

[illegible]

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Declaration Declaration CLASS ID LEFTBRACE Field Type ID . LexToken(SEMICOLON,',';1,445)
Declaration Declaration CLASS ID LEFTBRACE Field Variable . LexToken(SEMICOLON,',';1,445)
Declaration Declaration CLASS ID LEFTBRACE Field Variable SEMICOLON . LexToken(BOOLEAN,'boolean',1,448)
Declaration Declaration CLASS ID LEFTBRACE Field VariableDeclaration . LexToken(BOOLEAN,'boolean',1,448)
Declaration Declaration CLASS ID LEFTBRACE Field Field . LexToken(BOOLEAN,'boolean',1,448)
Declaration Declaration CLASS ID LEFTBRACE Field Field BOOLEAN . LexToken(ID,'flag',1,456)
Declaration Declaration CLASS ID LEFTBRACE Field Field Type . LexToken(ID,'flag',1,456)
Declaration Declaration CLASS ID LEFTBRACE Field Field Type ID . LexToken(SEMICOLON,',';1,460)
Declaration Declaration CLASS ID LEFTBRACE Field Field Variable . LexToken(SEMICOLON,',';1,460)
Declaration Declaration CLASS ID LEFTBRACE Field Field Variable SEMICOLON . LexToken(String,'string',1,463)
Declaration Declaration CLASS ID LEFTBRACE Field Field VariableDeclaration . LexToken(String,'string',1,463)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field . LexToken(String,'string',1,463)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field STRING . LexToken(ID,'s',1,470)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Type . LexToken(ID,'s',1,470)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Type ID . LexToken(SEMICOLON,',';1,471)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Variable . LexToken(SEMICOLON,',';1,471)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Variable SEMICOLON . LexToken(INT,'int',1,474)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field VariableDeclaration . LexToken(INT,'int',1,474)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field . LexToken(INT,'int',1,474)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field INT . LexToken(LEFTBRACKET,['',1,478)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type . LexToken(LEFTBRACKET,['',1,478)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type LEFTBRACKET . LexToken(RIGHTBRACKET,']',1,479)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type LEFTBRACKET RIGHTBRACKET . LexToken(ID,'a',1,481)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type . LexToken(ID,'a',1,481)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type ID . LexToken(SEMICOLON,',';1,482)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Variable . LexToken(SEMICOLON,',';1,482)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Variable SEMICOLON . LexToken(ID,'flag',1,485)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field VariableDeclaration . LexToken(ID,'flag',1,485)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Field . LexToken(ID,'flag',1,485)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Field ID . error
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field . error
Declaration Declaration CLASS ID LEFTBRACE Field Field . error
Declaration Declaration CLASS ID LEFTBRACE . error
Declaration . error
. LexToken(BOOLEANCONSTANT,'true',1,492)
. LexToken(ID,'Funny',1,499)
ID . LexToken(ASSIGNOP,'=',1,505)
. error
. LexToken(SEMICOLON,',';1,513)
. LexToken(ID,'funny',1,515)
ID . error
. LexToken(DOUBLECONSTANT,'123456.0E+7',1,523)
. LexToken(SEMICOLON,',';1,535)
. LexToken(ID,'s',1,538)
ID . error
. LexToken(STRINGCONSTANT,'"hello world"',1,542)
. LexToken(WHILE,'while',1,558)
. LexToken(ID,'x',1,565)
ID . LexToken(ASSIGNOP,'=',1,567)
. error
. LexToken(ID,'Funny',1,570)
ID . LexToken(DIVISION,'/',1,575)
. error
. LexToken(RIGHTPAREN,')',1,578)
. LexToken(INTCONSTANT,'0',1,581)
. LexToken(PRINTLN,'println',1,584)
. LexToken(ID,'s',1,593)
ID . LexToken(COMMA,',',1,594)
. error
. LexToken(RIGHTPAREN,')',1,609)
. LexToken(ID,'a',1,613)
ID . LexToken(ASSIGNOP,'=',1,615)
. error
. LexToken(LEFTPAREN,'(',1,626)
. LexToken(COMMA,',',1,629)
. LexToken(INT,'int',1,631)
INT . LexToken(RIGHTPAREN,')',1,634)
Type . error
. LexToken(SEMICOLON,',';1,635)
. $end

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Action
Shift and goto state 13
Reduce rule [Type -> INT] with ['int'] and goto state 8
Shift and goto state 19
Shift and goto state 26
Shift and goto state 13
