**Technical Assignment \_REST API**

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.

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| 1. Where would you start? What would be your first steps?  **[Answer]**   1. *The start to be by collecting all available documents and review them all for any ambiguities and conflicts.* 2. *Attend kick off meeting with all stakeholders to discuss the project and insure that we are all on the same page and also setting the acceptance criteria if agile method is committed with the agile team (analyst, product owner and developer)* 3. *Start testing design by creating test cases, selecting tools, determine test basis…* 4. *Determine who will be involved in testing based on the required qualifications and experience.* |
| 2. Which process would you establish around testing new functionality? How would you want the features to be tested?  **[Answer]**   1. *It’s better to apply manual testing on new functionality to insure full testing and paying full attention till reaching a stable version for regression.* 2. *Will follow same steps in the answer of question 1* 3. *Formal reviews will be considered in case of new features* 4. *If any of the new features is integrated or linked to old features, to be considered in regression testing* |
| 3. Which tools would you suggest using to help your team with a daily work?  **[Answer]**   1. *Application life cycle management tool 🡺 JIRA or HP ALM (If HP ALM already one of company tools, I prefer using it as I have solid knowledge of using HP QC for 7 years, if not JIRA will be better choice when it comes to saving money with same features ) to manage requirements, Test cases, Sprints, defects, and provides different reports.* 2. *Team collaboration and communication tool 🡺 Skype or Lync, to keep the team connected and grantee the continuous collaboration.* 3. *API Testing tool 🡺 Postman, to test all of HTTP Methods (GET, POST, PUT, DELETE, LINK, VIEW, LOCK, UNLINK, UNLOCK, COPY…).* 4. *Regression Automation tool 🡺 Selenium or HP ALM (I prefer Selenium if HP ALM is not already in the company due to its high price) to automate regression TCs and insure the continuous testing and maintaining the quality level.* |
| 4. If you would do a test automation which techniques or best practices would you use the application?  **[Answer]**  *After checking the efficiency of automation in the tested system:*   1. *Automate regression testes* 2. *Don’t automate unstable functionality* 3. *Use the below techniques:* 4. *Acceptance Test-Driven Development (ATDD)* 5. *Behavior-Driven Development (BDD)* 6. *Automate cases that are repeated several times* 7. *Automate TCs that executed in several browsers or several OS* 8. *Automate TCs that take long time or big effort* 9. *Provide training (internal or external) to team members* 10. *Continuously perform Code Refactoring* |