

Yesterday's session : Dealing with application properties

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-> As part of application execution we need to display few messages like success and failure msgs.

-> It is not at all recommended to hard code success and failure messages in source code.

-> To avoid hard coding we will configure msgs in application.properties file or application.yml file

-> In boot application, we can application.yml file msgs into java class using below annotations

```
@ConfigurationProperties
@EnableConfigurationProperties
```

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-> It is not recommended to write duplicate string literals in our source code.

-> To avoid duplicate String literals we will use Constants.

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Today's session : Code Review

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-> Code Review is the process of verifying coding standards followed by developers in coding.

-> In realtime Code Review will happen in 2 ways

- 1) Automated Review using Tool
- 2) Peer Review

-> We will use SonarQube server to perform code review. It will verify our source code and it will identify problems in our code.

Note: Sonar Qube will not check logic of the program is correct or not.

-> Peer Review is the process of verifying logic of the program. Juniors developers logic will be verified by senior developers in the project.

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What is SonarQube?

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-> SonarQube is an open-source platform developed by SonarSource for continuous inspection of code quality to perform automatic reviews with static analysis of code to detect bugs, code smells, and security vulnerabilities on 20+ programming languages.

-> SonarQube developed using Java

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Installing Sonar Software in Local

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-> Download Sonar Software from below url

```
URL : https://www.sonarqube.org/downloads/
Version : 6.3.1
```

-> Start Sonar Server by executing StartSonar.bat

Location :Sonar-Folder/bin/windows64/StartSonar.bat

-> Once Sonar Server is started it will display Sonar up and running message in console.

-> By Default Sonar Server will run on 9000 port number

-> Open Sonar Server Dashboard using below URL  
<http://localhost:9000/>

Running Project with SonarQube Server

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Add below 1 plugin in project pom.xml file (in <build> tag)

```
<plugin>
  <groupId>org.sonarsource.scanner.maven</groupId>
  <artifactId>sonar-maven-plugin</artifactId>
  <version>3.4.0.905</version>
</plugin>
```

-> Do Maven build of project with below goal

mvn clean compile package

-> For project do maven build with below goal To Do Code Review

mvn sonar:sonar

-> After maven build completed, check sonar server dashboard.

-> We can our project report under Projects

-> Report contains below details

- 1) Bugs (Blocker, Critical, Major & Minor)
- 2) Vulnerabilities
- 3) Code Smells
- 4) Code Coverage
- 5) Duplicates etc...