Metric 6: Post Release Defect Density

Definition:

The Post-release defect density is defined as the number of defects identified in software during a specific period of operation or development divided by the size of the software. It is often used as a related measure of quality. KLOC is the defect density per 1000 lines of code.

Defect Density = (Number Of Defects Confirmed)/**(**Size of Software)

Defect Density and Software Quality is inversely proportional. That is if the Defect Density increases the Software Quality decreases and vice versa. To calculate Post-release defect density, we will use the issue tracker of the respective project and will calculate it using the above formula.

Post release defect density Calculation:

Step 1: Finding the number of bugs in a project

- Extracted the number of bugs/defects in a project by reading the **JIRA Reports** of the project.

Step 2: Find the number of Lines of Code

- Running the **CLOC tool** on the project source gives the number of blank lines, comment lines and code lines of all files in the project.
- Extracted the total number of Java lines of code from results of CLOC tool.

Step 3: calculating the Post-release Defect Density

- Post-release Defect Density = (number of defects)/(number of lines of code)
  …….. from step 1 and step 2