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REPORT ON LAB 3

1 Interacting Bison with Flex

The given code shows how to parse and calculate arithmetic expressions with bison and flex.

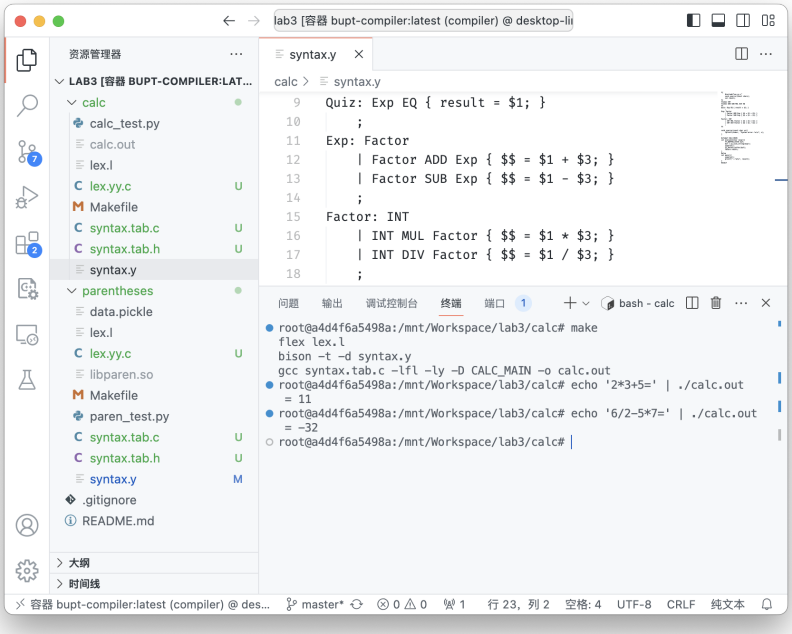

Figure 1: Some cases

2 Validating parentheses

The implementation of `syntax.y` is as follows.

```
%{
    #include"lex.yy.c"
    void yyerror(const char *s);
    int result;
%}
%token LP RP LB RB LC RC
%%
String: String String
```

```
    | LP String RP
    | LB String RB
    | LC String RC
    | %empty
    ;
%%

void yyerror(const char *s){
    result = 0;
}

int validParentheses(char *expr){
    result = 1;
    yy_scan_string(expr);
    yyparse();
    return result;
}
```

The CFG described in this implementation can parse several groups of nested parentheses. The test result is shown in fig. 2.

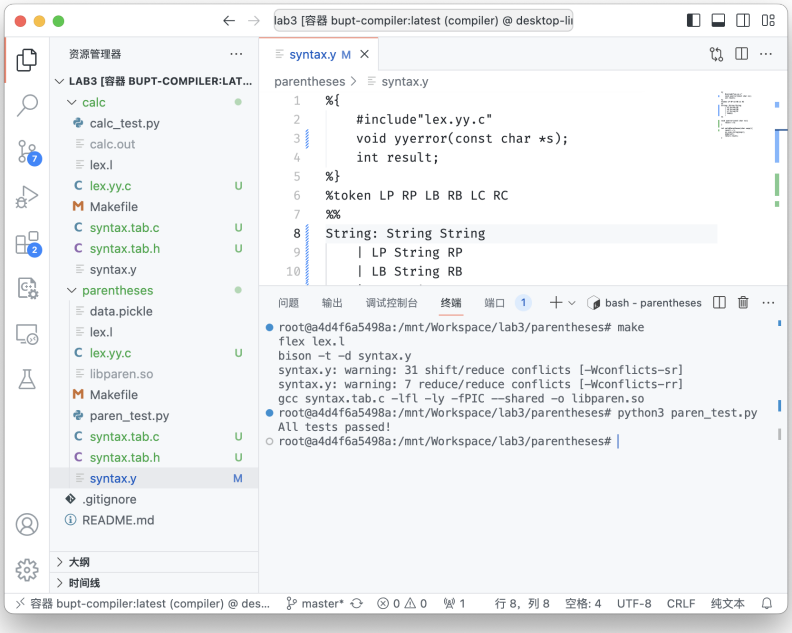

Figure 2: Result for the exercise on parentheses