Capgemini UiPath Interview Questions

**1. What are the Credentials? How are the credentials used in your project?**

* Credentials are one of the Asset types used in Orchestrator. They are used to store credentials in Orchestrator.
* Credentials contain usernames and passwords that the Robot requires to execute particular processes, such as login details for SAP or SalesForce and Gmail credentials.
* The Get Asset and Get-Credential activities used in Studio request information from Orchestrator about a specific asset, according to a provided AssetName.
* If the AssetName provided in Studio coincides with the name of an asset stored in the Orchestrator database, and the Robot has the required permissions, the asset information is retrieved and used by the Robot when executing the automation project.

**2. What is LINQ? Use the case of Linq?**

* LINQ (Language Integrated Query) is uniform query syntax in C# and VB.NET to retrieve data from different sources and formats. We can recover data from lists, arrays, data tables.
* It is integrated in C# or VB, thereby eliminating the mismatch between programming languages and databases, as well as providing a single querying interface for different types of data sources.
* For example, SQL is a Structured Query Language used to save and retrieve data from a database. In the same way, LINQ is a structured query syntax built-in C# and VB.NET to retrieve data from different types of data sources such as collections, ADO.Net DataSet, XML Docs, web service, and MS SQL Server and other databases.
* LINQ queries return results as objects. It enables you to uses an object-oriented approach on the result set and not to worry about transforming different formats of results into objects.

**Use case of LINQ in UiPath**  
  
**LINQ Usage :**LINQ queries return results as objects. It enables you to uses an object-oriented approach on the result set and not to worry about transforming different formats of results into objects.  
  
The following example demonstrates a simple LINQ query that gets all strings from an array that contains ‘a.’

**Example: LINQ Query to Array**

**// Data source**

**string[] names = {“Bill”, “Steve”, “James”, “Mohan” };**

**// LINQ Query**

**var myLinqQuery = from name in names**

**where name.Contains(‘a’)**

**select name;**

**// Query execution**

**foreach(var name in myLinqQuery)**

**Console.Write(name + ” “);**

**Try it**

In the above example, string array names are a data source. The following is a LINQ query that is assigned to a variable of myLinqQuery.

**from the name in names**

**where name.Contains(‘a’)**

**select name;**

**The above query uses the query syntax of LINQ.**

**3. Suppose there are 1000 rows and 50 columns, Suppose I want to select any random row data? How can it be done?**  
  
Assign dtVariable = new DataTable  
  
Initializing your DataTable variable  
  
[Build your data table process]

**Assign intRandom = new Random().Next(0, dtVariable.Rows.Count – 1)**

**This will give you a randomly generated number between 0 – N, where N = number of rows in your**

**datatable (i.e., a data table of 10 rows will result in a count of 10)**

**We subtract 1 because dtVariable.Rows.Count starts at 1, whereas dtVariable.Rows(index) starts at 0 (i.e., a data table of 10 rows will result in an index max of 9).**

**Assign rowRandom = dtVariable.Rows(intRandom)**

**This will output a DataRow at random of DataRow type.**

**4. What are dynamic selectors? Types of Dynamic Selectors used in UiPath?**  
  
The Selector is a string of characters (VB expression) used to identify objects on the screen. The Selector is one of the properties of UI activities and has an XML format. All the events in UiPath Studio related to graphical elements have the selector property.  
**The solution to this problem is to :**

* Build better selectors
* Use WildCard
* To see the better and dynamic attributes compare the selectors and make dynamic them using wildcard operators and identify reliable selectors using UIExplorer.
* Selectors' attribute part contains all the attributes of an object. Not all can be added or removed from your selector string because not all of them are useful for identifying a certain object.
* The most important thing when choosing selectors is to pick those who always have a constant value. If the number of attribute changes, then the Selector will not be able to identify the element correctly.
* Attributes may change their values from time to time when the application’s UI changes. When this happens, part of the dynamic attributes often remain unchanged, and we somehow have to specify the variable parts.
* **This can be done using wildcards :**

1.\* star means zero or more characters can be there. Example: title=’\* – Notepad.’  
  
2.? question mark means exactly one character. Example: title=‘Expl?rer’.  
  
A direct consequence when using wildcards is the increased probability of there being more and more nodes matching the Selector.