Reduce rule [Type -> INT] with ['int'] and goto state 35
Shift and goto state 58
Reduce rule [Variable -> Type ID] with [None, 'x'] and goto state 39
Reduce rule [Formals -> Variable] with [None] and goto state 37
Shift and goto state 60
Shift and goto state 62
Shift and goto state 106
Shift and goto state 163
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 198
Shift and goto state 146
Reduce rule [CompareOperator -> GREATER] with ['>'] and goto state 137
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 183
Reduce rule [Expression -> Expression CompareOperator Expression] with [None, None, None] and goto state 198
Shift and goto state 219
Shift and goto state 110
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 167
Shift and goto state 141
Reduce rule [ArithmeticOperator -> MULTIPLICATION] with ['*'] and goto state 136
Shift and goto state 131
Shift and goto state 154
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 190
Shift and goto state 140
Reduce rule [ArithmeticOperator -> MINUS] with ['-'] and goto state 136
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 182
Reduce rule [Expression -> Expression ArithmeticOperator Expression] with [None, None, None] and goto state 190
Reduce rule [ExpressionList -> Expression] with [None] and goto state 189
Reduce rule [Actuals -> ExpressionList] with [None] and goto state 187
Shift and goto state 214
Reduce rule [Call -> ID LEFTPAREN Actuals RIGHTPAREN] with ['fact', '(', None, ')'] and goto state 98
Reduce rule [Expression -> Call] with [None] and goto state 182
Reduce rule [Expression -> Expression ArithmeticOperator Expression] with [None, None, None] and goto state 167
Shift and goto state 202
Reduce rule [ReturnStatement -> RETURN Expression SEMICOLON] with ['return', None, ';'] and goto state 91
Reduce rule [Statement -> ReturnStatement] with [None] and goto state 233
Shift and goto state 241
Shift and goto state 110
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 167
Shift and goto state 202
Reduce rule [ReturnStatement -> RETURN Expression SEMICOLON] with ['return', None, ';'] and goto state 91
Reduce rule [Statement -> ReturnStatement] with [None] and goto state 245
Reduce rule [IfStatement -> IF LEFTPAREN Expression RIGHTPAREN Statement ELSE Statement] with ['if', '(', None, ')', None, 'else', None] and goto state 87
Reduce rule [Statement -> IfStatement] with [None] and goto state 84
Reduce rule [Statements -> Statement] with [None] and goto state 81
Shift and goto state 132
Reduce rule [StatementBlock -> LEFTBRACE Statements RIGHTBRACE] with ['{', None, '}'] and goto state 79
Reduce rule [FunctionDeclaration -> Type ID LEFTPAREN Formals RIGHTPAREN StatementBlock] with [None, 'fact', '(', None, ')', None] and goto state 4
Reduce rule [Declaration -> FunctionDeclaration] with [None] and goto state 2
Shift and goto state 10
Shift and goto state 23
Shift and goto state 30
Shift and goto state 43
Shift and goto state 62
Shift and goto state 13
Reduce rule [Type -> INT] with ['int'] and goto state 35

Shift and goto state 58  
 Reduce rule [Variable -> Type ID] with [None, 'x'] and goto state 7  
 Shift and goto state 18  
 Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None, ';'] and goto state 83  
 Shift and goto state 13  
 Reduce rule [Type -> INT] with ['int'] and goto state 35  
 Shift and goto state 58  
 Reduce rule [Variable -> Type ID] with [None, 'total'] and goto state 7  
 Shift and goto state 18  
 Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None, ';'] and goto state 83  
 Reduce rule [VariableDeclarations -> VariableDeclaration] with [None] and goto state 133  
 Reduce rule [VariableDeclarations -> VariableDeclaration VariableDeclarations] with [None, None] and goto state 80  
 Shift and goto state 111  
 Shift and goto state 169  
 Shift and goto state 113  
 Reduce rule [Constant -> STRINGCONSTANT] with [<str @ 0x1120ef348>] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 190  
 Shift and goto state 215  
 Shift and goto state 131  
 Shift and goto state 154  
 Shift and goto state 105  
 Reduce rule [Constant -> INTCONSTANT] with ['10'] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 190  
 Reduce rule [ExpressionList -> Expression] with [None] and goto state 189  
