

Test Automation Architect - 2 Day Assignment 2014Q4

Your Role

Hi,

Welcome to Trial Assignment for Test Automation Architect position!

As a Test Automation Architect, your main role will be to implement high quality automated test cases using Test Complete, do investigation of current methodologies and process, suggesting improvements, optimising test run time. Automated test case implementation involves a wide range of knowledge and skills like TestComplete, developing interfaces (UI) and Javascript. Almost all of your development work will be performed inside of a virtual machine (VM) running in the cloud over a remote desktop (RDP or VNC) connection.

You will have to be in position to automate test case scenarios yourself, find solutions/workarounds for complex and difficult problems, innovate, support and mentor other partners and team members, create documentation and several more.

Moreover, you will have to attend weekly meetings with the team, report your progress, and work together with team member to achieve your goals.

At a high level, your input is going to be documented test case scenarios (TCMs) and your output should be automated test cases (ATCs).

The key to your success is to adhere to our processes and tools and be able to understand and follow standard procedures.

In the following you will find everything required for you to complete this in 2 days assignment.

This assignment will determine whether you are ready or have what it takes to join test automation team.

Your skills are going to be tested in the following areas:

1. Automating ATCs using TestComplete
2. Troubleshooting and improving ATCs
3. Understanding and holding the quality bar by reviewing given automated test case scenarios
4. Understand CommonRepository structure
5. Using tools to generate/review ATC
6. Quality Bar Standards

Part 0 (Preconditions)

- ✓ The core of the whole assignment is TestComplete automation tool.
You will find valuable resources from TestComplete online and offline help.
Pay much attention to NameMapping file and read as much as you can regarding how this works.
Make sure you read at least the following documentation:

[TestComplete](#)

Test Automation Quality Bar:

- Follow the validation pattern: [[Validation Pattern](#)]
- Test each Validation Step: [[Not Testing Each Validation Step](#)]
- Avoid Hard Coding Values: [[Hard Coding Values](#)]
- Stable, Data & Environment independent: [[Fragile Test Step](#)]
- Each step using correct timing: [[Timing](#)]
- Reuse Common Repository: [[Ignoring Common Repository](#)]
- Methods and Functions to avoid: [[Function and Method to avoid](#)]
- Keyword Test Commenting: [[Keyword Test Commenting](#)]
- Scripts Commenting: [[Scripts Commenting](#)]
- Best Practices [Best Practices - TAM Reference](#)
- [Namemapping Getting Started](#)
- [Namemapping Naming Standard](#)
- [TCM Validation Grammar](#)
- [TCM/ATC - Action / Validation parts](#)
- [Latest Quality Bar Rules](#)

Prepare a package that can include any build log files or Test Complete Log files or Winks or any other files which can prove that you get the Environment ready.

Software requirements :

A VM is deployed for you under the name : **Test Automation**

Internet Explorer 9.0

TestComplete 9

- Already installed in your VM

JIRA for Windows.

- Download JIRA from : <https://www.atlassian.com/software/jira/download?b=j>

Installation JIRA settings :

- Use custom installation
- Install as service
- Server language / english United States
- Select Database Built In
- Company Name : gTeam Trial
- Mode : public
- Base URL : <http://localhost:8080>

- What will you be using JIRA for ?
Software development : Jira + JIRA agile
- Create a new my.atlassian.com account, using the settings :
 - Country : United States
 - Company : 1-10 users
- JIRA user administration settings :
 - user name : gTeam
 - password : -a5:WP6B

Part 1- Implement ATC

The Assignment

You should create a Test Case Manual (TCM) and implement the TCM as an Automated Test Case (ATC) for the following **JIRA** Software user actions :

- Create project
- Create a simple Issue for the recently project created

Both actions included in the same TCM/ATC

Project Details :

- Project name : Architect_Trial

Issue Details :

- Summary : testcomplete ATC
- Issue Type : task
- Priority : Minor
- Description : This a trial description

This is a sample TEST CASE MANUAL from another Product called Tenrox.

