Uipath Interview Questions

1. What is RPA?

Answer: Robotic Process Automation is a type of automation where a machine or computer mimics a human's action in completing rule based tasks. It is used to automate business process.

Automate the business process by robot is known as RPA.

2. What is RPA LIFE CYCLE?

Phases of RPA Life Cycle:

Analysis: The first phase in RPA begins with analysis. Business team and RPA Architect work together to understand a business process for RPA development.

Bot Development: RPA developer (Team) starts working on the requirement in their environment possibly a distinct development environment.

Testing: Some companies conduct Testing by Separate Testing Team, while some have a dedicated testing team which performs a dedicated QA like normal SDLC flow. Best Practice is to have a dedicated testing team which performs QA of a developed bot.

Deployment and Maintenance: After the Development and Testing phases, a bot is ready for distribution and enters maintenance phase.

This question is frequently asked in RPA interviews. You should know the RPA Life Cycle.

3. How many projects you have completed in RPA?

Its depend on candidate for interview

4. Why UiPath is best in RPA?

Answer: Uipath RPA is an enterprise computing platform dedicated to automating business process.

It provides the below options full compliance with the enterprise security and governance.

- Process modelling
- Change Management

Deployment Management

- Access Control
- Remote Execution
- Scheduling

5. Components of Uipath?

UiPath Platform consists of three main components:

UiPath Studio:- UiPath Studio is a complete solution for application integration, and automating third-party applications, administrative IT tasks and business IT processes.

UiPath Robot- UiPath Robots are a fundamental component of the UiPath Enterprise RPA Platform. Robots execute the automation workflow designed in UiPath Studio and can be centrally managed from UiPath Orchestrator.

UiPath Orchestrator- UiPath Orchestrator is a web application that enables you to orchestrate your UiPath Robots in executing repetitive business processes.

Orchestrator manage the creation, monitoring, and deployment of resources in your environment, acting in the same as an integration point with third-party solutions and applications.

6. Types of Workflows in Uipath?

a) Sequences- The sequence is actually the small type of projects which are suitable mainly for linear processes & will enable you to switch from one activity to another seamlessly. It actually acts as a single activity block. We can reuse them for many times.

b) Flowchart- It helps in large jobs as well as in small projects & you can also use them in different projects Flowcharts help in presenting multiple branching of logical operators, helps in building complex business & for connecting the activities in many ways.

c) State Machine- when a machine is using a certain number of states for automation during the execution it is known as the state machine. it will only switch from one state to another if any action is triggered.

7. What is difference between Attended & Unattended bot?

a) Attended - works on the same workstation as a human user and is usually triggered by the user through their actions (user events). **You cannot start processes from Orchestrator on this type of Robots, and they cannot run under a locked screen. They can be started only from the Robot tray.**

b) Unattended - Runs unattended in virtual environments and can automate any number of processes. On top of the Attended Robot capabilities, this Robot is responsible for remote execution, monitoring, scheduling and providing support for work queues.

8. Which type of challenges you have faced in Uipath?

Its depend on candidate to candidate experience.

9. What are the benefits of using RPA?

Benefits of using RPA

1. **It Saves Cost:** Since it can automate almost all manual and repetitive tasks, you can reduce the size of your workforce and hence reduce costs.
2. **More Accurate in Lesser Time:** To err is human, but computers or machines don't commit any mistakes, they do exactly as they are told and hence are more accurate.
3. **Easy to Implement and learn:** Like earlier stated, there is no coding required. Any automation can be created using a simple drag and drop.
4. **No Coding Required!:** RPA can be implemented to automate any repetitive process which is done on a computer. This process can be related to any desktop tool or web application, if the process is repetitive it can be automated, that too with minimum coding required.

10. On Which version of Uipath tool you have worked?

It's depending on candidate experience.

You can say like I have started working on 2016.6, 2017.6,2018.4, 2019.4

11. Which types of documents you have created in Uipath?

Most used documents is PDD (ASIS & TOBE),SDD(TDD),BRD

12. How many processes you have automated in Uipath?

Its depend on candidate experience.

13. How many tools you have used till now?

Its depend on candidate how many tool you have used till now.

