**SMELL PATERNS**

* **Duplicate Code**

**Location**: ganttproject\src\main\java\net\sourceforge\ganttproject\undo (line 77-186)

**Class:** UndoableEditlmpl.java

**Code Snipped:**

**Uma imagem com texto

Descrição gerada automaticamenteUma imagem com texto

Descrição gerada automaticamente**

**Explanation:** These methods have with almost the same code.

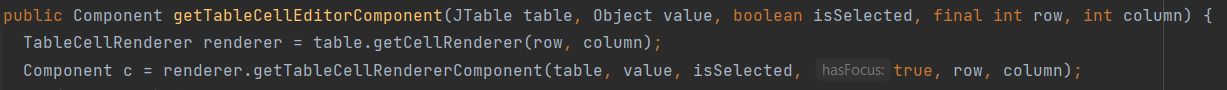
**Refactoring idea**: Create a new auxiliar method, with these code(of 1 method) and a parameter(ex: boolean true > “undo” false -> “redo”) with an if inside the second(“try..catch”) with a condition to choose the “ProjectDatabaseTxn.undo()” or “ProjectDatabaseTxn.redo()” call, the other part it´s just the same.

* **Long Parameter List**

**Location:** ganttproject\src\main\java\net\sourceforge\ganttproject\calendar (line 208)

**Class:** CalendarEditorPanel.java

**Code Snipped:**

****

**Explanation:** There is a very long parameter list of the function “getTableCellEditorComponent”.

**Refactoring idea**: Pass by parameter of the function only the “Component” object, that has 5 of the parameters passed through.

The “render” object is only useful to create c, and the row and value parameters that are used in the function we could call with a get function of component class. This would turn the code shorter and without not useful object creations, like “render”.

* **Long Method**

**Location:** ganttproject\src\main\java\net\sourceforge\ganttproject\document (line 118-161)

**Class:** DocumentCreator.java

**Code Snipped:**

**Uma imagem com texto

Descrição gerada automaticamente**

**Uma imagem com texto

Descrição gerada automaticamente**

Explanation: There is a very long method, confusing and imperceptible.

**Refactoring idea:** Add new auxiliar methods for the different tasks of this big method and do some “document” and “file” verifications at those specific classes.

By: Ana Maissa Antunes