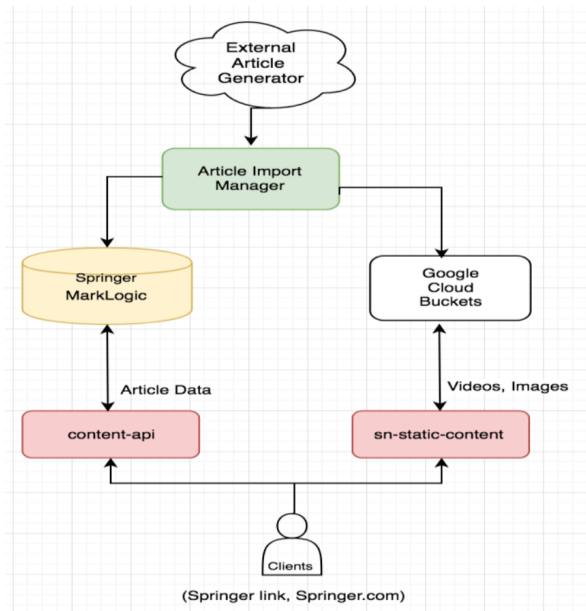


## Test Strategy Document for SND Article Ingestion Module

Objective : To have an overall view of the testing approach and seamlessly deliver with less or no manual intervention.



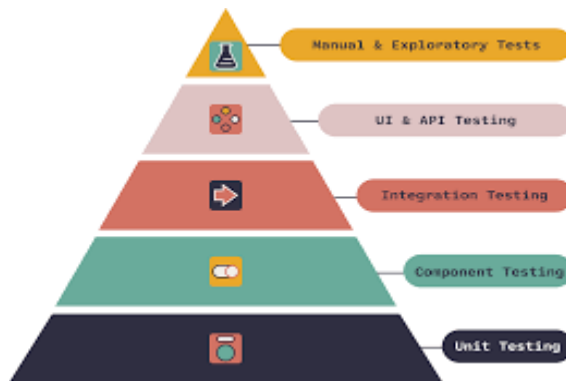
### Test Approach:

1. Test Driven Development & Risk based testing are the two key factors to be followed through the development life cycle.

BA QA & devs connect to discuss the requirements & analyse.

2. Development starts by writing tests for the functionality & code is written for the tests to PASS. This gives a thought based approach to think about the test cases before starting with the development
3. While QA's think & document the possible exploratory & automation cases based on the risks of each feature
4. Once the development is complete the Trio ( BA,QA, devs) connect for a desk check to understand the functionality built is the expected.
5. Further the path to production is supported by a strong CI/CD system which is described below.

## 6. Types of Tests Needed



- a. Unit tests - Written before development(TDD approach)
- b. Component tests - Written after development to check the wholistic functionality
- c. Integration tests - written to check integrations with other modules
- d. UI & API testing - written to test the UI & API layer
- e. Exploratory testing - QA's to do a timeboxed testing based on the risk & past scenarios of flaws.
- f. Cross functional testing - To meet cross function requirements of the application

Tests need to be blazing fast & fail proof to support the automated CI/CD process.

Tests need to be grouped & tagged per module to effectively figure out a group of tests that need to run based on the code changes.

## 7. Groups of tests

- a. Smoke tests - Just enough tests for the application to be running with no major defects.
- b. Dependent tests - dynamically grouped tests based on the code changes. Enough to test the modules that changed.
- c. Regression suite - All the tests that could help verify the app during Major changes to the underlying architecture, Major features.

## 8. CI/CD process

- a. Feature based development
- b. Deploy to a sandbox environment
- c. All the required test scripts are written after the development based on the risk & requirement.
- d. Exploratory tests are done time boxed & based on the past experience
- e. B & C need to be done to move the code to dev trunk ( they need to be as quick as possible)
- f. In the CI pipeline, based on the risk & code changes run all the stages or some of them Unit, Functional, Integrations, Non Functional tests
- g. Deploy to a test/UAT environment for the PO's

- h. Release branch cut
- i. Run smoke tests
- j. Release to a small user base say 1%
- k. Keep monitoring the system for error rates & performance degradation
- l. If k is a pass, go ahead and release it to all the user base or the next subset of users

