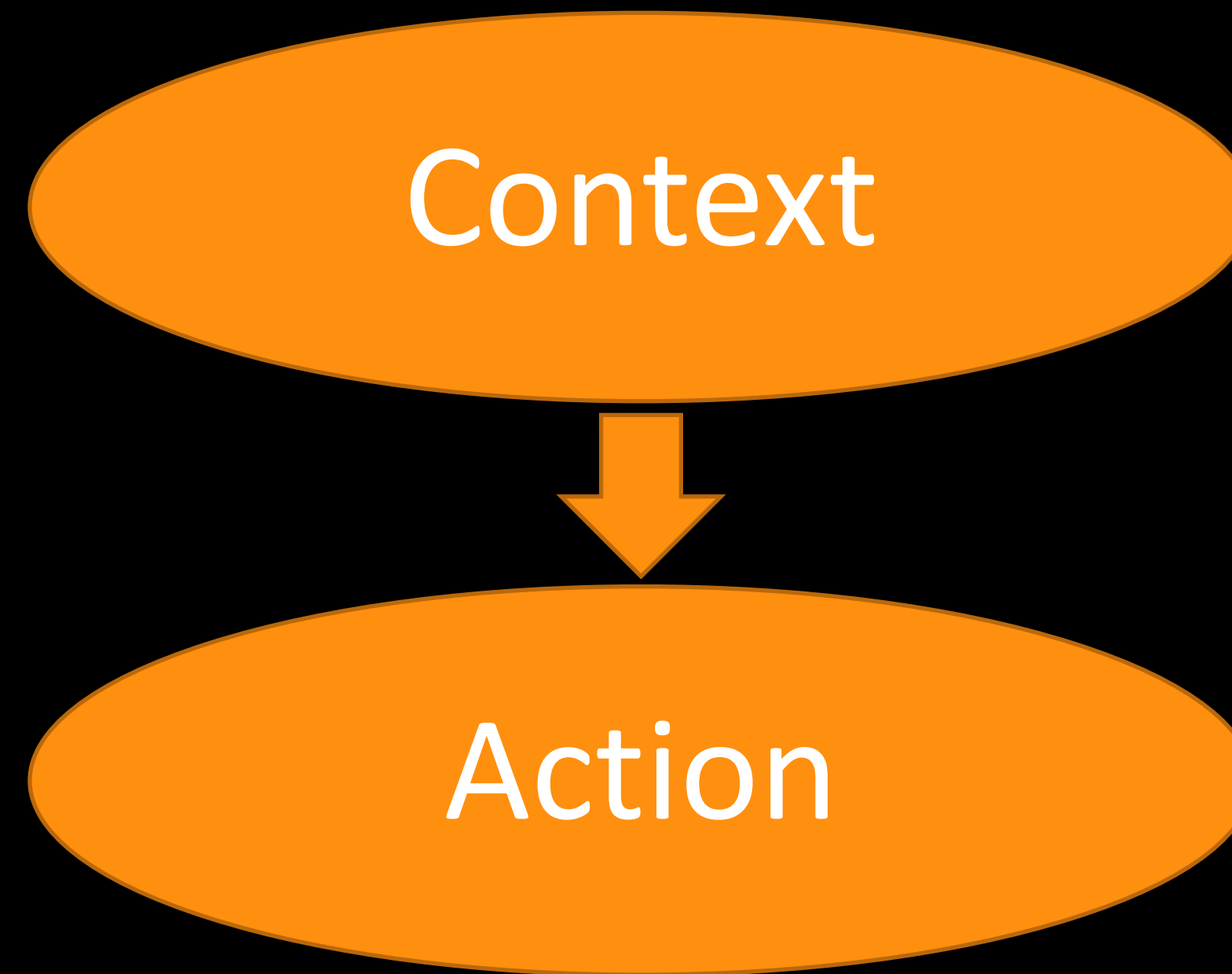
Anatomy of an example

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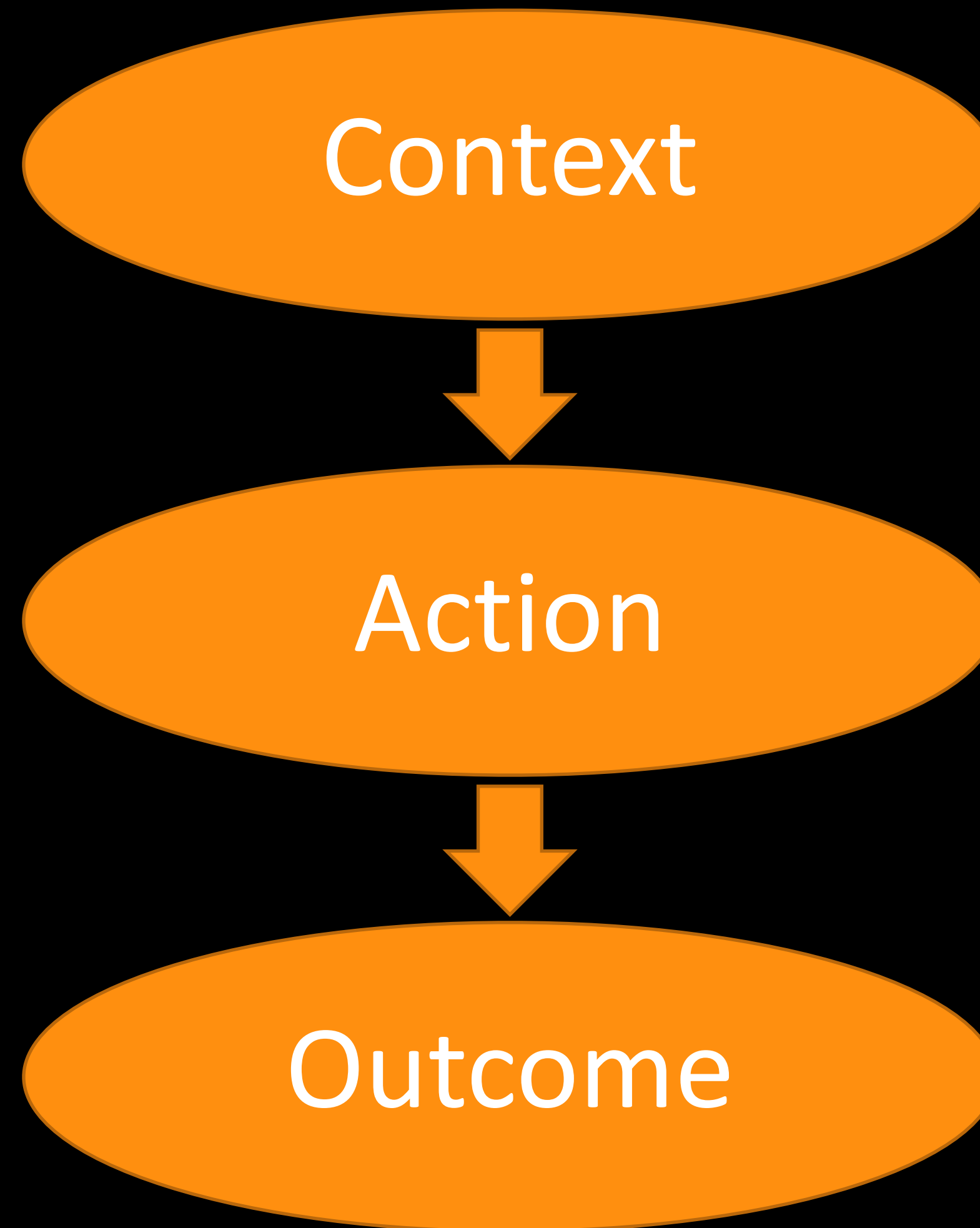


