МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ Національний Технічний Університет України "Київський політехнічний інститут"

Звіт з виконання лабораторної роботи №6 з предмету "Основи розробки трансляторів" Тема: Побудова полізу

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Граматика

<expression>::= <term2> | <expression> + <term2> | <expression> - <term2>

<term2>::= <term>

<term>::= <multiplier2> | <term> * <multiplier2> | <term> / <multiplier2>

<multiplier2>::= <multiplier>

<multiplier>::= <expr.response2> | <multiplier> ^ <expr.response2>

<expr.response2>::= <expr.response>

<expr.response>::= ID | CONST | (<expression2>)

Таблица предшествования:

| | <expression3></expression3> | <expression2></expression2> | <expression></expression> | <tem>></tem> | <term2></term2> | <multiplier></multiplier> | <multiplier2></multiplier2> | <expr.response></expr.response> | <expr.response2></expr.response2> | Ol | CONST | (|) | + | _ | / | * | ^ | # |
|-----------------------------------|-----------------------------|-----------------------------|---------------------------|-----------------|-----------------|---------------------------|-----------------------------|---------------------------------|-----------------------------------|----|-------|---|---|---|---|---|---|---|---|
| <expression3></expression3> | | | | | | | | | | | | | | | | | | | > |
| <expression2></expression2> | | | | | | | | | | | | | = | | | | | | > |
| <expression></expression> | | | | | | | | | | | | | > | = | = | | | | > |
| <term></term> | | | | | | | | | | | | | > | > | > | = | = | > | > |
| <term2></term2> | | | | | | | | | | | | | > | > | > | | | = | > |
| <multiplier></multiplier> | | | | | | | | | | | | | > | > | > | > | > | = | > |
| <multiplier2></multiplier2> | | | | | | | | | | | | | > | > | > | > | > | > | > |
| <expr.response></expr.response> | | | | | | | | | | | | | > | > | > | > | > | > | > |
| <expr.response2></expr.response2> | | | | | | | | | | | | | > | > | > | > | > | > | > |
| ID | | | | | | | | | | | | | > | > | > | > | > | > | > |
| CONST | | | | | | | | | | | | | > | > | > | > | > | > | > |
| (| | = | < | < | < | < | < | < | < | < | < | < | | | | | | | > |
|) | | | | | | | | | | | | | > | > | > | > | > | > | > |
| + | | | | < | = | < | < | < | < | < | < | < | | | | | | | > |
| - | | | | < | = | < | < | < | < | < | < | < | | | | | | | > |
| I | | | | | | < | = | < | < | < | < | < | | | | | | | > |
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| ۸ | | | | | | | | < | = | < | < | < | | | | | | | > |
| # | < | < | < | < | < | < | < | < | < | < | < | < | < | < | < | < | < | < | |

Полиз строится одновременно с редукцией (заменой основы нетерминальным символом).

```
Сем п/п
<expression3> ::= <expression2>
                                                нет
<expression2> ::= <expression>
                                                нет
<expression> ::= <term2>
                                                нет
<expression> ::= <expression> + <term2>
                                                P(k) = "+"; k++;
<expression> ::= <expression> - <term2>
                                                P(k) = "-"; k++;
<term2>::= <term>
                                                нет
<term>::= <multiplier2>
                                                нет
<term>::= <term> * <multiplier2>
                                                P(k) = "*"; k++;
<term>::= <term> / <multiplier2>
                                                P(k) = "/"; k++;
<multiplier2>::= <multiplier>
                                                нет
<multiplier> ::= <expr.response2>
                                                нет
<multiplier>::= <multiplier> ^ <expr.response2>
                                               P(k) = "^"; k++;
<expr.response2>::= <expr.response>
                                                нет
<expr.response>::= (<expression2>)
                                                нет
<expr.response> ::= i
                                                P(k) = S(i); k++;
```

P(k) — элемент Полиз

S(i) — верхняя ячейка стека

Код програми:

5+83*98+26-a+b*(23+2)*5^4/5

Скріншот:

```
× ± ½
                                                   Bodnya Alexey's Translator. Group TV-11.
 Poliz2.txt
 Compile Info Q Poliz
Source code
Replace <term2> with <expression>
            ==Dumb LOG:=
Stack:
[<] #
[>] <expression>
Connotial: [>]
Source Code:
[]#
Replace <expression> with <expression2> ======Dumb LOG:=======
[<] #
[>] <expression2>
Connotial: [>]
Source Code:
Replace <expression2> with <expression3> ======Dumb LOG:======
Stack:
[>] <expression3>
Connotial: [>]
Source Code:
```