



**git is hard  
but time travel in git is easy.**

PRESENTATION BY MONICA POWELL



# Hi, I'm Monica Powell!

I'm a Full Stack Engineer at Meetup and organizer of the React Ladies Meetup group. I've written about git and other tech adventures in publications such as FreeCodeCamp, Hacker Noon and Code Like A Girl.



Twitter: @waterproofheart



[www.aboutmonica.com/](http://www.aboutmonica.com/)

# What is git?

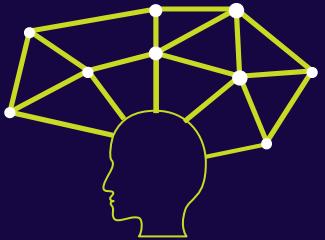
Distributed version control (on steroids) software designed for collaboratively managing software projects.



Twitter: @waterproofheart

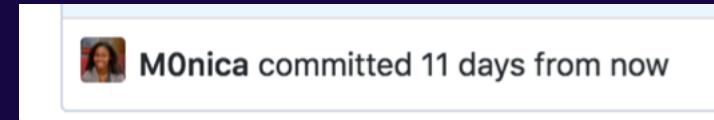


[www.aboutmonica.com/](http://www.aboutmonica.com/)



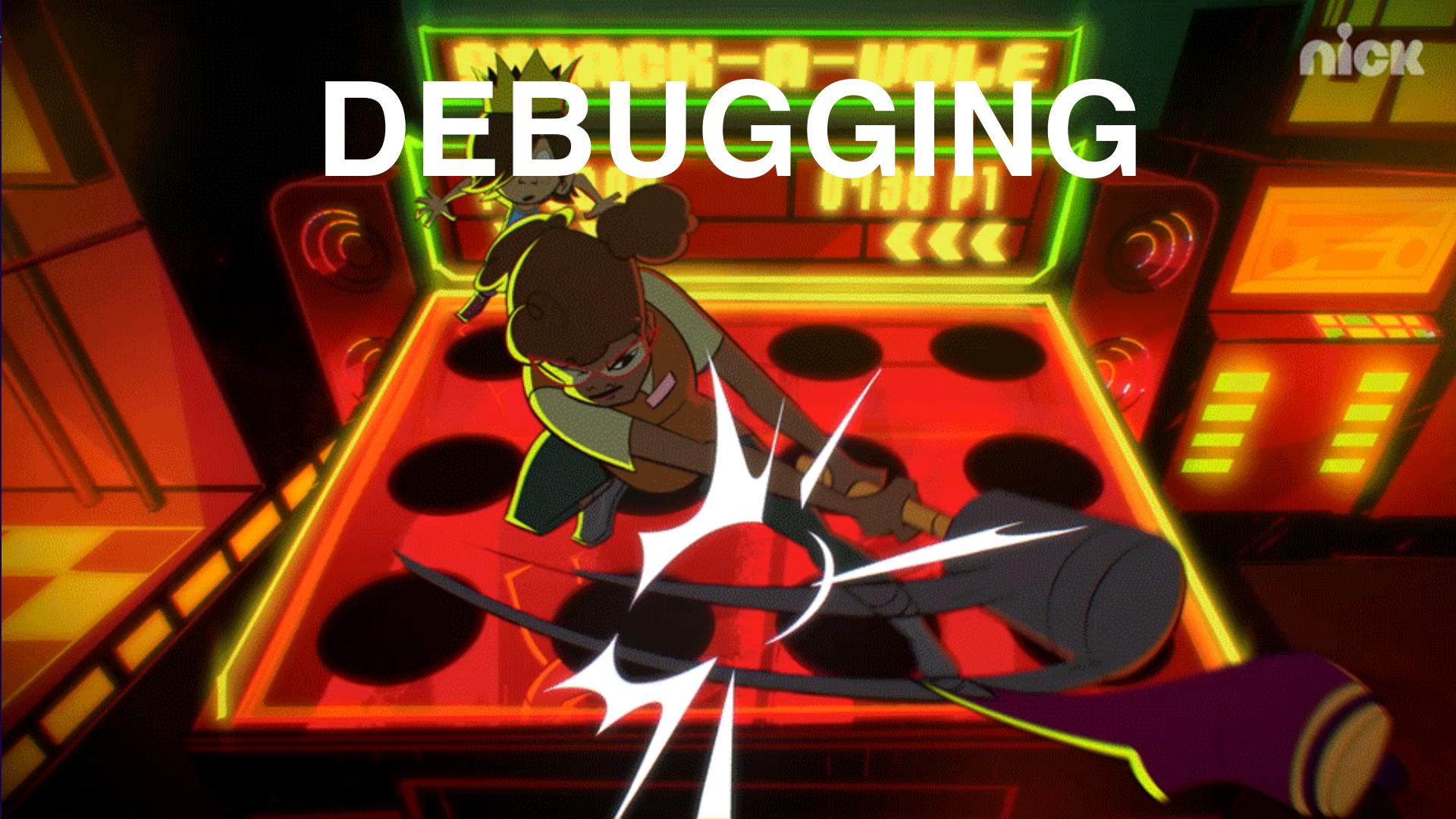
# TIME TRAVEL IN GIT

Oops!

