*NOTE: there is a FAQ at the end of this document* *Last updated: 31 August 2023*

**Congratulations**! You have been enrolled to use Microsoft’s *GitHub Copilot for Business*, for your HP work, involving HP source code. For this entitlement you must use your @hp.com email ID to SSO log into GitHub.com, to validate that your installation of the Copilot plugin in your IDE will authenticate.

Onboarding-prep to use GH Copilot under HP’s sanctioned enterprise process requires these few steps:

1) You need to be enrolled in **GitHub Copilot for Business**. The Software AI CoE will work with you to ensure you are enrolled. Interested teams can [start here](https://forms.office.com/r/wpXLXp0Rzc). This doc assumes you are already enrolled.

## 2) We aim to remove this step at a later time, but as of July 2023 it is necessary to log into HP R&D IT’s GitHub Enterprise Server (‘GHES’, or just ‘GHE’ to most developers at HP), where you probably are already committing your HP source code. Use your @hp.com identity to login through HP SSO. Please don’t skip this step. Just log into the web UI once, here, and then you can close your browser tab: **ð** [**https://github.azc.ext.hp.com/**](https://github.azc.ext.hp.com/)

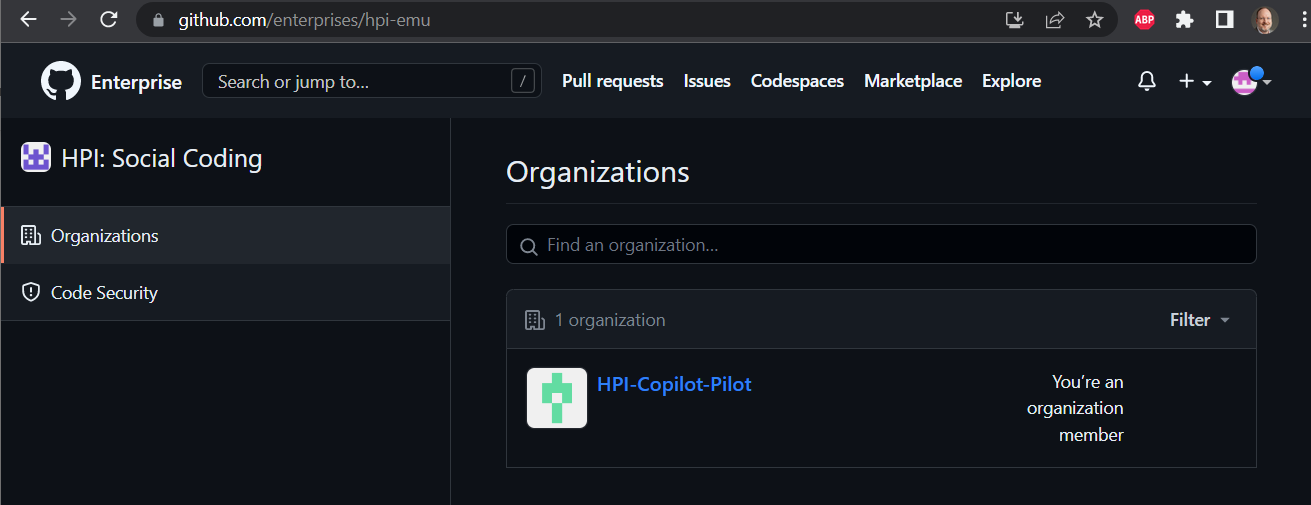
3) In order to double-check that you are enrolled to use GitHub Copilot for Business, log into GitHub Enterprise Cloud (‘GHEC’), using your @hp.com identity and through HP SSO, at github.com, here:

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**ð** [**https://github.com/enterprises/hpi-emu**](https://github.com/enterprises/hpi-emu)

(it is critical to use the full URL + path above)

If you successfully complete a login to GHEC you should see the “HPI: Social Coding” enterprise and  
its default “HPI-Copilot-Pilot” organization like in the screenshot below. If confirmed, then leave the tab open until you complete the next step below for installing the plugin.



**Note**: your HP-specific GHEC profile/avatar/identity will be in the format [Fname]-[Lname]\_hpi. If you don’t see the **\_hpi** suffix on your profile name, then you probably logged in with your *personal* github.com credentials by mistake. In that case please log out and perform step #3 again.

4) Install the Copilot plugin for your IDE (e.g., Visual Studio, VSC, Neovim, and JetBrains IDEs)

a. <https://docs.github.com/en/enterprise-cloud@latest/copilot/getting-started-with-github-copilot>

b. Check the Copilot control ( ) in your IDE to check for errors, and to ensure your IDE plugin is logged in with your @hp.com credentials. If you previously used **GitHub Copilot for Individuals** in VSC, then you may need to log out first:

Graphical user interface, application

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… and then re-log in with your \_hpi GitHub Enterprise Cloud (GHEC) identity:

A screenshot of a phone

Description automatically generated with medium confidence

5) You should be finished with preparation and ready for Copilot to begin offering code suggestions.

