

Building Your First Automation Bot – Step List

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Purpose

In this use case, you will learn to use Automation 360 actions for creating a bot to automate a business process.

The key steps to be performed by the bot are:

- Extract customer data from a web portal into a CSV file.
- Open the CSV file and launch a CRM website.
- Populate the CRM webform.
- Save and send the CSV file to the relationship manager.

Prerequisite

- Access to the Automation Anywhere Community Edition:

Access Automation Anywhere Community Edition and Register yourself. If you have already registered, log in to Community Edition using the URL that is mentioned in the Community Edition Welcome email that is sent to your email address.

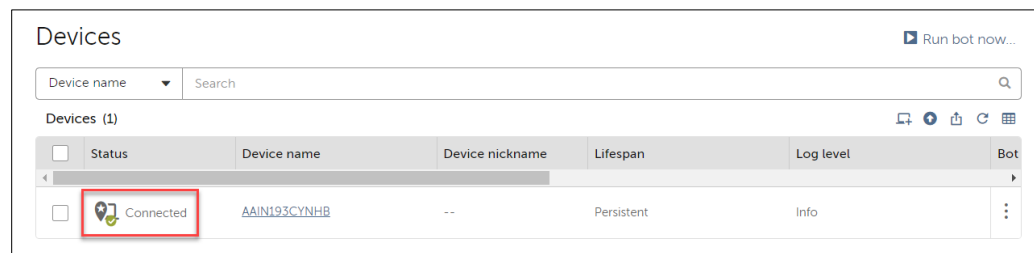
- Microsoft Excel: You will need to have Microsoft Excel installed for the successful execution of the bot.

1. Register your device(s) and set user device credentials

- a. Log in to Automation Anywhere Community Edition Control Room.
- b. To register your device.
 - i Click **Devices** under the Manage section, in the Navigation pane.
 - ii Click the **Connect local device** icon from the Actions menu.
 - iii Click **Connect to my computer**, wait until the Automation Anywhere Bot Agent downloads, and then install it.
 - iv Follow the steps outlined in the wizard to install the Bot Agent.

Note: *If your device's access to the Internet is controlled through an authenticating proxy server, you are prompted to provide the proxy server authentication details. These credentials are required for the device to communicate with the Control Room. To enable the authenticated proxy, register the device through a Chrome browser with the Automation Anywhere Chrome extension enabled.*

- v Enable the Chrome extension.
- vi Click **Done**.

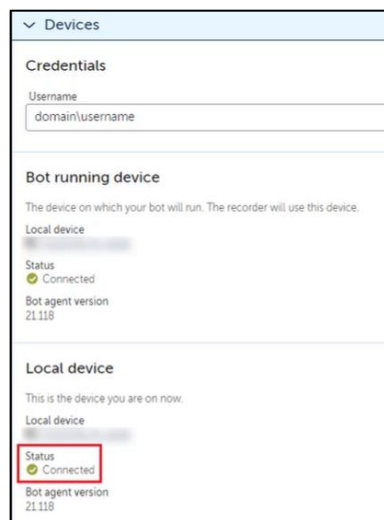


- c. Set user device credentials.
 - i Click the **Username** in the Navigation pane.
 - ii Click **My settings** in the flyout pane.

- iii Navigate to Devices and enter the **Device username** in the corresponding field. If your username is part of a domain, include the domain within the format *domain\username*.

Note: To get the device username, type command **whoami** in the Command Prompt. Note that these credentials are network dependent.

- iv Click **Save changes**.



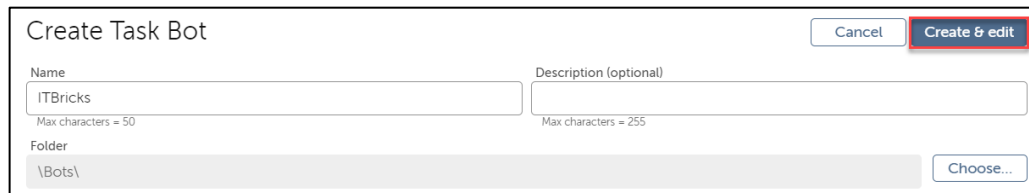
Congratulations! You have now successfully registered your device and provided the login credentials for bot execution.

