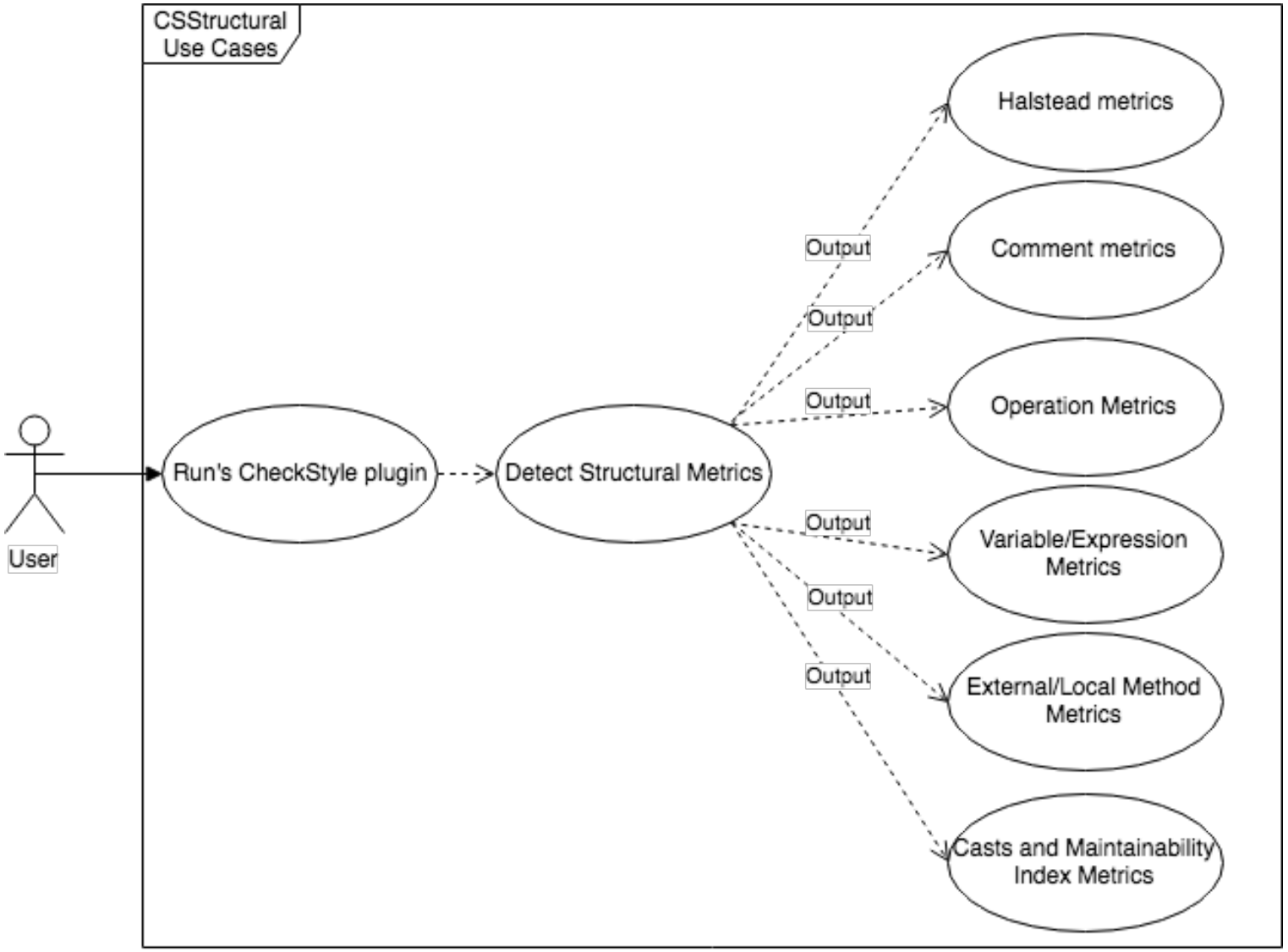
Use Case Diagram



Run CheckStyle Plugin

Actors:	• User
Goal:	• Run the CheckStyle plugin on java file
Preconditions:	• Java file must exist
Scenarios:	• User wants to check structural metrics
Exceptions:	• None

Detect Structural Metrics

Actors:	• User
Goal:	• Use the CheckStyle plugin to find all the structural metrics
Preconditions:	• Java file must exist • CheckStyle plugin installed
Scenarios:	• User wants to check structural metrics
Exceptions:	• None

Detect Halstead Metrics

Actors:	• User
Goal:	• Output Halstead Length • Output Halstead Vocabulary • Output Halstead Volume • Output Halstead Difficulty • Output Halstead Effort
Preconditions:	• Java file must exist • User must have run CheckStyle plugin
Scenarios:	• User wants to check structural metrics
Exceptions:	• None

Detect Comment Metrics

Actors:	• User
Goal:	• Output number of comments • Output number of lines of comments
Preconditions:	• Java file must exist • User must have run CheckStyle plugin
Scenarios:	• User wants to check structural metrics
Exceptions:	• None

Detect Operation Metrics

Actors:	• User
Goal:	• Output number of operands • Output number of operators
Preconditions:	• Java file must exist • User must have run CheckStyle plugin
Scenarios:	• User wants to check structural metrics
Exceptions:	• None

Detect Variable/Expression Metrics

Actors:	• User
Goal:	• Output number of expressions • Output number of variable declarations
Preconditions:	• Java file must exist • User must have run CheckStyle Plugin
Scenarios:	• User wants to check structural metrics
Exceptions:	• None

Detect External/Local Method Metrics

Actors:	• User
Goal:	• Output number of methods called from external class • Output number of methods called from same class
Preconditions:	• Java file must exist • User must have run CheckStyle Plugin
Scenarios:	• User wants to check structural metrics
Exceptions:	• None

Detect Casts and Maintainability Index Metrics

Actors:	• User
Goal:	• Output number of casts • Output Maintainability Index
Preconditions:	• Java file must exist • User must have run CheckStyle Plugin
Scenarios:	• User wants to check structural metrics
Exceptions:	• None