Task 1:
Imagine the following situation. You need to establish a QA process in a cross-functional team.
The team builds a front-end application using REST APIs.
1. Where would you start? What would be your first steps?
2. Which process would you establish around testing new functionality? How would you
want the features to be tested?
3. Which tools would you suggest using to help your team with a daily work?
4. If you would do a test automation which techniques or best practices would you use the
Application?

1. Where would you start? What would be your first steps?
Ans:
As we are working on cross-functional team we have to make sure the tools and technologies
we use are easy to install and easy to use among all.

The Starting point for me will be when Dev Team start with development of REST API's and
front-end application, at that time QA team should start (Not with Testing) but with getting
information with tools that will be used for REST APIs testing and Start with writing Manual Test
Cases (front-end application) based on Requirement Document.

For REST API's:
As a QA we can search Open Source tool and easy to use. First we can just go with simple Curl
Request (REST APIs).
Second we can start with Postman.Third once QA team is comfortable with API, they can look to
Automate with **Rest-Assured and Java**.

For Front-End Application:
Once Manual test cases are executed on Application, and when application is stable enough
(No bugs, all bugs are retested and fixed) QA Tester can start with selecting Test cases (Test
Cases that will repeat frequently) for Automation.

2. Which process would you establish around testing new functionality? How would you
want the features to be tested?
Ans:
For Testing new Functionality we have to make sure:
1: QA – Develop Test Plan based on Design Specifications
2: QA – Functional Test Specifications
3: QA – Writing of Test Cases / Review Test cases
4: Execute Test Cases for new Functionality
5: Bug Reporting

Feature to be Tested is based on the Test Cases written on based of Requirement Document. Logging all the issue in Bug Tracking tool.

3. Which tools would you suggest using to help your team with a daily work?
Ans:
1: **Email**
2: **Messenger:** Skype, Slack
3: **Issue Tracking:** Jira, Redmine, Github, Mentis
4: **Time & Task Tracking (Daily Bases):** Taiga, Target Process and Phabricator

4. If you would do a test automation which techniques or best practices would you use the application?
Ans:
Technology Stack : Selenium-WebDriver, Cucumber, Java and Maven, Jenkins.
I prefer strongly go with Cucumber as it will help Tester to share feature file with team (Developer, Business Intelligence, Customer Support or Manager) as its easily understood by all for its simple english like language.
Selenium as it's the widely use open source tool.
Maven to install dependencies.
Jenkins for continuous Integration.

Best Practice :
1: First Understand the application, its behaviour, functionality etc.
2: Go with modular Framework (Code Reusability, Data Driver, Reports, Fail Screenshots and Page Object Concepts etc.)
3: Make sure when you build the Framework it's simple enough for junior QA / new QA to understand it.
4: Document everything for entire QA Team.