AGPL Syntax

⟨*game*⟩ ::= '`Gamestate:{`' [⟨*gamestate*⟩] '`}`'
    '`Player:{`' ⟨*Dec*⟩ '`}`'
    '`Move:{`' ⟨*Dec*⟩ '`}`'
    '`isVailid:{`' ⟨*Exp*⟩ '`}`'
    '`possMoves:{`' ⟨*Exp*⟩ '`}`'
    '`outcome:{`' ⟨*Exp*⟩ '`}`'
    '`initialState:{`' ⟨*InitState*⟩ '`}`'
    '`fromString:{`' ⟨*Exp*⟩ '`}`'
    '`$`' [⟨*Dec*⟩] '`$`' (Custom declarations)

⟨*gamestate*⟩ ::= '`Board:{`' ⟨*BoardDec*⟩
  | '`Piece:{`' ⟨*Dec*⟩
  | '`Hand:{`' ⟨*Dec*⟩
  | '`Turn:{`' ⟨*Dec*⟩
  | ⟨*string*⟩'`:{`' ⟨*Dec*⟩

⟨*BoardDec*⟩ ::= '`{Matrix[`'⟨*int*⟩'`][`'⟨*int*⟩'`]}`'
  | '`{Array[`'⟨*int*⟩'`]`'
  | '`<<`' ⟨*Dec*⟩ '`>>`'

⟨*InitState*⟩ ::= '`Board:`' ⟨*BoardInitDec*⟩
    '`Turn:{`' ⟨*Exp*⟩ '`}`'

⟨*BoardInitDec*⟩ ::= '`{ all`' ⟨*Exp*⟩ '`}`' (Initialize board to piece)
  | '`{`' ⟨*Exp*⟩ '`}`' (Initialize board to List literal)
  | '`<<`' ⟨*Exp*⟩ '`>>`' (Custom initialization func.)

⟨*Exp*⟩ ::= ⟨*Template Haskell Expression*⟩

⟨*Dec*⟩ ::= ⟨*Template Haskell Declaration*⟩