1. **Write a flex program that can take input of different mathematical expressions from a file and detect whether the given mathematical expression is valid or not.**

Important Note:

- The first character should be an operand. It also can be only two operator: addition "+" & subtraction "-" or opening parenthesis "(".
- The last character also must be an operand or a closing parenthesis ")".
- Consider only valid syntax of parenthesis.
- An operator is always used between two operators.
- Operands should be a valid identifier or a numeric constant (Such as: a, bbb, xy_1, 528)
- If the expression contains more than one neighbor operator (*+ or ^%) or more than one neighbor operand (abc bb_1) together, it will be invalid.
- Invalid format of identifier (em@il, 4xy, x#y) makes the expression invalid.
- Invalid format of parenthesis (closing parenthesis before opening or unequal number of parenthesis) makes the expression invalid.