

# Quiz 5 Solution

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```
%{  
#include <stdio.h>  
#include "SymTab.h"  
#define IDENT 1  
#define HEX 2  
extern int yylex();  
extern char *yytext;  
typedef struct {  
    int type;  
    int count;  
} Attr;  
%}
```

# Quiz 5 Solution

```
letter [a-z]
digit  [0-9] | [A-F]
```

```
%%
```

```
{letter}+ {return IDENT;}
{digit}+  {return HEX;}
```

```
[ \r\n\t] {}
```

```
%%
```

# Quiz 5 Solution

```
int main(int argc, char *argv[]) {
    SymTab *table = createSymTab(17);
    int more;
    int found;
    int token;
    Attr *a;
    while ((token = yylex())) {
        found = enterName(table, yytext);
        if (found) {
            a = (Attr *) malloc(sizeof(Attr));
            a->type = token;
            a->count = 1;
            setCurrentAttr(table, a);
        } else {
            a = getCurrentAttr(table);
            a->count++;
        }
    }
}
```

# Quiz 5 Solution

```
more = startIterator(table);
while (more) {
    printf("%s\t%d\n", getCurrentName(table), (a = getCurrentAttr(table))->count);
    free(a);
    more = nextEntry(table);
}
destroySymTab(table);
}
```