

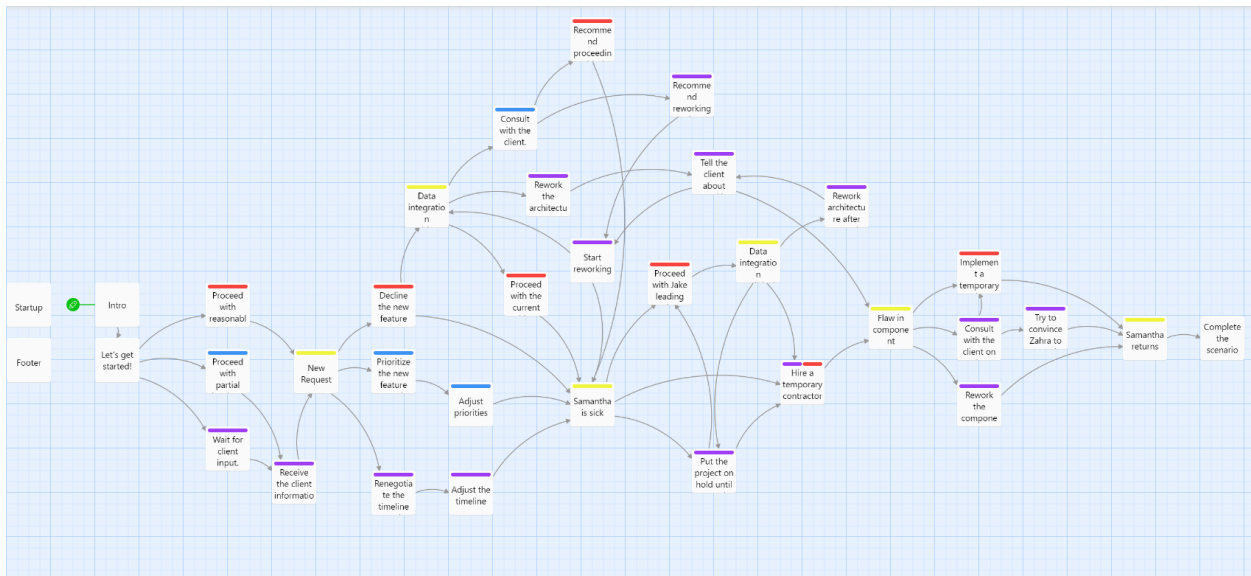
TWINE SIMULATIONS: POINTS, FEEDBACK, AND DESIGN

Learning Rebels: Learn Something New

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TWINE MACROS

Macros are how you do actions in Twine beyond just clicking a link to a new passage. They're small bits of code that do an action when triggered. Harlowe, the default Twine story format, has an extensive library of macros which are [documented in the manual](#). Macros are enclosed in parentheses and start with a name and colon.

Variables start with a \$ in Harlowe.

(set:) Set a variable to a value. If the variable doesn't exist, this creates it.

```
(set: $Satisfaction to 6)
```

To change a variable by adding or subtracting a number, use this structure:

```
(set: $Quality to it+1)
```

You can also create equations referring to multiple variables.

```
(set: $RemainingDays to $Days - $ElapsedDays)
```

(print:) This displays something. If you just want to show the value of a variable, you can just include the variable in the passage. However, you can also use *(print:)* to calculate, concatenate, or format the display of a variable. The example below formats the variable \$Cost into currency format by combining *(print:)* with *(digit-format:)*.

```
(print: "$" + (digit-format: "##,##0.00", $Cost))
```

(meter:) A meter is a special way to display the results of a variable without showing the actual value. [Check the manual for additional information](#).

```
(meter: bind $Satisfaction, 12, "X===", "Satisfaction", (gradient: 90, 0, red, 1, green))
```



(if:) The *(if:)* macro allows for text to be displayed or actions to happen depending on other conditions. Put the text to be shown or macro to run in a hook (inside single square brackets).

```
(if: $Quality > 9) ['Prioritized Quality']<br />
```

While managing the project, you prioritized the quality of the software developed and the client's satisfaction. This is aligned to Teklyhealth's corporate values of providing high-quality solutions, but it did increase the cost and time of the project. These are the kinds of trade-offs you need to consider as a project manager.]

(else-if): If you have multiple conditions, you can use else-if.

```
(else-if: $Days <80) [''Prioritized Time and Cost''<br />
```

While managing the project, you prioritized reducing the time and cost, even when that reduced the quality of the software. Clients are sometimes happy with those trade-offs, at least in the short term. However, remember that we want to build long-term relationships with clients, and that sometimes prioritizing quality or looking for a balance may be a better solution.]

(restart:) To restart the scenario and reset all variables to their initial values, use this macro. This is usually paired with a *(link:)* to trigger the restart.

```
(link: "Try the scenario again from the beginning")[(restart:)]
```

SPECIAL PASSAGES

Startup: If you want variables to be available for your entire scenario, set them in a passage and tag it “startup” (lower case). Every macro in that passage will be run at the beginning of the scenario.

Footer: Content in the footer is shown below every passage. This is a place to put content like status that you want to be visible all the time. You can also calculate variables and run other macros in the footer. Create a passage and tag it “footer” (all lowercase) to create a footer.

IMAGES

Images in Twine use regular HTML code. You can format them with CSS in the stylesheet or in an individual passage. The src is the source or the location and file name of the image.

```

```

If you have multiple image files, it’s often easiest to organize them in an images folder. This folder must be in the same folder as your published story.