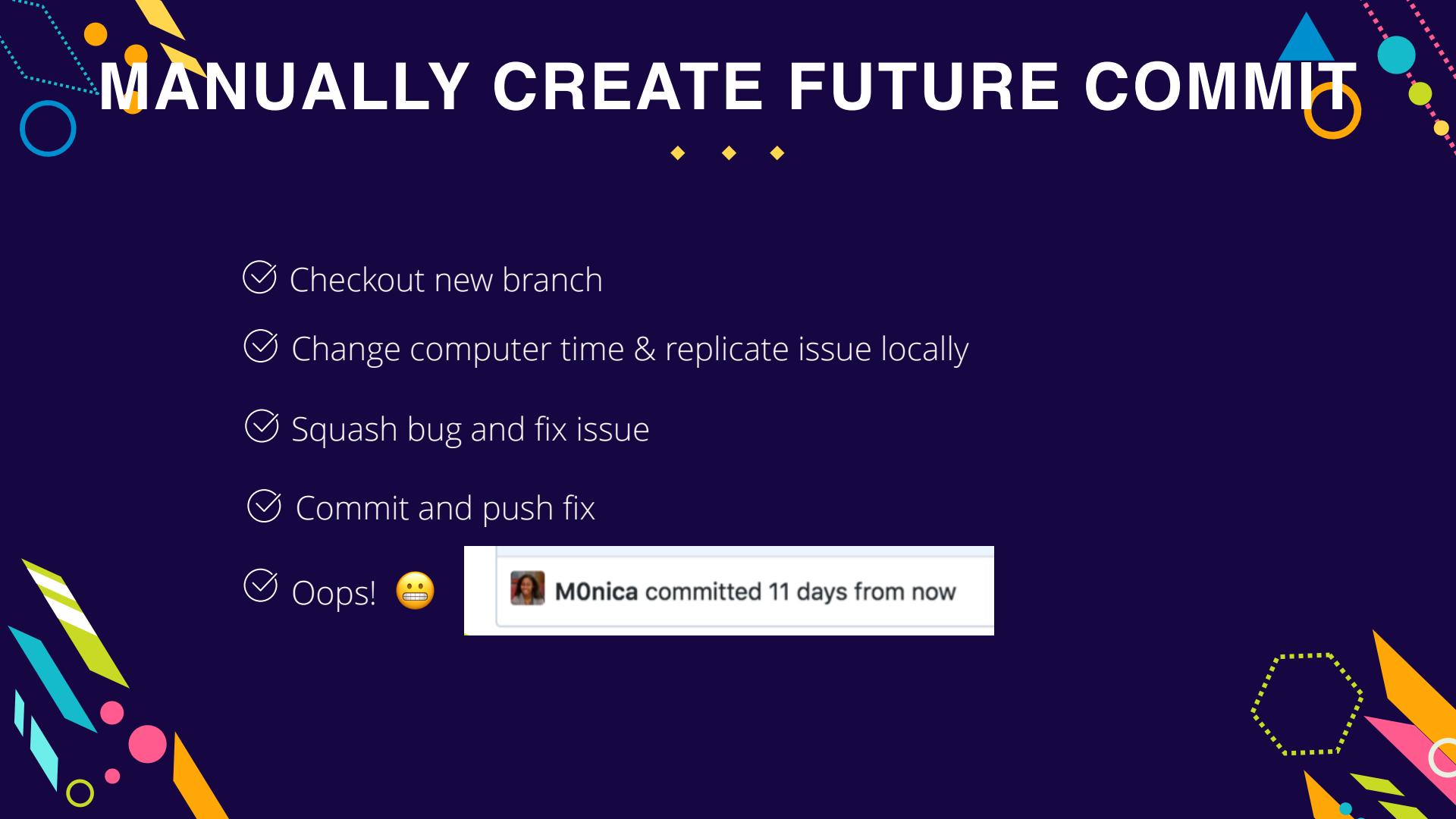


nick

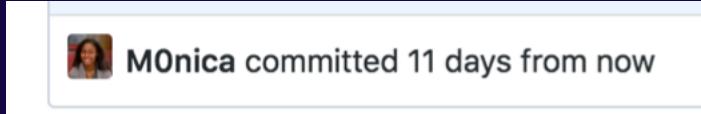
# DEBUGGING



# MANUALLY CREATE FUTURE COMMIT



- ⌚ Checkout new branch
- ⌚ Change computer time & replicate issue locally
- ⌚ Squash bug and fix issue
- ⌚ Commit and push fix
- ⌚ Oops! 😬



Is that the only way  
to commit in the future?

# MANUALLY MODIFY COMMIT DATES



```
GIT_AUTHOR_DATE="Wed Mar 20 15:12:30 2019 -0700" GIT_COMMITTER_DATE="Wed Mar 20 15:12:30 2019 -0700" git  
commit -m "future commit"
```

- The Date format must follow the Git standard RFC 2822 or ISO 8601.
- Can rebase and apply commits to the past as well.

# Your Slide Title

◆ ◆ ◆

## committing changes in the future #1

Edit

 Open M0nica wants to merge 1 commit into master from women-who-code-demo

Conversation 0

Commits 1

Checks 0

Files changed 1

Changes from all commits ▾ File filter... ▾ Jump to... ▾ +0 -0

Diff settings ▾

Review changes ▾

### committing changes in the future

women-who-code-demo (#1)

 M0nica committed 11 days from now

commit e524a78ef8949aa44cf483ed288a65e0ba299485

BIN +13.9 MD women-who-code-demo/presentation.key

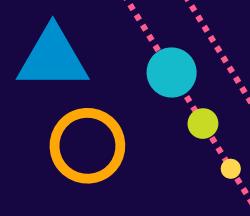
[Copy path](#) [View file](#)



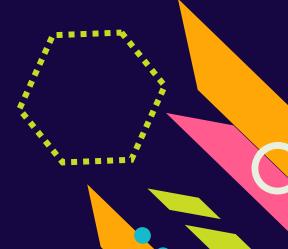
Binary file not shown.

💡 ProTip! Use [n](#) and [p](#) to navigate between commits in a pull request.

