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- Summary:
- Nested |
- Field |
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- Method

- Detail:
- Field |
- Constr |
- Method

jminusminus

Class JNewArrayOp

- java.lang.Object
  - jminusminus.JAST
    - jminusminus.JStatement
      - jminusminus.JExpression
        - jminusminus.JNewArrayOp

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```
 class JNewArrayOp
extends JExpression
```

The AST node for a "new" array operation. It keeps track of its base type and a list of its dimensions.

- **Field Summary**

- **Fields inherited from class jminusminus.JExpression**

  `isStatementExpression, type`

- **Fields inherited from class jminusminus.JAST**

  `compilationUnit, line`

- **Constructor Summary**

Constructors
Constructor and Description
`JNewArrayOp(int line, Type typeSpec, ArrayList<JExpression> dimExprs)` Construct an AST node for a "new" array operation.

- **Method Summary**

Methods

Modifier and Type	Method and Description
JExpression	**analyze**(Context context) Analysis of a new array operation involves resolving its type and analyzing the array bounds and checking their types.
void	**codegen**(CLEmitter output) Generate code to push the bounds on the stack and then generate the appropriate array creation instruction.
void	**writeToStdOut**(PrettyPrinter p) Write the information pertaining to this AST to STDOUT.

- **Methods inherited from class jminusminus.JExpression**

  `codegen, isStatementExpression, type`

- **Methods inherited from class jminusminus.JAST**

  `line, partialCodegen`

- **Methods inherited from class java.lang.Object**

  `clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

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- **Constructor Detail**

  - **JNewArrayOp**

```
publicJNewArrayOp(intline,
                  TypetypeSpec,
                  ArrayList<JExpression>dimExprs)
```

Construct an AST node for a "new" array operation.

Parameters:

`line` - the line in which the operation occurs in the source file.
`typeSpec` - the type of the array being created.
`dimExprs` - a list of dimension expressions.

- **Method Detail**

  - **analyze**

```
publicJExpressionanalyze(Contextcontext)
```

Analysis of a new array operation involves resolving its type and analyzing the array bounds and checking their types.

Specified by:

`analyze` in class `JExpression`

Parameters:

`context` - context in which names are resolved.

Returns:

the analyzed (and possibly rewritten) AST subtree.

- **codegen**

```
publicvoidcodegen(CLEmitteroutput)
```

Generate code to push the bounds on the stack and then generate the appropriate array creation instruction.

Specified by:
`codegen` in class `JAST`

Parameters:
`output` - the code emitter (basically an abstraction for producing the .class file).

- **writeToStdOut**

```
publicvoidwriteToStdOut(PrettyPrinterp)
```

Description copied from class: `JAST`

Write the information pertaining to this AST to STDOUT.

Specified by:
`writeToStdOut` in class `JAST`

Parameters:
p - for pretty printing with indentation.

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