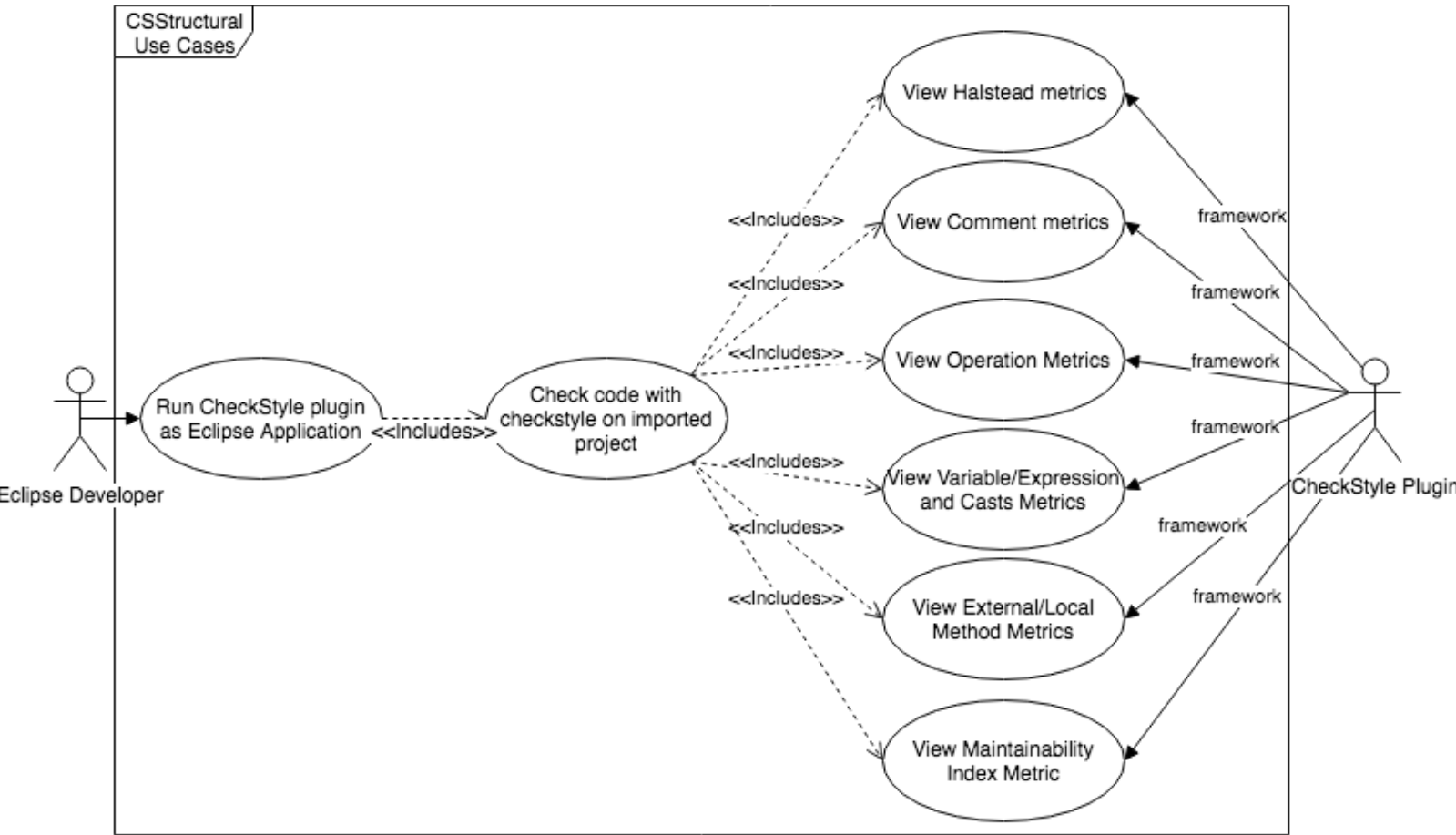


Use Case Diagram



### Run CheckStyle Plugin as Eclipse Application

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Run the CheckStyle plugin on java file</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>

### Check Code with CheckStyle on Imported Project

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Use the CheckStyle plugin to find all the structural metrics</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li><li>• CheckStyle plugin installed</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>

### View Halstead Metrics

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer, CheckStyle Plugin</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Output Halstead Length</li><li>• Output Halstead Vocabulary</li><li>• Output Halstead Volume</li><li>• Output Halstead Difficulty</li><li>• Output Halstead Effort</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li><li>• User must have run CheckStyle plugin</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>

### **View Comment Metrics**

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer, CheckStyle Plugin</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Output number of comments</li><li>• Output number of lines of comments</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li><li>• User must have run CheckStyle plugin</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>

### **View Operation Metrics**

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer, CheckStyle Plugin</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Output number of operands</li><li>• Output number of operators</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li><li>• User must have run CheckStyle plugin</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>

### **View Variable/Expression and Casts Metrics**

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer, CheckStyle Plugin</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Output number of expressions</li><li>• Output number of variable declarations</li><li>• Output number of casts</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li><li>• User must have run CheckStyle Plugin</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>

### **View External/Local Method Metrics**

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer, CheckStyle Plugin</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Output number of methods called from external class</li><li>• Output number of methods called from same class</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li><li>• User must have run CheckStyle Plugin</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>

### **View Maintainability Index Metrics**

Actors:	<ul style="list-style-type: none"><li>• Eclipse Developer, CheckStyle Plugin</li></ul>
Goal:	<ul style="list-style-type: none"><li>• Output Maintainability Index</li></ul>
Preconditions:	<ul style="list-style-type: none"><li>• Java file must exist</li><li>• User must have run CheckStyle Plugin</li></ul>
Scenarios:	<ul style="list-style-type: none"><li>• User wants to check structural metrics</li></ul>
Exceptions:	<ul style="list-style-type: none"><li>• None</li></ul>