14. Have you done any certification in Rpa?

There are three major certifications of different vendor like Uipath, Automation Anywhere & Blueprism.

15. What is Ui-path Automation?

Uipath is process Automation vendor through that tool we can automate any type of process.

16. What is difference between Test Automation & Process Automation?

Test Automation –For testing purpose we automate the application & getting the result that how many test cases is pass & fail

Process Automation –Automating the process without human intervention is called Process automation.

17. How many types of variable & direction of argument you have used till now?

Mostly used variable are:-

String, Int32, Double, Data Table, Array, List ,Generic Value ,Boolean

For more variable you can click browse for types in variable panel.

Direction of Argument:-

In ,Out, In/Out

18 .Do you know Date & time function?

There are lots of functions in .net for date & time.

19. Difference between Array, List & Enumeration?

a)Array:- The array variable is a type of variable which enables you to store multiple values of the same type.

UiPath Studio supports as many types of arrays as it does types of variables. This means that you can create an array of numbers, one of strings, one of Boolean values and so on.

b) List :- If you want to work with a collection that doesn't have fixed number of elements ,you can use a list instead of any array.

c)Enumeration- It is fixed data type.

20. What is value & type of scope used in UiPath?

Value –Value is input method where we provide the input.

21. What is difference between Sequences, Flowchart & State Machine?

a) Sequence:-The sequence is actually the small type of projects which are suitable mainly for linear processes & will enable you to switch from one activity to another seamlessly. It actually acts as a single activity block. We can reuse them for many times.

b)Flowchart -It helps in large jobs as well as in small projects & you can also use them in different projects Flowcharts help in presenting multiple branching of logical operators, helps in building complex business & for connecting the activities in many ways.

Flow Switch & flow decision are same things but it has one difference & that is in the flow switch each branch of flow switch is known as flow step & it is not just restricted to true or false.

C) State machine-when a machine is using a certain number of states for automation during the execution it is known as the state machine. it will only switch from one state to another if any action is triggered.

22. What are properties in UiPath?

There are multiple activities that can be used to automate apps or web-apps and you can find them in the **Activities** panel, under the **UI Automation** category.

All of these activities have multiple properties in common:

- **ContinueOnError** If the **ContinueOnError** field of an activity inside a **Try Catch** is set to True, no error is caught when the project is executed.

- **DelayAfter** – adds a pause after the activity, in milliseconds.

- **DelayBefore** – adds a pause before the activity, in milliseconds.

- **TimeoutMS** – specifies the amount of time (in milliseconds) to wait for a specified element to be found before an error is thrown. The default value is 30000 milliseconds (30 seconds).

- **WaitForReady** - Before performing the actions, wait for the target to become ready. The following options are available:

23. What is branching in Uipath?

For connecting the activities we are using the branch in Flowchart.

24. What is Selector & types of selector?

To automate specific actions in the user interface, you are required to interact with various windows, buttons, drop-down lists and many others. Most RPA products do this by relying on the screen position of UI elements, a method that is not at all dependable.

To overcome this problem, UiPath Studio uses what we call selectors.

Wildcards are symbols that enable you to replace zero or multiple characters in a string.

25. Types of Wildcards in UiPath?

- Asterisk (*) – replaces zero or more characters

- Question mark (?) – replaces a single character

26. Difference between Full & partial Selector.

Full selectors:

- Contain all the elements needed to identify a UI element, including the top-level window

- Generated by the Basic recorder

- Recommended when switching between multiple windows

Partial selectors:

- Generated by the Desktop recorder

- Do not contain information about the top-level window

- Activities containing partial selectors are enclosed in a container (**Attach Browser** or **Attach Window**) that contains a full selector of the top-level window

- Recommended when performing multiple actions in the same window

Example of a partial selector for the editable panel in Notepad:

27. What is Uipath Explorer?

UI Explorer is an advanced tool that enables you to create a custom selector for a specific UI element. It is available only if the UiPath.UIAutomation.Activities package is installed as a dependency to the project.

To open the **UI Explorer** window, click the button in the **Selectors** section, in the **Design** tab.

28. What is Automatic Recording in UiPath?

Automatic recording is very useful and time-saving as it can provide you with a skeleton for your business processes, and can be easily customized and parameterized.

