Atitit 词法分析与ast语法树遍历，可以使用stack

比起变量，方便保存多层节点

转换的时候，没有对应的节点，可以新建或者使用string模式也可。

可以级联节点，比如 set\_eq

\-[UPDATE] Node: 'update'

+-[FROM] Node: 'FROM'

| \-[RANGE] Node: 'RANGE'

| \-[IDENT] Node: 't'

+-[SET] Node: 'set'

| +-[EQ] Node: '='

| | +-[IDENT] Node: 'c'

| | \-[NUM\_INT] Node: '1'

| \-[EQ] Node: '='

| +-[IDENT] Node: 'c2'

| \-[NUM\_INT] Node: '2'

\-[WHERE] Node: 'where'

\-[EQ] Node: '='

+-[IDENT] Node: 'c'

\-[NUM\_INT] Node: '2'

适当使用变量保留几个常用statck元素，免得常常pop。特别是唯一的元素select from

Where group having 等

\-[DELETE] Node: 'delete'

+-[FROM] Node: 'FROM'

| \-[RANGE] Node: 'RANGE'

| \-[IDENT] Node: 't'

\-[WHERE] Node: 'where'

\-[AND] Node: 'and'

+-[EQ] Node: '='

| +-[IDENT] Node: 'c'

| \-[NUM\_INT] Node: '1'

\-[EQ] Node: '='

+-[IDENT] Node: 'c2'

\-[NUM\_INT] Node: '2'

+-[WHERE] Node: 'where'

| \-[AND] Node: 'and'

| +-[EQ] Node: '='

| | +-[IDENT] Node: '\u5b57\u6bb51'

| | \-[NUM\_INT] Node: '123'

| \-[LIKE] Node: 'like'

| +-[IDENT] Node: 'c2'

| \-[QUOTED\_STRING] Node: ''%aa%''

+-[GROUP] Node: 'group'

| \-[IDENT] Node: 'grpcol'

\-[ORDER] Node: 'order'

+-[IDENT] Node: 'c1'

\-[DESCENDING] Node: 'desc'

\-[UPDATE] Node: 'update'

+-[FROM] Node: 'FROM'

| \-[RANGE] Node: 'RANGE'

| \-[IDENT] Node: 't'

+-[SET] Node: 'set'

| +-[EQ] Node: '='

| | +-[IDENT] Node: 'c'

| | \-[NUM\_INT] Node: '1'

| \-[EQ] Node: '='

| +-[IDENT] Node: 'c2'

| \-[NUM\_INT] Node: '2'

\-[WHERE] Node: 'where'

\-[AND] Node: 'and'

+-[EQ] Node: '='

| +-[IDENT] Node: 'c'

| \-[NUM\_INT] Node: '2'

\-[EQ] Node: '='

+-[IDENT] Node: 'd'

\-[NUM\_INT] Node: '3'

\-[UPDATE] Node: 'update'

+-[FROM] Node: 'FROM'

| \-[RANGE] Node: 'RANGE'

| \-[IDENT] Node: 't'

+-[SET] Node: 'set'

| +-[EQ] Node: '='

| | +-[IDENT] Node: 'c'

| | \-[NUM\_INT] Node: '1'

| \-[EQ] Node: '='

| +-[IDENT] Node: 'c2'

| \-[NUM\_INT] Node: '2'

\-[WHERE] Node: 'where'

\-[AND] Node: 'and'

+-[EQ] Node: '='

| +-[IDENT] Node: 'c'

| \-[NUM\_INT] Node: '3'

\-[EQ] Node: '='

+-[IDENT] Node: 'd'

\-[NUM\_INT] Node: '4'

\-[QUERY] Node: 'query'

+-[SELECT\_FROM] Node: 'SELECT\_FROM'

| +-[FROM] Node: 'from'

| | \-[RANGE] Node: 'RANGE'

| | \-[IDENT] Node: '\u8868\u683c1'

| \-[SELECT] Node: 'select'

| +-[IDENT] Node: '\u5b57\u6bb52'

| \-[IDENT] Node: '\u5b57\u6bb53'

+-[WHERE] Node: 'where'

| \-[AND] Node: 'and'

| +-[EQ] Node: '='

| | +-[IDENT] Node: '\u5b57\u6bb51'

| | \-[NUM\_INT] Node: '123'

| \-[EQ] Node: '='

| +-[IDENT] Node: 'c2'

| \-[NUM\_INT] Node: '456'

\-[ORDER] Node: 'order'

+-[IDENT] Node: 'c1'

\-[DESCENDING] Node: 'desc'

\-[QUERY] Node: 'query'

+-[SELECT\_FROM] Node: 'SELECT\_FROM'

| +-[FROM] Node: 'from'

| | \-[RANGE] Node: 'RANGE'

| | \-[IDENT] Node: '\u8868\u683c1'

| \-[SELECT] Node: 'select'

| +-[IDENT] Node: 'a'

| \-[IDENT] Node: 'b'

+-[WHERE] Node: 'where'

| \-[AND] Node: 'and'

| +-[EQ] Node: '='

| | +-[IDENT] Node: 'c'

| | \-[NUM\_INT] Node: '123'

| \-[EQ] Node: '='

| +-[IDENT] Node: 'd'

| \-[NUM\_INT] Node: '456'

\-[ORDER] Node: 'order'

+-[IDENT] Node: 'c1'

\-[DESCENDING] Node: 'desc'