Software Engineering Tools Lab

Assignment No-7

(Module 5- Source code testing using tools)   Due **date-31/03/2023**

Q 1. What is Source code analysis? What is its importance?

Q 2. Below are the some important open source tools used in testing the source code, provide the information of below tools with respect to

   a. Owner/ developer
   b. Developed in which language
   c. Brief information/introduction
   d. Language support (applicable for source code written in language)
   e. Advantages
   f. Disadvantages

Source code analysis tools-

   I.   VisualCodeGrepper

   II.   Rips

   III.   Brakeman

   IV.   Flawfinder

   V.   Bandit

Q 3. Perform source code testing using **Flawfinder** for the code written in 'c' and 'cpp' language given below

Link- https://github.com/sidp1991/SETAssignment

Note-use files program1.c and program2.cpp present on above link.

After performing analysis create a report which will contain below points

   a. Number of hits
   b. Potential risks

c. Suggested alternatives for these risks
d. Updating the code as per suggestions
e. Re-execution of code after updating the changes.

Q 4. Perform source code testing using **Bandit** for your code written in 'python' language (use your previous code) for any security flaws

After performing analysis create a report which will contain below points

a. Number of hits
b. Potential risks
c. Suggested alternatives for these risks
d. Updating the code as per suggestions
e. Re-execution of code after updating the changes.