

Software Design Pattern: Assignment 4

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Design Patterns:

1. Adapter: The ConfigManagerXML class is an adapter to the ConfigManagerDefault class.
2. Singleton: Both WindowManager and ComponentFactoryProducer classes are singleton classes, containing private constructors and static instances.
3. Abstract Factory: The ComponentFactory class follows the abstract factory pattern, since it is an interface implemented by individual factories of Java Abstract Window Toolkit components (buttons, textboxes or editboxes).

List of assumptions:

1. The user can provide the configurations of UI components from an XML file or a text file, both of which must be in the same directory as the App class.
2. The color change instruction in the assignment has been interpreted as the change of colors of the text on the UI components (buttons, textboxes or editboxes).
3. The user can specify the textual content of the components(labels for buttons, contents of textboxes and editboxes), their X and Y coordinates, their width and height, their background and foreground colors from the config source file.
4. The user can run the application by typing the following commands in the source directory:
`javac *.java`
`java App5_7`