What happens next? You should work with your HP projects and source code as usual. Please share your experience with other users. Enrolled users like you are welcome to use the dedicated discussions channel in MS Teams here: <https://teams.microsoft.com/l/channel/19%3a281e50cb115f468fbe6456d84f7ef5f5%40thread.tacv2/GitHib%2520Copilot?groupId=d6275dac-bad2-4fad-89a6-d52d48e86e22&tenantId=ca7981a2-785a-463d-b82a-3db87dfc3ce6>

… as well as weekly office-hours sessions for you to share your questions and thoughts: Wednesdays at 10:30am Pacific Time. See: [GitHub Copilot weekly office hours.ics](https://hp.sharepoint.com/:u:/r/teams/SWAICoE/Shared%20Documents/General/GitHub%20Copilot%20weekly%20office%20hours.ics?csf=1&web=1&e=Y6lZJD) or simply here: <https://hp.zoom.com/j/99039836569?pwd=bHczaGk2b2lvUDJKWUJHRE5Bd2JxUT09>

**Foremost**, be thoughtful about what you are doing. Know your code. Copilot is generative AI and can hallucinate non-working or improper code suggestions.

Especially note if you have been using GitHub *for Individuals,* to be certain you are using GitHub for Business (HP’s enterprise relationship) before you interact with HP source code in the context of the Copilot plugin.

And finally, once more: be careful with AI-generated source code. Not all AI suggestions are good or safe. Review all code, and ensure you understand and can stand behind the code you source from Copilot’s suggestions.

Thanks,

Evan ([evan@hp.com](mailto:evan@hp.com)) and the [SW AI CoE](https://hp.io/swai) Team

*“Wait, what about the newest ‘Chat’ feature of Copilot? Can we use Copilot Chat now?”*

Yes, Copilot Chat is enabled as of 31 August 2023.

NOTE: GitHub Copilot Chat does not replace the base "auto-complete" code-suggestions behavior of Copilot. The chat UX panel in the IDE is supplementary, and optional.

NOTE: the GitHub Copilot Chat AI-powered pair-programming features are **ENTIRELY OPTIONAL** because as of Sept 2023 Copilot X/Chat features are **PRERELEASE** and **UNSUPPORTED**. Full-scale code errors and AI hallucinations are possible. Be thoughtful, and if you don’t want to explore use of prerelease technology, don’t install the additional Copilot Chat extension into your IDE. If you do install it and it proves a distraction, then back off and consider not using the Chat UX, or at least don’t use it in a manner where it writes blocks of code for you, or edits files en masse. To start it can be helpful only as an ‘explainer’ assistant.

It is NOT the position of the HP Software AI team that HP developers *should* use GitHub Copilot Chat; only that you *may* use it at your own discretion. Docs for Copilot Chat (separate plugin) install: <https://docs.github.com/en/copilot/github-copilot-chat/using-github-copilot-chat>

