SEO Tech Developer Residency Week 1: Project Documentation README files

JUNE 30, 2022

Presented by:
Dr. Sonia Mitchell

SEO Seizing Every Opportunity

OMG HI

Welcome

- *SEO Lead Software Engineer Instructor*
  Dr. Sonia Mitchell

Office Hours

Mondays, Wednesdays, Thursdays & Fridays

9a.m. - 10:00a.m. EST

Email: Sonia.Mitchell@seo-usa.org

Teaching and Tutoring in-person and virtually
- Experienced career changer from the corporate business world **(HR, Finance, Nonprofit, Gov't)**
- Industries such as nonprofit, gov't and medical
- Seasoned small business owner since 2001 as a marketing, media and educational consultant

Current Positions
- FT Technology/CS Instructor/Early College Liaison
- PT Adjunct Professor, Two Colleges
- Summer CS Programming Instructor/Mentor
- Summer AP College Board CS Principles Exam Scorer

Courses Taught/Teaching:
Business, Technology & Computer Science (CTE)
Python Programming I & II * AP Computer Science * Cybersecurity * Computing * Consumer Behavior eMarketing * Principles of Marketing * Business Ethics Management * Resume Writing * Career Development

SEO Seizing Every Opportunity

Dr. Sonia Mitchell

EDUCATION & CERTIFICATIONS

B.S. – Marketing/Psychology
M.B.A. – Management
Doctorate – Ministry in Christian Business
Graduate Teaching Certificate – CTE Business/IT
University of North Carolina Charlotte

Business & Information Technology (6-12)
License #:1231951
200+ training Computer Science Digital Teaching
North Carolina State University

ORGANIZATIONS I SUPPORT

Girls Who Code Club (GWC) – Advisor
Tech Executives (TE) - Advisor

AREA(S) OF RESEARCH
- Diversity in Business
- Gender Gap in STEM Careers
- Spirituality in the Marketplace

COMMUNITY INVOLVEMENT
- Volunteer, **Prison Entrepreneurship** (Business Plan Advisor)
- Volunteer, **Khan Academy Ambassador**
- Volunteer, **DECA Competitive Events Mentor/Judge**
- Volunteer, **HackMIT** (Massachusetts Institute of Technology) the annual student-run hackathon and Blueprint
- Volunteer, **The Center for Volunteer Caregiving**

PODCAST PRODUCTIONS
- Talking CTE: Career, Technology & Education
- Hollywood of Parenthood
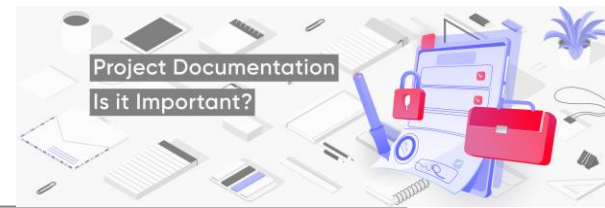- An Apple A Day: Heart of Educators

WHERE TO LISTEN

Learning Objectives (LOs)

Students **W**ill **B**e **A**ble **T**o

1. Explain the difference between markup language and programming languages

2. Create documentation in markdown

Project Documentation

Most software developers strongly dislike this task……

- find it time-consuming

- can become unpredictable and messy

- most students in my courses get points off

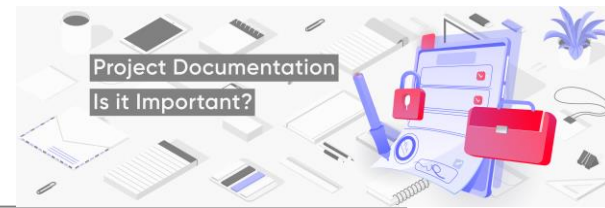- AP College Board CSP Exams you will lose points

So, do you like commenting/documenting your code?

Drop your answers in the chat!
Or
Unmute Quickly, begin to share

Project Documentation

Goal: **Allow others to understand your code**

* The Road Map to Your Project

* Use inline comments to document specific sections of your source code files

* Use README files: Guide giving users a written description of your project (e.g. in a Github repository)

