

EXP NO: 5

RECOGNIZE A VALID VARIABLE WHICH STARTS WITH A LETTER FOLLOWED BY ANY NUMBER OF LETTERS OR DIGITS USING LEX AND YACCAIM:

AIM:

To recognize a valid variable which starts with a letter followed by any number of letters or digits using lex and yaccaim.

PROGRAM:

LEX-FILE:

```
%{
#include "y.tab.h"
%}
%option noyywrap
%%

[a-zA-Z][a-zA-Z0-9]* { return IDENTIFIER; }
|
[ \t\n] { /* Skip */ }
. { return yytext[0]; }
%%

~
~
```

YACC:

```
%{
#include <stdio.h>
#include <string.h>
extern char *yytext;
void yyerror(const char *msg);
int yylex();
%}

%token IDENTIFIER

%%
stmt: IDENTIFIER { printf("Valid variable: %s\n", yytext); }
;

%%

void yyerror(const char *msg) {
    printf("Invalid variable\n");
}

int main() {
    printf("Enter a variable name: ");
    yyparse();
    return 0;
}
```

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OUTPUT :

```
keerthika@LAPTOP-SGM8D7IG:~$ vi exp_5.l
keerthika@LAPTOP-SGM8D7IG:~$ vi exp_5.y
keerthika@LAPTOP-SGM8D7IG:~$ yacc -d exp_5.y
keerthika@LAPTOP-SGM8D7IG:~$ lex exp_5.l
keerthika@LAPTOP-SGM8D7IG:~$ gcc y.tab.c lex.yy.c -o varchecker
keerthika@LAPTOP-SGM8D7IG:~$ ./varchecker
Enter a variable name: myvar123
Valid variable: myvar123
|
```

RESULT:

The program is successfully executed and the output is verified.