Visual Studio Code and GitHub Codespaces

The Dream Developer Experience

Develop anywhere, anytime, any device, together

Kevin LaBranche

- 25+ years full stack web developer
- Architect
- Developer Advocate

klabran@hotmail.com
https://twitter.com/klabranche
http://www.kevinlabranche.com/blog/

Lightning Bites – Tech In Five Minutes

What is GitHub Codespaces

- Your instant ready to go development box

- Available anywhere, anytime

- On any device with Visual Studio Code in the browser OR

- Visual Studio Code on your machine with just a few extensions and nothing else.
  - Goodbye installs of compilers or anything else on your machine
  - With your own Visual Studio Code preferences

- Collaborate with anyone with ease

- Preconfigured Environments or configure your own

GitHub Codespaces – Fast, Simple, Customizable

- Cloud managed docker containers preconfigured to provide a full-featured development environment.
  - https://docs.github.com/en/codespaces/setting-up-your-project-for-codespaces/introduction-to-dev-containers#using-the-default-dev-container-configuration
- Setup a Codespace in minutes.
- Customizable for your project needs with a few clicks.
  - https://github.com/Microsoft/vscode-dev-containers#adding-a-definition-to-a-project-or-codespace
- No more worrying about getting a development environment working on a machine.

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GitHub Codespaces – Costs

- Charged per hour being active. Can set timeout, default is 30 minutes. Turn on/off Codespaces in GitHub or Visual Studio Code.
- Still in beta for individuals and free.
  - Request Access - https://github.com/features/codespaces/signup
  - Only takes a few hours to get activated!
- Educators - get free monthly allowance for your classes.
  - https://docs.github.com/en/education/manage-coursework-with-github-classroom/integrate-github-classroom-with-an-ide/using-github-codespaces-with-github-classroom#about-the-codespaces-education-benefit-for-verified-teachers
- Organizations – Pay as little as $0.18 an hour. That's less than a cup of coffee for a day's worth of work.
  - https://docs.github.com/en/billing/managing-billing-for-github-codespaces/about-billing-for-codespaces
  - $0.07 a month per GB of space for all your Codespaces. Can delete from GitHub or Visual Studio Code.

GitHub Codespaces – Worried about costs or connectivity? No Problem!

- Codespaces is a docker container.

- Everything you need to run the container locally is already in your repository.

- Run the container locally with Visual Studio Code's free Remote - Containers Extension and docker tools for your operating system - https://marketplace.visualstudio.com/items?itemName=ms-vscode-remote.remote-containers

GitHub Codespaces – To Learn More

- GitHub Codespaces docs - https://docs.github.com/en/codespaces
- Setup your project with a default container- https://docs.github.com/en/codespaces/setting-up-your-project-for-codespaces/introduction-to-dev-containers#using-the-default-dev-container-configuration
- Python Sample - https://docs.github.com/en/codespaces/setting-up-your-project-for-codespaces/setting-up-your-python-project-for-codespaces
- Java Sample - https://docs.github.com/en/codespaces/setting-up-your-project-for-codespaces/setting-up-your-java-project-for-codespaces
- Any Repository - https://docs.github.com/en/codespaces/setting-up-your-project-for-codespaces
- Using Codespaces in Visual Studio Code - https://docs.github.com/en/codespaces/developing-in-codespaces/using-codespaces-in-visual-studio-code
- Educators - Prepare for the next semester with GitHub Global Campus and Codespaces - https://github.blog/2022-05-09-prepare-for-next-semester-with-github-global-campus-and-codespaces/
- Get Visual Studio Code - https://code.visualstudio.com/

Github Codespaces – Try It Out!

- This Python and Flask example is open source - https://github.com/klabranche/pytoh

- Run it on your own machine or from a browser now.

- Use This Template to copy the repo to your own and play around.

- Follow the readme.md for how to redo the example from scratch

- I take pull requests. :-)

Feel free to reach out to me on twitter https://twitter.com/klabranche
or email klabran@hotmail.com