Exercise 1
Explore JKE Banking

The JKE Banking application serves as the application under test that is used in the lab exercises for this course. You assume the role of Tanuj, a tester for JKE Banking, and use Rational Quality Manager to test the application. The scenario takes place in Sprint 2 of the application lifecycle, therefore the application is still in a development phase and not complete.

Exercise Tasks

In this exercise, you complete these tasks:

- Start the JKE Banking application.
- Log in as an existing customer.
- Allocate dividends to an organization.

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1.1 Become familiar with the sample application

Scenario

In this exercise you explore JKE Banking, the application under test for this course.

Step	Comment
1. Double-click the **JKE Banking** desktop shortcut.	The JKE Banking application starts.
2. In the **Username** field, type `jbrown`.	
3. In the **Password** field, type `jbrown`.	
4. Click **Login**.	You are logged into the JKE Banking application.
5. Click the **Checking Account** link.	
6. Click the **Allocate Dividend Percentage** button.	
7. Select an organization and then click **Add**.	
8. In the **Percentage** field, type `10` for 10%.	
9. Click **Next**.	
10. Click **Confirm**.	
11. Click **Return Home**.	
12. **Optional:** Continue exploring the JKE Banking application.	**Note:** The database for the application is persistent, meaning that changes that you make are stored permanently and the account balance and transaction history reflect your actions.
13. Exit the JKE Banking application.	

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Exercise 2
Creating Manual Test Scripts

In this exercise, Tanuj completes the test script for the Allocate Dividends to a Single Cause function. After the basic script is complete, Tanuj makes the test easier to run by adding images and text that enable the tester to work more efficiently.

A JKE icon in the step alerts you to complete the lab step in the JKE Banking application rather than Rational Quality Manager. Press Alt+Tab to switch between Rational Quality Manager and the JKE Banking application.

Exercise Tasks

In this exercise, as Tanuj, you complete these tasks:

- Explore Rational Quality Manager and the JKE Banking Quality Management dashboard.
- Update and complete a work item.
- Add statements in a new test script.
- Set the statement type as needed.
- Include images in a test script.
- Include expected results with statements.
- Associate data entry text with execution steps.
- Associate verification text with reporting steps.

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2.1 Log in to Rational Quality Manager and become familiar with the user interface

Scenario

In this exercise you log in to Rational Quality Manager and explore the user interface.

Step	Comment
1. Double-click the **IBM Rational Quality Manager** desktop shortcut.	
2. In the **User ID** field, type `tanuj`.	
3. In the **Password** field, type `tanuj`.	
4. Click **Log In**.	You are now logged in to Rational Quality Manager as Tanuj and Tanuj's Quality Management Dashboard is displayed. The major functional areas (**Requirements**, **Planning**, **Construction**, **Lab Management**, **Builds**, **Execution**, **Reports**, and **Change Requests**) are shown at the top of the dashboard.
5. Click the **Construction** menu to view the available options.	
6. Most of the items that you use in this course are listed in the **Construction** menu. Explore some of the other available options by selecting other menus.	

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2.2 Explore the dashboard and update a work item

Scenario

In this exercise you log in to Rational Quality Manager, explore Tanuj's dashboard, and update a work item.

Step	Comment
1. If you are not logged in as Tanuj, open **Rational Quality Manager** and log in**.**	Double-click the **IBM Rational Quality Manager** desktop shortcut. User ID: `tanuj` Password: `tanuj`
2. On the JKE Banking (Quality Management) dashboard, click on the different tabs to explore their contents.	The JKE Banking (Quality Management) dashboard has several tabs. The tabs have widgets prearranged to display certain information. Most of these widgets are not configured automatically.
3. Return to the General tab of the dashboard and find the **My Tasks** widget.	This widget shows active work items assigned to Tanuj.
4. Click the `Create a test script to test allocation of dividends to a single organization` text to open the work item.	
5. Review the information in the work item.	
6. Update the work item status by selecting `Start Working`.	The status menu is located in the upper-right corner of the work item and is currently set to `New`.
7. Click **Save**.	
8. Open the **Home** menu and click **JKE Banking (Quality Management).**	Clicking the arrow opens the **Home** menu.  If you don't see **JKE Banking (Quality Management)**, expand the **Quality Management** section of the menu.
9. In the My Tasks widget, verify that the work item status has changed to `In Progress`.	