2. Create and structure the task bot

- a. Create a task bot.
 - i Click the **Create a bot** link, in the **Explore** page.
 - ii Enter a name for the bot and then click **Create & edit**.

Note:

- Actions are grouped into packages based on the technology they automate. For example, the Excel advanced package contains Excel-related actions, which you can use to automate operations on a spreadsheet.
- When you hover the mouse over the package, you will notice that a pop-up displays context-sensitive information. You can watch a quick video about the package by clicking the Tutorial icon. Please note that tutorial videos are available for the Email, Excel advanced, and Recorder packages with the Automation 360 v.29 release.
- You can also access real-time documentation related to the action package or an action. To do so, click the Documentation icon. This will open the in-app Help Center widget, which displays related documentation.

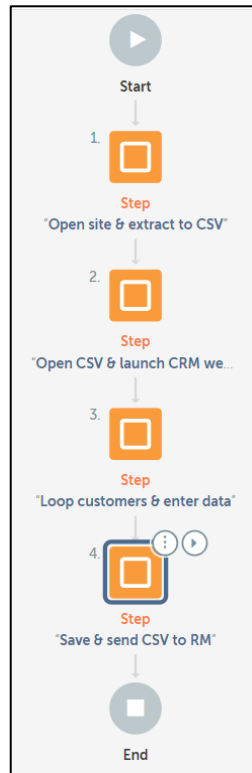


b. Structure the task bot.

- Search for the **Step** action in the Actions palette and drag and drop the **Step** action to the canvas.
- Enter an appropriate title for the step, in the Action details pane.
- Click **Save**.

Note: You can save the bot or continue to work on the next action and save the changes at the end.

- Repeat steps **i** to **iii** to add the remaining three steps that the bot must perform.



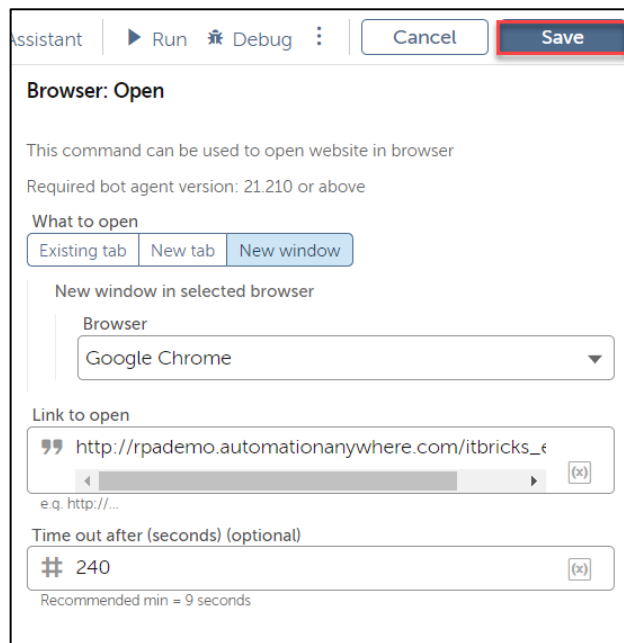
Congratulations! You have now successfully structured the task bot.

3. Step 1: Extract data from a web portal into a CSV file

- a. Launch the IT Bricks holiday packages website.
 - i Search for the **Browser** package in the Actions palette and drag and drop the **Open** action to the first step.

Note: Most of the actions in the Browser package are designed to work with Google Chrome. Some of the actions such as the **Browser: Close** action will not work for other browsers.
 - ii Click **New window** under **What to open** field.

- iii Select **Google Chrome** from the drop-down list in the **Browser** field in the Action details pane.
- iv Enter the URL of the web portal (http://rpademo.automationanywhere.com/itbricks_enroll.php) in the **Link to open** field.
- v Click **Save**.



- vi Run the bot. The **IT Bricks - Holiday Customer Report** window will open in Google Chrome.

Note: You can run the bot up to the steps you have created. Although it is a good practice to click save at regular intervals to preserve your progress, running the bot also saves your progress up till that point.

- b. Capture the data from the web table.
 - i Search for the **Recorder** package in the Actions palette and drag and drop the **Capture** action at the end of the first step.

