$G = (V_N, V_T, P, S)$
V_N - finite set of non-terminal symbols.
V_T - finite set of terminal symbols.
P - finite production rules.
S - start symbol.

S = { <program> }

V_N = { <program>, <statement>, <size_statement>, <color_statement>, <angle_statement>, <iterations_statement>, <shape_statement>, <move_statement>, <scale_statement> <rotate_statement>, <mirror_statement>, <axis>, <draw_statement>, <save_statement>, <filename> }

V_T = { **repeat**, **times**, **start**, **with**, **shape**, **circle**, **square**, **triangle**, **polygon**, **color**, **background**, **scale**, **rotate**, **save**, **as**, **PNG**, **JPG**, **[A-Z]**, **[a-z]**, **[0-9]**, =, **.**, **,**, **[**, **]** }

P = {
<program> → <statement> | <statement> <program>
<statement> → <size_statement> | <color_statement> | <angle_statement> | <iterations_statement> | <shape_statement> | <move_statement> | <scale_statement> | <rotate_statement> | <mirror_statement> | <draw_statement> | <save_statement>
<size_statement> → **size** <value>
<color_statement> → **color** <value>
<angle_statement> → **angle** <value>
<iterations_statement> → **iterations** <value>
<shape_statement> → **shape** <shape>
<move_statement> → **move** <value> <value>
<scale_statement> → **scale** <value>
<rotate_statement> → **rotate** <value>
<mirror_statement> → **mirror** <axis>
<axis> → **x** | **y**
<draw_statement> → **draw**
<save_statement> → **save** <filename>
<filename> → <string>
<shape> → **circle** | **square** | **triangle** | **polygon**
<value> → <digit> | <digit> <value> | <string>
<digit> → **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9**
<string> → <char> | <char> <string>
<char> → [**A-Z**] | [**a-z**] | [**0-9**] | = | **.** | **,** | **[** | **]** | ' ' | '_'
}