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2.3 Create a test script

Scenario

In this exercise, Tanuj types statements to complete the test script that tests the process of allocating dividends to a single cause, based on the provided work item.

Step	Comment
1. Log in to Rational Quality Manager as Tanuj	Username: `tanuj` Password: `tanuj`
2. Open the **System Verification** test plan.	Click the **Planning** menu, and then click **Browse Test Plans**. Click **System Verification**.
3. Select the **Test Cases** section of the test plan.	
4. Find and click **Allocate Dividends to a Single Cause**. You might have to click Previous or Next to find the test case. **Tip**: Use the Type Filter Text field to narrow the list of test cases.	The **Allocate Dividends to a Single Cause** test case opens.
5. Select the **Test Scripts** section of the test case.	
6. Create a new test script by clicking the **Create Test Script**  icon.	
7. Name the test script `Allocate Dividends to a Single Cause`**.**	
8. Add a description for the test script.	**Description**: `The user chooses to allocate a percentage of dividends from a dividend bearing account to a cause and verifies that the allocations were done correctly.`
9. Click **OK**.	
10. Save the test case.	
11. Click **Allocate Dividends to a Single Cause** to open the new test script**.**	

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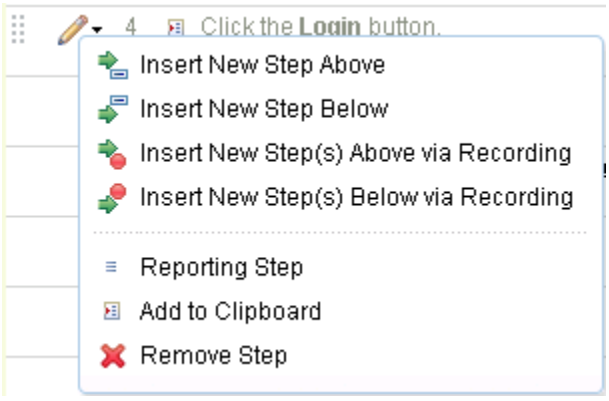
12. Click **Click to add step**, and use the example that follows to complete the steps for this test script:

Number	*Description*	*Expected Results*
1	Start the JKE Banking application.	The JKE Banking window opens.
2	In the Username field, type **jbrown**.	
3	In the Password field, type **jbrown.**	
4	Click the **Login** button.	User is logged in to the application.
5	Click the **Checking Account** link.	
6	Click the **Allocate Dividend Percentage** button.	
7	Select an organization and click **Add**.	
8	In the Percentage field, type **10**.	
9	Click **Next**.	
10	Click **Confirm**.	
11	Tester's overall assessment of test.	

13. Click in step 4 and then hover over the step to display the action menu.



14. In the action menu, click **Reporting Step**.

15. In the same manner, mark steps 9 and 11 as reporting steps.

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16. Add the following verification information to the Expected Results column of step 9: `Verify that the donation confirmation amount is $100.00.`	
17. Save the test script.	

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2.4 Add images to a test script

Scenario

After Tanuj documents the basic steps that are involved in allocating dividends to a single cause, he adds some images and captured text to make completing tests more efficient.

When a tester verifies an expected system response by appearance, it is helpful for the tester to refer to an image that represents the expected response. In this exercise, Tanuj adds an image of the JKE Banking application to the Expected Results column of the test script.

Step	Comment
1. If it is not already open in the test editor, open the **Allocate Dividends to a Single Cause** test script.	Click the **Construction** menu, and then click **Browse Test Scripts > Allocate Dividends to a Single Cause**.
2. In the test editor, go to the first statement and place your cursor at the end of the text in the Expected Results column.	
3. Press Shift+Enter to advance the cursor to the next line.	Pressing Enter in the Expected Results column creates a statement and advances the cursor to the next line. Pressing Shift+Enter advances the cursor to the next line in the *current* statement.
4. Press Shift+Enter again.	
5. On the test editor toolbar, click the **Insert Image**  icon.	The Insert Image dialog box opens.
6. Click **Browse**.	The File Upload dialog box opens.
7. Navigate to the `Documents\Money That Matters` folder.	In this exercise, the image is provided for you. Under normal circumstances you would likely need to create your own images of the application under test.
8. Select **MTM+login.bmp**, click **Open**, and then click **OK**.	The image is inserted into the test script statement.
9. Click in the Expected Results column and resize the image as required by selecting the image and dragging one of the image handles.	Alternatively, you can configure the image as a thumbnail that is enlarged when you hover over it.
10. Click the **Manage All Images**  icon and select **Thumbnail**.	
11. Save the test script.	

