IDE-IT Frontend

Introduction and User Manual

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Quick Links:

1 Introduction

1.1 Motivation

The Eclipse IDE provides helpful user interfaces and features for authoring, modifying, compiling, deploying, and debugging software. However, due to low accessibility and awareness of these tools and features, only a small number of these powerful IDE functionalities get used. Additionally, many developers find that many tools in their IDEs are not trivial to configure, and this prevents them from using the tool at all. The aim of the Integrated Development Environment - Intelligent Tutorials (IDE-IT) is to improve the discoverability of existing IDE tools and shortcuts, by providing developers non-invasive suggestions on Eclipse features that they may not be aware of.

1.2 IDE-IT Frontend

This repository / plugin is specifically for the frontend service of IDE-IT. This is not designed to be a standalone plugin. It requires a the use of a backend service that tracks user action such as document changes, key presses, and mouse clicks, and then performs the evaluation of which hotkeys and configurations to suggest. We recommend the IDE-IT backend plugin, located at https://github.com/DavidThien/IDE-IT, as this framework is built specifically for IDE-IT. If you would like to use your own custom backend framework, see below on how to incorporate our service to your own plugin.

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2 Installation

This section provides the instruction for installing IDE-IT Frontend.

1. Clone this repository to your local machine

2. Build the plugin locally using gradle:

    ./gradlew clean build

3. Open Eclipse

4. From the menu choose: Help|Install New Software
5. Click the Add button
6. In the Add Repository dialog that appears, click the Archive button next to the Location field
7. Select your plugin file, click OK
8. Restart Eclipse

If the IDE-IT window does not appear right away, it can be made visible by going to the Window drop down menu. From here, select Show View, and then choose the Other option. From the list of folders that appears, under the IDE-IT Plug-in folder, select the IDE-IT option. Then, click Open.

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3 Using IDE-IT Frontend

To use this plugin first make sure the IDE-IT window is visible in your IDE, if it is not visible finish the steps in Installation above. Once the window is visible, just begin working on your project. The window will update based on patterns in your keystrokes with hotkey tips and

features you might want to enable or disable.

3.1 Window Appearance

Tool enable/disable suggestions appear with a checkbox next to a text description of the tool. Hotkey tips appear with a lightbulb icon next to a text description of the hotkey/shortcut.

3.2 Enabling/Disabling Suggested Congfigurations

Simply check or uncheck the box next to the tool you would like to enable or disable.

3.3 Using Suggested Hotkeys

Next to the lightbulb icons will be suggested hotkeys, these are keyboard shortcuts that might make your coding experience easier and quicker.

3.4 Removing unwanted suggestions

If you do not wish to see a hotkey tip or are not interested in an enable/disable feature, simply click the "X" on the right side of that tip or tool and it will not show up again.

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4 API to Register Other Backends

This plugin is specifically for the front-end of IDE-IT. It requires a back-end service that tracks document changes within the Eclipse IDE to provide a list of feature suggestions to this plugin. The recommended back-end service for this plugin is the IDE-IT back-end plugin, located at https://github.com/DavidThien/IDE-IT. If you would like to use a different back-end service, see how to do so below.

The front-end depends on a FeatureSuggestionObserver abstract class and a FeatureSuggestionInterface abstract class. You should include these abstract classes within your project when you implement your own observers.

The observers are notified with a string that uniquely identifies each Eclipse feature. Create a file named featureIDStrings.txt in the root folder of your repository with the features you want to include. Be sure to add documentation of the hotkey shortcut or configuration setting that corresponds to each feature ID. Create a new issue within this repository if you add additional features to suggest. Otherwise, use the same feature IDs present in the current tool.

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5 Reporting Bugs

If you find any bugs in our plugin, please submit an issue to our GitHub page:https://github.com/AlyssaRicketts/IDE-IT-Frontend/issues with the following information:

- Eclipse Version located by going to Eclipse|About Eclipse.
- A brief description of the bug.
- Specific steps to recreate the bug.
- (Optional) A screen shot of the bug.

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