

Name: *Orion Hess*

Assignment: 4

Complete and Correct:	.....	30 / 30
Testing:	.....	5 / 5
Clean Code:	.....	2 / 2
Writeup:	.....	3 / 3

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Total Score:	.....	40 / 40
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## Comments:

1. great job

## Unit test output:

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[INFO] Scanning for projects...
[INFO]
[INFO] -----< cpssc326:cpssc326-mycl >-----
[INFO] Building cpssc326-mycl 1
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ cpssc326-mycl ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/matt/Space/work/s25/cpssc326/hw4/hw4-imaducklol/src/main/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ cpssc326-mycl ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ cpssc326-mycl ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/matt/Space/work/s25/cpssc326/hw4/hw4-imaducklol/src/test/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ cpssc326-mycl ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 3 source files to /home/matt/Space/work/s25/cpssc326/hw4/hw4-imaducklol/target/test-classes
[INFO]
[INFO] --- maven-surefire-plugin:3.3.1:test (default-test) @ cpssc326-mycl ---
[INFO] Using auto detected provider org.apache.maven.surefire.junitplatform.JUnitPlatformProvider
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running cpssc326.HW4SemanticCheckerTests
[INFO] Tests run: 135, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.140 s -- in cpssc326.HW4SemanticCheckerTests
[INFO] cpssc326.HW4SemanticCheckerTests.illegalNonNullReturn -- Time elapsed: 0.019 s
[INFO] cpssc326.HW4SemanticCheckerTests.validInferredTypeVarStatements -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicIfStatements -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.badArrayAssignment -- Time elapsed: 0.007 s
[INFO] cpssc326.HW4SemanticCheckerTests.exprWithParens -- Time elapsed: 0.002 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalNonBoolElseIfCondition -- Time elapsed: 0.002 s
[INFO] cpssc326.HW4SemanticCheckerTests.lvalueWithWrongType -- Time elapsed: 0.002 s
[INFO] cpssc326.HW4SemanticCheckerTests.assignmentWithArrayTypeMismatch -- Time elapsed: 0.002 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicReadlnCalls -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.createArrayWithMismatchedBaseType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.getTooManyArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalBoolArrayWhileCondition -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicStructCreation -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalLogicalOrWithString -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.printlnTooFewArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicForStatements -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.rvalueWithBadArrayType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.mainWithParams -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.db1ValWrongReturnType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicCastFunctionCalls -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.getWrongReturnType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalNullIfCondition -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalBoolArrayIfCondition -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalArrayRelationalComparison -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicWhileStatements -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.combinedRelationalOperators -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.functionWithTwoSameNamedParams -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.structsMutualReference -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.structCreationTooManyArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalLogicalNegationWithInt -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.db1ValWrongArgType -- Time elapsed: 0 s
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[INFO] cpssc326.HW4SemanticCheckerTests.structCreationTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.mismatchedNonArrayIntVarStatementTypes -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.assignmentWithBaseTypeMismatch -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicGetFunctionCalls -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalNullInForFrom -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.sizeTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithWrongNonArrayArgType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.printArrayObject -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.functionWithStructParam -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.redefinedBuiltIn -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.functionWithBadReturnType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.printlnArrayObject -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.functionWithBadArrayParameterType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalAdditionWithIntAndArray -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.functionWithBadParameterType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicAssignmentStatements -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.exprWithNoParens -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.lvalueWithCorrectType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.printStructObject -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.structCreationWrongArgType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicSizeFunctionCalls -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalMultiplication -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalLogicalAndWithInt -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalNonArrayRelationalComparison -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.sizeWrongReturnType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.intValTooFewArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.validFullBaseTypeArrayVarStatements -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithTwoParamsAndTooManyArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.oneIllegalExecutionPath -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicFunctionCalls -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicStructPathExamples -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.twoFunctionsWithSameName -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.getWrongSecondArgType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalArrayWithAddition -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.arrayAccess -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.smallestValidProgram -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalLifetimeInElse -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.strValTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.mismatchedNonArrayDoubleVarStatementTypes -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.getWrongFirstArgType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicRelationalOperators -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.getTooFewArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalNonBoolIfCondition -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.callToUndeclaredFunction -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.strValTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalAdditionUsingBools -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.rvalueWithCorrectArrayType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.printTooFewArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalSubtractionWithNull -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.exprWithParensAndVars -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithWrongArrayReturnType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.structWithTwoFieldsHavingSameName -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.intValWrongReturnType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.arrayCreation -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.readlnWrongReturnType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.assignmentWithBaseTypeToArrayTypeMismatch -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.rvalueWithCorrectType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithWrongNonArrayReturnType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalBoolInForFrom -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.printlnStructObject -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.readlnTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalDoubleInForTo -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.strValWrongArgType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicFunctionReturnStatements -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.badArrayAccess -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.mismatchedArrayIntVarStatementTypes -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalLifetimeAfterWhile -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithTwoParamsAndTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.dblValTooFewArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.missingMain -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.localShadow -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.structSelfReference -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.twoStructsWithSameName -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.intValTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalIntWhileCondition -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.sizeTooFewArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicPrintCalls -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.validFunctionDefs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.rvalueWithWrongType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.callWithWrongArrayArgType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.arrayComparisons -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.createArrayWithMismatchedStructType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalLifetimeAfterFor -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.dblValTooManyArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.validFullBaseTypeVarStatements -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.illegalShadowing -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.structWithUndefinedFieldType -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.validVarStatementsWithoutDefs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.functionWithBadArrayReturnType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.printTooManyArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.unableToInferType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.basicAllowedShadowing -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.printlnTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.intValWrongArgType -- Time elapsed: 0 s
[INFO] cpssc326.HW4SemanticCheckerTests.validStructDefs -- Time elapsed: 0.001 s
[INFO] cpssc326.HW4SemanticCheckerTests.lvalueWithBadArrayType -- Time elapsed: 0 s
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[INFO] cp326.HW4SemanticCheckerTests.structAndFunctionWithSameName -- Time elapsed: 0 s
[INFO] cp326.HW4SemanticCheckerTests.sizeWrongArgType -- Time elapsed: 0 s
[INFO] cp326.HW4SemanticCheckerTests.strValWrongReturnType -- Time elapsed: 0.001 s
[INFO] cp326.HW4SemanticCheckerTests.mainWithWrongReturnType -- Time elapsed: 0 s
[INFO] cp326.HW4SemanticCheckerTests.callWithWrongArrayArgToNonArrayParamType -- Time elapsed: 0.001 s
[INFO] cp326.HW4SemanticCheckerTests.basicAssignmentToNull -- Time elapsed: 0 s
[INFO] Running cp326.SymbolTableTests
[INFO] Tests run: 5, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.003 s -- in cp326.SymbolTableTests
[INFO] cp326.SymbolTableTests.symbolTableMultipleAdds -- Time elapsed: 0.001 s
[INFO] cp326.SymbolTableTests.symbolTableMultipleEnvironments -- Time elapsed: 0.001 s
[INFO] cp326.SymbolTableTests.emptySymbolTable -- Time elapsed: 0 s
[INFO] cp326.SymbolTableTests.symbolTableSimpleAdd -- Time elapsed: 0 s
[INFO] cp326.SymbolTableTests.symbolTablePushAndPop -- Time elapsed: 0 s
[INFO] Running cp326.SemanticCheckerTests
[INFO] Tests run: 142, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.104 s -- in cp326.SemanticCheckerTests
[INFO] cp326.SemanticCheckerTests.illegalNonNullReturn -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.validInferredTypeVarStatements -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.basicIfStatements -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.badArrayAssignment -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.exprWithParens -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalNonBoolElseIfCondition -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.lvalueWithWrongType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.assignmentWithArrayTypeMismatch -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.basicReadInCalls -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.createArrayWithMismatchedBaseType -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.getTooManyArgs -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalBoolArrayWhileCondition -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.basicStructCreation -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.illegalLogicalOrWithString -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.printlnTooFewArgs -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.basicForStatements -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.rvalueWithBadArrayType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.mainWithParams -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.arrayAccessOnNonArrayInStruct -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.dblValWrongReturnType -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.basicCastFunctionCalls -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.getWrongReturnType -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.arrayAccessOfNonInt -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.arrayMain -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.illegalNullIfCondition -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.callWithTooManyArgs -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.illegalBoolArrayIfCondition -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.illegalArrayRelationalComparison -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.basicWhileStatements -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.combinedRelationalOperators -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.functionWithTwoSameNamedParams -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.structsMutualReference -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.structCreationTooManyArgs -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalLogicalNegationWithInt -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.dblValWrongArgType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.dereferenceNonStruct -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.structCreationTooFewArgs -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.mismatchedNonArrayIntVarStatementTypes -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.assignmentWithBaseTypeMismatch -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.basicGetFunctionCalls -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalNullInForFrom -- Time elapsed: 0.002 s