- ii Click the **Application** toggle button and from the drop-down list, select the **IT Bricks – Holiday Customer Report** window in the Window section of the Action details pane.

Note: You must click the **Refresh windows** icon to populate the drop-down list.

- iii Click **Capture object**.
- iv Navigate to the web portal, hover your mouse over the table until a red outline appears, and then click to capture it.

Recorder: Capture

Captures an action for automation.
Required bot agent version: 21.210 or above

Window
Browser Application Variable

IT Bricks - Holiday Customer Report

Browser title
String Regex

IT Bricks - Holiday Customer Report

Use * as a wildcard

Link of web page
https://rpademo.automationanywhere.com/itbricks_enr

Browser application
Google Chrome

☐ Resize window
May improve bot accuracy

Main Anchor

Recapture object

Preview

Customer List

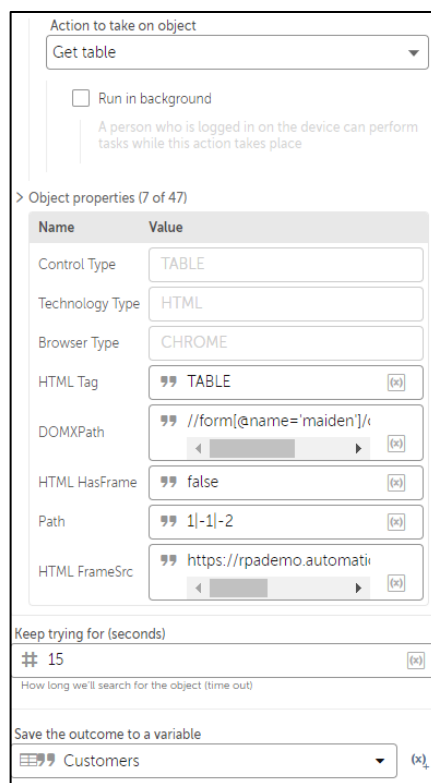
Customer ID	Customer Name	Customer Address	Customer City	Customer State	Customer Zip
1001	John Doe	123 Main St	New York	NY	10001
1002	Jane Smith	456 Elm St	Los Angeles	CA	90001
1003	Bob Johnson	789 Oak St	Chicago	IL	60601
1004	Alice Brown	101 Pine St	San Francisco	CA	94101
1005	Charlie Davis	202 Maple St	Phoenix	AZ	85001
1006	Diana Prince	303 Cedar St	Philadelphia	PA	19101
1007	Frank Miller	404 Birch St	San Diego	CA	92101
1008	Grace Wilson	505 Spruce St	Seattle	WA	98101
1009	Henry Taylor	606 Ash St	Portland	OR	97201
1010	Ivy White	707 Hickory St	Denver	CO	80201

- v Navigate back to the Bot Editor and from the **Action to take on object** drop-down list in the Action details pane, select the **Get table** action.
- vi Click the **Variables** pane, and then click the **Create variable** icon to create a table variable.

Note: A variable is a symbol or a character that can hold a specific type of data temporarily.

- vii Select the variable type as **Table** and enter the variable name as **Customers**, and then click **Create**, in the **Create variable** pop-up.
- viii Select **Customers** from the drop-down list in the **Save the outcome to a variable** field of the Capture action.

Note: We will be using the **Customers** Table variable to capture data from a webpage and to retrieve multiple cells from Excel. To enable this variable to be reused, be sure to define the variable as a Table variable using the Variables pane.



Action to take on object

Get table

☐ Run in background

A person who is logged in on the device can perform tasks while this action takes place

> Object properties (7 of 47)

Name	Value
Control Type	TABLE
Technology Type	HTML
Browser Type	CHROME
HTML Tag	TABLE
DOMXPath	//form[@name='maiden']/
HTML HasFrame	false
Path	1 -1 -2
HTML FrameSrc	https://rpademo.automationanywhere.com/

Keep trying for (seconds)

15

How long we'll search for the object (time out)

Save the outcome to a variable

Customers

- c. Write the captured table to a CSV file.
 - i Search for the **Data Table** package in the Actions palette and drag and drop the **Write to file** action at the end of the first step.

