Lab Assignment - 5
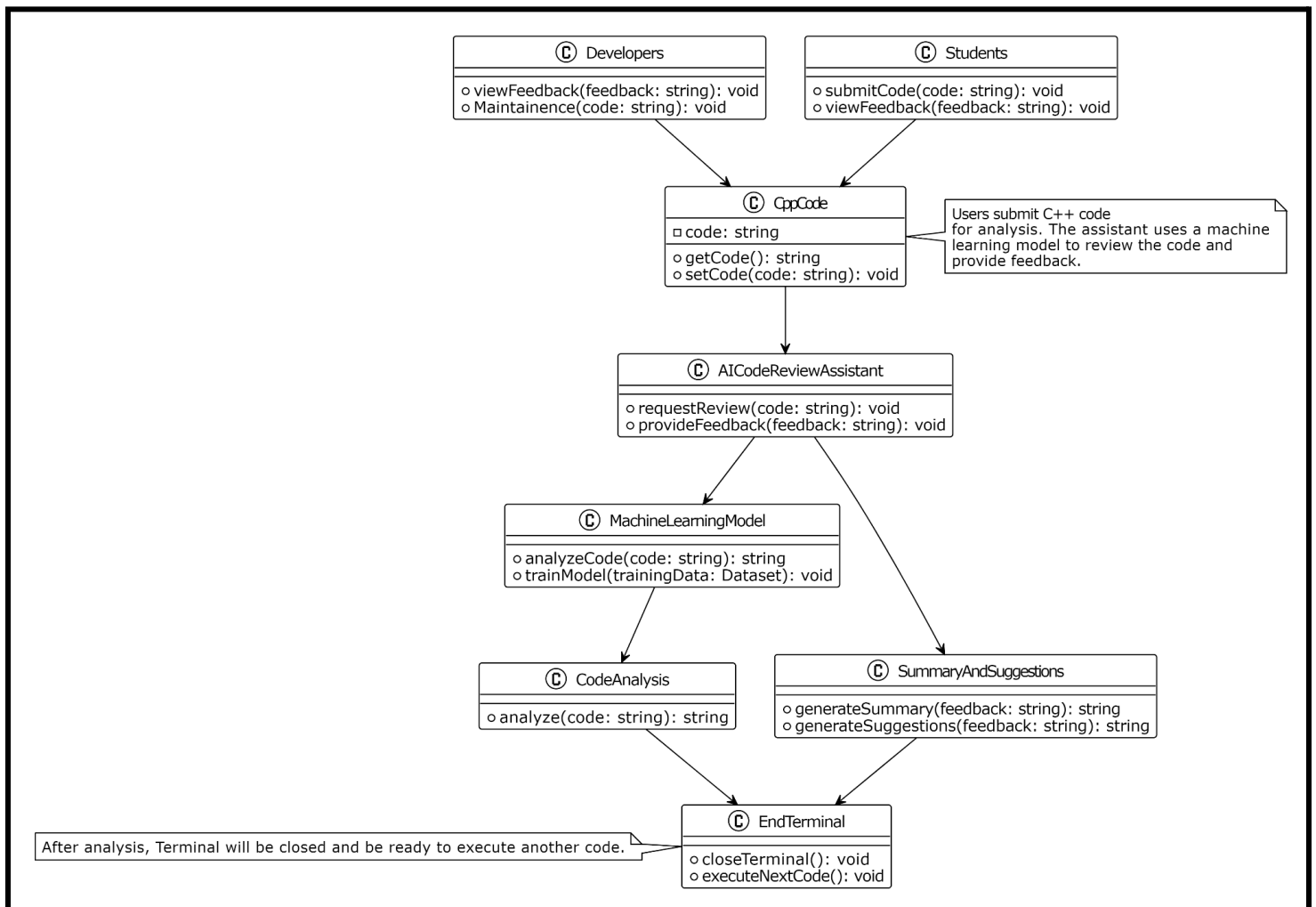
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Class Diagram

Developers

○ viewFeedback(feedback: string): void
○ Maintainence(code: string): void

Students

○ submitCode(code: string): void
○ viewFeedback(feedback: string): void

CppCode

□ code: string

○ getCode(): string
○ setCode(code: string): void

Users submit C++ code
for analysis. The assistant uses a machine
learning model to review the code and
provide feedback.

AICodeReviewAssistant

○ requestReview(code: string): void
○ provideFeedback(feedback: string): void

MachineLearningModel

○ analyzeCode(code: string): string
○ trainModel(trainingData: Dataset): void

CodeAnalysis

○ analyze(code: string): string

SummaryAndSuggestions

○ generateSummary(feedback: string): string
○ generateSuggestions(feedback: string): string

EndTerminal

○ closeTerminal(): void
○ executeNextCode(): void

After analysis, Terminal will be closed and be ready to execute another code.

Object Diagram

Developers
viewFeedback("Feedback for developers")
Maintainence("Code for maintenance")

Students
submitCode("Sample C++ code")
viewFeedback("Feedback for students")

CppCode
getCode(): "Sample C++ code"

Users submit C++ code
for analysis. The assistant uses a machine
learning model to review the code and
provide feedback.

AICodeReviewAssistant
requestReview("Sample C++ code")
provideFeedback("Feedback based on analysis")

MachineLearningModel
analyzeCode("Sample C++ code")
trainModel("Training data")

CodeAnalysis
analyze("Sample C++ code")

SummaryAndSuggestions
generateSummary("Analysis summary")
generateSuggestions("Feedback suggestions")

After analysis, Terminal will be closed and be ready to execute another code.

EndTerminal
closeTerminal()
executeNextCode()