

BNF for miniRA.jj

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Goal ::= "MAIN" "[" IntegerLiteral "]" "[" IntegerLiteral "]" "[" IntegerLiteral "]" StmtList "END"
      ( SpillInfo )? ( Procedure )* <EOF>

StmtList ::= ( ( Label )? Stmt )*

Procedure ::= Label "[" IntegerLiteral "]" "[" IntegerLiteral "]" "[" IntegerLiteral "]" StmtList "END" (
      SpillInfo )?

Stmt ::= NoOpStmt
      | ErrorStmt
      | CJumpStmt
      | JumpStmt
      | HStoreStmt
      | HLoadStmt
      | MoveStmt
      | PrintStmt
      | ALoadStmt
      | AStoreStmt
      | PassArgStmt
      | CallStmt

NoOpStmt ::= "NOOP"
ErrorStmt ::= "ERROR"
CJumpStmt ::= "CJUMP" Reg Label
JumpStmt ::= "JUMP" Label
HStoreStmt ::= "HSTORE" Reg IntegerLiteral Reg
HLoadStmt ::= "HLOAD" Reg Reg IntegerLiteral
MoveStmt ::= "MOVE" Reg Exp
PrintStmt ::= "PRINT" SimpleExp
ALoadStmt ::= "ALOAD" Reg SpilledArg
AStoreStmt ::= "ASTORE" SpilledArg Reg
PassArgStmt ::= "PASSARG" IntegerLiteral Reg
CallStmt ::= "CALL" SimpleExp

Exp ::= HAllocate
      | BinOp
      | SimpleExp

HAllocate ::= "HALLOCATE" SimpleExp
BinOp ::= Operator Reg SimpleExp
Operator ::= "LE"
          | "NE"
          | "PLUS"
          | "MINUS"
          | "TIMES"
          | "DIV"

SpilledArg ::= "SPILLEDARG" IntegerLiteral
SimpleExp ::= Reg
          | IntegerLiteral
          | Label

```

Reg ::= "a0"

| "a1"

| "a2"

| "a3"

| "t0"

| "t1"

| "t2"

| "t3"

| "t4"

| "t5"

| "t6"

| "t7"

| "s0"

| "s1"

| "s2"

| "s3"

| "s4"

| "s5"

| "s6"

| "s7"

| "t8"

| "t9"

| "v0"

| "v1"

IntegerLiteral ::= <INTEGER_LITERAL>

Label ::= <IDENTIFIER>

SpillInfo ::= "/" [SpillStatus](#)

SpillStatus ::= <SPILLED>

| <NOTSPILLED>