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2.5 Associate data entry text with execution steps

Scenario

Running a test can require typing a lot of input (values for data entry fields). In this exercise, Tanuj associates text to be typed into a data entry field with the execution step that instructs the tester to type the text. During a test run, the tester can copy the associated data entry text and paste it into the data-entry field in the application under test instead of typing it.

Step	Comment
1. Double-click the **JKE Banking Client** desktop shortcut. 	The JKE Banking Client starts.
2. In the **Username** field, type jbrown. 	
3. In the **Username** field, select the text jbrown. 	
4. Press Ctrl+C to copy the text. 	
5. In Rational Quality Manager, if it is not already open in the test editor, open the **Allocate Dividends to a Single Cause** test script.	Click the **Construction** menu, and then click **Browse Test Scripts > Allocate Dividends to a Single Cause**.
6. Click a step in the test script to activate the test editor toolbar.	
7. On the test editor toolbar, click the **down arrow** next to the **Compact View**  icon, and then click **Compact View**.	The Compact View action hides the images and truncates the text in each statement to reduce vertical scrolling up to the toolbar and down to statements. To see full text or an image, click in the statement to expand for viewing. To exit the compact view, click the **down arrow** next to the **Compact View**  icon again, and then select **Normal View**.
8. Find the following execution step: *In the **Username** field, type **jbrown**.*	
9. Double-click the step to place the cursor within it and then select the `jbrown` text.	
10. On the test editor toolbar, click the **Assisted Data Entry/Verification**  icon.	The Assisted Data Entry/Verification dialog box opens.
11. Press Ctrl+V.	The `jbrown` text is pasted into the **Enter Text** box.
12. Select the **Use Text for Assisted Data Entry** check box.	

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13. Click **OK**.	An icon at the end of the statement indicates that the statement has associated text.  To see the text associated with the statement, move your mouse pointer over the associated text icon.
14. Save the test script.	
15. Do not exit the JKE Banking application.	

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2.6 Associate verification text with reporting steps

Scenario

Running a test requires that the tester verify expected system responses, usually visually. In this exercise, Tanuj associates verification text with a reporting step that instructs the tester to verify a system response. During a test run, the tester can have Rational Quality Manager compare the actual system response (text) to the associated verification text instead of comparing the actual text and verification text manually.

Step	Comment
1. In Rational Quality Manager, if it is not already open in the test editor, open the **Allocate Dividends to a Single Cause** test script.	Click the **Construction** menu, and then click **Browse Test Scripts > Allocate Dividends to a Single Cause**.
2. Switch to the JKE Banking application. If JKE Banking is not already open, open it, and in the **Username** field, type *jbrown*.	
3. In the **Password** field, type `jbrown`.	
4. Click **Login**.	
5. Click the **Checking Account** link.	
6. Click the **Allocate Dividend Percentage** push button.	
7. Select an organization and click **Add**.	
8. In the percentage field, type `10.`	
9. Click **Next**.	
10. In the Donation Confirmation box, select the `$100.00` text next to Amount and press `Ctrl+C` to copy the text.	
11. Press Alt+Tab to return to Rational Quality Manager.	
12. Find the reporting step that has the following expected results: `Verify that the donation confirmation amount is $100.00.`	
13. On the test editor toolbar, click the **Assisted Data Entry/Verification** `icon`.	The Assisted Data Entry/Verification dialog box opens.
14. Press Ctrl+V.	The `$100.00` text that was copied earlier in the application under test is pasted into the **Enter Text** box.

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15. Verify that the **Use Text for Assisted Data Entry** checkbox is cleared.	
16. Click **OK**.	
17. Save the test script.	
18. Exit the JKE Banking application. 	

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2.7 Complete a work item

Scenario

Now that Tanuj has created the test script to test dividend allocation to a single organization, he updates the work item to reflect his progress.

