Implementing Progressive Disclosure in the Test-Runner VSCode Extension

The primary goal of the Test-Runner VSCode extension is to make code testing easier for students and professors, however the interface may be too much for beginners who are unfamiliar with programming tools or environments. In order to combat this problem we suggest applying an UI design pattern known as "Progressive Disclosure", where information and functionalities are shown gradually when needed.

Just think about a student who has never programmed before in their life and just downloaded this extension. Instead of being presented with some convoluted interface, they see a warm welcome on their screen introducing what this extension does and why it is useful. Maybe even have a short tutorial video or interactive guide that walks them through the basic workflow so they can ease into it.

From there, the tasks would be broken down into simple steps. For example there might be separate sections which guide you through installing dependencies, connecting to GitHub, selecting tests to run and interpreting results etc., each accompanied by clear instructions and visual cues so there's no confusion along the way.

In order for users to find additional information regarding particular elements or processes, they should add some Tips or hints into the interface. Either by hovering over buttons and icons and going to help section, it will be possible for them to know their respective next steps without any confusion or frustration.

For more advanced features or settings, expandable areas could be used which hide complex options from new users while allowing experienced ones to access them if necessary – this ensures simplicity doesn't come at the cost of functionality.

User experience would be greatly improved through gradual revealing of functionality combined with well thought-out visual design cues, clear feedback mechanisms and some degree of customization options. This approach decreases mental effort required from the user side while increasing learning potential and task performance efficiency resulting in higher satisfaction rates among product adopters. These ideas can turn Test-Runner into a truly useful extension for students and teachers alike thus creating more engaging programming courses.

References

What are User Interface (UI) Design Patterns? (2024, April 19). The Interaction Design

Foundation. https://www.interaction-design.org/literature/topics/ui-design-patterns