Design Patterns

First *design pattern*: <u>Adapter Pattern</u>

```
/**
 * Adapter class for the latex2unicode lib. This is an alternative to
our LatexToUnicode class
 */
public class LatexToUnicodeAdapter {

        ...
```

This adapter design pattern can be found in **jabref > model > strings > LatexToUnicodeAdapter.**

This class acts as an adapter class, which converts LaTeX into Unicode characters, in order for those strings to be compatible with other classes.

Second *design pattern*: <u>Facade Pattern</u>

```
/**
 * Facade to unify the access to the citation style engine. Use these
methods if you need rendered BibTeX item(s) in a
 * given journal style. This class uses {@link CSLAdapter} to create
output.
 */
public class CitationStyleGenerator {

        ...
```

This facade design pattern can be found in **jabref > logic > citationstyle > CitationStyleGenerator.**

This class acts as a wrapper class that unifies the whole "citation style engine"-related classes.

Third *design pattern*: <u>Factory Pattern</u>

```
/**
 * Helper class to create and style controls according to an {@link
Action}.
 */
public class ActionFactory {

        ...
```

This factory design pattern can be found in **jabref > gui > actions > ActionFactory.**

This class's purpose is to hide the creation of instances of a given type (in this case, menus, items, icons, etc) behind an interface.

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```