CODEPRO

Some of the salient features

- Static code analysis
- Defect detection, repair and reporting
- Automated JUnit test
- Mock Objects support
- JUnit Testing for Spring, Struts, JSF and EJB frameworks
  Error/Warning/Info can be changed for every item.
- Unnecessary Import
- Duplicate Import
- Empty Try or Catch Statements
- Comparison of strings using ==
- Float Comparisons
- JUnit test editor
- Analysis and reporting for duplicate code, dead code and dependencies
- Code metrics with drilldown & triggers
- Code coverage analysis

Project 1: Bus

Problems identified by the Tool	Actual Errors	False Alarms	Justify
13xDuplicate Import Declaration	No	Yes	They are not errors, just warning of a good programming practice
12Empty Catch Clause	No	Yes	This rule finds places where an exception is caught and nothing is done. It can be configured to allow the existence of a comment to substitute for actual Java code.
7xImport of implicit package	No	Yes	This audit rule checks to ensure that none of the import declarations imports from a package that is implicitly imported (either java.lang or the package containing the compilation unit being audited).
Unnecessary import declarations	No	Yes	There should not be imports for types or packages that are not referenced.	

False Positive : 22

True Positive : 0

Precision : 0

Project 4

Problems identified by the Tool	Actual Errors	False Alarms	Justify
5 x caught exception not logged	No	Yes	An exception has been caught but not logged.

False Positive: 5;
True Positive : 0
Precision : 0

FindBugs

Project 1

Problems identified by the Tool	Actual Errors	False Alarms	Justify
Method names start with upper case letter * 6	No	Yes	Methods are expected to have an Uppercase start
Empty field * 4	Yes	No	An empty field can cause serious void errors
Reading protected field * 1	Yes	No	Reading of protected field is a severe error which results in non execution of program
Use of static classes	No	No	This is just a programming paradigm to avoid using static classes and go fully OOP

True Positive: 5
False Positive: 6
Precision : 5/11 = 0.45

Project 4

Problems identified by the Tool	Actual Errors	False Alarms	Justify

This tool was unable to find any errors in the code.

```
Description Resource     Path     Location     Type
AddNewEntry cannot be resolved to a type     Employee.java    /Jojo/src     line 93
Java Problem
Connect cannot be resolved  AddEntry.java    /Jojo/src    line 172     Java
Problem
Connect cannot be resolved  AddEntry.java    /Jojo/src    line 211     Java
Problem
Connect cannot be resolved  AddEntry.java    /Jojo/src    line 261     Java
Problem
Connect cannot be resolved  Booking_report.java /Jojo/src    line 95 Java
Problem
Connect cannot be resolved  Booking_report.java /Jojo/src    line 114     Java
Problem
Connect cannot be resolved  Bus_Details.java     /Jojo/src    line 100     Java
Problem
Connect cannot be resolved  Bus_Details.java     /Jojo/src    line 126     Java
Problem
Connect cannot be resolved  Employee.java    /Jojo/src     line 85 Java Problem
Connect cannot be resolved  Employee.java    /Jojo/src    line 194     Java
Problem
Connect cannot be resolved  Main.java    /Jojo/src    line 78 Java Problem
Connect cannot be resolved  Main.java    /Jojo/src    line 180     Java Problem
Connect cannot be resolved  NewUser.java     /Jojo/src    line 136     Java
Problem
```

```
Connect cannot be resolved    PASS.java    /Jojo/src    line 73 Java Problem
Connect cannot be resolved    PASS.java    /Jojo/src    line 169    Java Problem
Connect cannot be resolved    Receipt.java    /Jojo/src    line 83 Java Problem
Connect cannot be resolved    Schedule.java    /Jojo/src    line 168    Java
Problem
Connect cannot be resolved    Schedule.java    /Jojo/src    line 245    Java
Problem
Connect cannot be resolved    Schedule.java    /Jojo/src    line 258    Java
Problem
Connect cannot be resolved    Schedule.java    /Jojo/src    line 273    Java
Problem
Connect cannot be resolved    Schedule.java    /Jojo/src    line 294    Java
Problem
Connect cannot be resolved    Schedule.java    /Jojo/src    line 327    Java
Problem
Connect cannot be resolved    Scheduling_report.java  /Jojo/src    line 94 Java
Problem
Connect cannot be resolved    Scheduling_report.java  /Jojo/src    line 113
Java Problem
Connect cannot be resolved    Show_schedules.java /Jojo/src    line 75 Java
Problem
Connect cannot be resolved    Show_schedules.java /Jojo/src    line 81 Java
Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 65
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 67
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 69
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 99
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 99
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 100
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 100
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 101
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 101
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 102
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 103
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 104
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 116
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 120
Java Problem
DateButton cannot be resolved to a type AddEntry.java    /Jojo/src    line 122
```