- ii Select the variable to which you assigned the captured table (the variable will be '**Customers**' - if you named the variable as per the step **vii** above) from the Data table name field in the Action details pane.
- iii Enter the file location of the CSV file in the **Enter file name** field.
- iv Check the **Create folders/files if it doesn't exist** checkbox and then click the **Overwrite existing file** option.
- v Select **ANSI** as the encoding option from the Encoding list.

Note: Select the encoding option as per the encoding scheme of your system.

Data Table: Write to file

Writes a data table into a specified file
Required bot agent version: 20.11 or above

Data table name
Customers (x)

Enter file name
c:\buildabot\customers.csv (x) Browse...

Required extensions: ".csv", ".txt"

☒ Create folders/files if it doesn't exist

When writing
☐ Append to the existing file
☒ Overwrite existing file

Row delimiter
new line

Column delimiter
comma

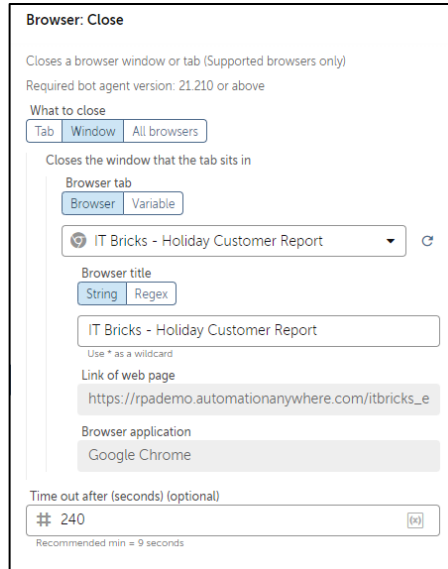
Encoding
ANSI

- d. Close the web portal window.
 - i Search for the **Browser** package in the Actions palette and drag and drop the **Close** action at the end of the first step.
 - ii Select the **Window** toggle button in the Action details pane, then the **Browser** toggle button, and then select the **IT Bricks – Holiday Customer Report** window.

Note: You must click the **Refresh windows** icon to populate the drop-down list.

iii Run the bot.

Note: This ensures that the CSV file is created and available at the specified location.



Browser: Close

Closes a browser window or tab (Supported browsers only)
Required bot agent version: 21.210 or above

What to close
Tab Window All browsers

Closes the window that the tab sits in

Browser tab
Browser Variable

Browser title
String Regex
IT Bricks - Holiday Customer Report

Link of web page
https://rpademo.automationanywhere.com/itbricks_e

Browser application
Google Chrome

Time out after (seconds) (optional)
240 (v)

Recommended min = 9 seconds

Great! You have completed the first step.

4. Step 2: Open the CSV file and launch the CRM

a. Open the CSV file.

- i Search for the **Excel advanced** package in the Actions palette and drag and drop the **Open** action to the second step.
- ii Select the **Desktop file** toggle button in the Action details pane and enter the file path with name and file extension.
- iii Check the **Sheet contains a header** checkbox and then select the **Read-write** mode radio button.
- iv Select **Local session** under **Create Excel session** and enter the session name as Default. Click **Save**.

Building Your First Automation Bot – Step List

Excel advanced: Open

File path
Control Room file Desktop file Variable

Browse...

e.g. C:\Working\Excel1.xlsx

☒ Sheet contains a header

☐ Specific sheet name

e.g. Sheet1 or SHEET1

Open in

☐ Read-only mode

☒ Read-write mode

☐ Password is required

To open (optional)

Pick...

To edit (optional)

Pick...

☐ Load Add-ins

☐ Exclude hidden sheets

Create Excel session

Local session Global session Variable

Local session name can only be used in this bot.

(x)

- b. Position the cursor in the required cell to update the status.
 - i Search for the **Excel advanced** package in the Actions palette and drag and drop the **Go to cell** action at the end of the second step.
 - ii Select the **Specific cell** option in the **Cell option** section of the Action details pane and enter the cell address as **G2**.

