Lex 版本: flex 2.6.4

```
mike@DESKTOP-70UC2PA:~/compiler$ lex --version
flex 2.6.4
```

作業平台:　windows 10 / vscode WSL(ubuntu)
執行方式:　./B073040050 < Test1.java
如何處理規格書上的問題: 照著助教給的 pdf 做　不會的 google

問題:
0.　compile gcc　時　-ly 讀不到
解: sudo apt install libbison.dev (之前好像沒裝這個也能跑 lex,　但 yacc 需要)

1.　yylineno　讀不到
解　: extern lineCount

2. duplicate id
解: table 多設一個欄位


```
mike@DESKTOP-70UC2PA:/mnt/c/Users/mike8/OneDrive/桌面/code/109-2/compiler/hw2$ ./B073040050 < 2021Yacc_Testfile/test1.java
Line 1 :        /* Test file: Perfect test file
Line 2 :         * Compute sum = 1 + 2 + ... + n
Line 3 :         */
Line 4 :        class sigma {
Line 5 :          // "final" should have const_expr
Line 6 :          final int n = 10;
Line 7 :          int sum, index;
Line 8 :
Line 9 :          main()
Line 10 :         {
Line 11 :           index = 0;
Line 12 :           sum = 0;
Line 13 :           while (index <= n)
Line 14 :           {
Line 15 :             sum = sum + index;
Line 16 :             index = index + 1;
Line 17 :           }
Line 18 :           print(sum);
Line 19 :         }
Line 20 :       }
```

```
mike@DESKTOP-70UC2PA:/mnt/c/Users/mike8/OneDrive/桌面/code/109-2/compiler/hw2$ ./B073040050 < 2021Yacc_Testfile/test2.java
Line 1 :        /*Test file: Duplicate declare variable in the same scope*/
Line 2 :        class Point
Line 3 :        {
Line 4 :            static int counter ;
Line 5 :            int x, y ;
Line 6 :            /*Duplicate declare x*/
Line 7 :            int x
>Line 7 : duplicate identifier "x" ;
Line 8 :            void clear()
Line 9 :            {
Line 10 :               x = 0 ;
Line 11 :               y = 0 ;
Line 12 :           }
Line 13 :        }
```

```
mike@DESKTOP-70UC2PA:/mnt/c/Users/mike8/OneDrive/桌面/code/109-2/compiler/hw2$ ./B073040050 < 2021Yacc_Testfile/test3.java
Line 1 :          /*Test file of Syntax errer: Out of symbol.  But it can go through*/
Line 2 :          class Point {
Line 3 :              int z;
Line 4 :              int x y ;
Line 5 :              /*Need ',' before y*/
Line 6 :              float w;
Line 7 :          }
Line 8 :          class Test {
Line 9 :              int d;
Line 10 :             Point p = new Point()
Line 11 :             /*Need ';' at EOL*/
Line 12 :             int w;
Line 12, 1st char: 8, error at "int"q;
Line 13 :          }
```

```
mike@DESKTOP-70UC2PA:/mnt/c/Users/mike8/OneDrive/桌面/code/109-2/compiler/hw2$ ./B073040050 < 2021Yacc_Testfile/test4.java
Line 1 :          /*Test file: Duplicate declaration in different scope and same scope*/
Line 2 :          class Point
Line 3 :          {
Line 4 :              int x, y ;
Line 5 :              int p;
Line 6 :              boolean test()
Line 7 :              {
Line 8 :                  /*Another x, but in different scopes*/
Line 9 :                  int x;
Line 10 :                 /*Another x in the same scope*/
Line 11 :                 char x
>Line 11 : duplicate identifier "x";
Line 12 :                 {
Line 13 :                     boolean w;
Line 14 :                 }
Line 15 :                 /*Another w in the same scope*/
Line 16 :                 int w;
Line 17 :             }
Line 18 :         }
Line 19 :         class Test
Line 20 :         {
Line 21 :             /*Another p, but in different scopes*/
Line 22 :             Point p
>Line 22 : duplicate identifier "p" = new Point();
Line 23 :         }
```

```
mike@DESKTOP-70UC2PA:/mnt/c/Users/mike8/OneDrive/桌面/code/109-2/compiler/hw2$ ./B073040050 < 2021Yacc_Testfile/test5.java
Line 1 :          class test5{
Line 2 :              int add(int a1, int a2){
Line 3 :                  return (a1 + a2);
Line 4 :              }
Line 5 :              void main() {
Line 6 :                  int x, y, z;
Line 7 :                  for(int i=0;i<2;i++){
Line 8 :                      if(i==0){
Line 9 :          //--------------ELSE WITHOUT IF
Line 10 :                     else
Line 10, 1st char: 21, error at "else"
Line 10, 1st char: 21, error at "else"
Line 11 :                         i = 1;
Line 12 :                     }
Line 13 :                     for(x = 0; x<5;x++){
Line 14 :                         y++;
Line 15 :          //--------------FUNCTION CALL
Line 16 :                         x = add(x,y);
Line 17 :                         x
Line 17, 1st char: 14, error at "}" = z(x,y);
Line 18 :                     }
Line 18, 1st char: 18, error at "x"
Line 19 :                 }
Line 20 :                 print("x:"+x+"y:"+y);
Line 20, 1st char: 14, error at "}"
Line 21 :                 z = ( x + y ) * 5 / 2 -- -y;
Line 22 :             }
Line 23 :         }
Line 24 :
Line 25 :      /* this is a comment // line// with some /* /*and
Line 26 :         // delimiters */
```

```
Line 1 :        class test6{
Line 2 :            void sum(){
Line 3 :        //------NEVER USED
Line 4 :                int sumxyz = x + y + z ;
Line 5 :            }
Line 6 :            void main() {
Line 7 :        //------ARRAY
Line 8 :                int [] i= new int [1];
Line 9 :                for(i[0] = 0; i[0]<5; i[0]++)
Line 10 :                   i[0]++;
Line 11 :
Line 12 :        //------NEW CLASS
Line 13 :                Point lowerLeft = new Point() ;
Line 14 :
Line 15 :        //------ERROR CONDITION
Line 16 :                while(**/a++)
Line 16, 1st char: 16, error at "*"{
Line 17 :                    print("error!!");
Line 18 :                }
Line 18, 1st char: 22, error at ")"
Line 19 :        //------CLASS DECLARE
Line 20 :                class Point {
Line 21 :                    int x, y, z;
Line 22 :                }
Line 23 :            }
Line 24 :
Line 25 :        }
```