**FAQ for Copilot @ HP** (*our FAQ at* <https://hp.io/swai> is kept more up to date than these items here):

1. **Q**: Where can I learn more about how to get started with GitHub Copilot?  
   **A**:
   * [**https://docs.github.com/en/copilot/getting-started-with-github-copilot**](https://docs.github.com/en/copilot/getting-started-with-github-copilot)
   * <https://www.youtube.com/watch?v=Fi3AJZZregIand> (VSC)
   * <https://www.youtube.com/watch?v=XrCP8v2pg8w> (VSE 2022)
   * "Introduction to GitHub Copilot" from Microsoft's main Training site: <https://learn.microsoft.com/en-us/training/modules/introduction-to-github-copilot/>
   * "Pragmatic techniques to get the most out of GitHub Copilot" from MS Build 2023, with Burke Holland and Allison Weins: <https://www.youtube.com/watch?v=CwAzIpc4AnA>
   * Official GitHub blog post - "How to use GitHub Copilot: Prompts, tips, and use cases" <https://github.blog/2023-06-20-how-to-write-better-prompts-for-github-copilot/>
2. **Q**: Can I use GitHub Copilot Labs? (<https://githubnext.com/projects/copilot-labs/>)  
   **A**: Yes you can, although first you will have to sign up for it separately, opting into the conditions of Copilot Labs’ “GitHub Next Pre-Release License Terms” - <https://github.com/githubnext/githubnext/blob/main/TERMS_AND_CONDITIONS.md>   
   The HP Copilot Pilot team sought council from HP Legal about those terms and their click-wrapped nature. Conclusion is you are welcome to use these options.  
   Note: the experimental nature of the Labs’ capabilities means they may be unfinished or buggy.  
   Be especially considerate about potential risk to HP source-code in the context of Copilot technical-preview features.
3. **Q**: Can I use GitHub Copilot-X? (<https://github.com/features/preview/copilot-x>)  
   **A:** GitHub Copilot X set of features are pre-release, not yet 'generally available' as of September 2023, and is thus unsupported. The FAQ on <https://hp.io/swai> explains more - see the FAQ entry "*Can I use Copilot-X, Copilot Labs, or Copilot Chat pre-release add-ons?*"  
   Nonetheless, the short answer is (as of 31 August 2023): Yes, you may use Copilot Chat. Legal terms issues were resolved in late August, and the Copilot X/Chat feature was subsequently enabled for HP Inc.   
   **NOTE:** the GitHub Copilot-X/Chat sets of features are in a **PRERELEASE, UNSUPPORTED** status. Know that these available features are strictly OPTIONAL, to be used only with careful consideration and at the discretion of the user. It is NOT the position of the HP Software AI team that HP developers should use GitHub Copilot Chat; only that now, you may use it at your own discretion. Docs to learn more: <https://docs.github.com/en/copilot/github-copilot-chat/using-github-copilot-chat>Once Copilot Chat is GA and receives official product support we will be happy to endorse broad use; anticipate that happening in roughly November 2023.
4. **Q:** Can I use the Copilot Chat add-on extension? (<https://marketplace.visualstudio.com/items?itemName=GitHub.copilot-chat>)  
   **A:** GitHub Copilot Chat feature of GitHub Copilot for Business is pre-release, not yet 'generally available' as of September 2023, and is thus unsupported. The FAQ on <https://hp.io/swai> explains more - see the FAQ entry "*Can I use Copilot-X, Copilot Labs, or Copilot Chat pre-release add-ons?*"  
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5. **Q:** Does Copilot get smarter and offer better suggestions when I have more files open in my IDE?  
   **A:** Yes, the feature is known as "neighboring tabs". Copilot will consult other open tabs, and/or files in the project to try to build as much context in the prompt. See: <https://github.blog/2023-05-17-how-github-copilot-is-getting-better-at-understanding-your-code/>
6. **Q:** I heard that GitHub Copilot was trained on public source code. Do I need to perform any special security reviews or approvals if I use Copilot while developing HP commercial software?  
   **A:** No, you do not need to incorporate any new Copilot-specific security reviews or approvals. We have already reviewed GitHub Copilot with HP Cyber, and we are using the enterprise-wide filter for matching and suppressing code suggestions which match public code: <https://docs.github.com/en/copilot/configuring-github-copilot/configuring-github-copilot-settings-on-githubcom#configuring-github-copilot-settings-on-githubcom>
7. **Q**: Copilot seems to use github.com, but HP has used its own GitHub servers. Does this mean I can start to use github.com repos as SCM for my HP code?  
   **A**: No. Here’s what’s up: In recent years HP has consolidated source code version-control/SCM onto “GitHub Enterprise” as managed by [HP R&D IT](https://rndwiki.inc.hpicorp.net/confluence/display/RDIT/GitHub+Enterprise).

* R&D IT’s GitHub Enterprise Server: <https://github.azc.ext.hp.com/>
* Wiki home: <https://rndwiki.inc.hpicorp.net/confluence/display/RDIT/GitHub+Enterprise>
* Yammer Home: [web.yammer.com/main/groups/eyJfdHlwZSI6Ikdyb3VwIiwiaWQiOiI2NjAzMjc4In0](https://web.yammer.com/main/groups/eyJfdHlwZSI6Ikdyb3VwIiwiaWQiOiI2NjAzMjc4In0)

The HP R&D IT instance of GitHub Enterprise is known by Microsoft as “GitHub Enterprise Server” (‘GHES’) which is the product flavor of GitHub installed on-prem by customers like HP. This remains true today and going forward for at least the time being: HP source code is version-controlled on GHES, [github.azc.ext.hp.com](https://github.azc.ext.hp.com/).

GitHub Copilot is not technically compatible with GHES. That is where GitHub Enterprise Cloud (‘GHEC’) comes into play. GHEC is based around [github.com](https://github.com), the popular code-sharing and open source collaboration website. The github.com site is an as-a-Service cloud property, entirely outside of HP’s datacenter or infrastructural control. Microsoft is making a strategic push to standardize its ‘GitHub Enterprise’ product-service into a cloud-native location, and github.com is the natural property for which Microsoft to base its central VCS cloud product. Copilot, the AI pair-programming assistant, is licensable to both non-enterprise (“for Individuals”) and enterprise (“for Business”) users alike through GHEC and github.com. For HP that means you will have a login on github.com which uses your @hp.com email address and which authenticates you via HP Single Sign-On through HP’s own OneUID. Note that you may also already have a truly personal github.com account using a personal email address or maybe even an unaffiliated personal account on github.com which uses your @hp.com email address. This is not the account you will be using for GHEC and GitHub Copilot. You can test this via the URL: [**https://github.com/enterprises/hpi-emu**](https://github.com/enterprises/hpi-emu)

**The tl;dr: you will continue to use** [**https://github.azc.ext.hp.com**](https://github.azc.ext.hp.com/) **for version-control and source code management. GitHub Copilot, *but only Copilot,* will use GitHub Enterprise Cloud at github.com**.