Java Problem
DateButton cannot be resolved to a type AddEntry.java   /Jojo/src   line 213
Java Problem
DateButton cannot be resolved to a type AddEntry.java   /Jojo/src   line 213
Java Problem
DateButton cannot be resolved to a type AddEntry.java   /Jojo/src   line 213
Java Problem
DateButton cannot be resolved to a type AddEntry.java   /Jojo/src   line 237
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 63
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 109
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 109
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 147
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 292
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 292
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 329
Java Problem
DateButton cannot be resolved to a type Schedule.java   /Jojo/src   line 331
Java Problem
employee_report cannot be resolved to a type   Employee.java   /Jojo/src
line 111   Java Problem
LoginScreen cannot be resolved to a type   AddEntry.java   /Jojo/src   line
278   Java Problem
LoginScreen cannot be resolved to a type   Employee.java   /Jojo/src   line
188   Java Problem
LoginScreen cannot be resolved to a type   Main.java   /Jojo/src   line 250
Java Problem
LoginScreen cannot be resolved to a type   PASS.java   /Jojo/src   line 192
Java Problem
LoginScreen cannot be resolved to a type   Show_schedules.java /Jojo/src
line 172   Java Problem
MainMenu cannot be resolved to a type   NewUser.java   /Jojo/src   line 159
Java Problem
MainMenu cannot be resolved to a type   Schedule.java   /Jojo/src   line 286
Java Problem
NewEntry cannot be resolved to a type   Employee.java   /Jojo/src   line 99
Java Problem
Passenger cannot be resolved to a type PASS.java   /Jojo/src   line 81 Java
Problem
Payment cannot be resolved to a type   Receipt.java   /Jojo/src   line 117
Java Problem
Payment cannot be resolved to a type   Receipt.java   /Jojo/src   line 118
Java Problem
Payment cannot be resolved to a type   Receipt.java   /Jojo/src   line 119
Java Problem

Payment cannot be resolved to a type   Receipt.java   /Jojo/src   line 120
Java Problem
Payment cannot be resolved to a type   Receipt.java   /Jojo/src   line 121
Java Problem
Payment cannot be resolved to a type   Receipt.java   /Jojo/src   line 122
Java Problem
Up_date_Pass cannot be resolved to a type   PASS.java   /Jojo/src   line 101
Java Problem
UpdateEntry cannot be resolved to a type   Main.java   /Jojo/src   line 112
Java Problem
Build path specifies execution environment JavaSE-1.7. There are no JREs
installed in the workspace that are strictly compatible with this environment.
Jojo   Build path JRE System Library Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Booking_report.java /Jojo/src   line 26 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Bus_Details.java   /Jojo/src   line 31 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   NewUser.java   /Jojo/src   line 43 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   NewUser.java   /Jojo/src   line 59 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 37 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 39 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 41 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 43 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 45 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 47 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 49 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 97 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 98 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 99 Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 100   Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 101   Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 102   Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Schedule.java   /Jojo/src   line 104   Java Problem
JComboBox is a raw type. References to generic type JComboBox<E> should be
parameterized   Scheduling_report.java /Jojo/src   line 25 Java Problem
Read of unwritten public or protected field imageIcon in new Receipt$1(Receipt)