# Linguist library placeholder



I was working on a Weather app in Flask to auto-detect a user's location based off of their IP address. After committing some updates to GitHub my app switched from being labeled as predominately Python to 98.9% CSS even though it was a Flask application in which most of the code I had written was in Python and HTML. I did not agree with how GitHub classified the languages in my repositories so I set out to figure out how to fix this issue. Google led me to find out that GitHub has a linguist library that auto-detects the language within every repository. Using the linguist library is as simple as telling GitHub which files to ignore. While you still want to commit these files to GitHub and therefore can't use a `gitignore` you can tell GitHub's linguist which files to ignore in a `.gitattribute` file.



# How to Change Repo Language in GitHub

Is GitHub telling you that your repository is 98.9% CSS or HTML when it isn't? Here's how to resolve that issue every time.

You highlighted



Monica Powell

Feb 7, 2017 · 3 min read



# Linguist library placeholder



"This library is used on GitHub.com to detect blob languages, ignore binary or vendored files, suppress generated files in diffs, and generate language breakdown graphs."

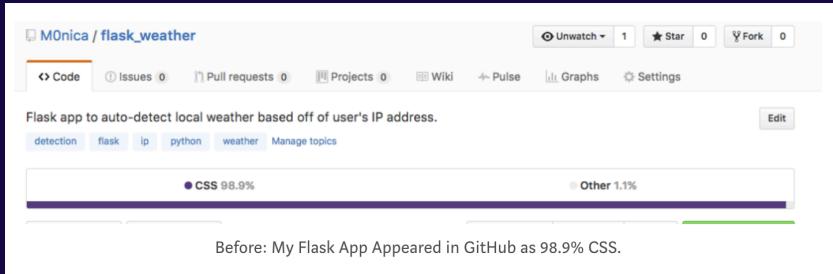
<https://github.com/github/linguist#my-repository-isnt-showing-my-language>