Context

Anatomy of an example

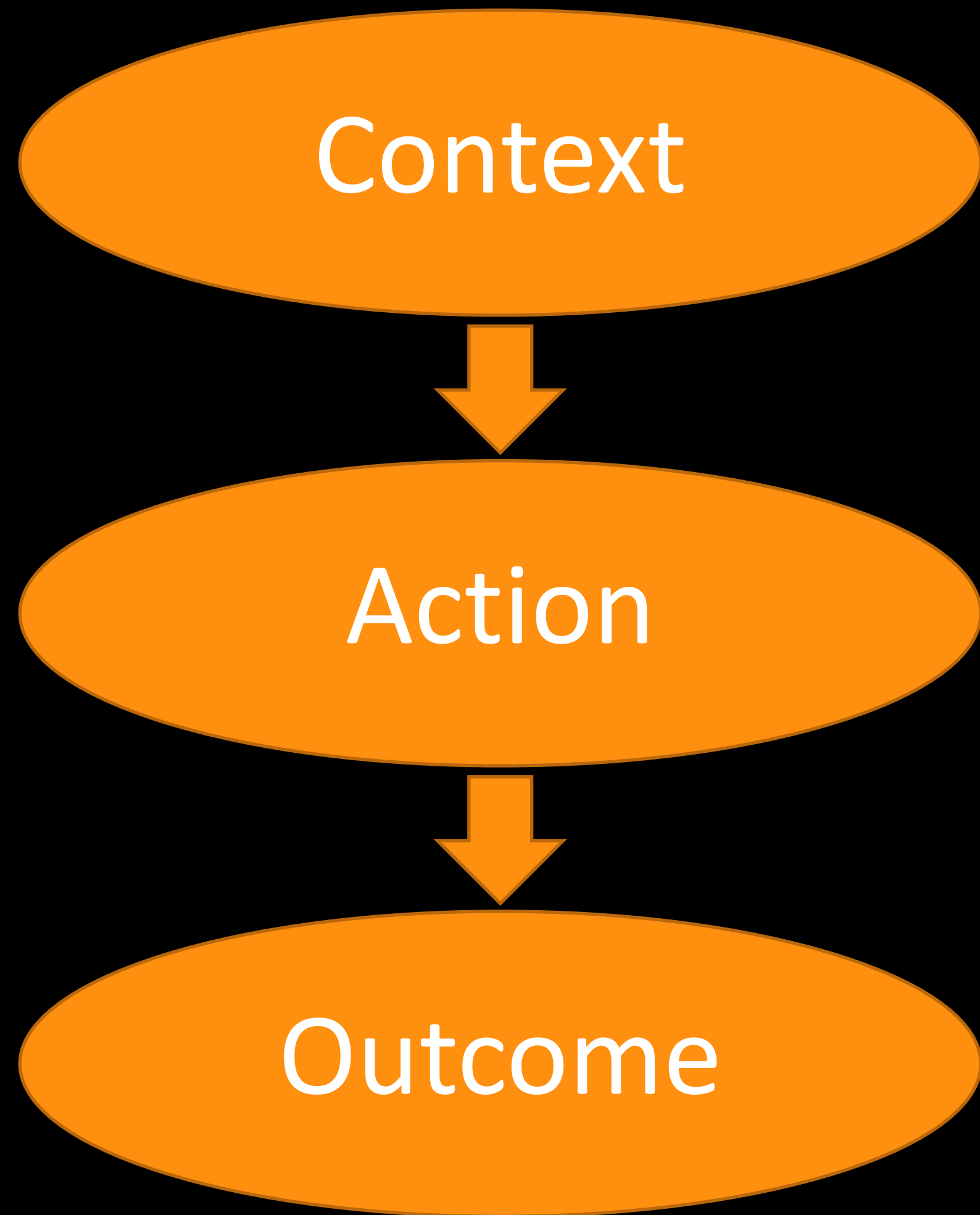


Anatomy of an example

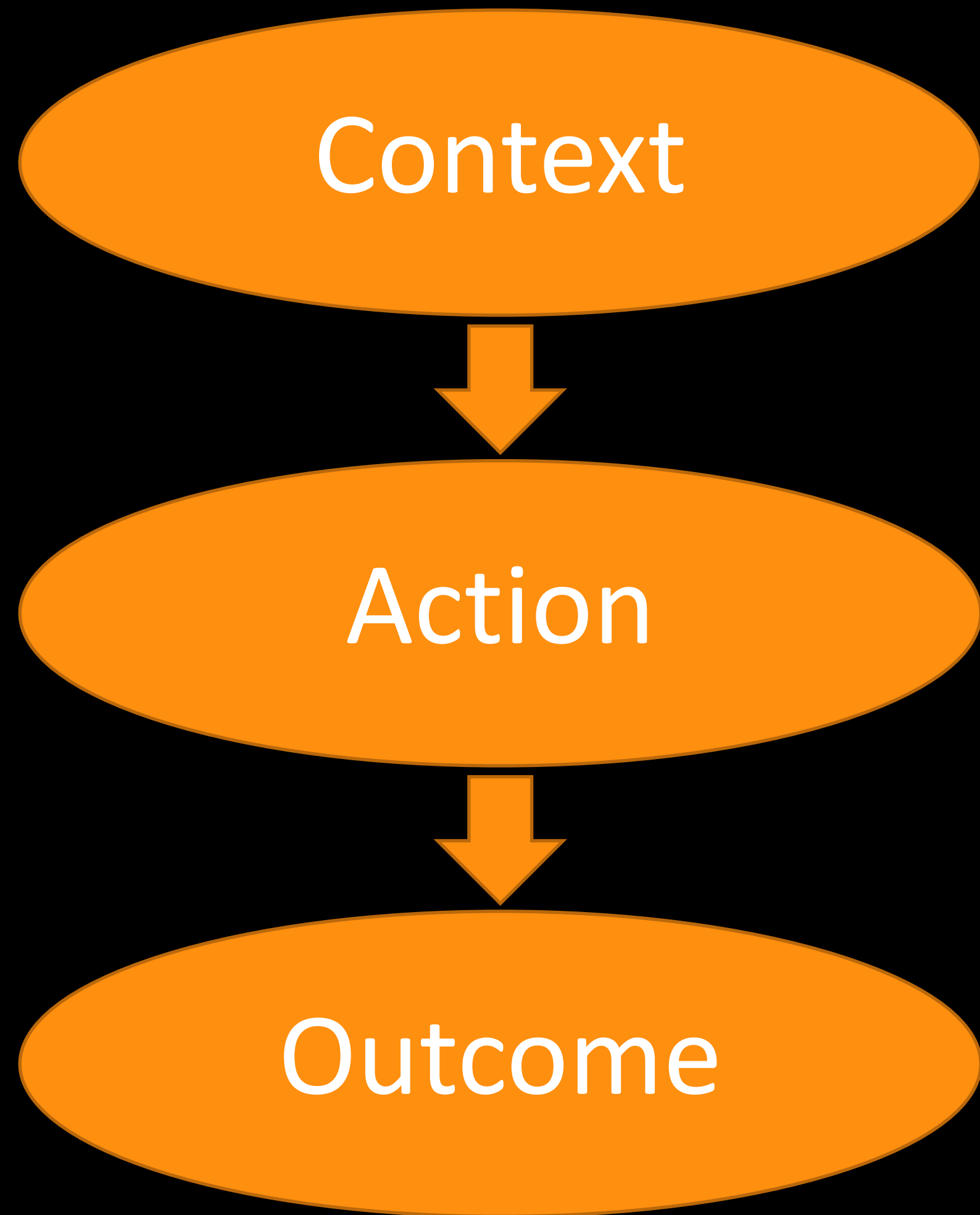


Anatomy of an example

Andrew reserves a book
He is charged \$1



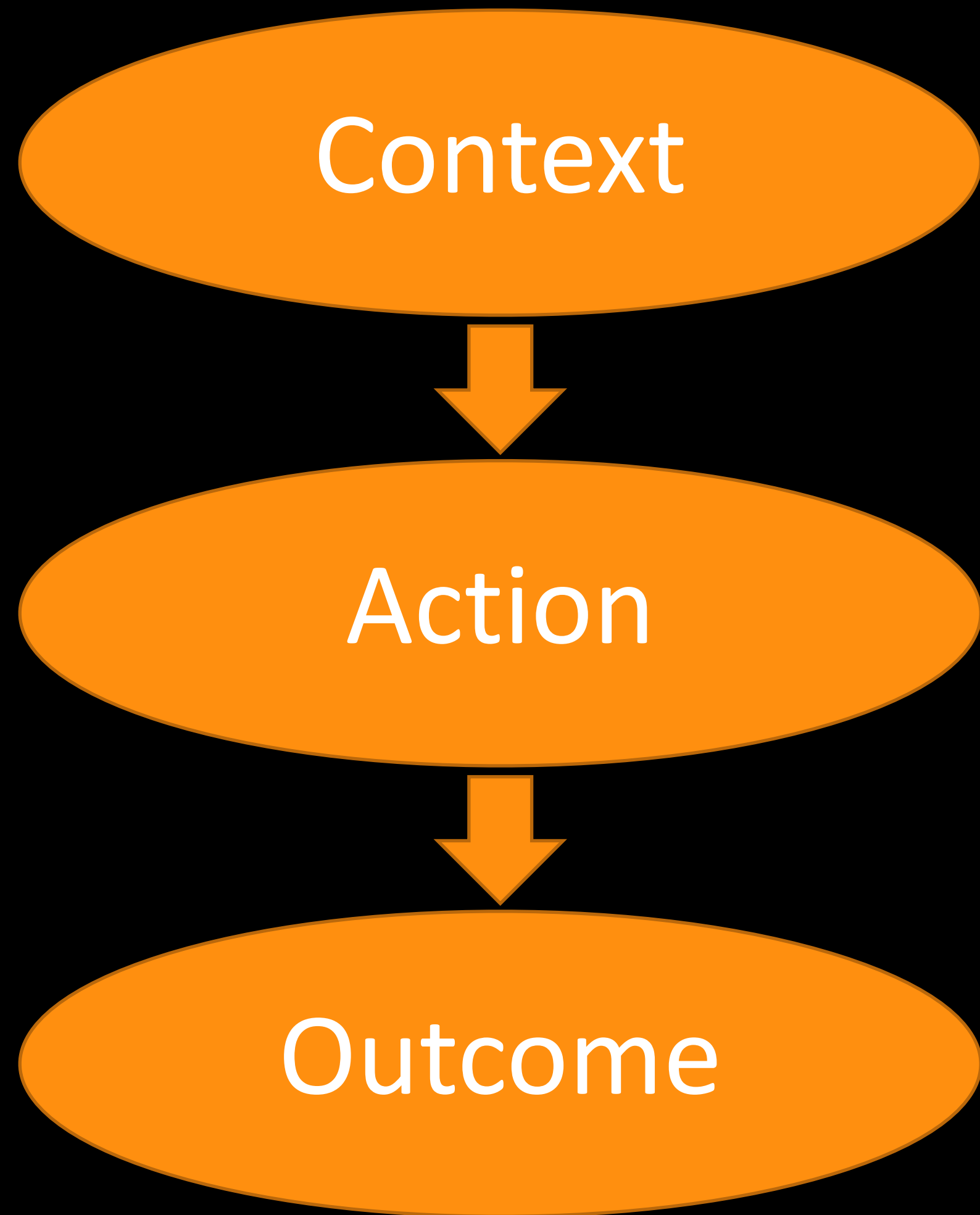
Anatomy of an example



Andrew reserves a book
He is charged \$1

Andrew reserves one book

Anatomy of an example

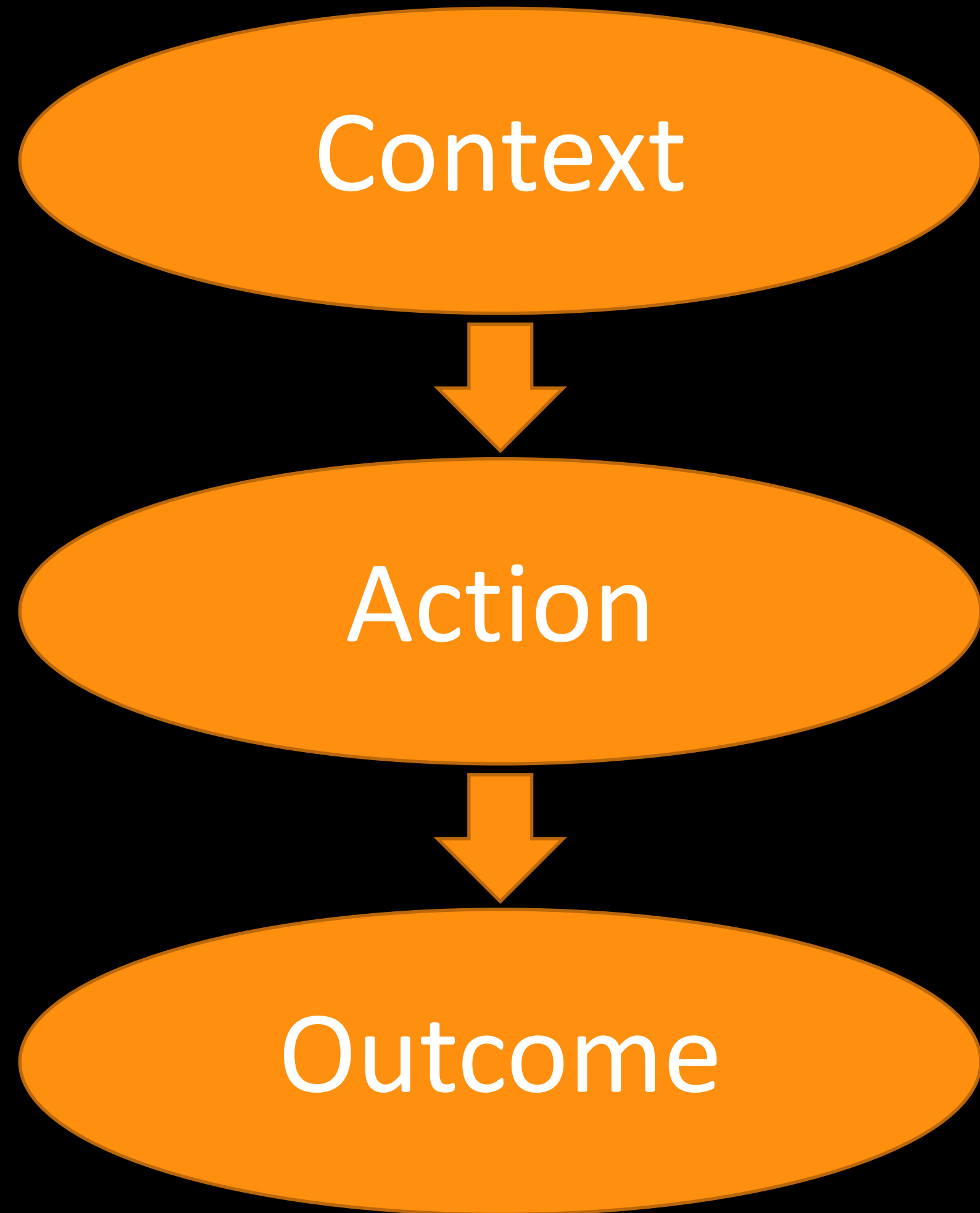


Andrew reserves a book
He is charged \$1

Andrew reserves one book

Andrew is charged \$1.00

Anatomy of an example

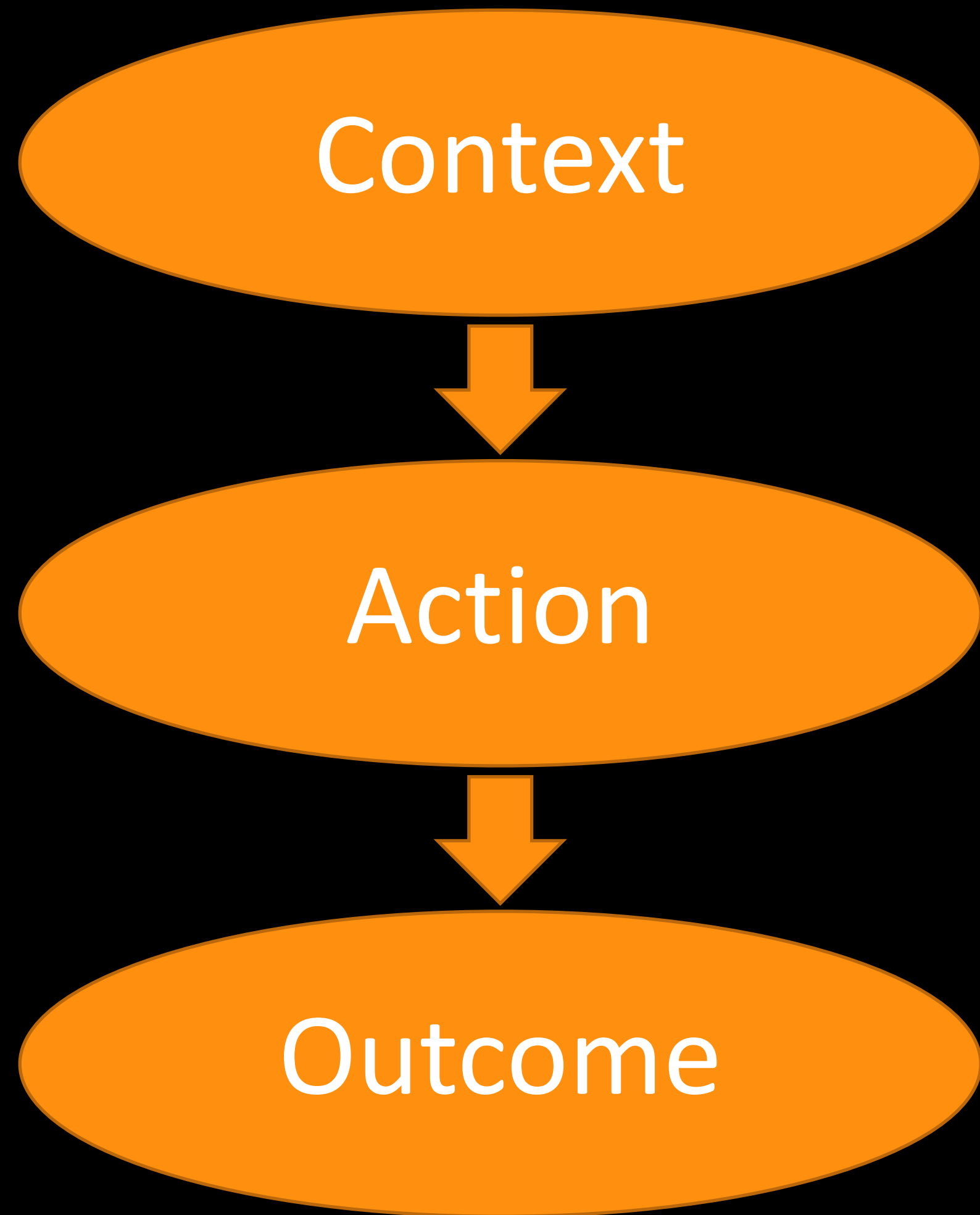


Library members pay a reservation charge of \$1 per item

Andrew reserves one book

Andrew is charged \$1.00

Anatomy of an example



Library members pay a reservation charge of \$1 per item

Andrew is a library member