**5. If you do not have Excel installed on your system. How would you use excel activity in UiPath Studio?**

* We can use Excel activity Workbook Read Range without installing Excel on System. As we don’t need excel installed for workbook read range activity.
* UiPath Studio offers you the possibility to work with Excel using specialized activities. These activities are stored in the UiPath Excel activities package.
* The Excel package can be downloaded from “Manage Packages,” but it’s by default installed when you install UiPath Studio.
* Through this app integration approach, you can read/write Excel documents.

**Good points for not using the Excel application :**

* *You don’t need to install/buy Microsoft Excel*
* *Excel application will not pop up on your desktop, suitable for robots that run on a machine that doesn’t have a user interface.*

**6. What is the port number of POP3 Gmail/ IMAP Gmail?**

* Port number of POP3 Gmail is-: 993

**By default, the POP3protocol works on two ports :**

* Port 110: this is the default POP3 unencrypted port
* port 995: this is the port you need to use if you want to connect using POP3 securely

**By default, the IMAP protocol works on two ports :**

* Port 143: this is the default IMAP unencrypted port
* Port 993: this is the port you need to use if you want to connect using IMAP securely.

**7. What is the Port number of Smtp Gmail?**

* SMTP Port– 587 (default Google SMTP port).
* Outgoing Mail (SMTP) Server-: com
* Requires SSL: Yes
* Requires TLS: Yes (if available)
* Requires Authentication: Yes
* Port for SSL:465
* Port for TLS/STARTTLS:587

**8. I suppose there is Image in PDF, which is of 120 dp, how would extract data from that Image? Which automation would be used?**

* To extract data from Image of Size 120 dp from PDF, we need to use Read PDF with OCR activity, and automation we need to use is PDF Automation.
* We can also use Microsoft OCR activity to extract exact data from the Image of the PDF file.

**9. If Suppose there are two excels, how would merge two excel data into one?**

* Firstly we need to use Read Range to read the two excel files,
* Then we need to use the merge data table activity to merge the data table.
* Then we need to use the resultant data table to make the merged excel file using WriteRange activity.

**10. If you have 1000 of data in the queue and there are five robots you want to distribute data among them, how you can do it without using queue activity**

* To distribute 1000 records of data in the queue on five robots among them without using queue activity, we need to set up an Excel or CSV file that is in a shared location accessible by all your bots.
* Then have a column for Status, and as a bot processes each row, they update that column to “In Progress” and save the file. Bots should only process rows if column <> “In Progress.”
* We need to add other columns for tracking and logging, such as Transaction IDs, Bot Name, Fail Reason, etc.

**11. I have a process of two different versions how will you identify them at the time of deploying?**

* To determine the process of two different versions at the time of deploying, we can identify by publishing Process from Studio, and we can choose the project version number.
* Also, within orchestrator, the package number will match the version number of the published Process from Studio.
* Based on its version number, we can identify it. At the time of publishing the project from Uipath Studio and it shows the new version number.

**12. Can you update credentials stored in Assets in Orchestrator from UiPath Studio? If yes, then how you can update credentials?**

* We can update Credentials stored in Assets in Orchestrator but not at runtime. We can update Credentials manually before scheduling bot.
* We can allow the user to update only specific assets. You can create a custom user role and give him permissions only to asset editing, though. This is done through the /roles route on Orchestrator.  
  **UiPath.Core.Activities.SetCredential**
* Enables you to update the value of an indicated credential asset, that is already available in Orchestrator, be it a global or a Per Robot asset. Please note that to execute this activity, the Robot role needs to have Edit permissions on assets. The activity runs under the Robot, which executes it.

**13. Explain the Uipath lifecycle?**  
  
A typical life cycle of UiPath RPA has 4 phases. Analysis, Bot Development, Testing, and Support & Maintenance.

* **Analysis :**Business teams & RPA Architects work together to analyze a business process for RPA development.
* **Bot Development :**Developer teams start working on developing automated workflows for the requirements in a distinct development environment.
* **Testing :**Run testing cycles such as SDLC to analyze the quality and correct defects.  
  Support & Maintenance-After the development & testing phases, a bot enters the maintenance phases in which it provides continuous support and helps in the immediate defect resolution.

