AST Analyzer

AST Analyzer is a tool which can be used to analyze the abstract syntax tree of the given python program. Internally it uses **ast2json** library to generate the abstract syntax tree of the given program into json format.

How AST Analyzer Works

The AST Analyzer uses Depth-First-Search Algorithm internally on the generated Abstract Syntax Tree. It uses **ast_analyser.ast_visitor()** function to visit all the nodes of the generated ast in recursive Depth First manner.

How to use AST Analyzer

Use command **$ sh run.sh test.py**

Steps followed internally are -

1. run.sh takes test.py as input.

2. run.sh calls script.py which uses **ast2json()** to convert the program in test.py into an abstract syntax tree.

3. script.py uses **ast_analyser.py** program to analyze the ast generated in the above steps.

Fig: Project directory tree structure

Features

- The tool followed modular and extendable approach.

Limitations

- For now, it only can be able to analyze the **assignment statements**, **branch conditions** and **loop conditions**.

Requirements
- Python interpreter