 Reduce rule [Actuals -> ExpressionList] with [None] and goto state 187  
 Shift and goto state 214  
 Reduce rule [Call -> ID LEFTPAREN Actuals RIGHTPAREN] with ['fact', '(', None, ')'] and goto state 98  
 Reduce rule [Expression -> Call] with [None] and goto state 190  
 Shift and goto state 215  
 Shift and goto state 113  
 Reduce rule [Constant -> STRINGCONSTANT] with [<str @ 0x10fe2d080>] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 190  
 Reduce rule [ExpressionList -> Expression] with [None] and goto state 230  
 Reduce rule [ExpressionList -> Expression COMMA ExpressionList] with [None, ',', None] and goto state 230  
 Reduce rule [ExpressionList -> Expression COMMA ExpressionList] with [None, ',', None] and goto state 203  
 Shift and goto state 223  
 Shift and goto state 237  
 Reduce rule [PrintStatement -> PRINTLN LEFTPAREN ExpressionList RIGHTPAREN SEMICOLON] with ['println', '(', None, ')', ';'] and goto state 92  
 Reduce rule [Statement -> PrintStatement] with [None] and goto state 84  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['total'] and goto state 95  
 Shift and goto state 155  
 Shift and goto state 105  
 Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 191  
 Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None, '=', None] and goto state 86  
 Shift and goto state 135  
 Reduce rule [Statement -> Expression SEMICOLON] with [None, ';'] and goto state 84  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['x'] and goto state 95  
 Shift and goto state 155  
 Shift and goto state 105  
 Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 191  
 Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None, '=', None] and goto state 86  
 Shift and goto state 135  
 Reduce rule [Statement -> Expression SEMICOLON] with [None, ';'] and goto state 84  
 Shift and goto state 108  
 Shift and goto state 165  
 Shift and goto state 201  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['x'] and goto state 95  
 Reduce rule [Expression -> LValue] with [None] and goto state 222  
 Shift and goto state 145  
 Reduce rule [CompareOperator -> LESSEQUAL] with ['<='] and goto state 137  
 Shift and goto state 105  
 Reduce rule [Constant -> INTCONSTANT] with ['10'] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 183  
 Reduce rule [Expression -> Expression CompareOperator Expression] with [None, None, None] and goto state 222  
 Shift and goto state 236  
 Shift and goto state 244  
 Shift and goto state 62  
 Shift and goto state 94

Reduce rule [LValue -> ID] with ['total'] and goto state 95  
 Shift and goto state 155  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['total'] and goto state 95  
 Reduce rule [Expression -> LValue] with [None] and goto state 191  
 Shift and goto state 141  
 Reduce rule [ArithmeticOperator -> MULTIPLICATION] with ['\*'] and goto state 136  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['x'] and goto state 95  
 Reduce rule [Expression -> LValue] with [None] and goto state 182  
 Reduce rule [Expression -> Expression ArithmeticOperator Expression] with [None, None, None] and goto state 191  
 Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None, '=', None] and goto state 86  
 Shift and goto state 135  
 Reduce rule [Statement -> Expression SEMICOLON] with [None, ';'] and goto state 84  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['x'] and goto state 95  
 Shift and goto state 155  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['x'] and goto state 95  
 Reduce rule [Expression -> LValue] with [None] and goto state 191  
 Shift and goto state 139  
 Reduce rule [ArithmeticOperator -> PLUS] with ['+'] and goto state 136  
 Shift and goto state 105  
 Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 182  
 Reduce rule [Expression -> Expression ArithmeticOperator Expression] with [None, None, None] and goto state 191  
 Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None, '=', None] and goto state 86  
 Shift and goto state 135  
 Reduce rule [Statement -> Expression SEMICOLON] with [None, ';'] and goto state 84  
 Reduce rule [Statements -> Statement] with [None] and goto state 134  
 Reduce rule [Statements -> Statement Statements] with [None, None] and goto state 81  