**14..What are macros in UiPath?**  
  
Macro is a piece of programming code that runs in an Excel environment and helps automate routine tasks. In a layman’s language, a macro is a recording of your routine steps in Excel that you can replay using a single button.

* **Execute Macro :**Execute the macro within a workbook. The Workbook file needs to be a Macro-Enabled Workbook. Changes are immediately saved. Can only be used in the Excel Application Scope **UiPath.Excel.Activities.ExecuteMacro**

**Properties are:**

* **Input**

**MacroName:**The name of the macro to be executed. Only String variables and strings are supported.  
  
**Strings must be placed between quotation marks.**

* **Macro Parameters :**Enables you to pass parameters when executing the macro. This field supports only **IEnumerable<object> variables.**  
  **Common**
* **DisplayName :**The display name of the activity.
* **ContinueOnError :**Specifies if the automation should continue even when the activity throws an error. This field only supports Boolean values (True, False). The default value is False. As a result, if the field is blank and an error is thrown, the execution of the project stops. If the value is set to True, the execution of the project continues regardless of any error.
* **If this activity is included in Try Catch and the value of the ContinueOnError property is True, no error is caught when the project is executed.**

**Misc :**

* **Private :**if selected, the values of variables and arguments are no longer logged at the Verbose level.  
  Output
* **Macro Output :**The value returned by the execution of the macro, if any. This output is retrieved as Object variables.

**15. Explain how to Create and Remove an argument in UiPath.**  
  
**To create an argument:**

* In the Designer panel, click on **Arguments** (the Argument panel will be displayed)
* Click on Create argument line

**To remove an argument :**

* In the Arguments panel, select an argument or right-click on the argument and press **Delete**

**16. What are the different types of Logs? What are Log Fields?**  
  
**There are two different types of Logs :**

* Default logs
* Execution start
* Execution end
* Transaction start
* Transaction end
* Error log
* Debugging log
* User-defined logs  
  **Log fields are** :
* Message
* Level
* Timestamp
* FileName
* jobId
* processName
* process version
* windows identity
* and robot name.a

**17.Difference Between screen scraping and data scraping?**

|  |  |
| --- | --- |
| **Screen Scrapping** | **Data Scraping** |
| Difference Between screen scraping and data scraping | Used to extract the structured data |
| Scraped information stored in String | Scraped information stored in Data table |
| Can not easily extract the data into excel or DB | can extract the data to excel or DB easily |
| can extract image and pdf | can not extract from image and PDF |

**18. How to convert a string variable into int?**  
  
We can use the following method to convert string to int

**Convert.ToInt32(String variable\_name)**

**Ex)**

**String age= 23;**

**int patient\_age=Convert.ToInt32(age)**

**19. Whats mean by the Generic variable in Uipath?**  
  
It is a special variable that can store any kind of datatypes like string, int, dates format, and arrays.  
This variable only in Uipath only.

**20.Is it possible to create a variable without the activity of the designer panel?**  
  
No, is it not possible, we need to create an activity at least once  
  
**21. What's mean by arguments?**  
  
It’s used to pass the data into one project to another  
  
**22. How to create your project and how to execute it?**  
  
**Steps for creating the Project :**

* Click **start in Uipath studio**
* Select Project type: New, Simple process, agent Process Implementation, and Transactional Business process
* In the new tab, Enter the name, location, and description after that click on create
* Based on the project design window will open.
* Drag and drop the activities into the design window
* Select RUN or press F5

**23. Where will you use Delay Before and Delay After?**

* **Delay Before:**Before the action executes it wait for the mentioned time and then it will execute.  
  It is working on the only millisecond
* **Delay After:**Once the activity is executed, it waits for the mentioned time and executes the next process.