[Troubling(14), Normal confidence] Receipt.java   /Jojo/src   line 100
FindBugs Problem (Troubling)
The import java.awt is never used   Receipt.java   /Jojo/src   line 8 Java
Problem
The import java.awt.event is never used Receipt.java   /Jojo/src   line 9
Java Problem
The import java.sql is never used   Receipt.java   /Jojo/src   line 10 Java
Problem
The import java.text is never used Receipt.java   /Jojo/src   line 12 Java
Problem
The import java.util.Date is never used Receipt.java   /Jojo/src   line 13
Java Problem
The import javax.swing is never used   AddEntry.java   /Jojo/src   line 7
Java Problem
The import javax.swing is never used   Employee.java   /Jojo/src   line 7
Java Problem
The import javax.swing is never used   Main.java   /Jojo/src   line 7 Java
Problem
The import javax.swing is never used   NewUser.java   /Jojo/src   line 7
Java Problem
The import javax.swing is never used   PASS.java   /Jojo/src   line 7 Java
Problem
The import javax.swing is never used   Receipt.java   /Jojo/src   line 11
Java Problem
The import javax.swing is never used   Schedule.java   /Jojo/src   line 7
Java Problem
The import javax.swing is never used   Show_schedules.java /Jojo/src   line 7
Java Problem
The method getText() from the type JPasswordField is deprecated NewUser.java
/Jojo/src   line 120   Java Problem
The method getText() from the type JPasswordField is deprecated NewUser.java
/Jojo/src   line 120   Java Problem
The method getText() from the type JPasswordField is deprecated NewUser.java
/Jojo/src   line 125   Java Problem
The method getText() from the type JPasswordField is deprecated NewUser.java
/Jojo/src   line 125   Java Problem
The method getText() from the type JPasswordField is deprecated NewUser.java
/Jojo/src   line 130   Java Problem
The method getText() from the type JPasswordField is deprecated NewUser.java
/Jojo/src   line 130   Java Problem
The method getText() from the type JPasswordField is deprecated NewUser.java
/Jojo/src   line 138   Java Problem
The serializable class does not declare a static final serialVersionUID field
of type long Booking_report.java /Jojo/src   line 68 Java Problem
The serializable class does not declare a static final serialVersionUID field
of type long Bus_Details.java   /Jojo/src   line 73 Java Problem
The serializable class does not declare a static final serialVersionUID field
of type long Receipt.java   /Jojo/src   line 99 Java Problem
The serializable class does not declare a static final serialVersionUID field
of type long Scheduling_report.java /Jojo/src   line 67 Java Problem
The serializable class AbstractTable does not declare a static final

serialVersionUID field of type long   Employee.java   /Jojo/src   line 150
Java Problem
The serializable class AbstractTable does not declare a static final
serialVersionUID field of type long   Main.java   /Jojo/src   line 142   Java
Problem
The serializable class AbstractTable does not declare a static final
serialVersionUID field of type long   PASS.java   /Jojo/src   line 131   Java
Problem
The serializable class AbstractTable does not declare a static final
serialVersionUID field of type long   Show_schedules.java /Jojo/src   line 134
Java Problem
The serializable class AddEntry does not declare a static final
serialVersionUID field of type long AddEntry.java   /Jojo/src   line 14 Java
Problem
The serializable class Booking_report does not declare a static final
serialVersionUID field of type long   Booking_report.java /Jojo/src   line 11
Java Problem
The serializable class Bus_Details does not declare a static final
serialVersionUID field of type long Bus_Details.java   /Jojo/src   line 10
Java Problem
The serializable class Employee does not declare a static final
serialVersionUID field of type long Employee.java   /Jojo/src   line 14 Java
Problem
The serializable class Main does not declare a static final serialVersionUID
field of type long Main.java   /Jojo/src   line 16 Java Problem
The serializable class NewUser does not declare a static final serialVersionUID
field of type long NewUser.java   /Jojo/src   line 14 Java Problem
The serializable class PASS does not declare a static final serialVersionUID
field of type long PASS.java   /Jojo/src   line 15 Java Problem
The serializable class Receipt does not declare a static final serialVersionUID
field of type long Receipt.java   /Jojo/src   line 16 Java Problem
The serializable class Schedule does not declare a static final
serialVersionUID field of type long Schedule.java   /Jojo/src   line 16 Java
Problem
The serializable class Scheduling_report does not declare a static final
serialVersionUID field of type long   Scheduling_report.java /Jojo/src   line
10 Java Problem
The serializable class Show_schedules does not declare a static final
serialVersionUID field of type long   Show_schedules.java /Jojo/src   line 14
Java Problem
The value of the field Booking_report.dbcon is not used Booking_report.java
/Jojo/src   line 32 Java Problem
The value of the field Bus_Details.dbcon is not used   Bus_Details.java
/Jojo/src   line 37 Java Problem
The value of the field Employee.AddNew is not used Employee.java   /Jojo/src
line 41 Java Problem
The value of the field Employee.Clear is not used   Employee.java   /Jojo/src
line 49 Java Problem
The value of the field Employee.dbconn is not used Employee.java   /Jojo/src
line 59 Java Problem
The value of the field Employee.Exit is not used   Employee.java   /Jojo/src
line 51 Java Problem