# Linguist library placeholder



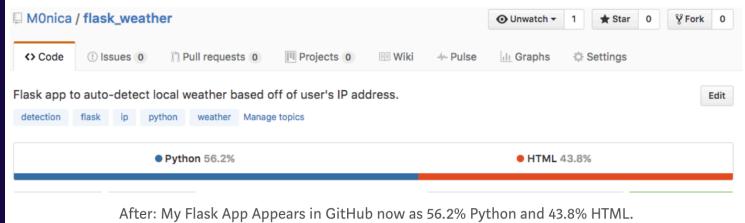
1



2

```
1 static/* linguist-vendored  
.gitattributes hosted with ❤ by GitHub
```

3



**if this then that**

Trigger

Action

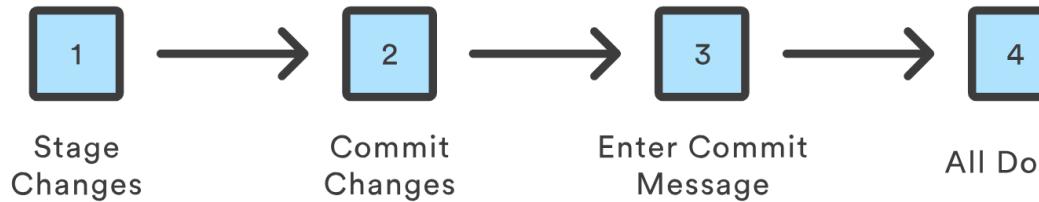
## Hooks executing during the commit creation process

Hooks

Pre-Commit  
Notification

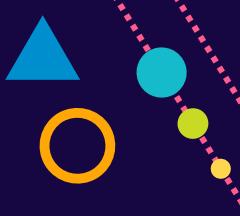
Post-Commit  
Notification

User Actions



All Done!

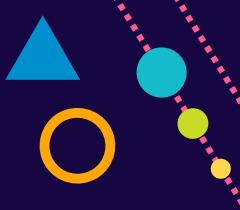
# Linguist library placeholder

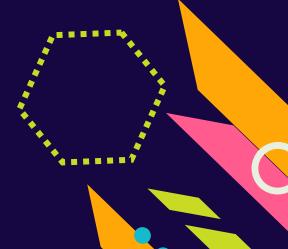


I was working on a Weather app in Flask to auto-detect a user's location based off of their IP address. After committing some updates to GitHub my app switched from being labeled as predominately Python to 98.9% CSS even though it was a Flask application in which most of the code I had written was in Python and HTML. I did not agree with how GitHub classified the languages in my repositories so I set out to figure out how to fix this issue. Google led me to find out that GitHub has a linguist library that auto-detects the language within every repository. Using the linguist library is as simple as telling GitHub which files to ignore. While you still want to commit these files to GitHub and therefore can't use a `gitignore` you can tell GitHub's linguist which files to ignore in a `.gitattribute` file.

