**Unit Testing:**

Unit testing is a type of testing in which individual units or parts of software are tested. The function of unit testing is to test each of these units with its performance. Unit testing is usually done by the developer during the development of the application. A unit is a part of a software system that is testable and is done during the development of the software.

White box testing is a method that tests the internal structures (e.g., design, coding) of the application software. Examples:

* Internal security
* Broken paths in the coding process
* The output that is expected
* Testing each statement and function.

Black box tests a system functionality and has no previous knowledge of the internal structures of the application. Example: test the valid username and password, either shows that it has logged in properly or that it shows an error message.

**SonarQube:**

SonarQube is an open-source platform developed to continuously inspect code quality in order to perform automatic reviews with analysis of detected bugs and security vulnerabilities on different programming languages. It is fully integrated with DevOps tools, including built-in integration. It ensures that the code is reliable, ensures security in the application and makes sure that the code is clean and maintainable.

Why use SonarQube?

* When testing code is doesn’t just show you what wrong but also provides tools that can help correct the problem.
* Doesn’t just focus on bugs but also has features that can help write code.