* Write notes to your future self or anyone else who joins the team and wants to hit the ground running
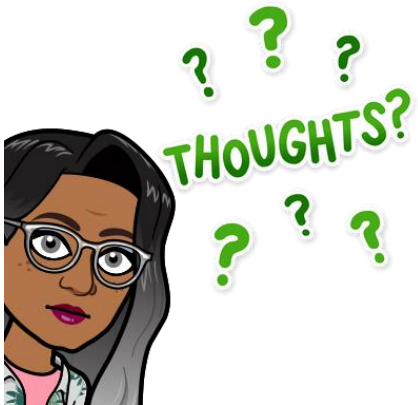
Question of Thought
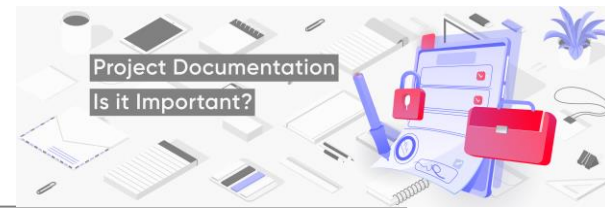
What should be included in your project README file to yourself or anyone else?
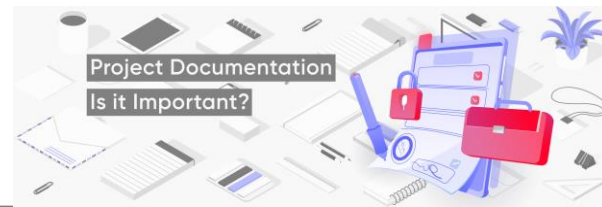
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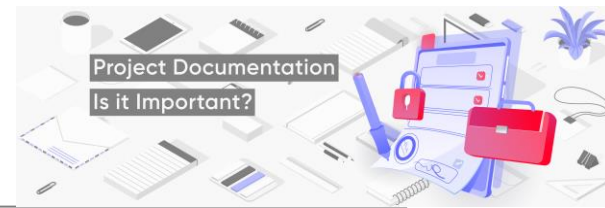
? ? ?
THOUGHTS?
? ? ?

Items that might be included:

- ✓ Requirements/Dependencies
- ✓ How to setup the project
- ✓ Any usage instructions
- ✓ Badges for workflows (shields.io)
- ✓ Licensing (https://choosealicense.com/)
- ✓ Contact information

The README file

- A **README** file is associated with **source code** repositories and will provide **a general overview of the project** and how to use it. It will also typically **explain what a developer needs to know to work with the source code** and **instructions on setting up the development environment**.

- **README** files have become part of the **unofficial standards in source code management** and are now considered **the bare minimum documentation that should exist** within every software repository.

- Other source code documentation include **block diagrams** and **flow charts** to provide visual information on the code structure. **Release notes** are another form of document that tracks changes that occur throughout different versions.

# Check List of README file Items:
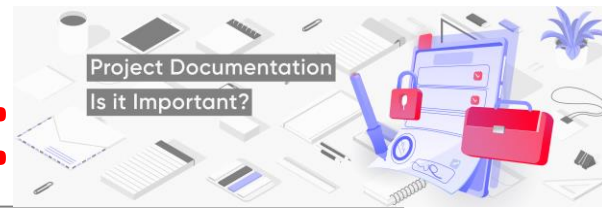
- ✓ Detailed instructions and information needed for anyone to get familiar with the structure and how to work with them.

- ✓ **CONTRIBUTION file** – included in the repository describing what contributions can be made to the project and the steps on how to make them.

- ✓ **Software flow chart** – Describing a high-level overview of the software operation and sequence of flow.

- ✓ **Technical reference manuals** – Containing the functions, libraries, APIs, or any other components developed for the project.

- ✓ **Release notes** – Records the changes between versions.

LEARNING TEMPERATURE CHECK

Add a stamp to how you are feeling about the lesson so far. You can access the stamp tool by clicking *Annotations* in the top Zoom toolbar, then selecting a stamp.
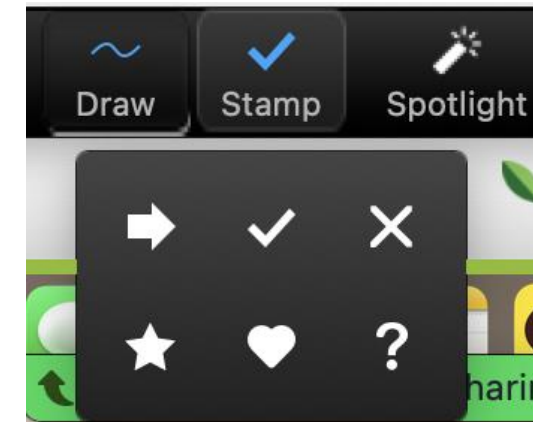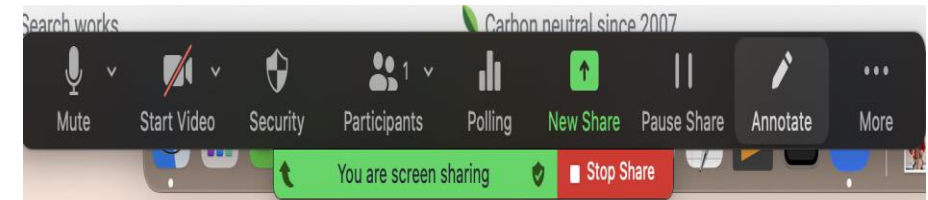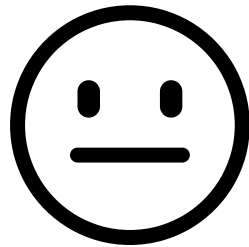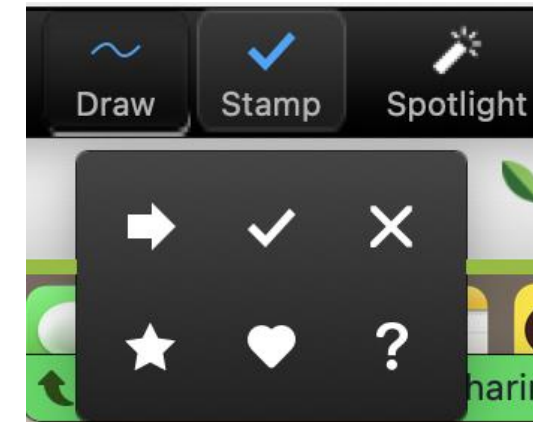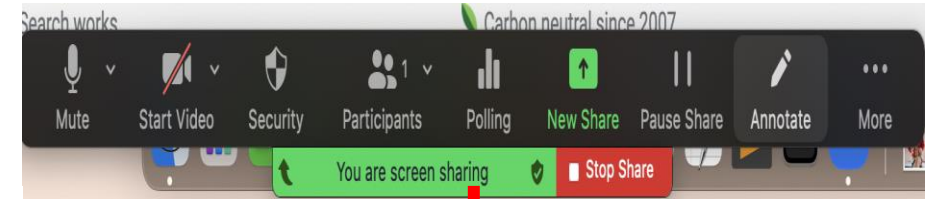
What is a Markup Language?