29. Types of recordings available in Uipath?

a)Basic:- generates a full selector for each activity and no container, the resulted automation is slower than one that uses containers and is suitable for single activities.

b)Desktop: suitable for all types of desktop apps and multiple actions; it is faster than the **Basic** recorder, and generates a container (with the selector of the top-level window) in which activities are enclosed, and partial selectors for each activity.

c) Web:- designed for recording in web apps and browsers (supported: Internet Explorer, Google Chrome), generates containers and uses the **Simulate Type/Click** input method by default.

d)Citrix :- used to record virtualized environments (VNC, virtual machines, Citrix, etc.) or SAP, permits only image, text and keyboard automation, and requires explicit positioning.

30. What is manage package in UiPath?

The package manager functionality enables you to download activity packages, libraries, frameworks, wrappers and others, view the ones already installed on your computer and update them, as well as add and remove your own.

These features are available through the **Manage Packages** window that you can open by clicking the **Manage Packages** button on the **Activities** panel.

31. How to publish any project in UiPath?

Publishing an automation project means archiving the workflow and all the other files in the folder so that it can be sent to Robots and then executed.

Additionally, automation projects may be published to a custom NuGet feed, with the option to also add an API key if the feed requires authentication.

Publishing projects locally requires you to provide a path on the local machine, different than the location where process packages are published. From here, you can later manually send the packages to the Robots, so they can be executed. The default local publish location is %ProgramData%\\UiPath\\Packages.

32. How to run bot through robot?

If development is completed, we will deploy bot to orchestrator, So that's why we will publish that & connect orchestrator through robot, we will provide all the data in uipath robot setting.

33. How to run bot through command prompt & create shortcut of robot?

First we have to publish that from design panel, then we have to take that published nugget package location & -file your .xaml location.

34. How to save credentials in window & use through Uipath?

First we have to install system credential from Uipath manage package then we will save all credential in credential manager. We will take secure credential activity & will fetch that user id & password in two variable & pass into web application or whatever process want to automate.

35. How to automate database.

For database automation you have to install Uipath.database activity from Manage package,

& You have to provide all the datails of whatever database you are using in activity properties.

36. How to create database connection with Uipath & take the data from database?

For database automation you have to install Uipath database activity from Manage package,

& You have to provide all the details of whatever database you are using in activity properties.

37. Which activity you have used in database.

For database there are lots of activity like Connect, Disconnect, Execute query & Non execute query.

38. What are UI Activities Properties in UiPath?

There are multiple activities that can be used to automate apps or web-apps and you can find them in the **Activities** panel, under the **UI Automation** category.

ContinueOnError ,**DelayBefore**,**TimeoutMS,WaitForReady** –

39. What is citrix automation in Uipath? Have worked on citrix?

The virtual machine is the emulation of the computer science. If you efficiently want to process the automation in the Citrix machines then you will need techniques and tool. The Citrix automation in uipath is used for operating the virtual machine.

40. What is difference between thin & thick client?

Thin client: It is an application that we cannot get the quality properties while spying using any RPA tool .e.g. Any virtual environment.

Thick client: It is an application that we get a pretty handful of attribute features using RPA tool e.g. calculator, Internet Explorer.

41. How many activities you have used in Uipath?

There are almost 400 activity available in Uipath, Depend on your experience

42. Have you automated virtual machine?

A virtual machine(VM) is an emulation of a computer System. Virtual machine are based on computer Architecture & provide functionality of a physical computer. Examples of such as citrix,RDP, Microsoft Azure etc.

As the click activity is not reliable in not very reliable in virtualized environments.

43. What is debugging in Uipath?

Debugging is the process of identifying and removing errors from a given project. Coupled with logging, it becomes a powerful functionality that offers you information about your project and step-by-step highlighting, so that you can be sure that it is error-free. Logging enables you to display details about what is happening in your project in the **Output** panel. This, in turn, makes it easier for you to debug an automation. Breakpoints enable you to pause the execution of a project so that you can check its state at a given point.

44. Difference between Step into & Step over in Uipath?

Step into we use for step by step running the program & step over for fast execution.