**24. How will you find the Children from the table?**

* Drag and drop the Find Children from the activities panel
* Indicate the screen you want to find the children
* Assign the correct format variable in the properties panel
* Using for each you can extract the child from the table

**25.How many ways there for creating Variable in Uipath?**  
  
**3 ways we can create the variable in uipath**

* In the Control bar, We can create the variable using the variable tab
* In Properties window, Output column we create the variable
* Select Create variable from Ribbon tab

**26.Difference Between Basic and desktop Recording?**

|  |  |
| --- | --- |
| Basic Recorder | Desktop Recorder |
| Each activity, Generates a full selector | Generate only a partial selector on each activity |
| Suitable for a single activity | Suitable for multiple activities |
| Slower than Desktop recorder | Faster than Basic |
| Not Generating container for each activity | Generate container for each activity |

**27. What is the use of Element Exists?**  
  
Its used to identify the UI Element is present or not during the execution.  
The output of the active support only boolean  
  
**28. Explain the following activities- Wait For Ready, Timeout MS**

* **Wait For Ready:**The page is fully loaded or ready before we are performing the activity, It has 3 Option
* **NONE:**Does not wait before the activity performed
* **Interactive:**This action wait for some inner part of the screen is a load.

**wait for <Wnd>,<ctrl> this kind of tag to load.**

* **Complete:**Its wait for the full screen for the app and Inner controls are to load. Once the loading is completed only the Next activity will perform.
* **Timeout MS:**The activity waits for a certain time before the error **Selector not Found expectation** thrown.
* Default waiting time is 30000 milliseconds (30sec)

**29. How to convert the Output string variable into the Output data table?**

* Using the Generate Data table we can convert a string to a data table
* Open Generate data table from an Activity panel
* In Generate data table Properties: Assign the input variable as string output
* Enter the output data table in the variable
* The string values are assigned into datatable variable

**30. Explain Append Range in UiPath?**  
  
Append range are used to Edit or Insert data into an existing workbook, with using of append range we can insert the data after the last written data from the workbook. Whenever we do append the data it will not overwrite the existing data.

UiPath Orchestrator Interview Questions

**1. Explain About the project worked in UiPath?**

* Explain the project description neatly
* Explain the Test data details, How you are getting the input to the UI, and How you will write your output
* Error Handling methods, how you are taking the screenshot during the error
* SDLC Document Preparation details
* Explain the Orchestrator mapping details

**2. What is UiPath Automation?**  
  
Uipath is the seller for the main computerization procedure of mechanical technology. It really helps in giving a product stage which will help in an association like computerize business.  
  
The primary target of the product robot is to help in the control of the application's layer of introduction, like the manner in which any human will do.  
  
**3. What are Selectors and Wildcards in UiPath?**  
  
You will manage the characteristics which are changing progressively in the selector. What's more, the selector helps in naturally creating the determination by utilizing the wildcraft.

**4. What is the Assign Activity in UiPath?**  
  
We require the dole-out action since it encourages doling out qualities to the factors. For the most part, they are utilized when there is a requirement for increasing the variable's esteem when there is a circle. You can include the esteem and after that store them to another variable or it helps in allotting the incentive to some cluster.  
  
**5. What is the Delay Activity in UiPath?**  
  
Uipath utilizes the defer movement for making you delay or stop the computerization for some period. This is primarily utilized in ventures where you require great planning like pausing and afterward beginning of some specific applications or sitting tight for data preparing which you can use in the diverse action.  
  
**6. What is the IF Activity in UiPath**  
  
If the activity contains a statement and two conditions. The first condition (the activity in the Then section) is executed if the statement is true, while the second one (the activity in the Else section) is executed if the statement is false.  
  
**7. What is the Switch Activity in UiPath?**  
  
The switch movement encourages you to pick one out of the others dependent on the predefined estimations of the articulations. Switch movement utilizes number contention as default yet you can without much of a stretch change it by heading off to the properties board and choosing the required Type Argument list. It helps in classifying the information relying upon the case number.

**8. What is the While Activity in UiPath?**  
  
This action helps in preparing an explicit movement over and again when a specific condition is valid. The essential contrast among the while and do-while is that in the previous one the condition will be assessed firs  
  
**9. What is the While Activity in UiPath?**  
  
This action helps in preparing an explicit movement over and again when a specific condition is valid. The essential contrast among the while and do-while is that in the previous one the condition will be assessed first and afterward the circle will be executed.  
  
**10. What is the Break Activity in UiPath?**  
  
With the assistance of break-action, you can without much of a stretch stop a specific circle at any picked point and then you can proceed with some other action.  
  