Step	Comment
1. Open the JKE Banking (Quality Management) dashboard.	Click **Project Dashboards** > **JKE Banking (Quality Management)**.
2. On the General tab of the dashboard, click the `Create a test script to test allocation of dividends to a single organization` text on the **My Tasks** widget.	The work item opens in the Change Management application.
3. Scroll down to the Discussion section and click **Add Comment**.	The rich text editor opens.
4. Type `I have completed the Allocate Dividends to a Single Cause test script.`	
5. Update the status of the work item to `Complete`.	
6. Click **Save**.	
7. Open the **Home** menu and click **JKE Banking (Quality Management)**.	Clicking the arrow opens the **Home** menu. 
8. Verify that the work item is no longer displayed in the **My Tasks** widget.	The widget only displays work items that are not complete.

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Exercise 3
Running Manual Tests

In this exercise, Tanuj runs the test script that he created, recording results as he progresses. Tanuj increases his testing efficiency by pasting data entry text and having Rational Quality Manager compare actual text to verification text.

The JKE Banking icon in a lab step alerts you to complete the step to be performed in the JKE Banking application rather than Rational Quality Manager. Press Alt+Tab to switch between Rational Quality Manager and the JKE Banking application.

Exercise Tasks

In this exercise, as Tanuj, you complete these tasks:

- Follow the step-by-step instructions in the test script.
- Apply the result of each completed statement.
- Paste the data entry text that is associated with execution steps.
- Have Rational Quality Manager compare actual text to verification text.
- Record actual text that differs from verification text in the **Actual Results** column.
- Record your overall assessment of the test as a comment.

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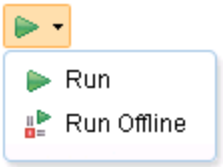
3.1 Run a test case

Scenario

In this exercise, Tanuj runs the test case that tests the process of allocating dividends to an organization.

To run a test script, Tanuj must run the test case with which the test script is associated

Step	Comment
1. In the Related Information panel (to the right of the test script), under Parent Test Case(s), click **Allocate Dividends to a Single Cause**.	The **Allocate Dividends to a Single Cause** test case opens.
2. Select the **Test Scripts** section of the test case.	
3. Confirm the **Allocate Dividends to a Single Cause** test script is listed.	
4. Click the **Run Test Case** icon and then click **Run**. 	The Run Test Case dialog box opens.
5. For Test Case Execution Record, select **New Test Case Execution Record**.	
6. In the Test Plan list, select **System Verification**.	
7. In the Iteration list, select **S2**.	
8. In the Test Script list, verify that **Allocate Dividends to a Single Cause** is selected.	
9. Click **OK**.	The Script Execution view opens with the pointer at the first statement in the script.

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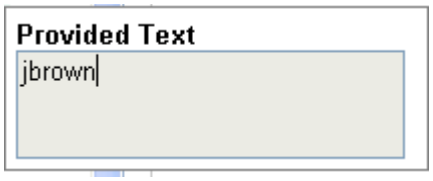
3.2 Complete the steps of the test script

Scenario

Tanuj follows the steps that are documented in the test script.

Step	Comment
1. Follow the instructions provided in the first statement of the script.	The first step is to start the JKE Banking application.
2. Press Alt+Tab to return to the Script Execution view in Rational Quality Manager.	
3. Verify the expected results.	The script says that the expected results are `The JKE Banking window opens.`
4. Because you verified that the application window opened, in the Script Execution view toolbar, click the **Pass** icon.	A checkmark to the left of the statement in the script indicates that the execution step passed the test. The arrow that indicates the current statement moves to the second statement.
5. Notice that data-entry text has been included for the second statement. Click the **Provided Text** icon to display the text.	
6. Select the `jbrown` text.	
7. Press Ctrl+C to copy the text**.**	
8. Press Alt+Tab to return to the application under test.	
9. Place the cursor in the **Username** field.	
10. Press Ctrl+V to paste the text.	
11. Press Alt+Tab to return to the Script Execution view.	
12. In the Script Execution view toolbar, click the **Pass** icon.	
13. Continue executing statements and applying results until you reach the following statement: In the **Percentage** field, type `10`.	In order to see what happens when an actual system response differs from verification text, you will enter a different percentage and force an incorrect system response.
14. In the **Percentage** field. Type `15`.	
15. Mark the corresponding step as passed (in Rational Quality Manager).	
16. Click **Next**.	

