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Aim : To implement YACC Program for C Variable Declaration

Code (p9.l) :

```
%{
   #include "p9.tab.h"
%}

%%

"int"           { return INT; }
"float"         { return FLOAT; }
"char"          { return CHAR; }
[ \t\n]+        ;  /* Ignore whitespace */
[a-zA-Z_][a-zA-Z0-9_]*  { return ID; }
";"             { return SEMICOLON; }
","             { return COMMA; }

%%

int yywrap(void) {
   return 1;
}
```

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Code (p9.y) :

```
%{
   #include <stdio.h>
   int yylex(void);
   void yyerror(const char *str) {
       fprintf(stderr, "error: %s\n", str);
   }
%}

%token INT FLOAT CHAR ID SEMICOLON COMMA

%%

declaration:
   type_specifier variable_list SEMICOLON { printf("Valid
declaration.\n"); }
   ;

type_specifier:
   INT  { printf("Type: int\n"); }
   | FLOAT { printf("Type: float\n"); }
   | CHAR  { printf("Type: char\n"); }
   ;
```

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```
variable_list:
    variable_list COMMA ID { printf("Variable: %s\n", $3); }
    | ID { printf("Variable: %s\n", $1); }
    ;

%%

int main(void) {
    return yyparse();
}
```

Output :