Scenario: **To display the test results derived from CI pipeline in a readable format. So that, the developers can make use of the results to analyze and fix the issue.**

The automation script/testcases has to be added as part of CI Pipeline. This should be done to trigger automation script gets automatically without any manual intervention on every commit on the feature branch in cloud repository (SCM) and also to generate log file/HTML report for each run. This step is required to ensure that developer code is not being deployed or merged before passing the test and the report generated can help the developer to analyze the issue and also for verifying Test Coverage.

To achieve this, it can be done by two possible ways

**Approach 1:** This can be done in CI Machine itself

Most of the CI tool provides a feature to store ‘n’ number of job history. It stores logs and artefacts of each job. This has to be configured in the CI machine itself in such a way; it allows to store only ‘n’ number of jobs. It means ‘n+1’th will get deleted when a new job become available. Each team would be having access to CI tool. So, developer can easily fetch the previous job history and can compare and analyze the results

**Advantages:**

1. It doesn’t require any third-party storage to store the reports. This is in-built feature in CI tool itself.
2. It can be accessed by the entire team. No authorization changes would be required.

**Disadvantages:**

1. This would consume lot of space, because of which CI system performance can go down. And also, when the machine goes down, the reports would be unavailable for retrieval till the machine is up and running.
2. This cannot generate html report. Html report can provide details of the step executed along with screenshot, so that developer and other stake holder can easily read the report.

**Approach 2:** Publishing HTML based report on cloud storage

This can be done by publishing the report on external storage by configuring a plugin in CI tool. This type of report can be easily interpreted. For instance, let’s consider Amazon S3 bucket in AWS services, this provides a huge cloud storage space. This can be done by creating a bucket in AWS S3 and making it as a public. In CI tool, the configuration should be done in such a way that after each pipeline execution, the html report should get generated and get pushed automatically to Amazon S3 bucket. Once the report comes into amazon S3 bucket, the developers and other stake holders can access the html report with public IP.

For generating html report, required API jars should be added as dependency in pom.xml file in Automation code base.

**Advantages:**

1. Not bound by CI machine and no downtime issue because of heavy storage.
2. Easy to ready and analyze the reports.

**Disadvantages:**

1. Additional cost for buying externa storage.
2. Authorization should be handled.