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17. Mark the corresponding step as passed (in Rational Quality Manager).	
18. In the Donation Confirmation box, select the dollar amout of the donation and press `Ctrl+C` to copy the text.	You may have a value other than $150.00 in your confirmation box, but as long as it is not $100.00, the verification will fail.
19. Switch to the Script Execution view. In the right-hand column of step 9, click the icon to open the **Paste Text to Compare** box.	
20. Press Ctrl+V to paste the text into the **Paste Text to Compare** box.	**Expected Result** $100.00 **Paste Text to Compare** $150.00 Comparison Result: **failure**
21. On the Script Execution view toolbar, click the **Fail** icon.	
22. Continue completing statements and applying results until you reach the final statement of the test script: `Tester's overall assessment of test.`	
23. On the script execution toolbar, click the **Comments** icon.	The Comments View dialog box opens.
24. Click in the **Write Comments** box, and then type a comment that reflects your overall assessment of the test, such as this statement: `Passed - satisfies all documented requirements related to this test.`	The confirmation dialog step failed because you deliberately entered a percent value other than the percent specified in the test script, not because the JKE Banking application failed. Therefore, this test passes even though one of its reporting steps failed.
25. Click **OK** to close the Comments View dialog box.	
26. Exit the JKE Banking application.	
27. On the Script Execution view toolbar, click the **Pass** icon.	
28. Scroll to the top of the test script to view the status of the test.	Execution failed Show Result

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3.3 Review the test results

Scenario

Finally, Tanuj reviews the results of the test run.

Step	Comment
1. At the top of the script, click the **Show Result** button.	The Script Execution view closes and the Execution Result view opens, displaying the results of the test. If a single failure is recorded, the entire test fails. You can override the failure as needed.
2. In the **Actual Result** list, select **Passed**.	Because the only failure in this test was one that you caused deliberately, this test passes even though one of its reporting steps failed.
3. Click **Save**.	

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Exercise 4
Reusing Test Content

In these exercises, Tanuj begins the process of reusing test content by planning and organizing a test script for later reuse. He then works through the process of reusing test content in Rational Quality Manager: creating keywords, using keywords in a new test script, and updating keywords.

Exercise Tasks

In this exercise, as Tanuj, you complete these tasks:

- Analyze an existing test script.
- Identify candidates for reuse.
- Create keywords.
- Use keywords in a new test script.
- Update keywords.

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4.1 Divide a test script into reusable sections

Scenario

Analyze the following test document and decide how to divide it into sections that can be reused in other test scripts. Draw horizontal lines to create discrete sections. When you have finished dividing the script, in the left margin, write a name that describes each section.

Test 01: Allocate dividends to a single cause

Number	*Description*	*Expected Results*
1	Start the JKE Banking application.	The JKE Banking window opens.
2	In the Username field, type **jbrown**.	
3	In the Password field, type **jbrown.**	
4	Click the **Login** button.	User is logged in to the application.
5	Click the **Checking Account** link.	
6	Click the **Allocate Dividend Percentage** button.	
7	Select an organization and click **Add**.	
8	In the Percentage field, type **10**.	
9	Click **Next**.	
10	Click **Confirm**.	
11	Tester's overall assessment of test	

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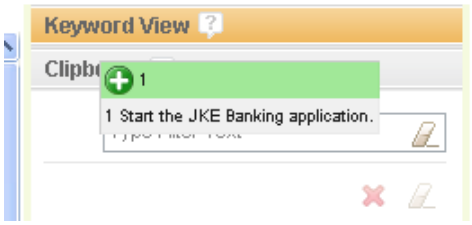
4.2 Create keywords

Scenario

In this exercise, you create keywords from existing test script statements.

Step	Comment
1. Open the **Allocate Dividends to a Single Cause** test script.	Click the **Construction** menu, and then click **Browse Test Scripts > Allocate Dividends to a Single Cause**.
2. If it is not already open, open the Keyword View to the right of the test script.	On the right border of the test script, click **Keyword View**.
3. At the far left end of the first statement, click the step selection symbol, hold down the mouse button, and drag the step into the Keyword View.	When you begin to drag one or more statements, the mouse pointer shows the beginning of the description text for the selected statement or statements that you have selected, and a red circle with an arrow. When the mouse pointer is positioned over the Keyword View, and the red circle turns green, drop the statement or statements, by releasing the mouse button.  The New Keyword dialog box opens.
4. In the New Keyword dialog box, click the **Name** box.	The cursor is placed in the Name box.
5. In the **Name** box, type: `Start JKE Banking`	
6. In the **Tags** box, type: `start,launch,aut,mtm`	Tags are separated by a comma.
7. Click **OK** to close the New Keyword dialog box.	The new keyword is listed in the Keyword View, and the Confirmation dialog box opens.
8. In the Confirmation dialog box, click **No**.	The Confirmation dialog box prompts you to choose whether to replace the selected script steps with the newly-created keyword.
9. In the second statement, click the step selection symbol.	