Excel advanced: Go to cell

Goes to a specified cell. This action works with xlsx, csv, xlsx, xlsb, xml, txt, html, htm, mht, mhtml, silk and pdf files

Required bot agent version: 21.112 or above

Cell option

☒ Specific cell

(x)

e.g. A5 or B2:B10

☐ Active cell

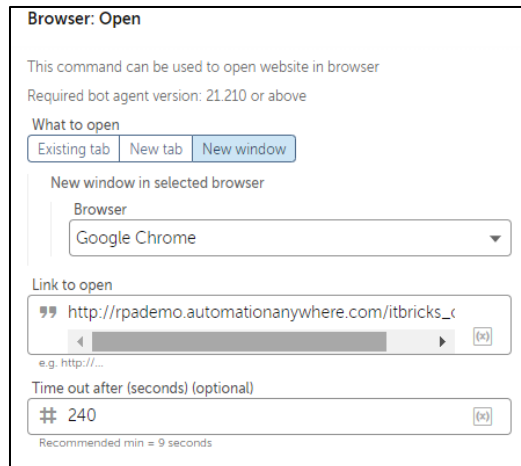
Session name

Session name Variable

(x)

The name you gave the session when you opened it.

- c. Launch the IT Bricks CRM web page.
 - i Search for the **Browser** package in the Actions palette and drag and drop the **Open** action to the second step.
 - ii Select the **New window** toggle button in the Action details pane and select **Google Chrome** from the **Browser** drop-down list.
 - iii Enter the URL of the web portal (http://rpademo.automationanywhere.com/itbricks_crm.php) in the **Link to open** field. Execute the step to open the CRM webpage and then save the bot.



Browser: Open

This command can be used to open website in browser
Required bot agent version: 21.210 or above

What to open
Existing tab New tab New window

New window in selected browser
Browser
Google Chrome

Link to open
http://rpademo.automationanywhere.com/itbricks_c
e.g. http://...

Time out after (seconds) (optional)
240
Recommended min = 9 seconds

Now, you have added the steps to open the CSV file and launch the CRM website.

5. Step 3: Populate the CRM webform

- a. Retrieve data from the CSV file.
 - i Search for the **Excel advanced** package in the Actions palette and drag and drop the **Get multiple cells** action to the third step.

- ii Select **All rows** in the **Select range of cells to be returned** drop-down list in the Action details pane.
- iii Select the same variable **Customers** to which you assigned the output in the **Assign value to the variable** drop-down list.

The screenshot shows the configuration pane for the 'Excel advanced: Get multiple cells' action. It includes a description of the action, a required bot agent version of 21.112 or above, and several configuration fields. The 'Select range of cells to be returned' dropdown is set to 'All rows'. Under 'Read option', 'Read visible text in cell' is selected. The 'Session name' field is set to 'Default'. The 'Assign value to the variable' dropdown is set to 'Customers'.

Excel advanced: Get multiple cells

Retrieves the values of multiple cells in an excel worksheet. This action works with xlsx, xls, csv, xlsx, xml, xlsx, xml, txt, html, htm, mhtml, mhtml, ssk and pdf files

Required bot agent version: 21.112 or above

Select range of cells to be returned

All rows

Read option

☒ Read visible text in cell
e.g. 50% will be read as 50%

☐ Read cell value
e.g. 50% will be read as 50

Session name

Session name Variable

Default

The name you gave the session when you opened it.

Assign value to the variable

Customers

- b. Loop through the rows of the CSV file and assign each row to a variable.
 - i Search for the **Loop** action in the Actions palette and drag and drop the Loop action at the end of the third step in the Actions palette.
 - ii Select the loop type as **For each row in table** under **Data Table** in the Action details pane.
 - iii Select the same table variable (Customers) used earlier in the **Table variable** list.
 - iv Click the **Create variable** icon to create the record type variable in the **Assign the current row to this variable** field.
 - v Enter the variable name as **CustomerRow** and click **Create & select**.

Loop

Repeats the actions in a loop until a break
Required bot agent version: 20.11 or above

Loop Type

☒ Iterator

Iterator

Data Table
For each row in table

Iterator for each row in table

Table variable
Customers (x1)

Assign the current row to this variable
Multiple variables Record

CustomerRow (x1)

- c. Update each field in the CRM webform with the data from the CSV file.
 - i Search for the **Recorder** package in the Actions palette and drag and drop the **Capture** action within the Loop action.
 - ii Click the **Application** toggle button in the **Window** section of the Action details pane and from the drop-down list, select the **IT Bricks - New Holiday Club Signup** window.
 - iii Click the **Capture object** button.
 - iv Navigate to the CRM web page and capture the **First Name** field.

