

Aim: Study of Actions of Automation Anywhere

Objectives: To understand which action does and the actions functionality.

Tools Used: Automation Anywhere.

Concept: Understanding the actions and their functionality.

Problem Statement: To understand different actions and their functionality.

1) Database Package

The Database Package is a robust tool that enables seamless interaction between bots and various databases such as MySQL, SQL Server, and Oracle. This package automates data retrieval, updates, and transactions, ensuring accuracy, efficiency, and security without manual effort.

Key Functions in the Database Package:

- **Connect:** Establishes a connection with the database before performing any operations.
- **Begin Database Transaction:** Groups multiple operations into a single unit, ensuring consistency.
- **Read From:** Retrieves records from the database using a query.
- **Insert/Update/Delete:** Facilitates inserting new records, updating existing ones, and deleting unnecessary data.
- **Run Stored Procedure:** Executes predefined procedures in the database for complex operations.
- **Export Datatable:** Saves retrieved data in a table for further automation processing.
- **End Database Transaction:** Finalizes and commits all changes made during the transaction.
- **Disconnect:** Closes the database connection after completing the required operations.

2) Error Handler Package

In Automation Anywhere, effective error handling is crucial for building resilient and reliable bots. The Error Handler command provides a structured approach to manage exceptions and ensure that bots can handle unexpected situations gracefully. This command comprises several key actions:

1. **Try Action:** This action contains the set of operations that you want to monitor for potential errors. If an error occurs within this block, the control is transferred to the corresponding Catch action.
2. **Catch Action:** When an error is encountered in the Try block, the Catch action is executed. Here, you can define specific steps to handle the error, such as logging the error details, sending notifications, or executing alternative logic to mitigate the issue.
3. **Throw Action:** Within the Try block, you can use the Throw action to deliberately raise an exception. This is useful for testing error handling mechanisms or when a specific condition warrants an intentional error to be caught by the Catch block.
4. **Finally Action:** This action is executed after the Try and Catch blocks, regardless of whether an error occurred or not. It's typically used for cleanup activities, such as closing files or releasing resources, ensuring that certain operations are performed at the end of the error handling process.

3) **Excel Basic Package**

Designed for users who need to automate spreadsheet tasks without installing Microsoft Excel, the Excel Basic Package leverages the Apache POI API to process XLSX files. However, it does not support XLS or CSV formats.

When to Use the Excel Basic Package:

- If Excel is not installed on the system.
- For automating simple Excel operations like reading, writing, and modifying data.
- When working with files up to 30 MB in size.

Key Features:

- **Open:** Opens an Excel file in read-only or edit mode.
- **Close:** Closes an Excel file and saves modifications if needed.
- **Set Cell:** Writes a value to a specific cell.
- **Get Single Cell:** Retrieves the value of a single cell.
- **Get Multiple Cells:** Extracts data from multiple cells into a table variable.
- **Get Cell Address:** Provides the active cell's location.
- **Get Column Name:** Returns the column letter of a given cell.
- **Get Row Number:** Retrieves the row number of a specified cell.
- **Go to Cell:** Moves the cursor to a particular cell.
- **Delete Cells:** Removes specified or active cells.
- **Replace:** Updates values in a worksheet.
- **Find:** Locates specific values within a worksheet.
- **Switch to Sheet:** Activates a particular worksheet within a workbook.
- **Save Workbook:** Saves the current file.

This package is ideal for basic Excel automation tasks, but for advanced operations, the Excel Advanced Package is recommended.

4) **PDF Package**

The PDF Package streamlines the automation of PDF-related tasks, eliminating the need for third-party PDF readers. It provides tools to efficiently handle and manage PDF files.

Key Actions in the PDF Package:

- **Encrypt Document:** Secures a PDF using encryption methods like RC4 40-bit, RC4 128-bit, or AES 128-bit, with optional password protection.
- **Decrypt Document:** Unlocks an encrypted PDF.
- **Extract Text:** Retrieves text content from a PDF and saves it as a text file.
- **Extract Images:** Saves images from a PDF document.
- **Extract Field:** Extracts specific field values from an editable PDF and assigns them to variables.
- **Get Properties:** Retrieves metadata and document properties.
- **Merge Document:** Combines multiple PDFs into one.
- **Split Document:** Breaks a PDF into smaller sections based on set criteria.

5) **Email Package**

The Email Package facilitates automation of email-related tasks using various protocols, including Exchange Web Services (EWS), Microsoft Outlook, and other email servers. It supports EWS, POP3, SMTP, and IMAP, enabling comprehensive email management.

Key Actions in the Email Package:

- **Connect:** Establishes a connection with an email server before performing tasks.
- **Disconnect:** Closes the email server connection post-task completion.
- **Send:** Sends emails with specified recipients, subject, body, and attachments—no prior connection required.
- **Forward:** Forwards emails to specified recipients, with optional comments and attachments.
- **Reply:** Replies to an email, either to the sender or all recipients, with optional attachments.
- **Save Attachments:** Downloads attachments from selected emails to a designated folder.
- **Move:** Transfers emails from one folder to another for better organization.
- **Delete All:** Deletes all emails (read/unread) from a specified folder.
- **Delete:** Removes a particular email—commonly used within loops.
- **Change Status:** Modifies email statuses, such as marking messages as read/unread.
- **Check if Folder Exists:** Verifies the existence of a folder within the email server.

Observation:

The study of actions helps in understanding how different tools make automation easier. The Database Package allows bots to work with databases by retrieving, updating, and managing data. The Error Handler Package helps bots handle mistakes smoothly without stopping the process. The Excel Basic Package automates simple spreadsheet tasks even if Microsoft Excel is not installed. The PDF Package makes it easy to work with PDFs by extracting text, merging, or splitting files. Lastly, the Email Package automates email tasks like sending, receiving, and organizing messages, making work more efficient.