45. What are arguments in Uipath & directions of Argument?

Arguments are used to pass data from a workflow to another Workflow. They have specific directions In/Out/InOut.Arguments are used to pass data from a project to another. Additionally, arguments have specific directions (**In**, **Out**, **In/Out**, **Property**)

o IN - Which means they are passed in and not returned.

o OUT - A parameter marked OUT usually means that the value of the parameter when it is being passed to the function is not of any importance.

o In fact, if it being passed by pointer, it may even be required to be NULL, and the function will allocate memory and pass a value back to you. Assign activity is required for this type of argument otherwise this argument will not take any value.

o An IN/OUT parameter usually indicates something where both the input and output values are meaningful.

46. What is Switch & flow switch In Uipath?

The **Switch** activity enables you to select one choice out of multiple, based on the value of a specified expression.

A FlowSwitch activity works like a FlowDecision except instead of being restricted to a True and False branch. Each branch of a FlowSwitch activity is called a FlowStep.

47. What is difference between for each, for each row & parallel For each?

For Each-- allow you to iterate through a collection of items. It can be an array, a list, a datatable etc.

For each row-When using For each you need to specify the data type and because you might need to iterate through a datatable more often you have the specific Activities for Data tables.

Parallel for Each-Asynchronously executes a series of activities on each element of an enumeration, in parallel.

Yes, I have worked on the virtual machine automation previously.

48. What is Exception Handling?

Exception Handling mainly deals with handling errors with respect to various activities in UiPath. The Error Handling activity offers four options: Rethrow, Terminate Workflow, Throw, Try Catch.

49. What is difference between Throw, Rethrow & terminate workflow?

- **Rethrow** is used when you want activities to occur before the exception is thrown.
- **Terminate** workflow is used to terminate the workflow the moment the task encounters an error.
- **Throw** activity is used when you want to throw error before the execution of the step.

50. How you have handled exception in your project?

Its depend on your project, you have to tell about your project exception handling process.

51. What is difference between Try, Catch & Finally?

To solve such kind of errors, you can use a **Try-Catch** block. So, you can put the browser part in the Try section, and then either put a Message box or any other activity in the catch section. After this is done, you can mention the necessary activities, in the **Finally** block. So these activities would be executed after the Try-Catch block.

52. What is difference between Data scrapping & screen scrapping?

Data scraping enables you to extract structured data from your browser, application or document to a database, .csv file or even Excel spreadsheet.

Output or screen scraping methods refer to those activities that enable you to extract data from a specified UI element or document, such as a .pdf file.

53. Difference between Output panel & outline?

Output panel is that type of panel where you will get the output or result of execution.

The **Outline** panel displays the project hierarchy, all available variables and nodes. You can highlight activities in this panel by selecting them in the **Designer** panel, or you can go to a specific activity by selecting it in the **Outline** panel

54. Do you know about TFS, SVN & all repository in Uipath?

Tfs stand for Team foundation server f

Svn –Sub Version

55. What is excel Automation?

Excel automation with **UiPath**. An efficient tool to sort, delete, retrieve and analyses information. Easy to migrate and integrate data into platforms.

56. How many Activity you have used for excel Automation?

There are lots of activity in excel automation

57. Difference between Excel & Workbook activity?

Excel	Workbook
1.To use Excel Application scope Excel should be installed on the local syste	1. For using Workbok not required to install excel
2.In excel sheet you will not able to access the	2.I ts working fine with Workbok

chart and diagram related data with excel activities you will get an error 3.It is fine in this condition	3. Workbook related activity the Excel workbook file should be close at the time of robot run otherwise it will give error.
4.In Excel application scope ,we are not able to access the Password protected excel & popup was asking for to enter credential.	4. It is fine in this condition.

58. Types of data table activity you have used in project?

There are lots of mostly used data table activity like Build data Table, Output data table, Merge data table, filter data table, Clear data table & join data table.

59. How many way to read column of excel through Uipath?

There are lots of way to get the column value. There is Get row item activity through that activity.

You can get all data of proper column.

60. How to automate excel macro through Uipath?

There is execute macro activity , You have install from manage package

61. What is Anchor & find element?

Anchor Base-A container that searches for a UI element by using other UI elements as anchors. This should be used when a reliable selector is not available.