 Shift and goto state 132  
 Reduce rule [StatementBlock -> LEFTBRACE Statements RIGHTBRACE] with ['{', None, '}'] and goto state 93  
 Reduce rule [Statement -> StatementBlock] with [None] and goto state 249  
 Reduce rule [ForStatement -> FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN Statement] with ['for', '(', ';', None, ';', ')', None] and goto state 89  
 Reduce rule [Statement -> ForStatement] with [None] and goto state 84  
 Shift and goto state 111  
 Shift and goto state 169  
 Shift and goto state 113  
 Reduce rule [Constant -> STRINGCONSTANT] with [<str @ 0x10fe2d080>] and goto state 96  
 Reduce rule [Expression -> Constant] with [None] and goto state 190  
 Shift and goto state 215  
 Shift and goto state 131  
 Reduce rule [LValue -> ID] with ['total'] and goto state 95  
 Reduce rule [Expression -> LValue] with [None] and goto state 190  
 Reduce rule [ExpressionList -> Expression] with [None] and goto state 230  
 Reduce rule [ExpressionList -> Expression COMMA ExpressionList] with [None, ',', None] and goto state 203  
 Shift and goto state 223  
 Shift and goto state 237  
 Reduce rule [PrintStatement -> PRINTLN LEFTPAREN ExpressionList RIGHTPAREN SEMICOLON] with ['println', '(', None, ')', ';'] and goto state 92  
 Reduce rule [Statement -> PrintStatement] with [None] and goto state 84  
 Reduce rule [Statements -> Statement] with [None] and goto state 134  
 Reduce rule [Statements -> Statement Statements] with [None, None] and goto state 134  
 Reduce rule [Statements -> Statement Statements] with [None, None] and goto state 134  
 Reduce rule [Statements -> Statement Statements] with [None, None] and goto state 134  
 Reduce rule [Statements -> Statement Statements] with [None, None] and goto state 129  
 Shift and goto state 180  
 Reduce rule [StatementBlock -> LEFTBRACE VariableDeclarations Statements RIGHTBRACE] with ['{', None, None, '}'] and goto state 67  
 Reduce rule [FunctionDeclaration -> VOID ID LEFTPAREN RIGHTPAREN StatementBlock] with ['void', 'main', '(', ')', None] and goto state 4  
 Reduce rule [Declaration -> FunctionDeclaration] with [None] and goto state 2  
 Shift and goto state 11  
 Shift and goto state 24  
 Shift and goto state 32  
 Shift and goto state 13  
 Reduce rule [Type -> INT] with ['int'] and goto state 8  
 Shift and goto state 19  
 Reduce rule [Variable -> Type ID] with [None, 'Funny'] and goto state 7  
 Shift and goto state 18  
 Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None, ';'] and goto state 48  
 Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47  
 Shift and goto state 14  
 Reduce rule [Type -> DOUBLE] with ['double'] and goto state 8  
 Shift and goto state 19

Reduce rule [Variable -> Type ID] with [None, 'funny'] and goto state 7  
Shift and goto state 18  
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None, ';'] and goto state 48  
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47  
Shift and goto state 15  
Reduce rule [Type -> BOOLEAN] with ['boolean'] and goto state 8  
Shift and goto state 19  
Reduce rule [Variable -> Type ID] with [None, 'flag'] and goto state 7  
Shift and goto state 18  
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None, ';'] and goto state 48  
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47  
Shift and goto state 16  
Reduce rule [Type -> STRING] with ['string'] and goto state 8  
Shift and goto state 19  
Reduce rule [Variable -> Type ID] with [None, 's'] and goto state 7  
Shift and goto state 18  
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None, ';'] and goto state 48  
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47  
Shift and goto state 13  
Reduce rule [Type -> INT] with ['int'] and goto state 8  
Shift and goto state 20  
Shift and goto state 27  
Reduce rule [Type -> Type LEFTBRACKET RIGHTBRACKET] with [None, '[,']'] and goto state 8  
Shift and goto state 19  
Reduce rule [Variable -> Type ID] with [None, 'a'] and goto state 7  
Shift and goto state 18  
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None, ';'] and goto state 48  
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47  
Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 13  
Reduce rule [Type -> INT] with ['int'] and goto state 8