TASK 1 SOLUTION

1. Where would you start? What would be your first steps?

Answer :

- I will start by identifying the overall application goal and understand how the QA processes aligns and helps to achieve the application goal.
- I will identify the target market users of the application which will help in preparing my thought process regarding the application
- I will identify the critical success factors by making a list of the primary factors that influence the process of quality assurance in order to continuously and consistently manage those factors
- I will select a quality management to**ol** that not only helps to implement a quality assurance process, but also helps to maintain and improve the process.

2. Which process would you establish around testing new functionality? How would you want the features to be tested?

Answer :

1. **I will start by Reviewing the requirements and documentation of a new functionality/feature:** This involves reviewing and analyzing the necessary documents regarding the application including the API document with the aim of having a domain knowledge of the new functionality which includes and not limited to the functional and non-functional requirements of the application.

2. **Plan and prepare test cases for the new functionality:** When the requirements have been established, it is time to start planning test cases, i.e. - describe the actions QA engineers perform to make sure the piece of software functions as planned. The regression test suit of the entire application will be updated with the test cases for the new functionality.

3. **The next step is to carry out the actual test execution:** The main goal of this stage is to check whether the solution is developed properly from the technical perspective and meets the initial requirements. During the process, the following testing will be carried out:

- **API testing:** An extensive API testing will be carried out to make sure all the endpoints are working as expected. During this is type of testing, things like server response, success message, error response and timeouts will be looked out for

- **UI Testing :** This is to check for design accuracy to verify that the display of the new functionality matches the approved designs in the design documents. Examples of things to be looked out for are: ***sizes (width, height, line height), colors, font family, font sizes, pacing (margin, padding), borders, background, number and date formats.***

- **Functional or End to End Testing :** This is testing all the actual features of functionality to make sure it works as described in the requirement documents. It also simulates a real human user behavior.
- **Smoke testing:** This type of testing will be carried to test all the critical functionalities of the application before a more rigorous testing is done i.e. regression testing.
- **Regression Testing:** This is the final testing done before the new application functionality is deployed. Here the bug-fixes and/or updates are verified to ensure that the application's existing functionalities are not broken due to the implementation of a new functionality.
- **Sanity Testing:** This type of testing will be carried to test all the critical functionalities of the application immediately the deployment of the new functionality to the production environment is complete.

3. Which tools would you suggest using to help your team with a daily work?

Answer :

1. **Jira**
2. **Jmeter**
3. **Postman**
4. **Slack**
5. **Google docs**
6. **TestRail**
7. **Trello**
8. **Selenium / Appium**
9. **Confluence**

4. If you would do a test automation which techniques or best practices would you use the application?

Answer :

I will use a Hybrid of test automation techniques which will be a combination of more than one technique. I will use the combination of a keyword driven and a data driven testing technique.

Below are some of the best practices I will adopt:

- Decide what Test Cases to Automate: : It is impossible to have an 100% test automation coverage due to the multiple testing combinations that are required for testing
- Select the Right Automated Testing Tool
- Create Good, Quality Test Data
- Create Automated Tests that are Resistant to Changes in the UI
- I will use a BDD framework
- I will not automate unstable functionalities
- I will a use test design pattern .e.g. Page Object Model
- **I** will separate my tests from your test automation framework
- I will take screenshots for failure investigation
- I will make all tests should be independent

- Setup detailed automation tests reporting.