Find Element-Waits for the specified UI element to appear on the screen (to be in the foreground) and returns it as a UiElement variable.

62. Difference between Read range, read cell, read csv, Write range , write cell & write csv?

Through read range we read all data of excel, through read cell we read proper cell, through read csv we read all csv data, through write csv .we write data into excel sheet, through write cell we write data into proper column, through write csv we write data in csv format.

63. What is Email automation?

Email is that type of automation where we can automate all the email manual steps like sending the mail, receiving the mail, attaching the attachments, downloading the attachments.

64. What is email protocol in Uipath?

IMAP, SMTP, GET OUTOUTLOOK,SEND OUTLOOK,POP3

65. Difference between Imap, Get Outlook, Send outlook & smtp?

IMAP stands for internet map access protocol, through imap we can receive the customized mail.

Get outlook -Through get outlook activity we can receive the static mail

Smtp-it stands for simple mail transfer protocol for sending the dynamic mail

Send Outlook-Through this activity we can automatically send the static mail.

66. How many activity you have used in Email Automation?

There are four mostly used activity like Get outlook, Imap, Send outlook & SMTP

67. How to attach attachments & download attachments?

68. How to filter mail through Uipath?

There are two ways to filter the email

i)we can filter through if condition in for each loop.

ii) We can provide filter condition in Get outlook filter option.

69. How to select folder of mail through Uipath?

For folder selection you have to change from imap or get outlook mail setting.

70. What is Pdf Automation?

Pdf Automation is that type of automation where can fetch all the information from pdf.

71. How many activities you have used in Pdf Automation?

Mostly used activity is Read pdf text , Read pdf with ocr & Get text

72. How to automate Text & Image PDF?

For pdf automation you have to install pdf from manage package-Uipath.Pdf

There are two main activity in PDF

Read Pdf Text-It is for text pdf

Read pdf with ocr-It is for image pdf

73. What is OCR? Different types of OCR?

Ocr stand for Optical character recognition

i)Google ocr

ii)Miccrosoft Ocr

iii)Abbey ocr

76. How to pass credentials from Orchestrator & window system?

You have to save credential in mange package & give the credential name in your secure credential variable ,create both id & password & use where ever required.

77. What is Orchestrator?

Orchestrator is a web application that enables us to deploy schedule, monitor and manage Robots & process.

78. Different navigation of Orchestrator?

There are more than 8 navigation in orchestrator like Robot, process, Machine ,Schedule, asset , Queue.

79. Difference between Floating & Standard Robot?

- **Standard Robot** works on a single Standard Machine only, namely the one defined while creating it. This is ideal for the scenario in which a user always works on the same machine.
- **Floating Robot** works on any machine defined in Orchestrator, be it Standard or Template, as the machine name is not relevant while creating it. Only **Attended and Development Robots can be floating.**
- a **Standard robot** can be **converted** into a **Floating Robot** by using **Convert to Floating** button displayed alongside **Standard Robot.**

80. Different between Process, job, Scheduler, asset & queue?

c)process:- The **Packages** page displays all the projects published from UiPath Studio, as well as the ones that were manually uploaded. For more information, see Publishing a Project from Studio to Orchestrator. A project becomes a package when it is published to Orchestrator from Studio.

d)Job:- A job is the execution of a process on one or multiple Robots. After creating a process (deploying a package to an environment), the next step is to execute it with the assigned Robots. This can be done manually from the **Jobs** page or in a preplanned manner, from the **Schedules** page.

e)Schedular:- Schedules enable you to execute jobs in a preplanned manner, at regular intervals on Robots. You can assign Robots to perform different schedules according to the following options:

f)Asset:- Assets usually represent shared variables or credentials that can be used in different automation projects. They give you the opportunity to store specific information so that the Robots can easily have access to it. Int, Credential, Boolean, Text

g)Queue:- A queue is a container that enables you to hold an unlimited number of items. Queue items can store multiple types of data, such as invoice information or customer details. This information can be processed in other systems - SAP or Salesforce, for instance.

81. Types of asset in Orchestrator?

a)integer, b)bollean, c)String d)Credential

82. How to pass data from Asset?

There is Uipath get asset activity through this activity we will provide the asset name & will pass the data in orchestrator asset option.