Test Steps	
Step	Expected Result
1 Click 'Start'-'>'All Programs'-'>'Tenrox Project Workforce Management Software'-'>'Enterprise Portal'	'Tenrox Enterprise Portal - Windows Internet Explorer' PAGE = CONTAINS(TEXTBOX: 'Logon name', 'Password'; BUTTON: 'Logon')
2 Type 'Administrator' in the 'Logon name' text box; Type 'admin' in the 'Password' text box; Click 'Logon' button.	'Tenrox' FORM = CONTAINS(TEXT: 'Do you want to add Tenrox Enterprise Portal to your favorites?'; BUTTON: 'Yes', 'No')
3 Click 'No' button. Maximize Internet Explorer.	'Tenrox Enterprise Portal - Administrator, Master' PAGE = CONTAINS(MENU: 'Portal s', 'Entries', 'Financial', 'Processes', 'Setup', 'Reports', 'Tools')
4 Click 'Setup' menu; From the left panel click 'Workforce Planning'-'>'System'.	'Setup > Workforce Planning > System' FRAME = CONTAINS(BUTTON: 'Proficiency')
5 Click 'Proficiency' button.	'Setup > Workforce Planning > System > Proficiency' FRAME = CONTAINS(DATAGRID: ROW[ANY] COLUMN['Proficiency'] = 'Beginner', COLUMN['Ranking'] = '1', ROW[ANY] COLUMN['Proficiency'] = 'Basic', COLUMN['Ranking'] = '2', ROW[ANY] COLUMN['Proficiency'] = 'Intermediate' COLUMN['Ranking'] = '3', ROW[ANY] COLUMN['Proficiency'] = 'Informed', COLUMN['Ranking'] = '4', ROW[ANY] COLUMN['Proficiency'] = 'Expert', COLUMN['Ranking'] = '5')
6 Click 'New' icon located on the column header beside the 'Proficiency' column header.	'Setup > Workforce Planning > System > Proficiency > Proficiency Edit' FRAME = CONTAINS(TEXTBOX: 'Proficiency'; DROPDOWN: 'Ranking')
7 Type 'Master' in the 'Proficiency' text box; Select '6' in the 'Ranking' drop down; Click 'Save' link.	'Setup > Workforce Planning > System > Proficiency' FRAME = CONTAINS(DATAGRID: ROW[ANY] COLUMN['Proficiency'] = 'Beginner', COLUMN['Ranking'] = '1', ROW[ANY] COLUMN['Proficiency'] = 'Basic', COLUMN['Ranking'] = '2', ROW[ANY] COLUMN['Proficiency'] = 'Intermediate' COLUMN['Ranking'] = '3', ROW[ANY] COLUMN['Proficiency'] = 'Informed', COLUMN['Ranking'] = '4', ROW[ANY] COLUMN['Proficiency'] = 'Expert', COLUMN['Ranking'] = '5', ROW[ANY] COLUMN['Proficiency'] = 'Master', COLUMN['Ranking'] = '6')
8 Click 'Administrator, Master - Administrator' drop down then select 'Log Off'.	'Tenrox' FORM = CONTAINS(TEXT: 'Are you sure you want to log off?'; BUTTON: 'Yes', 'No')
9 Click 'Yes' button.	'Tenrox Enterprise Portal - Windows Internet Explorer' PAGE = CONTAINS(TEXT: 'You can now close the browser window or click the Logon button to return to the Logon page.')
10 Close Internet Explorer.	Internet Explorer = CLOSED

Perform the following tasks

- Create the Test Case Manual (TCM)
- Create a CommonRepository project
- Create Namemapping file in CommonRepository.
- Create your ATC - Automated Test Case Project from scratch. According to gTeam standards, you can find them in above documentation.
- Create any needed javascript scripts, you must create local or global scripts.

Notes

- This TCM contains simulated, real-world style imperfections.
 - Any quality bar violations will count against your score.

Take in consideration :

- You MUST Implement the TCM/ATC.
- Do the needful to validate the steps.
- Implement new features to this ATC, for easier ATC development

Part 2. Improvements

Take in consideration that Devfactory, creates hundreds of this ATCs, the development should be increased day by day, so answer the following questions :

- **Make a list of possible improvements of ATC development. At least add 3 improvements.**

Delivery / What to submit



Delivery Instructions

1. You will only get one chance to deliver, so follow these steps when you want to deliver your work
2. Create a zip archive named **<your_name - Test Automation Architect>.zip** with all deliverables
3. Login to :<http://184.72.213.117/tams2/Candidates.html> Using credentials sent to you in invitation/credentials mail (personal email, and given password)
4. Go to assignment menu -> Upload Assignment, and upload your archived delivery.
5. Kindly note that any delivery that doesn't follow this will not be evaluated

NOTE: If you faced any issue related to credentials or access permission or our environment that consumes valuable time of you trial period, you can submit extension request using candidate portal Requests -> Assignment Extension Request.

Please, read and follow this section carefully. Any delivery that does not follow this section will score much less or simply won't be evaluated.

First of all, review section "Delivery Instructions" at the top of this page, which describes general delivery process.

Delivery for this assignment should consist of:

Zip archive named **<your_name - Test Automation Architect>.zip**, containing the following:

- Folder named "Task_1", containing folder for automated TCM given in part 1.
- Folder named "Taks_2", containing folder for Answers given in part 2.
- MAKE SURE THAT COMMON_REPOSITORY IS INCLUDED WHEN APPLICABLE
- An optional Readme file, including any comment or feedback about the assignment.

So the resulting structure of your delivery should be:

- <your_name - Test Automation Architect>.zip
- <your_name - Test Automation Architect>.zip \
- <your_name - Test Automation Architect>.zip \ TASK_1
- <your_name - Test Automation Architect>.zip \ TASK_2 \ answers.doc