**11. What is a bundle administrator in UiPath?**  
  
With the assistance of the bundle director, you can undoubtedly download the action bundles, systems, libraries, wrappers, and so on and you can likewise check the ones which are as of now present in the compartment and you can likewise refresh them or include or expel them.  
  
Every one of these highlights is conceivable in view of overseeing bundles window which you can without much of a stretch open by tapping the bundle administrator catch by pushing on the movement board.

**12. What is venture investigating in UiPath?**  
  
Investigating is utilized for recognizing and also demonstrating the mistake for a specific undertaking. It has breakpoints and logging and it is a sort of amazing usefulness that will assist you with gathering data about the task and will feature the blunders well ordered.  
  
Logging encourages you to realize what your activities are experiencing when the writing computer programs are done and is appeared on the yield board.  
  
Which helps in making the way toward investigating less demanding. While breakpoints help in stopping the execution of your undertaking to causes you to check the condition of the program at a specific point.  
  
**13. What is Automatic Recording in UiPath?**  
  
Robotization recording is utilized as they are especially valuable in addition to it can spare you a great deal of time.  
  
This programmed account will give a skeleton of the whole business forms so you can without much of a stretch parameterize and modify the undertaking. And afterward, the circle will be executed.  
  
**14. What is distributing a computerization venture imply in UiPath?**  
  
Distributing of the mechanization bundle shows filing it and the related documents present specifically organizer for sending it to robots and after that executing it.  
  
When you will be associated with the orchestrator then the venture will go to the orchestrator field and afterward it will be shown on the bundle's page.  
  
Furthermore, from this place, you can without much of a stretch disperse them to alternate robots after you relegate a few bundles to the earth. Else, it will get put away locally in the studio feed.

**15. What are UI Activities Properties in UiPath?**  
  
There are distinctive sorts of exercises that are utilized in the site pages or in mechanizing applications and you can without much of a stretch discover them in the area of exercises board ordered under UI mechanization. These UI exercises share numerous properties for all intents and purposes.

* **ContinueOnError :**Even when the action will demonstrate blunder still, the computerization will proceed with its work. This field works in boolean qualities. False is the default an incentive in here. The task won't demonstrate any mistake if the action on this field is set to valid inside the attempt get.
* **Postponement After :**It helps in stopping the action.
* **Deferral Before :**It stops before any action.
* **TimeoutMS :**It helps in finding the component before the mistake has appeared.
* **WaitForReady :**It will hold up until the point when the objective is prepared and before you play out the movement.
* **Target :**It helps in distinguishing the component in UI before the action begins.

**16. How would you be able to empower picture and content-based process robotization?**  
  
On the off chance that you need to empower the picture and content-based process computerization, you should see that the uipath has a few highlights that will recreate the console or mouse input, such as floating, clicking, content acknowledgment, OCR exercises, and so forth that helps for recognizing by UI components by screen scratching.  
  
Picture or content robotization is fundamentally utilized in the circumstances where the UI mechanization won't work like in the earth of the virtual machine or in the spots where discovering selectors by utilizing the typical strategies isn't simple.

**17. What is Citrix Automation in UiPath? Do you have any involvement in virtual machine computerization?**  
  
The virtual machine is the imitating of software engineering. On the off chance that you effectively need to process the computerization in the Citrix machines, you will require strategies and apparatus. The Citrix robotization in the UI path is utilized for working the virtual machine.  
  
Truly, I have taken a shot at the virtual machine mechanization beforehand.  
  
These are a portion of the imperative meeting condition which you will look at amid UI path meet. It contains the two learners' level inquiries to inquiries for experienced individuals. To take in more about the UI path, it is essential to have a sound learning of computerization and virtual machine.  
  
**18. Differences between UiPath and Blue Prism?**

* Differences UiPath Blue Prism
* Programming languages UiPath uses VB. Blue Prism Uses C#.
* Control Room/Dashboard The control room has The Orchestrator: Is web-based, it is accessible through mobile or browser.
* Blue Prism has customer based servers, available only within the cost of their application and uses UiPath is more affordable it is easy to learn and operate

**19. What is Citrix Automation in UiPath?**  
  
The virtual machine is the emulation of computer science. If you efficiently want to process the automation in the Citrix machines then you will need techniques and tools. The Citrix automation in the UiPath is used for operating the virtual machine.

