

# COMPILER DESIGN PROJECT

## **Topic:Operator-Precedence Parser**

### Team Members:

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## ABSTRACT

### About Operator-precedence parser

An **operator precedence parser** is a bottom-up parser that interprets an operator-precedence grammar. A grammar is said to be operator precedence grammar if it has two properties:

- No R.H.S. of any production has a  $\in$ .
- No two non-terminals are adjacent.

Operator precedence can only be established between the terminals of the grammar. It ignores the non-terminal.

### About the Project

Language used: **Python**

The parser will take three input files, viz-a-viz ,**input.txt,grammar.txt,precedence.txt**.

- **precedence.txt**  
This file will contain the precedence and associativity for the available operators. The precedence and associativity will be given as per our requirement.
- **grammar.txt**  
This file will contain the grammar rules i.e the production rules for our language.
- **input.txt**  
This file will contain the input string. The parser will determine whether this input follows the grammar rule. If accepted, **ACCEPT** message will be shown else **ERROR** will be flagged.

### Output of Parser

The operator -precedence table will be displayed. If the input string is accepted by the parser, **ACCEPT** message will be displayed, if not **ERROR** will be shown.

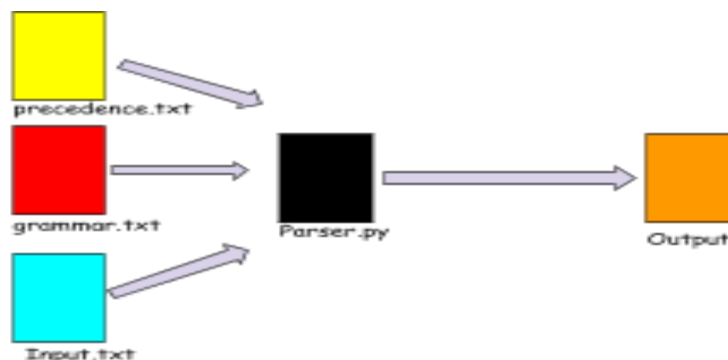


Fig:Working of Operator Precedence Parser