Homework 4 (10 points)

Error detection and recovery

Extend your Mini-Pascal recursive descendent parser with error detection and recovery functionality as follows:

1. Calculate by hand for each nonterminal of the EBNF grammar the First and the Follow sets using the algorithms presented at the lecture; **(4 points)**

2. Display a meaningful error message if the next lookahead token is not in the First set of the expected nonterminal; **(2 points)**

3. In case of syntactic errors, implement a panic-mode error recovery that scans ahead until:

    a. it reaches a token in the First set of the current nonterminal or **(2 points)**

    b. it reaches a token in the Follow set of the current nonterminal, **(2 points)**

    and then continues parsing.