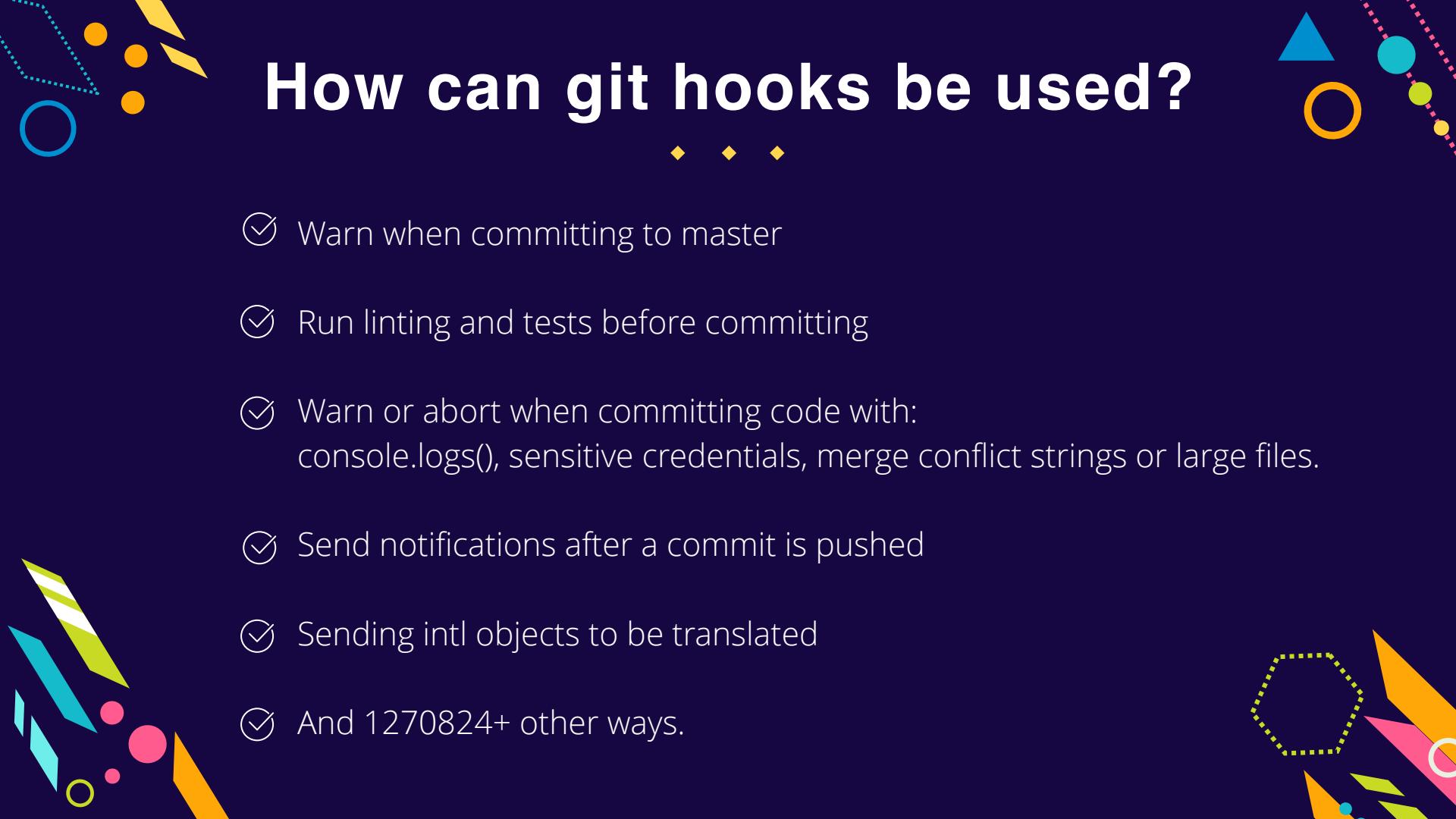


# What is a git hook?



- ⌚ Bash scripts that are executed at specific points within the git workflow.
  - ⌚ precommit, postcommit, prepush, postpush, etc....
  - ⌚ Git Hooks Documentation: <https://git-scm.com/docs/githooks>
- 
- 

# How can git hooks be used?



- ⌚ Warn when committing to master
- ⌚ Run linting and tests before committing
- ⌚ Warn or abort when committing code with:  
console.logs(), sensitive credentials, merge conflict strings or large files.
- ⌚ Send notifications after a commit is pushed
- ⌚ Sending intl objects to be translated
- ⌚ And 1270824+ other ways.



```
protected_branch='master'
current_branch=$(git symbolic-ref HEAD | sed -e 's,.*/\(.*\),\1,' )

# Define colors
yellow='\033[0;33m'
red='\033[0;31m'
green='\033[0;32m'
no_color='\033[0m'

if [ $protected_branch = $current_branch ]; then
    echo "${yellow}You're about to push to $protected_branch, is that what you intended? [y|n]${no_color}"
    read < /dev/tty
    if echo $REPLY | grep -E '[^Yy]$' > /dev/null; then
        echo "${red}This commit has been aborted.${no_color}"
        exit 1 # push will not execute if there is not explicit 'Y' typed
    else
        echo "${green}This commit is proceeding...${no_color}"
    fi
fi
```

# How can git hooks be used?

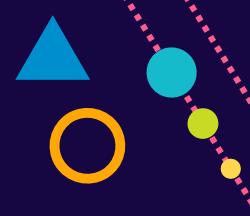
```
Monicas-MBP:git-hooks-workshop monica$ git push
You're about to push to master, is that what you intended? [y|n]
y
This commit is proceeding...
husky > pre-push (node v8.11.3)
yarn run v1.9.4
[$ eslint . --ext .js,.jsx --fix
  ✨ Done in 1.17s.
Everything up-to-date
Monicas-MBP:git-hooks-workshop monica$ git push
[You're about to push to master, is that what you intended? [y|n]
n
This commit has been aborted.
error: failed to push some refs to 'git@github.com:M0nica/git-hooks-workshop'
Monicas-MBP:git-hooks-workshop monica$
```