Andrew reserves one book

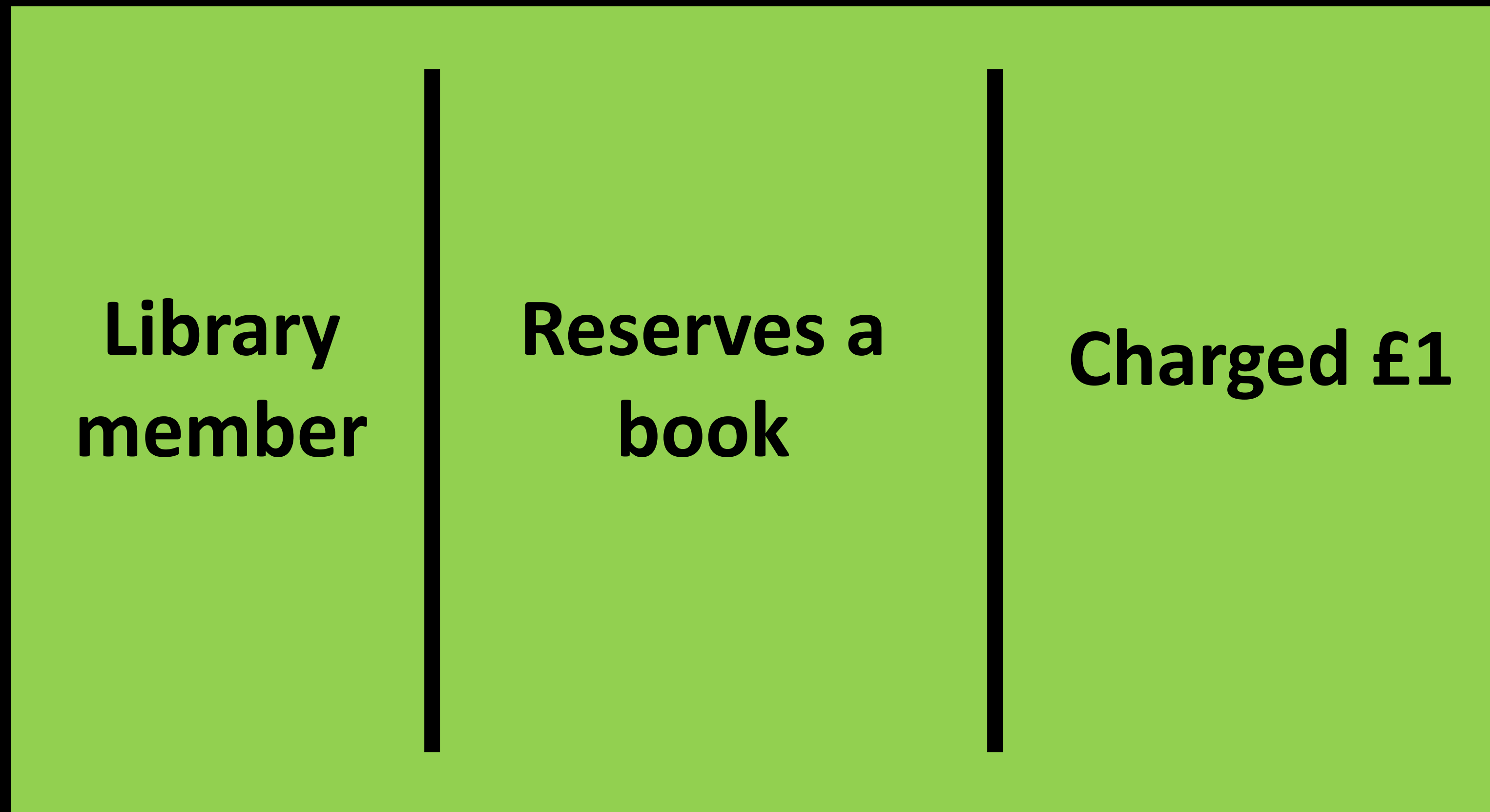
Andrew is charged \$1.00

Capturing an example - prose

Capturing an example - prose

**Andrew reserves a book
He is charged £1**

Capturing an example - columns



Capturing an example - symbols

- Andrew is a library member
- * Andrew reserves a book
- => He is charged £1

Capturing an example - sketch

A hand-drawn sketch of a library reservation form on a light blue background. The form is enclosed in a black rectangular border. At the top, it says "Membership number: A1234". Below this, there are two columns: "Book title" and "Reserve?". Under "Book title", the text "Watership Down" is written. Under "Reserve?", there is a small square box containing an "X". At the bottom right of the form, it says "Charge: £1.00".