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10. In the **Step** column of the fourth statement, press and hold the Shift button and click the step selection ⠿ symbol.	Steps two through four are selected. Pressing and holding the Shift button while clicking a step selects a series of consecutive steps, starting with the step that was previously selected, and ending with the final step.
11. Drag statements two through four to the Keyword View.	
12. Provide keyword information: Name: `Login jbrown` Tags: `login,mtm`	
13. Click **OK** to close the New Keyword dialog box.	
14. In the Confirmation dialog box, click **No**.	
15. In the same manner, create keywords for the rest of the script as follows:	Click **No** in the Confirmation dialog box for the rest of this exercise.

View Checking *(Tags: checking,mtm)*
Click the **Checking Account** link.
Allocate Percentage to a Single Cause *(Tags: dividend,allocate,mtm)*
Click the **Allocate Dividend Percentage** button.
Select an organization and click **Add**.
In the Percentage field, type **10**.
Click **Next.**
Click **Confirm**.
Overall Assessment *(Tags: interpretation,evaluation)*
Tester's overall assessment of test.

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4.3 Use keywords in a new script

Scenario

In this exercise, Tanuj uses keywords in the process of creating a new test script. The new test script is allocating dividends to multiple causes.

Step	Comment
4. Click **Construction** > **Create Test Script**.	A new test script opens.
5. Name the new script `Allocate Dividends to Multiple Causes`	
6. Select **Tanuj** as the owner of the new script.	
7. Click and drag **Start JKE Banking** from the Keyword View to the script over the text **Click to add step**.	
8. In the same manner, drag the **Login jbrown** keyword to the script.	
9. Drag the **View Checking** keyword to the script.	
10. Add the following statements to the end of the test script:	

Description	*Expected Results*
Click the **Allocate Dividend Percentage** button.	
Select two organizations and click **Add**.	
In the Percentage field, type **10**.	
Click **Next**.	
Click **Confirm**.	

11. Make the five new statements a keyword: Name: `Allocate Percentage to Multiple Causes` Tags: `dividend,allocate,mtm`	
12. In the Confirmation dialog box, click **Yes**.	
13. Add this keyword to the script: **Overall Assessment**.	
14. Save the **Allocate Dividends to Multiple Causes** test script.	

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4.4 Update keywords

Scenario

In Exercise 4.3, Tanuj used keywords in a new test script. In this exercise, Tanuj has been directed to test allocating dividends to three causes in a single transaction. The keyword for selecting multiple organizations currently directs the tester to select two organizations, so he must update the keyword. As a result, the statements are automatically updated in every keyword-enabled test script. After updating the keyword, Tanuj verifies that the changes have been made to his keyword-enabled test script.

Step	Comment
1. Click **Construction** > **Browse Keywords**.	The Keywords view opens.
2. In the list of keywords, click the associated script for the **Allocate Percentage to Multiple Causes** keyword.	The **Allocate Percentage to Multiple Causes** keyword script opens.
3. In the test editor, find this statement: `Add two organizations.`	
4. Edit the statement, changing `two` to `three`.	
5. Save the keyword script.	
6. Open the **Allocate Dividends to Multiple Causes** test script.	**Note:** Open the test script, not the keyword.
7. Verify that `three` is listed for the number of organizations to select in step 4.	
8. If it is open, close the JKE Banking application. 	

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Exercise 5
Create a Data-Driven Test

In this exercise, Tanuj creates a data-driven test.

Exercise Tasks

In this exercise, as Tanuj, you complete these tasks:

- Create a test data source file.
- Create test data.
- Associate test data with a test script.
- Replace literal values in a test script with variables from the associated test data.
- Run the data-driven test.
- Report a defect that is discovered during the test run.

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5.1 Create a test data source file

Scenario

Tanuj creates a text file, in comma-separated values (CSV) format, to define data records for the data-driven test.