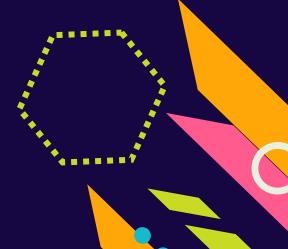
# Limitations



- ⌚ Limited enforcement - can easily be overridden —no-verify or forced pushes
- ⌚ Local hooks != shared hooks as .git/hooks not in version control
- ⌚ Doesn't replace CI or server-side branch protection

# Helpful Git Resources



- Git Lens Plugin
    - <https://gitlens.amod.io/>
  - git-together — better attribution
    - <https://github.com/kejadlen/git-together>
  - Git Attributes templates
    - <https://github.com/alexkaratarakis/gitattributes>
  - Git Book
    - <https://git-scm.com/book/en/v2>
  - Husky
    - [https://github.com/](https://github.com)
- 
- 

# Thanks!

## Any questions?

You can find me at:

@waterproofheart

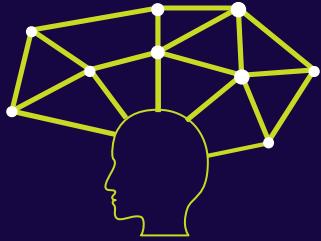
[www.aboutmonica.com/](http://www.aboutmonica.com/)

monica@aboutmonica.com

<https://www.meetup.com/React-Ladies>

“ ”

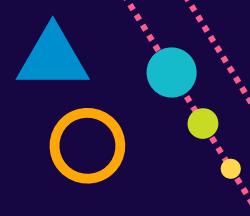
**“A person who never made a  
mistake never tried anything  
new”**



# BIG TITLE

The marketing mix is a business tool used in marketing and by marketers, originally can be used

# Content In Two Columns



## Content A

Content itself is what the end-user derives value from also can refer to the information provided through the medium, the way in which the information was presented, as well as the added features included in the medium in which that information was delivered.

## Content B

Content itself is what the end-user derives value from also can refer to the information provided through the medium, the way in which the information was presented, as well as the added features included in the medium in which that information was delivered.





# Content In Three Columns



## Content A

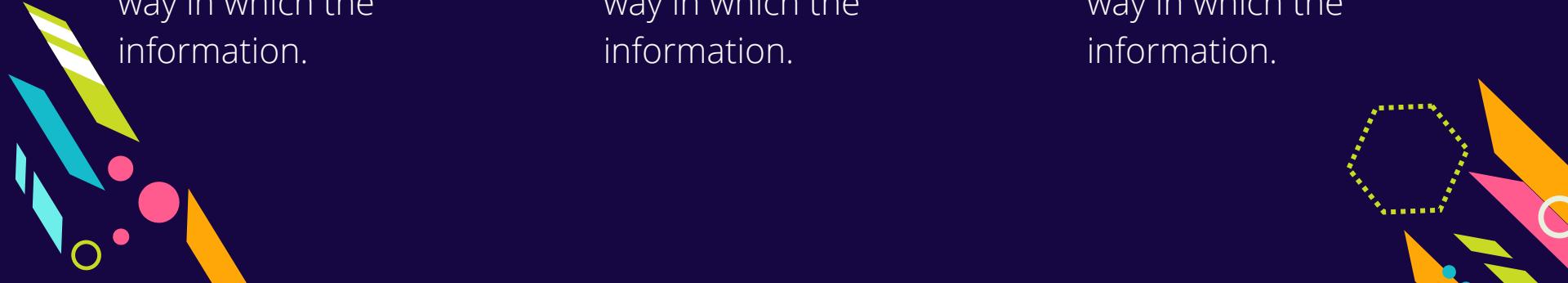
Content itself is what the end-user derives value from also can refer to the information provided through the medium, the way in which the information.

## Content B

Content itself is what the end-user derives value from also can refer to the information provided through the medium, the way in which the information.

## Content C

Content itself is what the end-user derives value from also can refer to the information provided through the medium, the way in which the information.



A photograph of a night landscape. In the foreground, a white and yellow tent is set up on a grassy area. To the right, a person wearing a bright green jacket and dark pants stands on a rock, looking out over a body of water towards distant mountains under a dark, star-filled sky.

