1 Python Language Grammar

$$
\begin{array}{rcll}
x & & & \textit{variables} \\
S & ::= & [\ s;\ldots\ ] & \textit{suites} \\
s & ::= & \texttt{def}\ (\ x,\ldots\ )\ \texttt{:}\ S & \textit{statements} \\
 & & \mid\ \texttt{return}\ \overset{\star}{e} & \\
 & & \mid\ e,\ldots e\ \texttt{=}\ e & \\
 & & \mid\ e \oplus\ \texttt{=}\ e & \\
 & & \mid\ \texttt{for}\ e\ \texttt{in}\ e\ \texttt{:}\ S & \\
 & & \mid\ \texttt{while}\ e\ \texttt{:}\ S & \\
 & & \mid\ \texttt{if}\ e : S\ [\ l;\ldots\ ] & \\
 & & \mid\ \texttt{raise}\ \overset{\star}{e}, \overset{\star}{e}, \overset{\star}{e} & \\
 & & \mid\ \texttt{try}\ : S\ [\ h;\ldots\ ] & \\
 & & \mid\ e & \\
 & & \mid\ \texttt{pass} & \\
 & & \mid\ \texttt{break} & \\
 & & \mid\ \texttt{continue} & \\
 & & & \\
e & ::= & \otimes e & \textit{expressions} \\
 & & \mid\ e \oplus e & \\
 & & \mid\ e\ \texttt{and}\ e & \\
 & & \mid\ e\ \texttt{or}\ e & \\
 & & \mid\ e \gtrdot e & \\
 & & \mid\ e\ \texttt{if}\ e\ \texttt{else}\ e & \\
 & & \mid\ e\ (\ e,\ldots\ ) & \\
 & & \mid\ \mathbb{Z} & \\
 & & \mid\ \mathbb{S} & \\
 & & \mid\ \mathbb{B} & \\
 & & \mid\ e.x & \\
 & & \mid\ e\ [\ TODO - SLICE\ ] & \\
 & & \mid\ x & \\
 & & \mid\ [\ e,\ldots\ ] & \\
 & & \mid\ (\ e,\ldots\ ) & \\
 & & \mid\ \texttt{None} & \\
 & & & \\
\otimes & ::= & etc & \textit{unary operators} \\
\oplus & ::= & +, etc & \textit{binary operators} \\
\gtrdot & ::= & TODO & \textit{comparison operators} \\
l & ::= & TODO & \textit{orelse blocks} \\
h & ::= & TODO & \textit{exception handlers} \\
TODO - SLICE & ::= & TODO & \textit{slice} \\
\mathbb{S} & & & \textit{strings} \\
\mathbb{B} & ::= & \textsc{True} \mid \textsc{False} & \textit{booleans}
\end{array}
$$