Recorder: Capture

Captures an action for automation.
Required bot agent version: 21.210 or above

Window

☒ Browser ☐ Application ☐ Variable

IT Bricks - New Holiday Club Signup

Browser title

☒ String ☐ Regex

IT Bricks - New Holiday Club Signup

Use * as a wildcard

Link of web page

https://rpademo.automationanywhere.com/itbricks_crr

Browser application

Google Chrome

☐ Resize window
May improve bot accuracy

Main Anchor

Recapture object

Preview

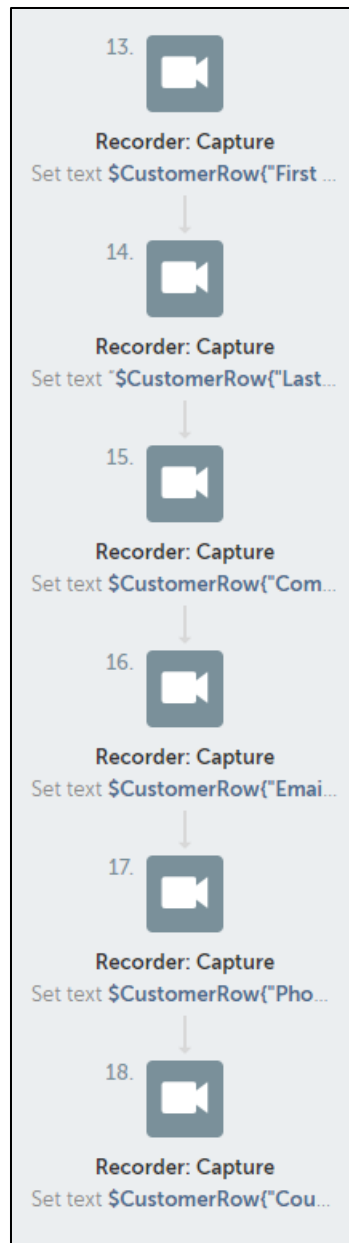
Name: [Text Field]

Name: [Text Field]

- v Navigate back to the Control Room and from the **Action to take on object** drop-down list, select **Set text**.
- vi Use the **Insert a value** icon to select the record variable (CustomerRow) in the **Keystrokes** section, then select the **By name** toggle button and then enter **First Name** in the text box.
***Note:** It is a good practice to copy the column header names such as First Name, Last Name etc. from the CSV file. This will help eliminate any potential errors that may occur while typing.*
- vii Click **Yes, insert**.

The screenshot shows the 'Recorder: Capture' interface. At the top, 'Action to take on object' is set to 'Set text'. Below this, there is a checkbox for 'Run in background' which is unchecked. The 'Keystrokes' section has two radio buttons: 'Enter keystrokes here or use the on-screen keyboard' (selected) and 'Select a credential' (unchecked). Under the selected radio button, there is a text input field containing '\$CustomerRow("First Name")' and a 'Pick...' button. Below this, there is a 'Time between keystrokes (milliseconds) (optional)' field with a '#' symbol and a '(x)' button. At the bottom, there is a small note: 'Time=0 pastes string into object (default). Time>0 simulates keystrokes'.

- viii Repeat steps **i** to **vii** for each field in the CSV file.



- d. Capture the Register button and the message that indicates whether the registration was successful or not.
- i Search for the **Recorder** package in the Actions palette and drag and drop the **Capture** action within the Loop action.
 - ii Click the **Application** toggle button in the Window section of the Action details pane and from the drop-down list, select the **IT Bricks - New Holiday Club Signup** window.

- iii Click the **Capture object** button.
- iv Navigate to the CRM web page and capture the **Register** button.

Navigate back to the Bot Editor and from the **Action to take on object** drop-down list, select **Click**.

