Tutorial
Type

Based on the initial code of Assignment 3, modify StaicCheck.py to implement the following questions:

Question 1.
Create global referencing environment of an MP program? Modify TestUtils.py and CheckerSuite.py to test your code. The instruction to test your code is "python run.py test CheckerSuite"

Question 2.
Modify your code to check if a duplicate declaration in global environment happens, the corresponding exception is thrown. Make sure that your code is tested properly.

Question 3.
Write corresponding visit methods that can get type of simple expressions such that id, literal, or binary expression with some operators like '+', '-', '*' and '/'. Assume that all operands in a binary expression are in the same type and there is no type error.

Question 4.
Relax the assumption of type in the above question, and modify the corresponding methods so that if an type error in a binary expression happens, the TypeMismatchInExpression exception must be thrown.