Book title	Reserve?
Watership Down	<input checked="" type="checkbox"/>

Membership number: A1234

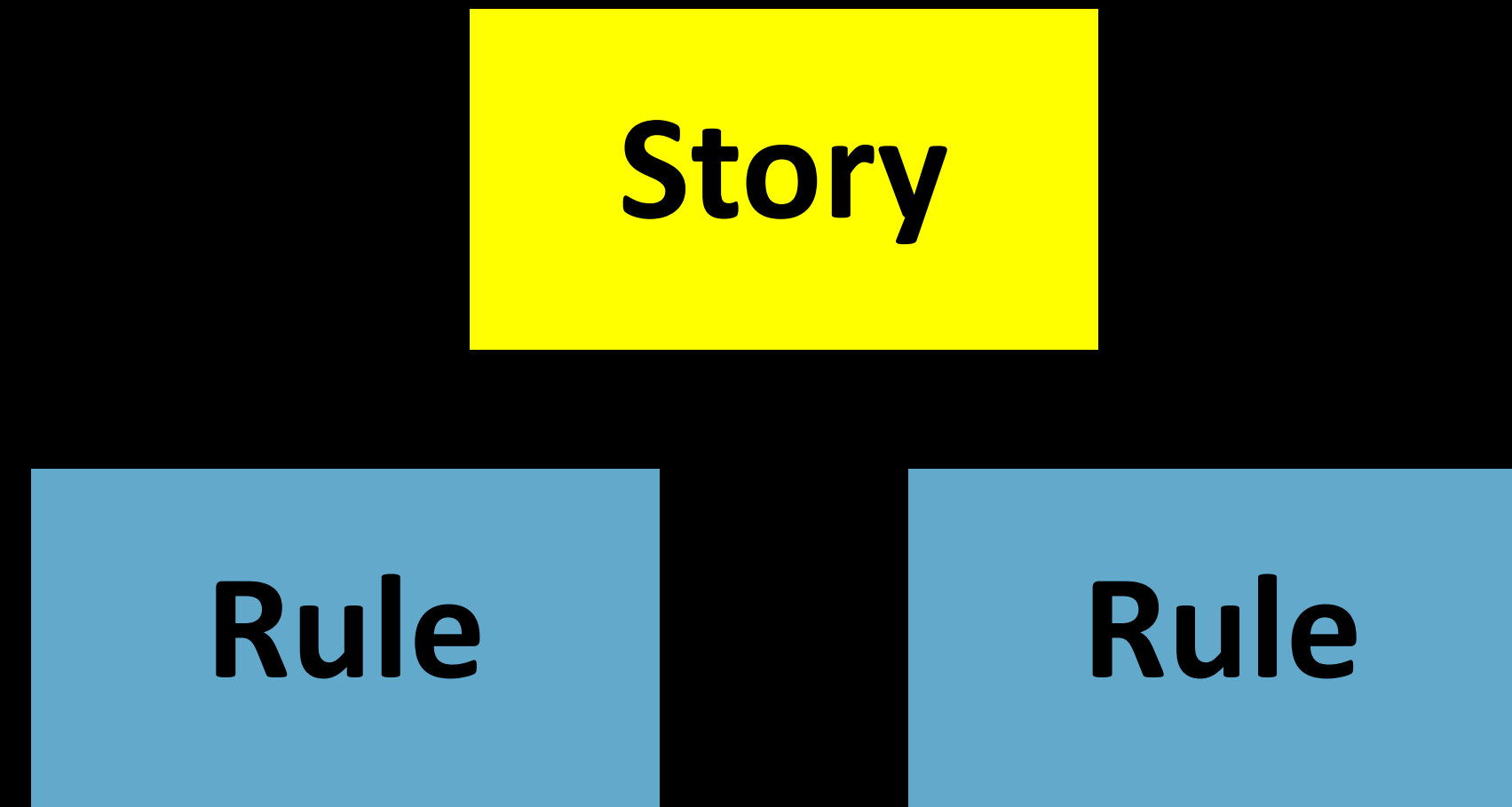
Charge: £1.00

Visual feedback