The screenshot shows the 'Recorder: Capture' configuration window. It includes a description 'Captures an action for automation.' and a requirement 'Required bot agent version: 21.210 or above'. Under the 'Window' section, the 'Browser' tab is selected, showing a dropdown menu with 'IT Bricks - New Holiday Club Signup' selected. Below this, the 'Browser title' section has 'String' selected and the value 'IT Bricks - New Holiday Club Signup'. The 'Link of web page' is 'https://rpademo.automationanywhere.com/itbricks_cr...'. The 'Browser application' is 'Google Chrome'. There is an unchecked checkbox for 'Resize window' with the note 'May improve bot accuracy'. Under the 'Main' section, the 'Recapture object' dropdown is set to 'Recapture object'. A 'Preview' section shows a form with a 'Country:' label, a text input field, and 'Register' and 'Clear Form' buttons. The 'Register' button is highlighted with a red box. At the bottom, the 'Action to take on object' dropdown is set to 'Click'.

- v Search for the **Recorder** package in the Actions palette and drag and drop the **Capture** action within the Loop action.
- vi Click the **Application** toggle button in the Window section of the Action details pane and from the drop-down list, select the **IT Bricks - New Holiday Club Signup** window.

Note: You will need to enter all the details of one customer manually and then click register so that the message to be captured is displayed.

- vii Click the **Capture object** button.
- viii Navigate to the CRM web page and capture the message at the top of the page that says, 'User information saved'.

Recorder: Capture

Captures an action for automation.
Required bot agent version: 21.210 or above

Window
 Browser Application Variable
 IT Bricks - New Holiday Club Signup

Browser title
 String Regex
 IT Bricks - New Holiday Club Signup
Use * as a wildcard

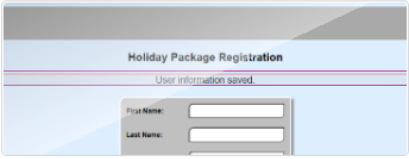
Link of web page
 https://rpademo.automationanywhere.com/itbricks_crr

Browser application
 Google Chrome

☐ Resize window
May improve bot accuracy

Main Anchor
 Recapture object

Preview



- ix Navigate back to the Bot Editor and from the **Action to take on object** drop-down list, select the **Get property** action.
- x Select **HTML InnerText** from the drop down in the **Property name** field.
- xi Click **Create variable** icon to create a **Status** variable of type String in the **Save the outcome to a variable** field and click **Create & select**.

Building Your First Automation Bot – Step List

Action to take on object
Get property

☐ Run in background
A person who is logged in on the device can perform tasks while this action takes place

Property name
HTML InnerText

> Object properties (8 of 47)

Name	Value
Control Type	CLIENT
Technology Type	HTML
Browser Type	CHROME
HTML Tag	DIV
DOMXPath	//div[@id='message']
HTML ID	message
HTML HasFrame	false
Path	1-1 2
HTML FrameSrc	is://rpademo.automationa

Keep trying for (seconds)
15

How long we'll search for the object (time out)

Save the outcome to a variable
Status

- e. Update the status in the CSV file and move the cursor one cell below.
 - i Search for the **Excel advanced** package in the Actions palette and drag and drop the **Set cell** after the last Recorder action within the loop.
 - ii Click **Active cell** in the **Cell option** section and in the Cell value list, use the **Insert a value** icon to select the status variable.
 - iii Click **Yes, insert**.

Excel advanced: Set cell

Sets cell value of an excel file. This action works with xlsx, xls, csv, xlsxm, xlsb, xml, txt, html, htm, mht, mhtml, slk and pdf files.

Required bot agent version: 21.112 or above

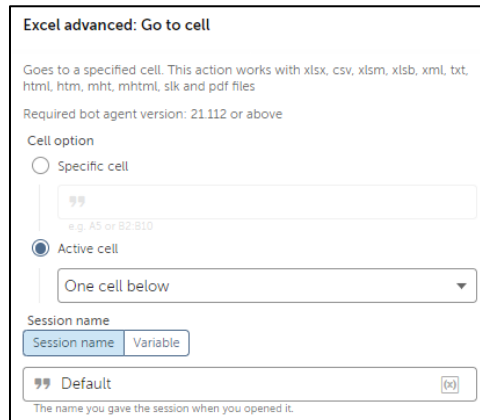
Cell option
☒ Active cell
☐ Specific cell

Cell value
\$Status\$

Session name
Session name Variable

Default

- iv Search for the **Excel advanced** package in the Actions palette and drag and drop the **Go to cell** action at the end of the loop.
- v Select the **Active cell** radio button and from the drop-down list, select **One cell below**.
- vi Click **Save**.