Indicate if you've used the following?

Add a stamp to indicate if you've used the following below. You can access the stamp tool by clicking *Annotations* in the top Zoom toolbar, then selecting a stamp.

What is a Markup Language?

Markup languages are a way to format text – they are rendered by computers but are not compiled or run like programming languages.
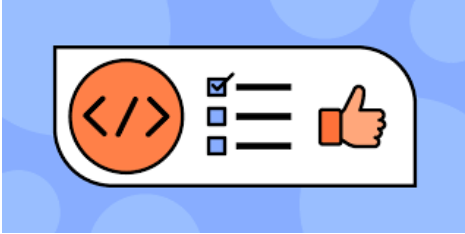
What is a Markdown Language?

Github renders Markdown. Slack ALSO uses markdown - so you can use your markdown skills on Slack!

Codio will also allow you to toggle between previewing and editing markdown.

# Try It Practice! Coding Demo Time (3 minutes)

Now it's your turn!

- **Create** a .md file in Codio
- **Click** the pencil icon in the top right corner
- Test various **markdown syntax** – feel free to use the markdown cheatsheet
- End with a rough draft template of a basic readme file
- **You will share out!**

LEARNING TEMPERATURE CHECK

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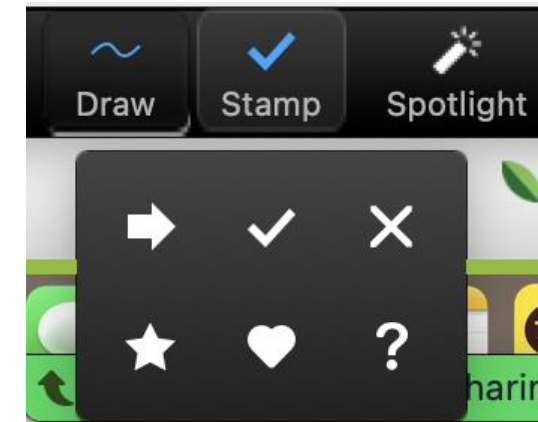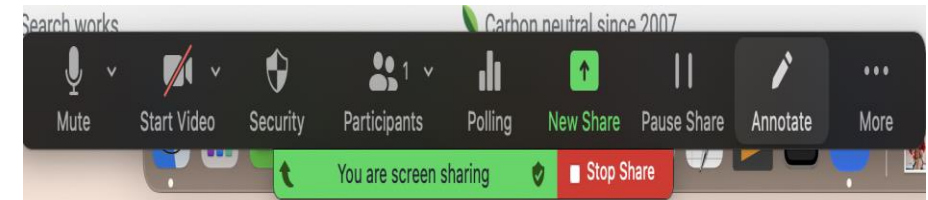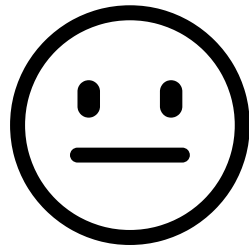
Did we meet our Learning Objectives(LOs)?

Students **W**ill **B**e **A**ble **T**o

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Drop your answers in the chat!

Continue working on your Week 1 Project

During this week, think about what will be your project

You should do this in your Week 1 Project Workspace.

1. If you don't already have one, create a **README.md** file.

2. Spend some time building on your project. As mentioned earlier, your Github becomes a portfolio of work - so spend some time building something cool – both to build your skills and your portfolio!

3. Check out how Github renders your README file!

4. In your , write up notes about your project, including:

    *Set-up instructions (e.g. libraries to install, environment variables, etc.)

    * How to run your code

    * An overview of how your code works

    Don't forget to push your changes regularly so you can practice fixing your style mistakes

READY TO WORK
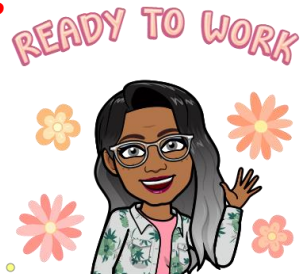
Thank You! Q&A

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