Step	Comment
1. Open Notepad.	Click **Start > Notepad**.
2. In the first line of the empty text file, type the following field names and data types:	
`Organization:STRING,Percentage:STRING`	
3. In the next three rows, type this information:	

`Salvation Army,110`
`Red Cross,25`
`Care,10`	

4. Click **File > Save As**.	
5. Navigate to the `Documents\Money That Matters` folder**.**	
6. Name the file `org_and_percent.csv`.	
7. Change **Save as type:** to `All Files`.	
8. Click **Save**.	
9. Exit Notepad.	

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5.2 Create test data

Scenario

With the test data source file, you create the test data.

Step	Comment
1. In Rational Quality Manager, click **Construction > Create Test Data**.	
2. In the Name field, type: `Organizations and Percentages`	
3. For the **Description**, type: `Includes the different organizations to have dividends allocated and the percentage that they receive.`	
4. In the **Data File** section, click **Browse**.	
5. Select the `org_and_percent.csv` file and then click **Open**.	Navigate to the `My Documents\Money That Matters folder` if necessary.
6. In the **Data Records** section, verify that the contents of the data source file are displayed properly.	**Note:** This may take a few seconds to complete.
7. Click **Save**.	

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5.3 Associate test data with a test script

Scenario

In this exercise you associate test data with a test script and then replace literal values in the test script with their corresponding variables (columns) in the associated test data.

Step	Comment
1. Open the **Allocate Dividends to a Single Cause** test script.	
2. In the **Test Data** list, select **`Organizations and Percentages.`**	If Organizations and Percentages is not shown in the Test Data list, refresh the test script.
3. Double-click in the statement that reads: Select an organization.	
4. Select the text "`an organization`".	***Tip:*** This is a good time to use the **Compact View** because you move between script statements and the test editor toolbar frequently.
5. On the test editor toolbar, click the **Insert Test Data Column**  icon.	The **Insert Test Data Column** dialog box opens.
6. Click the check box to select the `Organization` variable and then click **OK**.	Now that the organization is a variable that changes with each iteration of the test, we must insert the same variable into the **Expected Result** column for the reporting step that checks the organization selected.
7. Insert a step immediately before the step that reads: Click **Confirm**.	
8. In the step **Description**, type: `Verify that the correct organization is shown in the Donation Confirmation.`	
9. In the **Expected Results** column for this step, type: `Organization =`	Leave a space after the equals sign.
10. On the test editor toolbar, click the **Insert Test Data Column**  icon.	
11. Click the check box to select the `Organization` variable and then click **OK**.	
12. Click in the statement that reads: In the Percentage field, type `10`.	

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13. Select the `10` text.	
14. On the test editor toolbar, click the **Insert Test Data Column**  icon.	
15. Click the check box to select the `Percentage` variable and then click **OK**.	
16. Save the test script.	

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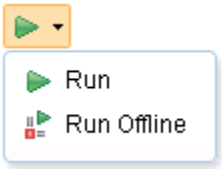
5.4 Run the data-driven test and open a defect

Scenario

Tanuj runs the data-driven test, which directs him through three iterations of the test, one for each data record (column) in the associated test data. During the test run, Tanuj discovers an issue with the JKE Banking application. To address this issue, he opens a defect to report the problem.

Step	Comment
1. Open the **Allocate Dividends to a Single Cause** test case.	Click **Construction** > **Browse Test Cases**.
2. Click the **Run Test Case** icon and then click **Run**. 	The **Run Test Case** dialog box opens.
3. Click the **OK** button.	The Script Execution view opens with the pointer at the first statement in the script.
4. Follow the instructions provided in the test script, move between Rational Quality Manager and the JKE Banking application by pressing Alt+Tab and apply results as appropriate. Stop when you get to step 8.	Each step that contains a variable displays the contents of the *first* record in the test data as the input data for the execution step.
5. Notice that the percentage specified is greater than 100, therefore it is invalid. Perform step 8.	The application allowed you to enter an invalid percentage. This step should fail.
6. In the **Actual Results** column, type: `Did not receive an error message, Percentage greater than 100, when a value of 110 was entered`**.**	
7. With the cursor in the **Actual Results** column, on the script execution toolbar, click the **Create New Defect** icon.	The **Create New Defect** window opens.
8. Confirm that `Defect` is selected in the **Type** list.	

