

- Since there is no documentation of the legacy software, an “Exploratory Testing” round will be performed to recognize, most critical paths of the application and existing bugs on those critical paths.
- Perform a high-level code analysis to recognize endpoints, behaviors and current unit testing coverage of backend.
- Perform an analysis of high priority requirement to be delivered and design required test cases as high level sketches (Names and expectations are enough)
- Recognize impact areas of new requirements to the existing applications to recognize high risk area in terms of potential issues
- Quickly set up an API automation suite and cover all back-end APIs with at least few tests for valid requests, Response structure and core validations using below approach
 - Talk with the team to for a short-term strategy of using above suite as the core verification mechanism, thus delegating creation and updation of API tests to BackEnd team for at least related to the endpoints each developer working on. Reviewing test accuracy and coverage should be done by the QA – Given the currently limited unit test coverage, it is ideal to focus on API testing over unit testing which gives higher coverage for comparably similar efforts.
 - TDD approach can be followed here with API testing, instead of Unit testing
 - QA write automated tests for remaining endpoints (Not modified by backend team)
- Set up a short term frontend (UI) automation suite , ideally with record-playback abilities to cover most critical paths of the existing application – This will be a throw away work , but this allows more time for backend automation work, which has more value given the situation and as a long term work. UI automation should not take more than few hours
- API tests will be a part of build pipeline and pull requests would only be accepted / merged if corresponding API tests are ready – removing any manual testing requirement after any build of backend.
- UI tests might have to be triggered manually, given instabilities usually associated with such quickly created test suites.
- As new requirements are delivered, designed test cases need to be executed manually (unless already covered by backend testing)

- Prior to production build, targeted manual regression needs to be performed for the recognized High-risk areas.
- With the help of the team “All Hands testing session” can be conducted before production delivery where each team member perform basic tasks as an end user , But outside of the scope he worked as a developer – QA could provide necessary help for the members and note down any issues.
- Above final delivery approach is proposed assuming, production deployment is done at the end of both Sprints. If more frequent delivery approach is followed, all hands session is not practical and targeted manual regression has to be broken down according to planned production builds .