83. How to upload data on queue through Uipath?

There is add queue item activity through that activity you can keep in for each row & provide the data in argument options & we will create queue name in Queue options.

84. Difference between Add queue items, get queue item & get transactions?

Add Queue item-it is used for uploading data to queue.

Get Queue Item-it is used for getting the data from queue for all transactions.

Get transactions –It is used for getting the single transactions from queue.

85. How to schedule process through Orchestrator?

There is scheduler option in Orchestrator options through that we can schedule the process.

86. How to handle delay in Uipath?

Add a **Delay** activity and connect it to the previously added activity. Select the activity, and in the Properties panel, in the Duration field, type 00:00:20. This is the 20 seconds **delay**that is going to be between the two logged messages.

87. What is Desktop Automation?

Desktop automation is type of automation where we can automate all the desktop application.

88. Which desktop automation activities you have used in Uipath?

There are lots of mostly used desktop activities like Open application, close application, create folder, save attachments, attach window,

89. What is Uipath Go?

UiPath Go! is the new "app store" for automation offering immediate access to an extensive set of RPA and AI building-blocks that developers, customers, and partners can share and use to accelerate their digital plans. ... Up to 80% of the content that can be found on **UiPath Go**! is free.

90. How FTE is calculated?

- FTE is calculated based on Manual effort, volume and time taken to complete a process
- FTE = (volume * AHT)/ Manual hour per day (8 hours)
- AHT is Average Handling Time

91. How to extract from image?

Using ocr activity.

92. What is Reframe work?

Reframe work is entirely based on state machine & Entirely flow is State Machine.Entirely flow is state machine.

There is 3 states & 1 final states, There are sub process,sub modules& mini processes.

You can split your process in smaller project.

93. What are the error handling activities available in Uipath?

Try catch, Terminate workflow, throw & catch

94. Have you worked on state machine?

State machine-A state machine is a type of automation that uses a finite number of states in its execution. It can go into a state when it is triggered by an activity, and it exits that state when another activity is triggered.

95. How can we call another xaml file inside one xaml file?

Answer: Invoke Workflow file activity is used for it.

96. What is Computer vision & their benefits?

Computer Vision is a feature that allows our robots to see the screen & visually identify all the elements rather than relying on selectors or images. It is an algorithm that enables

human like recognition of user interface using a mix of AI, OCR, text fuzzy –matching, and an anchoring system to tie it all together.

97. How to distribute load between two bots?

If you are working with reframe work queue functionality & if you want to distribute the load between workflow then   you can create two framework one(dispatcher) for Uploading data on queue & second (performer) for taking the data from queue.

98. What is difference between Main fame & Non frame application?

Mainframe applications:

- It's a single screen and keyboard-based application.
- There are separate set in-built commands supported by Blue Prism especially for mainframe applications

Non-mainframe applications:

- It includes multiple screens
- Control moves from one screen to another screen.

99.Robot status:-

a)**Available -** The Robot is not running a process and is free to be used;

b)**Busy-** The Robot is running a process

c)**Disconnected:-** The Robot and Orchestrator have not communicated in the last two minutes;

d)**Unresponsive –** The UiPath Robot service is not running.

100.Queue Status:-

a)**New:-** the item has just been added to the queue with the **Add Queue Item** activity, or the item was postponed or a deadline was added to it.

b) **In Progress:-** the item was processed with the **Get Transaction Item** or the **Add Transaction Item** activity; when an item has this status, your custom progress status is also displayed, in the **Progress** column

c) Failed - the item did not meet <u>a business or application requirement</u> within the project and was therefore sent to a **Set Transaction Status** activity, which changed its status to Failed

d) Successful - the item was processed and sent to a **Set Transaction Status** activity, which changed its status to **Successful**

e) Abandoned - the item remained in the **In Progress** status for a long period of time (approx. 24 hours) without being processed

f) Retried - the item failed with an application exception and was retried. After the Robot finishes retrying the item, the status changes to Failed or Successful, according to your workflow.

g) Deleted - the item has been manually selected from the **Transactions** page and marked as deleted; an item with this status can no longer be processed.