Use Big Images  
To Show Your  
Ideas

# Shapes To Explain Ideas



**TITLE 01**

Itself is what the end-user derives value from

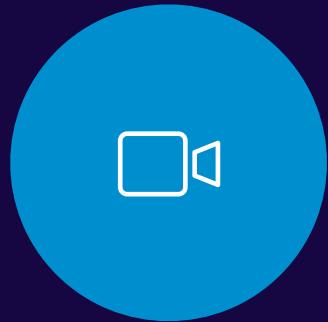
**TITLE 02**

Itself is what the end-user derives value from

**TITLE 03**

Itself is what the end-user derives value from

# Services With Icons



Service 01



Service 02



Service 03

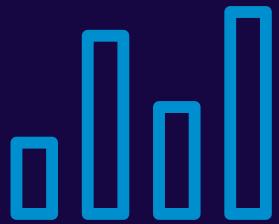
# Tables To Compare Data



	A	B	C
Content A	100	200	400
Content B	\$67,000	\$56,000	\$78,000
Content C	4500	60000	\$8,000
Content D	34000	\$400	\$600
Content E	\$90	\$800	\$1,000

# World Map

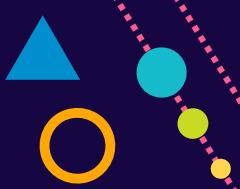




# 56,790,500

Write here your big numbers

# Funny Facts



**56,790,500**

Revenue from sales

**130%**

Project Achievements

**56,790,500**

Users around the world



# The Process



**Step 01**

**Step 02**

**Step 03**

# Write Here Some Features



## Content A

Itself is what the end-user derives value from also can refer to the information



## Content B

Itself is what the end-user derives value from also can refer to the information



## Content B

Itself is what the end-user derives value from also can refer to the information



## Content C

Itself is what the end-user derives value from also can refer to the information