The value of the field Employee.info is not used   Employee.java   /Jojo/src
line 61 Java Problem
The value of the field Employee.jButton3 is not used   Employee.java
/Jojo/src   line 35 Java Problem
The value of the field Employee.Remove is not used   Employee.java   /Jojo/src
line 45 Java Problem
The value of the field Employee.rowCnt is not used   Employee.java   /Jojo/src
line 53 Java Problem
The value of the field Employee.Search is not used   Employee.java   /Jojo/src
line 47 Java Problem
The value of the field Employee.Update is not used   Employee.java   /Jojo/src
line 43 Java Problem
The value of the field Main.dbconn is not used   Main.java   /Jojo/src   line 49
Java Problem
The value of the field Main.info is not used   Main.java   /Jojo/src   line 51
Java Problem
The value of the field Main.rowCnt is not used   Main.java   /Jojo/src   line 43
Java Problem
The value of the field Main.txtInfo is not used Main.java   /Jojo/src   line 47
Java Problem
The value of the field PASS.dbconn is not used   PASS.java   /Jojo/src   line 46
Java Problem
The value of the field PASS.info is not used   PASS.java   /Jojo/src   line 48
Java Problem
The value of the field PASS.rowCnt is not used   PASS.java   /Jojo/src   line 40
Java Problem
The value of the field PASS.txtInfo is not used PASS.java   /Jojo/src   line 44
Java Problem
The value of the field Receipt.dbcon is not used   Receipt.java   /Jojo/src
line 43 Java Problem
The value of the field Scheduling_report.dbcon is not used
Scheduling_report.java /Jojo/src   line 31 Java Problem
The value of the field Show_schedules.AddNew is not used   Show_schedules.java
/Jojo/src   line 35 Java Problem
The value of the field Show_schedules.Clear is not used Show_schedules.java
/Jojo/src   line 43 Java Problem
The value of the field Show_schedules.dbconn is not used   Show_schedules.java
/Jojo/src   line 53 Java Problem
The value of the field Show_schedules.Exit is not used Show_schedules.java
/Jojo/src   line 45 Java Problem
The value of the field Show_schedules.jButton2 is not used Show_schedules.java
/Jojo/src   line 31 Java Problem
The value of the field Show_schedules.Remove is not used   Show_schedules.java
/Jojo/src   line 39 Java Problem
The value of the field Show_schedules.rowCnt is not used   Show_schedules.java
/Jojo/src   line 47 Java Problem
The value of the field Show_schedules.Search is not used   Show_schedules.java
/Jojo/src   line 41 Java Problem
The value of the field Show_schedules.Update is not used   Show_schedules.java
/Jojo/src   line 37 Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.

References to generic type JComboBox<E> should be parameterized NewUser.java
/Jojo/src   line 75 Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized NewUser.java
/Jojo/src   line 76 Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized NewUser.java
/Jojo/src   line 77 Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 110   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 111   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 150   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 151   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 152   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 153   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 154   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 155   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 247   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 248   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 260   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 261   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 275   Java Problem
Type safety: The method addItem(Object) belongs to the raw type JComboBox.
References to generic type JComboBox<E> should be parameterized Schedule.java
/Jojo/src   line 276   Java Problem
Unwritten field: Employee.jTable [Troubling(12), Normal confidence]
Employee.java   /Jojo/src   line 133   FindBugs Problem (Troubling)

Unwritten field: Main.jTable [Troubling(12), Normal confidence] Main.java
/Jojo/src   line 125   FindBugs Problem (Troubling)
Unwritten field: PASS.jTable [Troubling(12), Normal confidence] PASS.java
/Jojo/src   line 114   FindBugs Problem (Troubling)
Unwritten field: Show_schedules.jTable [Troubling(12), Normal confidence]
Show_schedules.java /Jojo/src   line 117   FindBugs Problem (Troubling)