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9. In the **Summary** field, type: `User can enter a percentage greater than 100.`	
10. Use this data to complete the defect: **Filed Against:** `JKE: BRM` **Severity:** `Blocker`. **Found In:** `Sprint 2 Development`.	
11. Click **OK** to submit the defect.	
12. Click the **Fail** icon for step 8.	
13. Proceed with the test. When you reach the last statement, apply the appropriate result.	The Script Execution view returns to the first statement and walks you through the test again, using the contents of the *second* record in the test data as input values.
14. Follow the instructions provided in the test script, move between Rational Quality Manager and the JKE Banking application by pressing **Alt+Tab** and apply results as appropriate.	
15. When you reach the last statement, apply the appropriate result.	The Script Execution view returns to the first statement and walks you through the test again, using the contents of the *third* record in the test data as input values.
16. Follow the instructions provided in the test script, move between Rational Quality Manager and the JKE Banking application by pressing **Alt+Tab** and apply results as appropriate.	
17. After applying the appropriate result to the last statement, click the **Show Result** button.	
18. Review the test case result.	
19. Exit the JKE Banking application.	

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Exercise 6
Run and Customize Reports

In this exercise, Tanuj creates and runs reports in several different ways.

Exercise Tasks

In this exercise, as Tanuj, you complete these tasks:

- Run a report.
- Save the parameters of an existing report.
- Create a new report from a report template.

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6.1 Run a report

Scenario

First, Tanuj runs a report that shows a summary of results for tests that he has run.

Step	Comment
1. Click the **Reports** menu, and then click **Browse Shared Reports**.	
2. Find the **Tester Report using TCER Count** report.	The reports are grouped in folders. The Tester Report using TCER Count report is in the Summary folder. You can also use the **Type to filter** box to search for the report by name.
3. Click the report name to open it.	
4. Select **tanuj** as the TCER Owner.	
5. Select the **System Verification** test plan.	
6. Click **Run**.	
7. Review the test results that are displayed in the graph.	
8. You can view additional details by clicking on the graph. To see a detailed list of the test case execution records that passed, click the green section of the graph.	

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6.2 Save the selected parameters to make a custom report

Scenario

Because Tanuj runs this report frequently, the ability to run this report without selecting the parameters each time would improve efficiency. Tanuj saves a copy of the report with his selected parameters to make running this report more efficient in the future.

Step	Comment
1. Click the **Reports** menu, and then click **Browse Shared Reports**.	
2. Find and click the **Tester Report using TCER Count** report.	The reports are grouped in folders. The Tester Report using TCER Count report is in the Summary folder. You can also use the **Type to filter** box to search for the report by name. Tip: If you already viewed this report, it will be listed in the **Reports** menu under the **Recently Viewed** section.
3. If the report opened displaying the bar graph, not the parameter selection page, click the Click to Edit Parameters  icon on the toolbar.	
4. Confirm that your previous parameter selections are still selected: TCER Owner: **tanuj** Test Plan: **System Verification**	
5. Click **Save as**.	
6. Change the **Name** to `Tanuj - Tester Report using TCER Count`.	
7. Confirm that the theme is `My Reports`.	
8. Click **OK**.	
9. Click the **Reports** menu, and then click **Browse My Reports**.	
10. If the new report is not listed, click the Refresh  icon on the Reports toolbar.	
11. Click **Tanuj – Tester Report using TCER Count** to open the new report.	Notice that tanuj and System Verification are pre-selected as parameters for this report.

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6.3 Create a custom report from a template

Scenario

Tanuj wants to see his report, but only for test cases that failed. He uses a template to create a custom report that shows this information.

Step	Comment
1. Click the **Reports** menu, and then click **Create Report From Resource**.	
2. In the **Name** field, type: `Custom Tanuj - Tester Report using TCER Count.`	
3. For the folder, select **My Reports**.	
4. In the **Resource** field, select **Execution Status using TCER Count (Live)**.	
5. Click **Save**.	The report is now available in the **My Reports** list.
6. Click the **Reports** menu, and then click **Browse My Reports**.	
7. Click the report name to open it.	
8. Select the **System Verification** test plan.	
9. For **TCER Owner**, select **tanuj**.	
10. For **TCER State**, select **Failed**.	
11. Click **Run**.	
12. Review the test case result.	

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