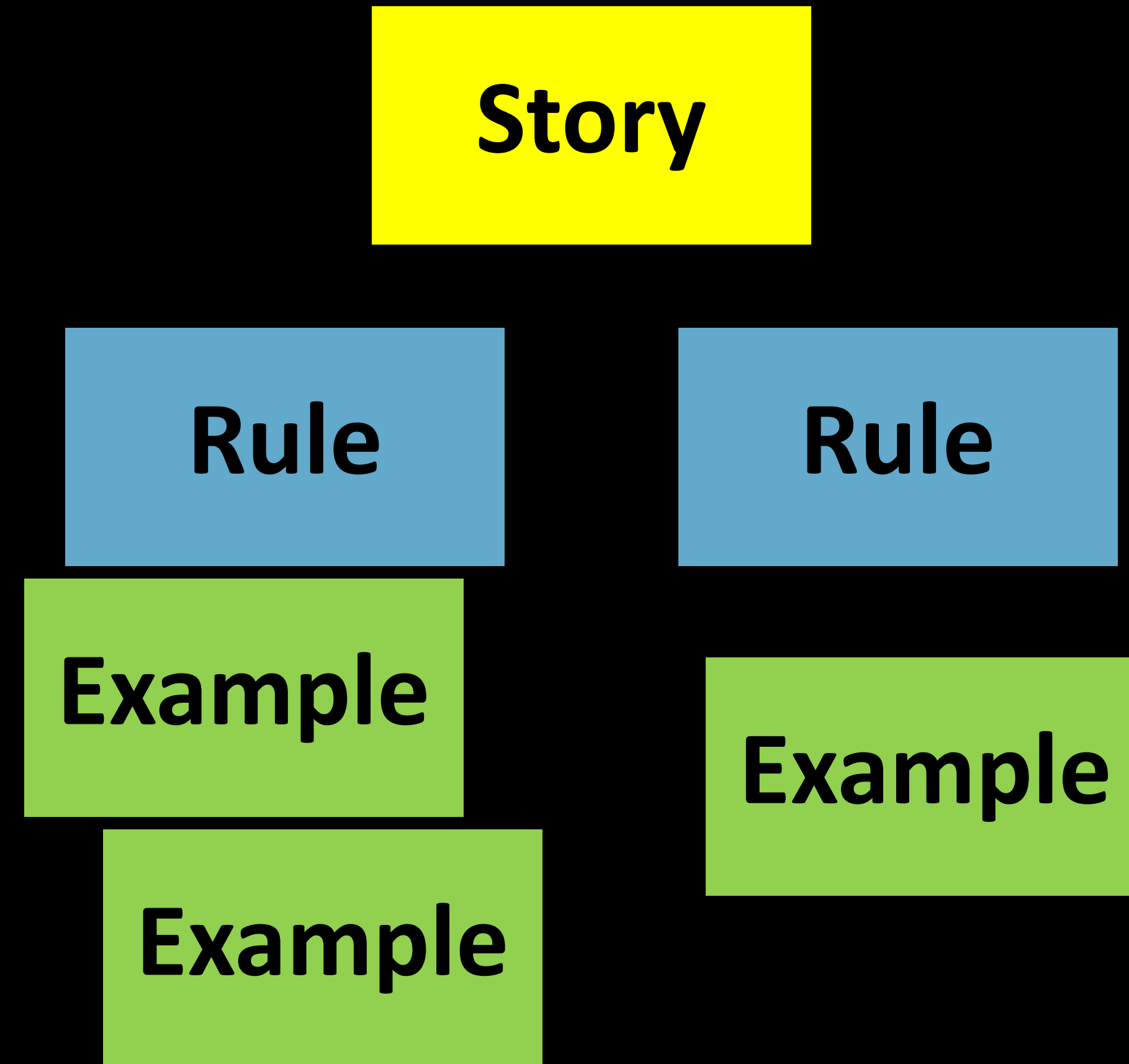
Visual feedback

Story

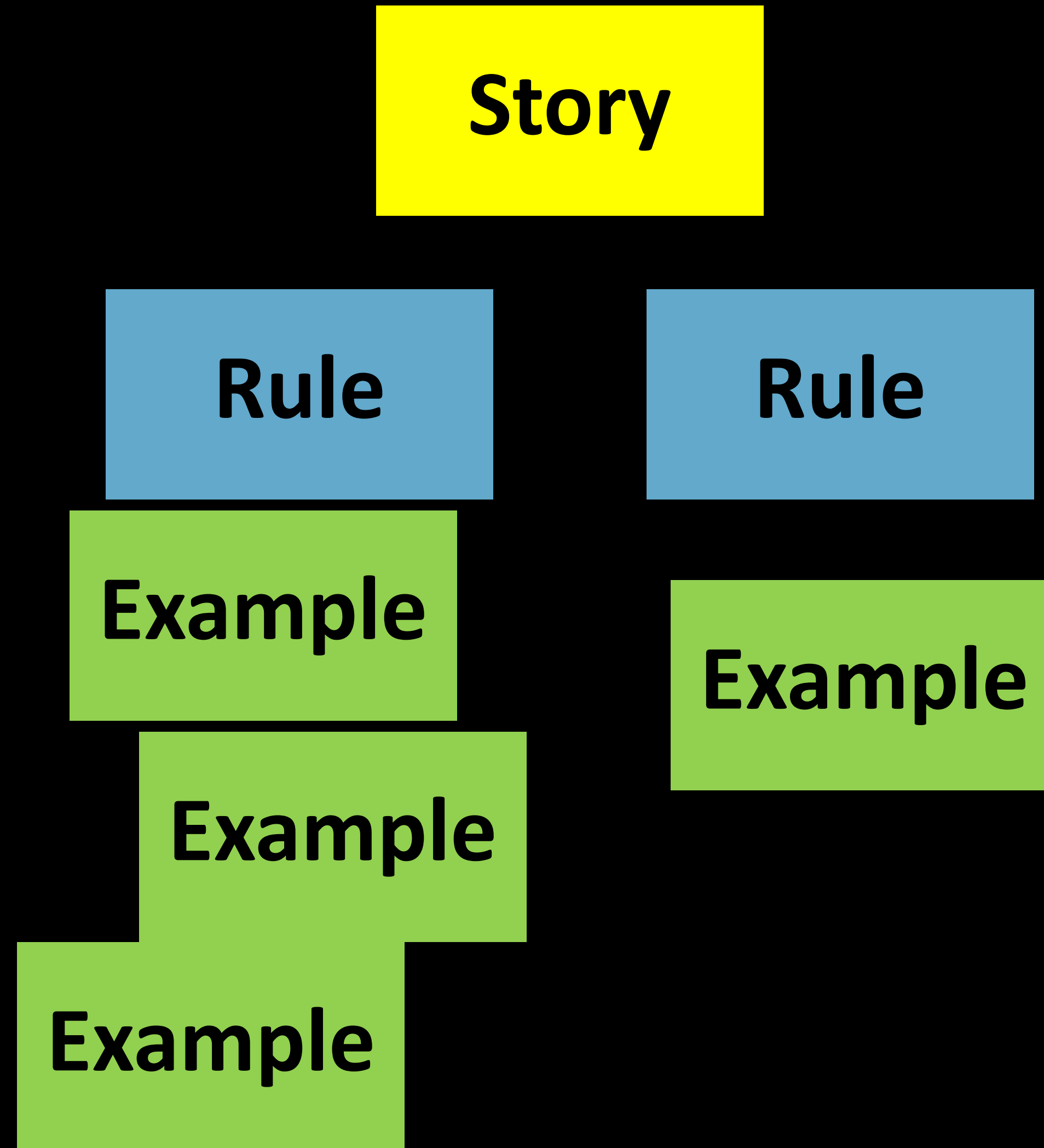
Visual feedback



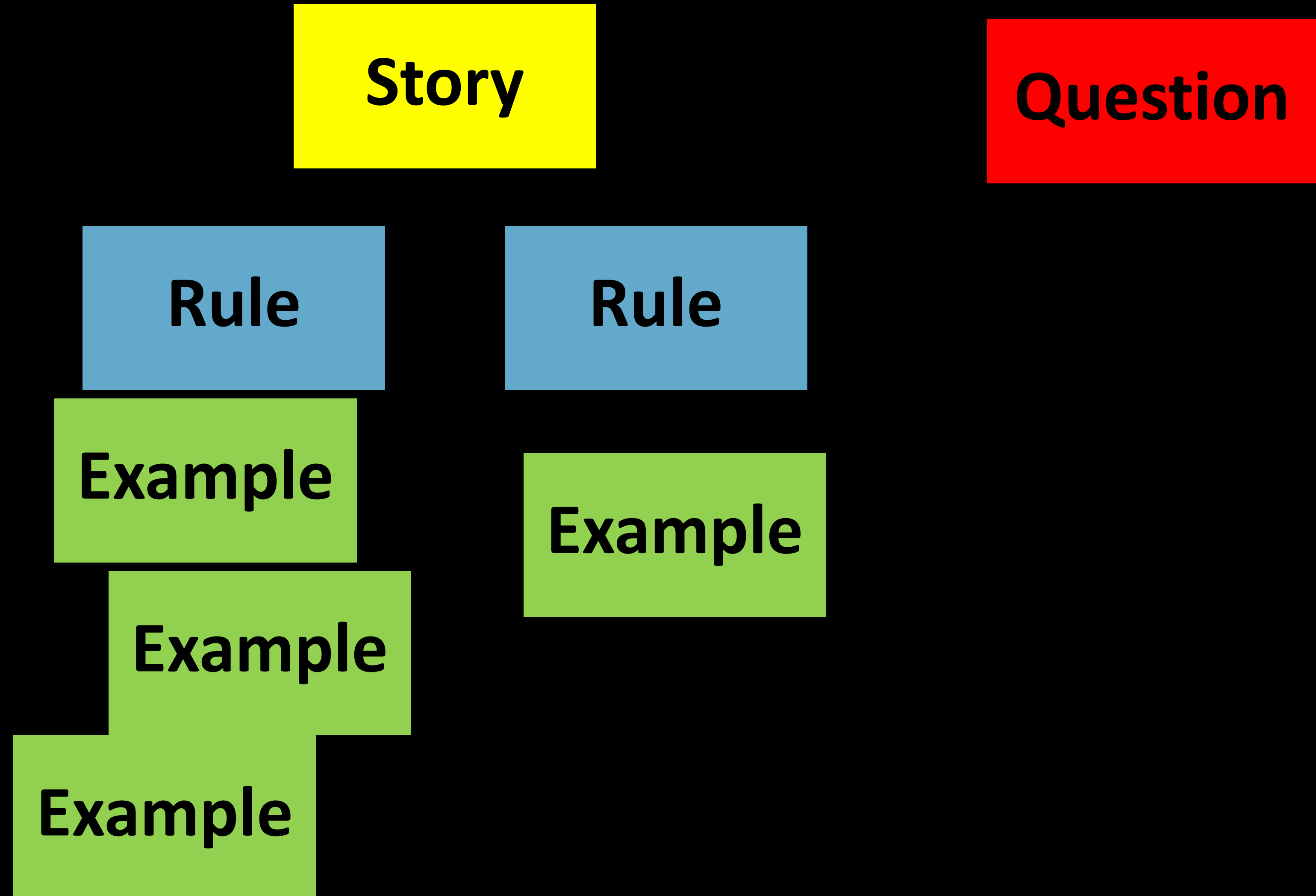
Visual feedback



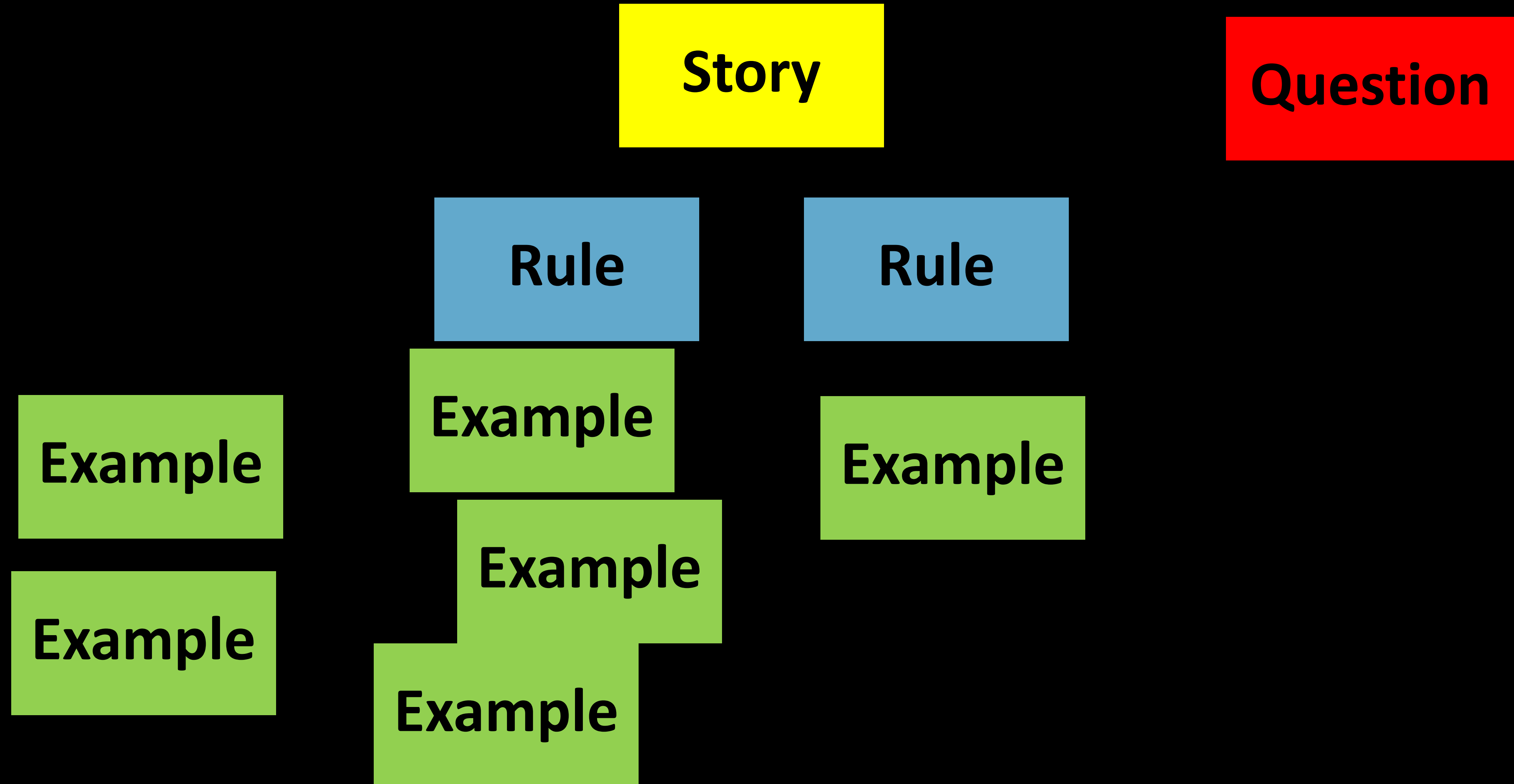
