Scanner

+ Scanner(File inputFile) : void + nextToken() : boolean + getToken() : TokenType + getLexeme() : String

TokenType

+ TokenType : enum

SymbolTable

+ SymbolTable(): void

+ getTableSize(): int

+ pushTable(): void

+ popTable() : void

+ add(String name, Kind kind):

+ exists(String lexeme):

boolean

+ getKind(String lexeme) : kind

+ toString(): String

Parser

+ Parser(String filename) : void

+ program(): ProgramNode

- identifier list():

ArrayList<VariableNode>

- declarations():

DeclarationsNode

- type() : TokenType

- standard type() : TokenType

- subprogram declarations():

SubProgramDeclarationsNode

- subprogram declaration():

SubProgramNode

- subprogram_head() :

SubProgramNode

- arguments():

ArrayList<VariableNode>

- parameter list():

ArrayList<VariableNode>

- compound statement():

CompoundStatementNode

- optional statements():

ArrayList<StatementNode>

- statement list():

ArrayList<StatementNode>

- statement() : StatementNode

- variable(): VariableNode

- procedure_statement() :

StatementNode

- expression list():

ArrayList<ExpressionNode>

- expression() : ExpressionNode

- simple_expression():

ExpressionNode

- simple part() : OperationNode

- term(): ExpressionNode

- term part() : OperationNode

- factor(): ExpressionNode

- sign(): TokenType

- error(): void

match(TokenType tokenType)

: void

Generator

+ Generator(String file) : void

+ generate(): String

+ dataCode(DeclarationsNode

declarations): String

+textCode(CompoundStatement

Node statements): void

+assignment(AssignmentStatem

entNode assignment): void

+ ifStatement(IfStatementNode

statement): void

+whileStatement(WhileStateme

ntNode statement) : void

+ operation(OperationNode

operation): void

+compoundStatement(Compou

ndStatementNode statements):

void

+ valueNode(ValueNode value)

: void

+ variableNode(VariableNode

variable): void

+ multiply(int rs, int rt, int

store): void

+ divide(int rs, int rt, int store):

oid.

+ plus(int rs, int rt, int store):

void

+ minus(int rs, int rt, int store):

void

+ lessThan(int rs, int rt, int

store): void

+ greaterThan(int rs, int rt, int

store): void

+ equals(int rs, int rt, int store):

void

+ lessThanEqual(int rs, int rt,

int store): void

+ greaterThanEqual(int rs, int

rt, int store): void

+ notEqual(int rs, int rt, int

store): void

+ read(ReadStatementNode

statement): void

+ write(WriteStatementNode

statement): void