

Research Project Questionnaire

The purpose of this questionnaire is just to understand and get a clear picture of what kind of elements you would select as a developer to carry out a certain refactoring. Also, to know what kind of code smells would be associated with that selected element for that specific refactoring.

INSTRUCTIONS

1. For questions 1 to 10, the referenced software should be downloaded from “dig.cs.illinois.edu/tools/RefactoringCrawler/Struts11.zip” and “dig.cs.illinois.edu/tools/RefactoringCrawler/Struts124.zip”
 - **For “Struts11.zip”**
 - Use this to carry out the refactorings
 - Import it into eclipse
 - The packages and files on which the refactorings should be carried out on are located in the “share” sub folder of the whole project folder
 - **For “Struts124.zip”**
 - Use this just to see what kind of results you should get after a specific refactoring
 - Import it into eclipse
 - The packages and files for result confirmation are located in the “share” sub folder of the whole project folder
2. For questions 11 to 14, the reference software would be given (link yet to be decided)
 - **For Hibernate-release-4.0.0.Beta2**
 - Use this to carry out the refactorings
 - Import it into eclipse
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 - **For Hibernate-release-4.0.0.Beta2**
 - Use this just to see what kind of results you should get after a specific refactoring
 - Import it into eclipse

QUESTIONS

1. **Rename Class Refactoring:** what kind of element would you select to rename the class “org.apache.struts.tiles.UntypedAttribute” to “org.apache.struts.tiles.UntypedAttribute”?

- A. Package Name**
- B. Method Name**
- C. Class Name**
- D. Field**

2. For the Rename Class in 1, what code smell would make you select that element?

3. **Rename Method Refactoring:** what kind of element would you select to rename the method

“org.apache.struts.tiles.UrlController.perform(ComponentContext,HttpServletRequest, HttpServletResponse,ServletContext)” to
“org.apache.struts.tiles.UrlController.execute(ComponentContext,HttpServletRequest, HttpServletResponse,ServletContext)”

- A. Class Name**
- B. Field**
- C. Method Name**
- D. Method Parameters**

4. For the Rename Method in 3, what code smell would make you select that element?

5. **Pull Up Method:** what kind of element would you select to pull up the method “org.apache.struts.action.ActionMapping.findException(Class)” from the “ActionMapping” class to
(“org.apache.struts.config.ActionConfig.findException(Class)”) “ActionConfig” class?

- A. Method Name**

- B. Class Name**
- C. Static field**
- D. Package Name**

6. For the Pull Up Method in 5, what code smell would make you select that element?

7. **Move Method Refactoring:** what kind of element would you select to move the method “org.apache.struts.util.RequestUtils.SelectModule(String, HttpServletRequest, ServletContext)” to the class “ModuleUtils” in “org.apache.struts.util.ModuleUtilsUtils.SelectModule(String, HttpServletRequest, ServletContext)”?

- A. Static Field**
- B. Class Name**
- C. Method Name**
- D. Variables**

8. For the Move Method in 5, what code smell would make you select that element?

9. **Change Method Signature Refactoring:** what element would you select to change the method parameters of “org.apache.struts.taglib.html.FrameTag.setMarginheight(int)” to “org.apache.struts.taglib.html.FrameTag.setMarginheight(integer)”?

- A. Method Name**
- B. Method Parameters**
- C. Class Name**
- D. Static Field**

10. For the Change Method Signature in 9, what code smell would make you select that element?

11. **Push Down Method Refactoring:** what kind of element would you select to push down the method “getIdType()” from the class “ConfigureClass” in “org.hibernate.metamodel.source.annotations.entity.ConfiguredClass.getIdType()” to the Class “EntityClass” in “org.hibernate.metamodel.source.annotations.entity.ConfiguredClass.getIdType()”?

- A. Package Name
- B. Method Name
- C. Class Name
- D. Method Parameters

12. For the Push Down Method in 11, what code smell would make you select that element?

13. **Rename Package Refactoring:** what kind of element would you select to rename the package “org.hibernate.metamodel.source.annotations.entity.state.relational” to “org.hibernate.metamodel.source.annotations.attribute.state.relational”?

- A. Class Name
- B. Package Name
- C. Static Field
- D. Method Name

14. For the Rename Package in 13, what code smell would make you select that element?

15. Of all the above Seven Refactorings which one do you normally carry out and why?