Visual feedback



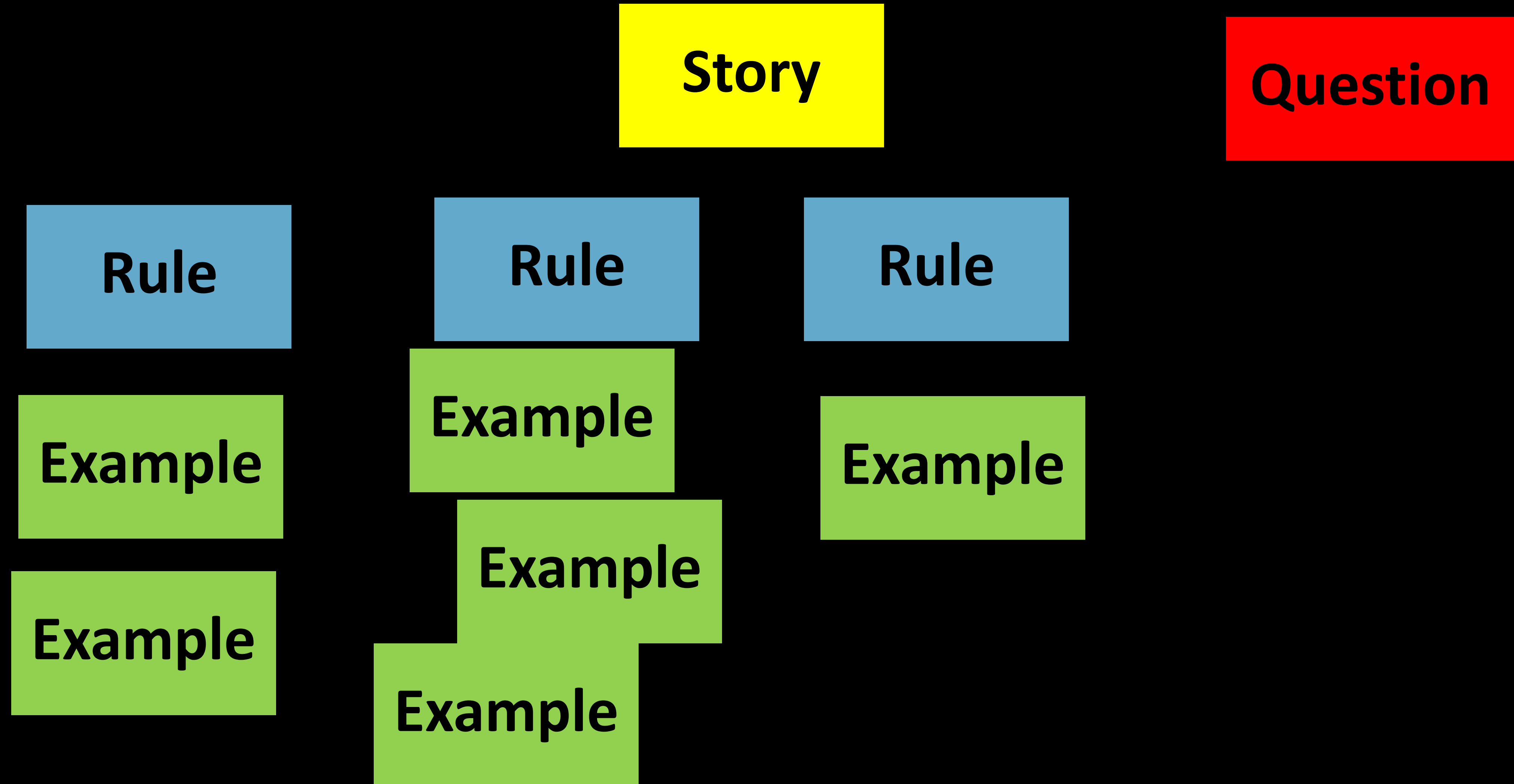
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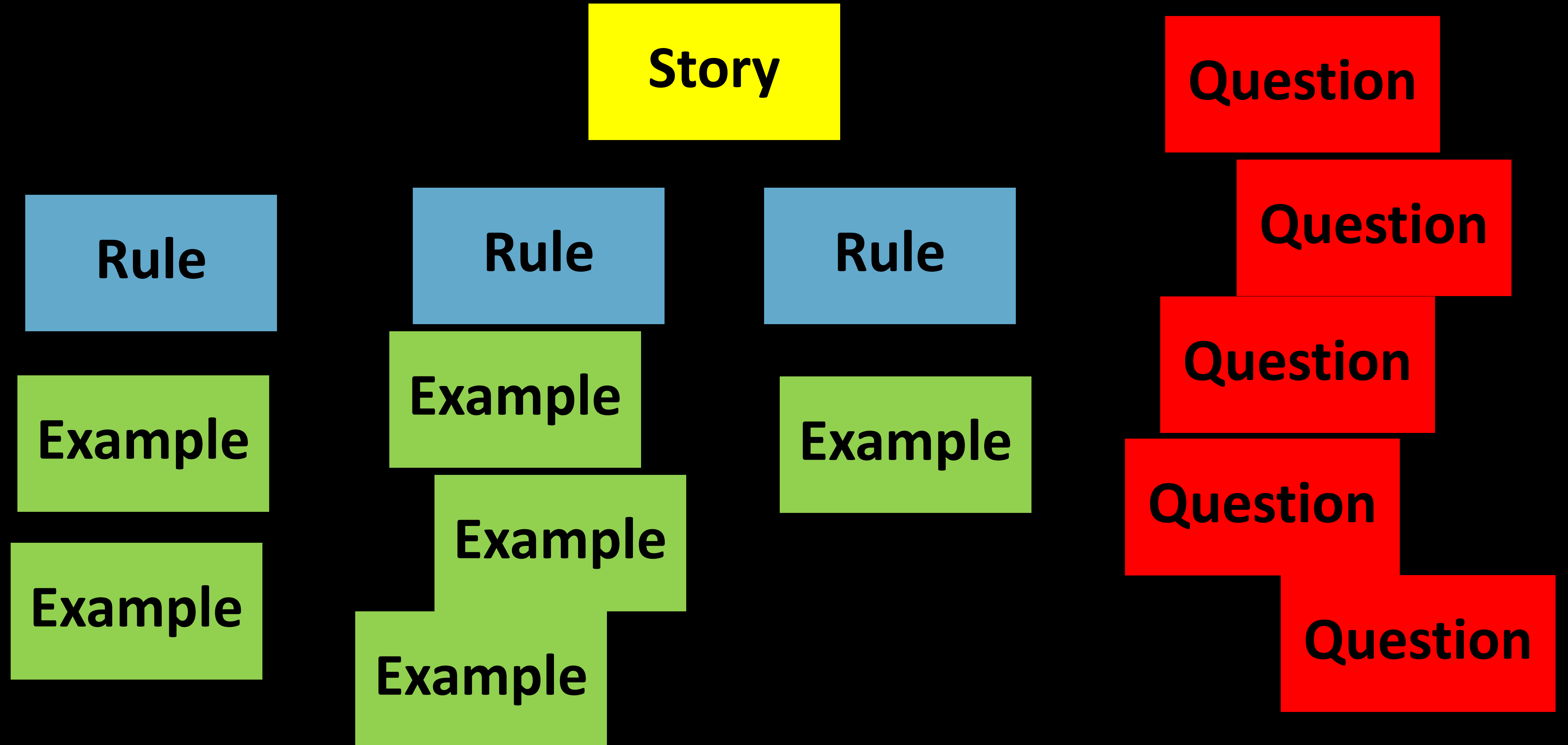
Visual feedback



