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*Homework_03: Formal languages
BNF and EBNF notation*

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// BNF for switch statement in C

```
<switch> ::= switch(<expresion>)<nl><indent>{<case_values>}
<expresion> ::= <string>
                | <number>
<case_values> ::= <case_value>:<statements>; break;
                | <case_value>:<statements>; break;<nl><case_values>
<case_value> ::= <string>
                | <number>
                | default
<statements> ::= <statement>
                | <statement><statements>
<statement> ::= <some_code>
<nl> ::= \n
<indent> ::= \t
```

// BNF for "for" loop in Python

```
<for> ::= for <iterating_var> in <sequence>: <nl><indent><statements>
<iterating_var> ::= <sequence_item>
<sequence> ::= <sequence_item>
                | <sequence_item><sequence_item>
<sequence_item> ::= <character>
                | <string>
                | <number>
<nl> ::= \n
<indent> ::= \t
<statements> ::= <statement>
                | <statement><statements>
<statement> ::= <some_code>
```

// BNF for case statement in Racket

```
<case> ::= (case <valuable_expresion> [<case_clause> <statements>])
<valuable_expresion> ::= <expresion>
<expresion> ::= (<expresion>)
                | <function>
                | <number>
                | <string>
                | <symbol>
<case_clause> ::= (<list>)
<list> ::= <list_element>
```

```
      | <list_element><list>
<list_element> ::= <character>
                  | <number>
                  | <string>
<statements> ::= <statement>
                  | <statement><statements>
<statement> ::= <some_code>
```