## Content D

Itself is what the end-user derives value from also can refer to the information

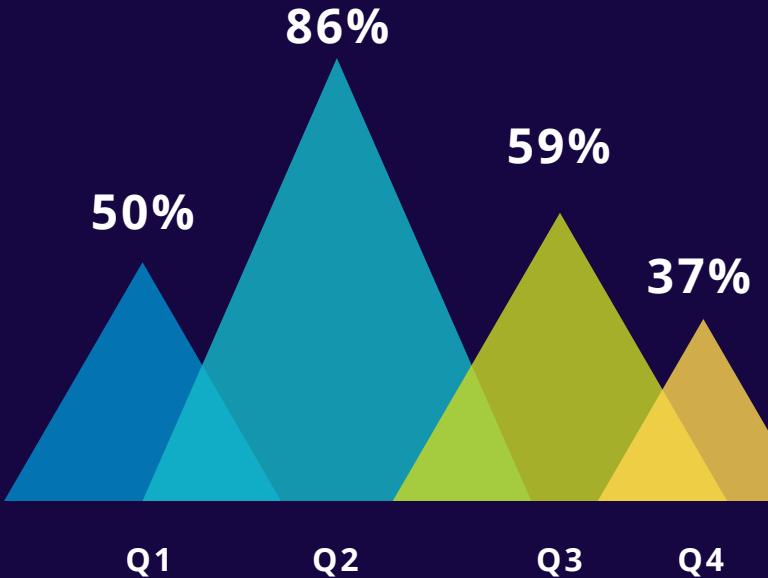


## Content D

Itself is what the end-user derives value from also can refer to the information

# Use Charts To Present Data

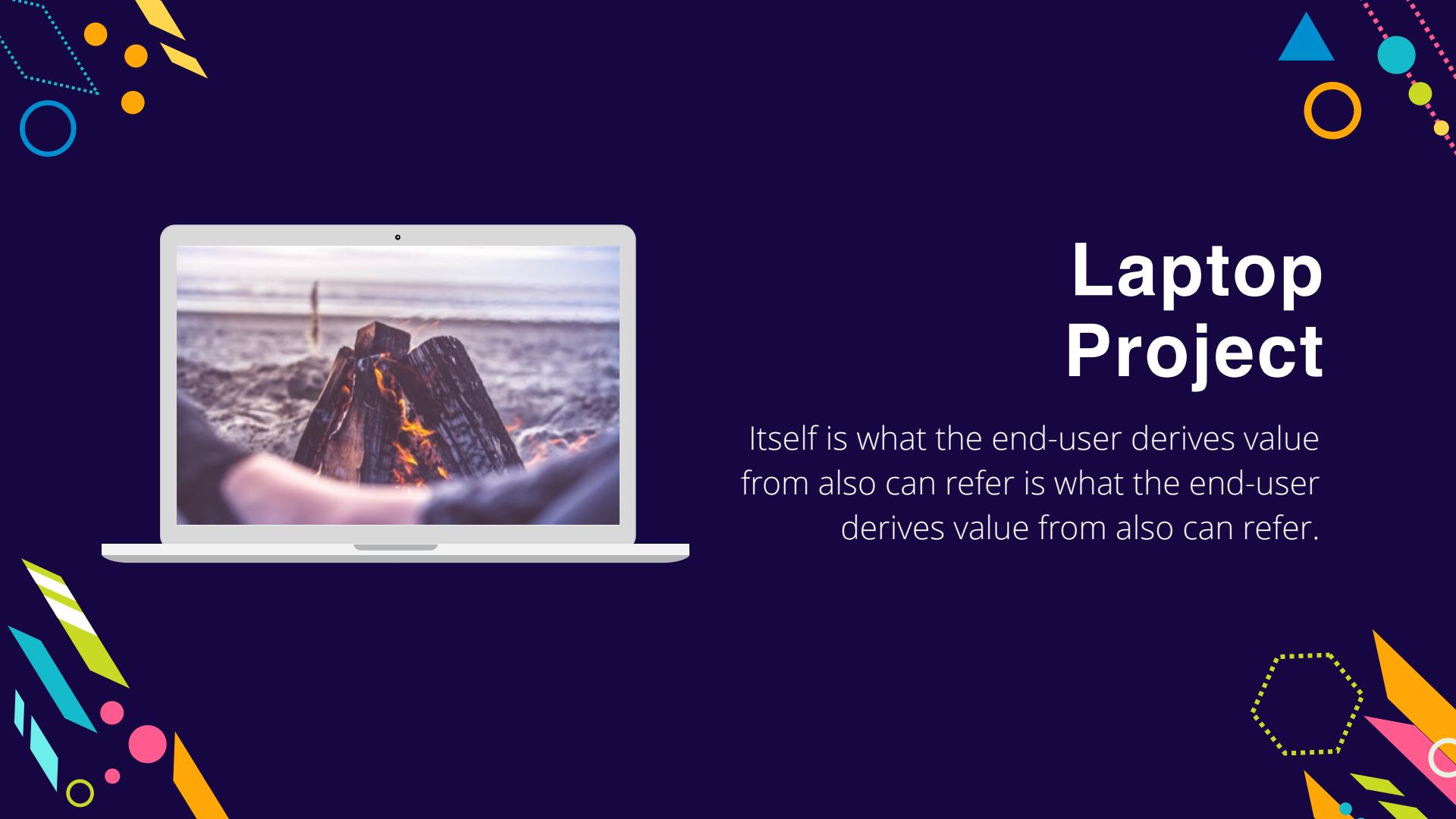
Itself is what the end-user derives value from also can refer is what



# Mobile Project

Itself is what the end-user derives value from also can refer is what the end-user derives value from also can refer.





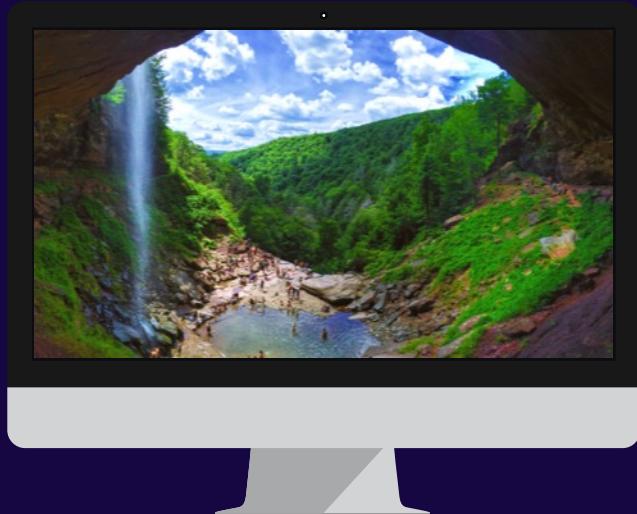
# Laptop Project



Itself is what the end-user derives value from also can refer is what the end-user derives value from also can refer.

# Desktop Project

Itself is what the end-user derives value from also can refer is what the end-user derives value from also can refer.



# Presentation Design



This presentation uses the following typographies and colors:

## **Free Fonts used:**

<https://www.fontsquirrel.com/fonts/League-Gothic>

<https://www.fontsquirrel.com/fonts/open-sans>

## **Colors used**



# A Picture Is Worth A Thousand Words

Itself is what the end-user derives value from also can refer is what the end-user derives value from also can refer.

