Grammar for PAAC:

**if Statement:**

stmt: compoundstmt | exprstmt;

compoundstmt : “**<<”** localdecl stmtlist **“>>”;**

localdecl : localdecl type | ℇ;

stmtlist : stmtlist stmt | ℇ;

exprstmt : expr”;” | “;” ;

type : **numbertype** | **booltype;**

ifstmt : ***if*** *(*compexpr*)* stmt | *if* (compexpr) stmt ***else*** stmt;

compexpr : compexpr **or** andcomp | andcomp;

andcomp : andcomp **and** relexpr | relexpr;

relexpr : sumexpr CMPOP sumexpr | sumexpr;

CMPOP : **<= | >= | < | > | != | ==**;

sumexpr : sumexpr **+** term | sumexpr - term | term;

term : term \* factor | term / factor | factor;

factor : ID | immutable | digit;

ID : NONDIGIT DIGIT | DIGIT

NONDIGIT : [a-zA-z]+

DIGIT : [0-9]+

immutable : ( compexpr) | CONSTANT ;

CONSTANT : **YES | NO**;