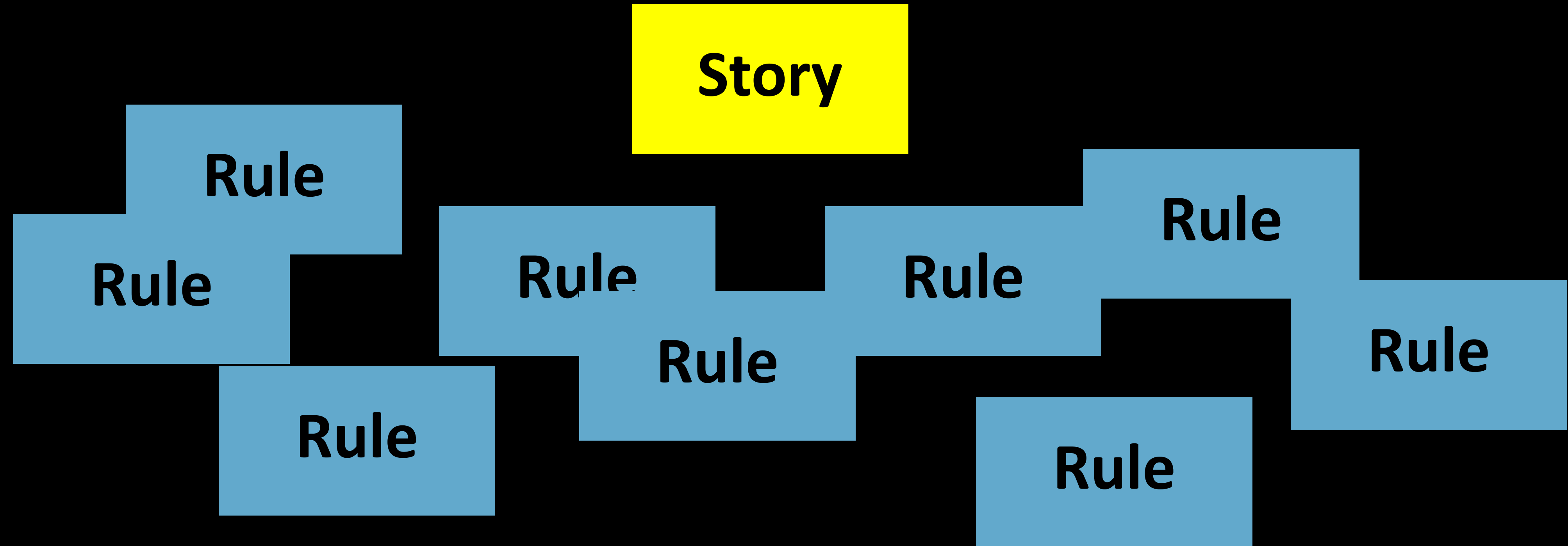
Visual feedback



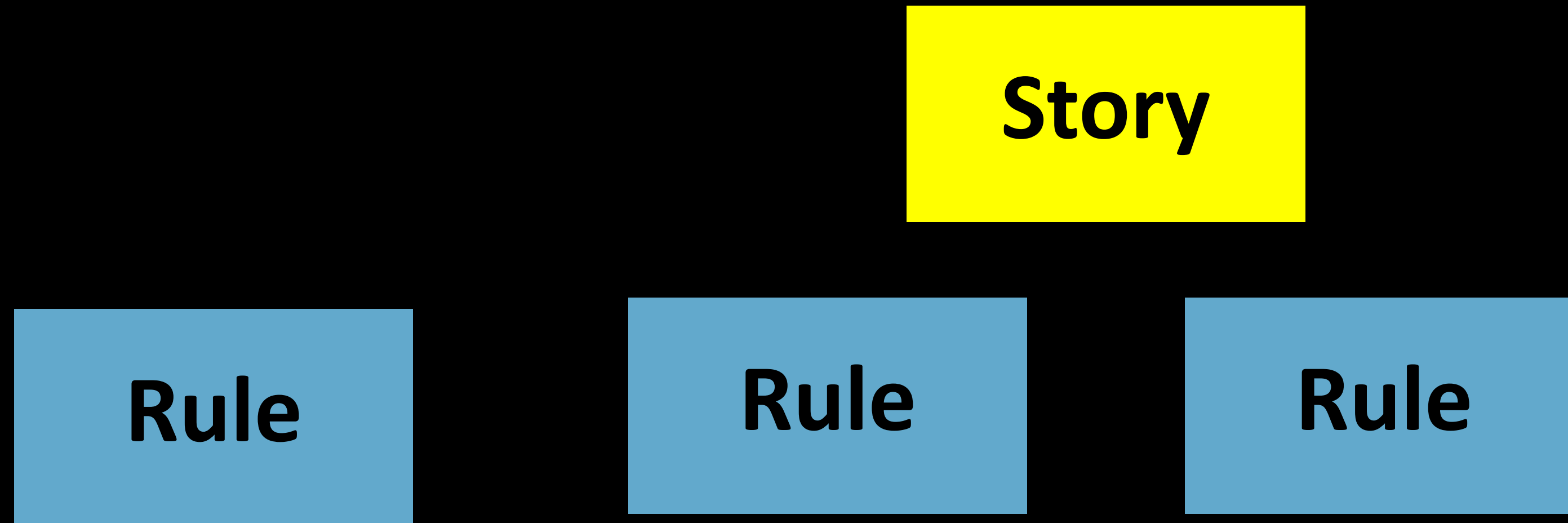
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Visual feedback



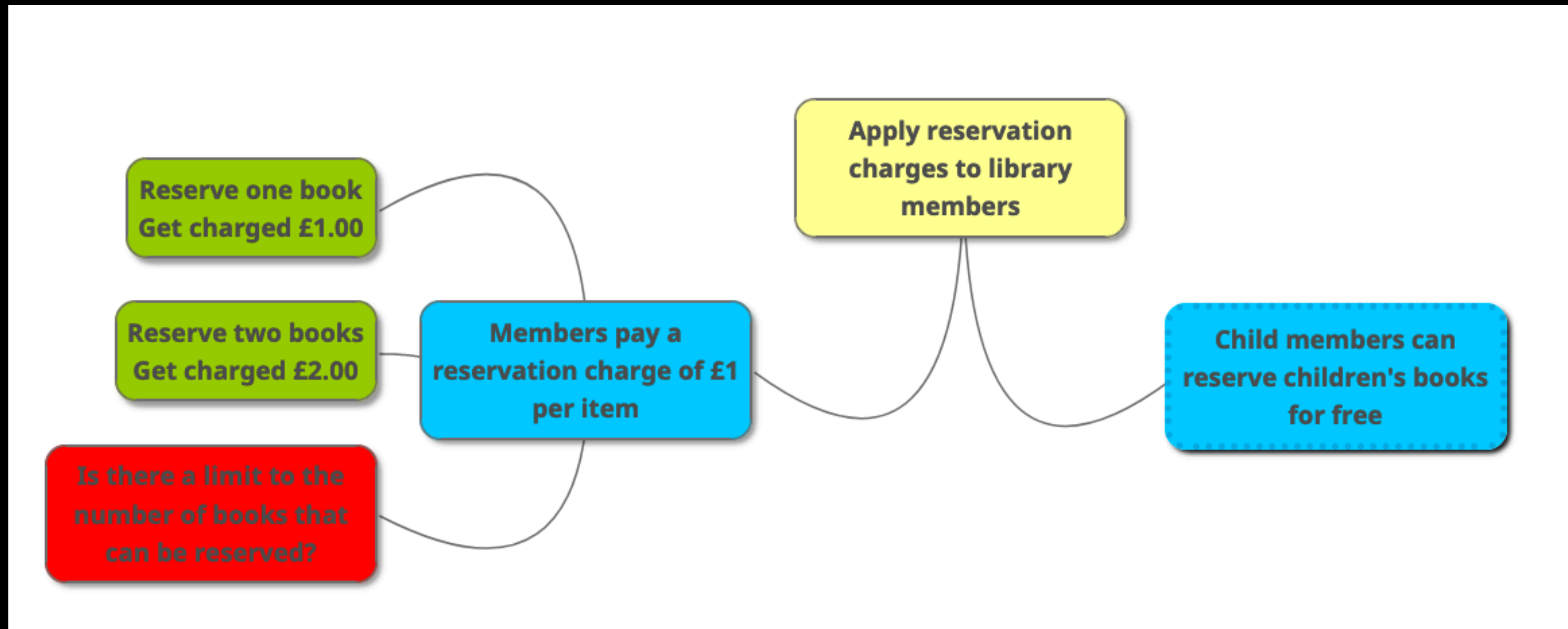
Visual feedback



Remote working - spreadsheet

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					

Remote working - Mindmup



Remote working - Miro

Selecting a job to view

A user should be able to select a job to view its details

A user should be able to select a recently completed job to view its details

A user should be able to close job details

A user should be able to select another job while already viewing one

Examples | 37

- Test Jobs are available in the Run History table
* A user clicks anywhere on the row of a Test Job.
=>A report side panel with the job title & status appears.