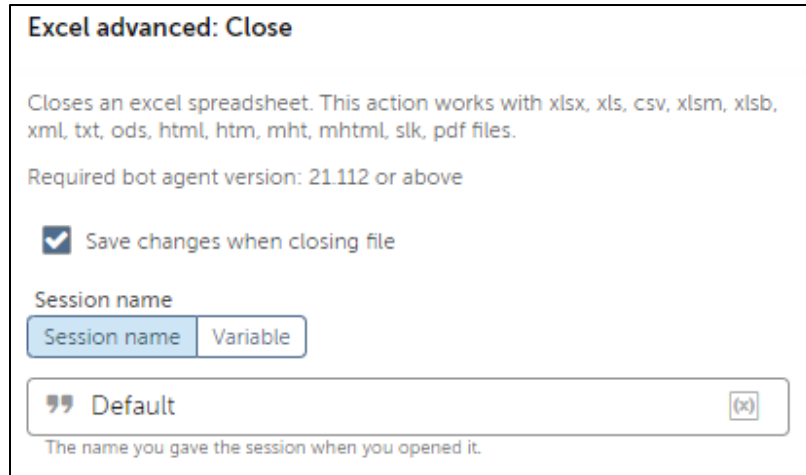


Congratulations! You have now completed the third step and populated all the customer details in the CRM webform.

6. Step 4: Save and send the CSV file to the Relationship Manager

- a. Close the CSV file.
 - i Search for the **Excel advanced** package in the Actions palette and drag and drop the **Close** action to the fourth step.

Note: Ensure that the **Save changes when closing file** check box is selected.



Excel advanced: Close

Closes an excel spreadsheet. This action works with xlsx, xls, csv, xlsx, xlsb, xml, txt, ods, html, htm, mht, mhtml, slk, pdf files.

Required bot agent version: 21.112 or above

☒ Save changes when closing file

Session name

Session name Variable

Default

The name you gave the session when you opened it.

- b. Send an email to the Relationship Manager.
 - i Search for the **Email** package in the Actions palette and drag and drop the **Send** action at the end of the fourth step.
 - ii Enter the Relationship Manager's email ID in the **To address** field of the Action details pane.
 - iii Update the Email subject in the **Subject** field.
 - iv Select the **List** tab and then click the **+** sign and then click **Desktop file** toggle button in the **Attachment (optional)** section. Then, enter the file path and name of the CSV file.
 - v Enter the suitable message to be included in the body of the email in the **Message** field.

Note: You may also add rich text formatting to your message using the HTML design option. Upon selecting the **HTML design** tab, you are presented with an editor that enables you to apply formatting elements such as font selection, font size, bold, underline, italics, font color, and text hyperlinks.
 - vi Select the application for sending the email in the **Send email via** list.
 - vii Click **Save**.

Email: Send

Sends an email

Required bot agent version: 21.210 or above

To address

itbricks@gmail.com
(x)

Use comma for multiple email ids

Cc (optional)

Use comma for multiple email ids

Bcc (optional)

Use comma for multiple email ids

Subject

Customer Data Entered into CRM.
(x)

Attachment (optional)

List
Variable

Value at 0

Control Room file
Desktop file
Variable

C:\buildabot\customers.c
(x)
Browse...

+

☐ Raise error if the attachments are missing(Desktop only)

Email body

Plain text
HTML design
HTML code

Message

See attached report of customer data entry.
(x)

☒ Include Go Green message at the end of the email

Send email via

Email server
Outlook
EWS Server

Great! Your bot is now ready!

7. Run the task bot

- a. Close the open Excel workbook.

Note: *Ensure that there are no indications of incomplete actions.*

- b. Click **Run** in the Bot Editor toolbar.



Congratulations! You have now successfully created the bot that would extract data from a web portal, capture it in an excel sheet, populate all the customer details in the CRM webform, and also notify the email recipients.

Go be great.TM