Question 2

1) I don't believe all bugs reported are actual bugs because there might be some of them which are not bugs but based on their implementation, they might look like one. Two reasons that I believe would be:
   a) Limitations due to static analysis, as static analysis when used we might not be able to identify complex algorithms and intended use for a data structure that the programmer has.
   b) There might be some analysis based on rules that are set on the tools. These tools use these rules to guide through the code and determine by these certain rules if it is possible to be selected as a bug.

   T_SUPPORT & T_THRESHOLD VALLUES AND HOW DO THEY AFFECT?

   We can consider a false-positive in the code when the bug presented is on border line for being not declared as a bug. This will be calculated with the support values for the pair. If the bug barely is a bug, it is high chance it might be a false positive. If the value of the support is too high, we might miss some actual bugs in the code and if the value of confidence is too low, we might see a lot of false positives or false bugs generated in the report because we basically tell the code to check for lesser occurrences as well.

   NOTE: The timings have been allowed to print to the console once you run the file in the terminal i.e., detector.py . Please refer to the prints for timing as it differs for machine to machine.