- Test Jobs are available in the Run History table
* A user clicks on the name of a Test Job.
=>A report side panel with the job title & status appears.

- Test Jobs are available in the Running and in queue table
* A user clicks anywhere on the row of a Test Job.
=>A report side panel does not appear

- Test Jobs are available in the Recently Completed table with status cancelled which have no reports (cancelled while still queued)
* A user clicks anywhere on the row of a Test Job.
=>A report side panel should be shown saying "No test steps run, report unavailable."

- Test Jobs are available in the Recently Completed table
* A user clicks anywhere on the row of a Test Job.
=>A report side panel with the job title & status appears.

+

- The job details panel is showing
* The user clicks on an empty space outside the panel
=> The job details panel is closed

- The job details panel is showing
* The user clicks on a row in the Run History table
=> The job details panel is not closed

- The job details panel is showing
* The user clicks on an the cross icon on the panel
=> The job details panel is closed

- The job details panel is showing
* The user presses the <esc> key
=> The job details panel is closed

+

- The report panel is visible and shows job A
* User clicks on job B
=> The report panel changes its contents to show job B

- The report panel is visible and shows job A
* User clicks on job A
=> The report panel does not change

- The report panel is visible and shows job A from Recently Completed table
* User clicks on job B in Running and in queue table
=> The report panel should be closed

Remote working - CucumberStudio

The screenshot displays the CucumberStudio interface with a feature file containing several rules and examples. The interface is organized into columns, each representing a rule. Each rule is defined by a header (R) and a body (E). Examples (E) are provided for each rule, and questions (Q) are also present.

Feature File Content:

- Rule 1:** A diagnostics report should contain testengine configuration.
 - Example: - The user generates a diagnostic report. * The user chooses to remove sensitive information. -> The readyapi-testengine.yaml is included but with database connectivity information specified with the key 'database' is omitted.
- Rule 2:** A diagnostics report should contain vmoptions.
 - Example: * The zip has been fetched. -> Then the zip should contain all vm flags that the application got started with.
 - Example: - The vmoptions cannot be found. * The zip is fetched. -> zip content should state the information was unavailable.
- Rule 3:** A diagnostics report should contain the application launch command.
 - Example: * The zip is been fetched. -> The application launch command is included.
 - Example: - Application launch command cannot be retrieved. * The zip is fetched. -> zip content should state that the application launch command was unavailable.
- Rule 4:** A diagnostics report should contain license type.
 - Example: - A license is installed. * the zip has been fetched. -> Then the zip should contain the full information of the license including license type, license key, license expiration, activation state, maximum number of concurrent jobs and license owner.
 - Example: - A license is not installed. * the zip is been fetched. -> Then the zip should contain information stating that there is no license installed.
- Rule 5:** A diagnostics report should contain list of external jars.
 - Example: - There are jars in {installDir}/bin/ext. * the zip has been fetched. -> it includes a list of all external jar file names.
 - Example: - There are no jars in {installDir}/bin/ext. * the zip is been fetched. -> zip content should state that no external jars were found.
- Rule 6:** A diagnostics report should contain operating system information.
 - Example: * the zip has been fetched. -> zip contains operating system name and version of the system on which testengine is running.
 - Example: - The diagnostic report has been fetched. * the operating system information cannot be found. -> zip contents state the information was unavailable.
- Rule 7:** A diagnostics report contains a metafile which describes extra information that can not be expected to be in the log file.
 - Example: * the zip has been fetched. -> the zip contains a meta-data file.
- Rule 8:** It is clearly stated what is included in the report.
 - Example: - I have decided to download a status report. * I want to verify exactly what will be included in the status report. -> I should see a list of the included files before downloading.

Questions (Q):

- What does the application launch command look like on windows?
- What happens with the OS info if testengine is running from a docker image? Could we add info about docker?
- Can the 'database' key be specified multiple times in the config file?

Buttons: + Rule, + Example, + Question

In my experience ...

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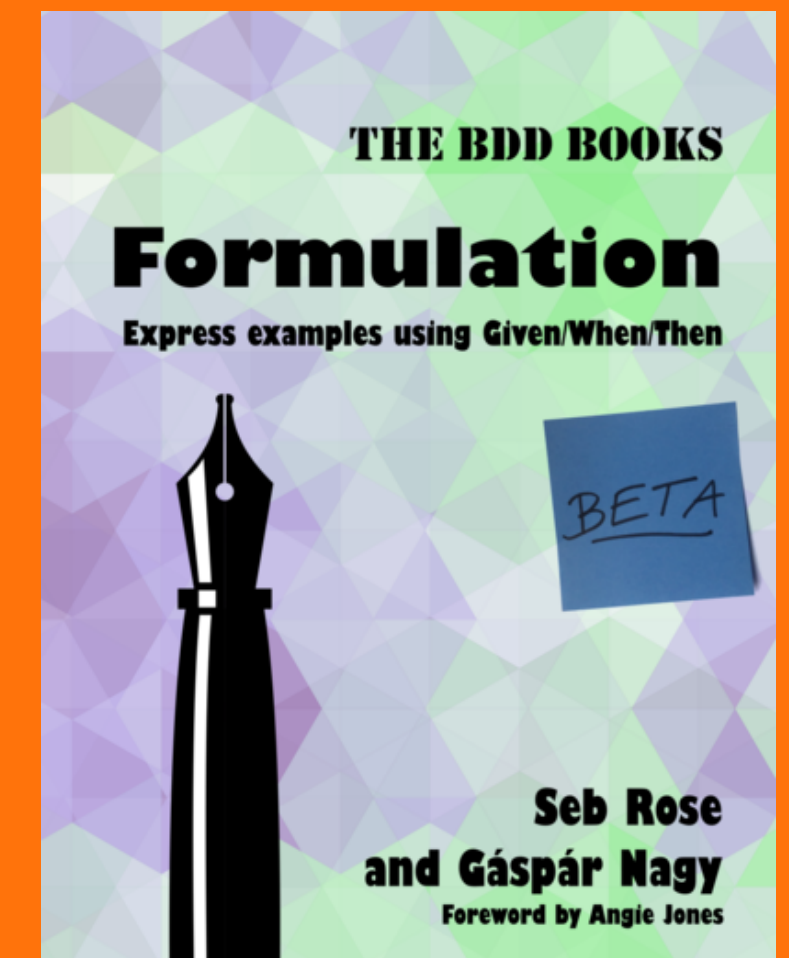
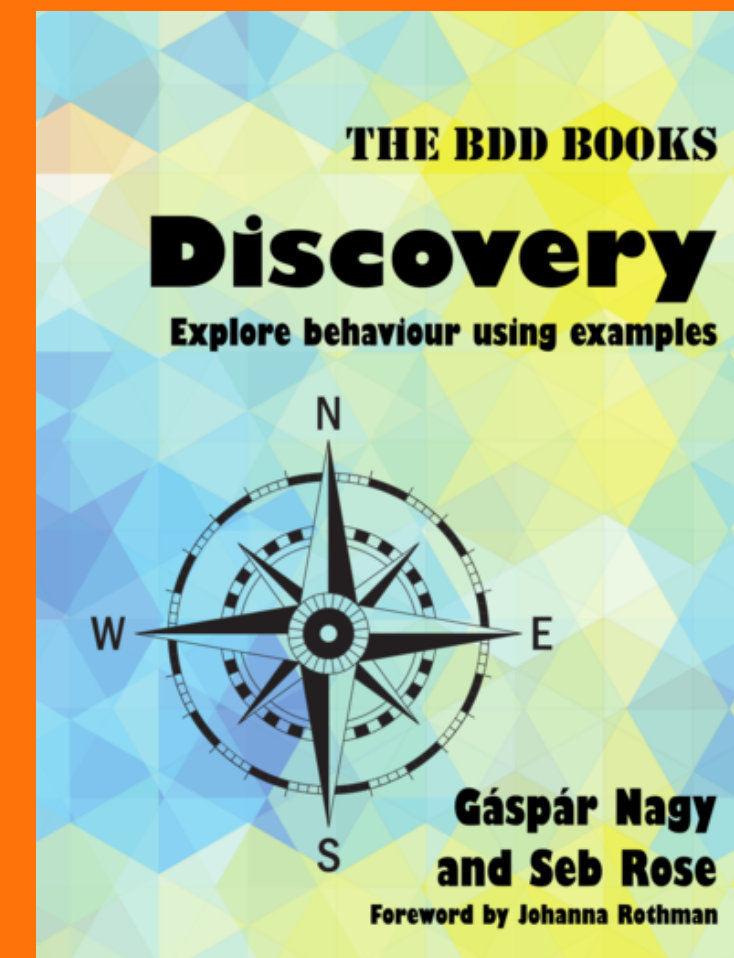
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High bandwidth is priority
(don't use Given/When/
Then)



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