[INFO] cp326.SemanticCheckerTests.sizeTooManyArgs -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.callWithWrongNonArrayArgType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.printArrayObject -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.functionWithStructParam -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.redefinedBuiltIn -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.functionWithBadReturnType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.printlnArrayObject -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.functionWithBadArrayParameterType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.callWithTooFewArgs -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalAdditionWithIntAndArray -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.functionWithBadParameterType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.basicAssignmentStatements -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.unableToInfer -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.exprWithNoParens -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.lvalueWithCorrectType -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.printStructObject -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.structCreationWrongArgType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.basicSizeFunctionCalls -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.illegalMultiplication -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalLogicalAndWithInt -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalNonArrayRelationalComparison -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.sizeWrongReturnType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.intValTooFewArgs -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.validFullBaseTypeArrayVarStatements -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.callWithTwoParamsAndTooManyArgs -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.oneIllegalExecutionPath -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.basicFunctionCalls -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.basicStructPathExamples -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.twoFunctionsWithSameName -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.getWrongSecondArgType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalArrayWithAddition -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.arrayAccess -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.smallestValidProgram -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.illegalLifetimeInElse -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.strValTooManyArgs -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.mismatchedNonArrayDoubleVarStatementTypes -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.getWrongFirstArgType -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.basicRelationalOperators -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.arrayAccessOfNonIntPathExpr -- Time elapsed: 0 s
[INFO] cp326.SemanticCheckerTests.getTooFewArgs -- Time elapsed: 0.001 s
[INFO] cp326.SemanticCheckerTests.illegalNonBoolIfCondition -- Time elapsed: 0.001 s
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[INFO] cpssc326.SemanticCheckerTests.callToUndeclaredFunction -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.strValTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.illegalAdditionUsingBools -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.rvalueWithCorrectArrayType -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.printTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.illegalSubtractionWithNull -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.exprWithParensAndVars -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.callWithWrongArrayReturnType -- Time elapsed: 0.002 s
[INFO] cpssc326.SemanticCheckerTests.structWithTwoFieldsHavingSameName -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.intValWrongReturnType -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.arrayCreation -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.readlnWrongReturnType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.assignmentWithBaseTypeToArrayTypeMismatch -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.rvalueWithCorrectType -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.callWithWrongNonArrayReturnType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.illegalBoolInForFrom -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.printlnStructObject -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.readlnTooManyArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.illegalDoubleInForTo -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.strValWrongArgType -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.basicFunctionReturnStatements -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.badArrayAccess -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.mismatchedArrayIntVarStatementTypes -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.illegalLifetimeAfterWhile -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.callWithTwoParamsAndTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.dblValTooFewArgs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.dereferenceNonExtantField -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.missingMain -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.localShadow -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.structSelfReference -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.twoStructsWithSameName -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.intValTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.illegalIntWhileCondition -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.sizeTooFewArgs -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.basicPrintCalls -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.validFunctionDefs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.rvalueWithWrongType -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.callWithWrongArrayArgType -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.arrayComparisons -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.createArrayWithMismatchedStructType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.illegalLifetimeAfterFor -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.dblValTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.validFullBaseTypeVarStatements -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.illegalShadowing -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.structWithUndefinedFieldType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.validVarStatementsWithoutDefs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.functionWithBadArrayReturnType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.printTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.unableToInferType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.basicAllowedShadowing -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.printlnTooManyArgs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.intValWrongArgType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.validStructDefs -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.lvalueWithBadArrayType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.structAndFunctionWithSameName -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.sizeWrongArgType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.strValWrongReturnType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.mainWithWrongReturnType -- Time elapsed: 0.001 s
[INFO] cpssc326.SemanticCheckerTests.callWithWrongArrayArgToNonArrayParamType -- Time elapsed: 0 s
[INFO] cpssc326.SemanticCheckerTests.basicAssignmentToNull -- Time elapsed: 0 s
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 282, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 1.772 s
[INFO] Finished at: 2025-04-11T16:22:41-07:00
[INFO] -----

```

## Program output:

```

./mypl -m CHECK ../hw4_static_1.mypl 2>&1
No static errors found

./mypl -m CHECK ../hw4_static_2.mypl 2>&1
No static errors found

./mypl -m CHECK ../hw4_static_3.mypl 2>&1
No static errors found

./mypl -m CHECK ../hw4_static_4.mypl 2>&1
No static errors found

./mypl -m CHECK ../hw4_static_5.mypl 2>&1
No static errors found

./mypl -m CHECK ../hw4_static_6.mypl 2>&1
No static errors found

./mypl -m CHECK ../hw4_static_7.mypl 2>&1
No static errors found

```

```
./mypl -m CHECK ../hw4_static_8.myp1 2>&1  
No static errors found
```

```
./mypl -m CHECK ../hw4_static_9.myp1 2>&1  
No static errors found
```