**20.What is UiPath Automation?**  
  
Uipath is the vendor for the leading automation process of robotics. It actually helps in providing a software platform that will help in an organization like automate business.  
  
The main objective of the software robot is to help in the manipulation of the application's layer of presentation like the way any human will do.  
  
**21. What does the Accuracy property represent in the Click image activity?**  
  
It is a unit of measurement from O to 1 which expresses the minimum similarity between the image you are searching for and the one to be found.  
  
**23. How do you deploy the UiPath tool?**

* Install UiPath Studio on the system you want to automate processes.
* The robot key from orchestrator is taken to Provision the machine & entering it into the.
* Robot Configuration board and furthermore the Configuration URL which you will find in the Admin area of Orchestrator
* Publish your procedure except if you simply need to utilize your current procedure
* Create an environment
* Make release of process
* Start job

**24. In UiPath studio, how elements are recognized on screen?**  
  
They can be recognized through the attributes of UI elements.  
  
**25.. What is the state machine in UiPath?**  
  
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.  
  
They also enable us to add conditions based on which to jump from one state to another. These are represented by arrows or branches between states.  
  
**26. What are sequence activities in UiPath?**  
  
The sequence is actually the small type of projects which are suitable mainly for linear processes and will enable you to switch from one activity to another seamlessly. It actually acts as a single activity block. You can reuse them many times.  
  
**27. How to import Namespaces in UiPath?**  
  
**To add new namespaces to your library :**

* ***Open Imports:****In the Enter or Select namespace field, start typing the namespace that interest you. Note that suggestions are provided while you type in case you are not exactly sure what you are looking for.*
* *Click the drop-down arrow to view and browse all available namespaces.  
  Select the desired namespace. The namespace is added to the Imported Namespaces. To remove a namespace, select it and press Delete.*
* *Note that namespaces can only be deleted if they aren't used. For example, you can delete a namespace if the assembly that contains it is no longer referenced by the project.*

**28. Can UiPath run multiple instances of the same process with one robot in one system simultaneously?**

* Yes, it can run the same program simultaneously in two robots where each system is registered as one robot. On a machine with a Windows Server (2008 R2 or 2012 R2 or 2016)
* Operating System: You can run the same process with all Robots at the same time;
* You can run different processes with all Robots at the same time.
* These are called High-density robots.

**29. What is the Value and Scope of data types in UiPath?**  
  
Variable is used for storing data. You can also change the value of the variable. When some data is stored within some variable then that value can be of many types. In uipath, there is a huge number of data types starting from text number, generic value, time, date, and data tables.  
  
**30. How do you expand a Tree View structure on a web page using UiPath?**  
If you are talking about expanding the root node for a collapsed tree, you probably would use Click Image since that would likely be unique.  
  
If you are trying to expand a particular node, you'd likely use Click Text, and give it a certain negative X offset in the Position property so that when it targets the text you want to expand the node for, it will end up clicking on the +.  
  
**31. Difference between UiPath vs Selenium?**

* Selenium has been designed for testing web applications or websites.
* Selenium can't interact with a huge number of applications.
* It is unable to use one's application's output and use them as a new input for another application and is not compatible with virtual environments like Citrix.
* Whereas Uipath generally designs the software process that helps in automation.
* It is a sort of RPA tool which will help in performing activities like the human.

**32. What are Selectors and Wildcards in UiPath?**

* Wildcraft helps in replacing the strings. It is helpful when you will deal with the attributes which are changing dynamically in the selector.
* And the selector helps in automatically generating the selection by using the wildcraft.

**33. What is the For Each Activity in UiPath?**  
  
**For Each activity** enables you to step through arrays, lists, data tables or other types of collections so that you can iterate through the data and process each piece of information individually.  
  
**34. What is branching in UiPath RPA?**  
  
When it comes to branching in uipath there comes a **condition**. This condition is used when an activity is having more than one solution that occurs after a certain condition. The condition statement will help the program to determine what behavior should be shown when any condition will be selected.  
  
**35. Explain about Recording in UiPath Studio?**  
  
**Uipath has 4 recordings. They are Basic, desktop, web, and Citrix.**

* **Basic:**It is used for the generation of the full selector for every activity but has no container. Hence the automation is much slower but is good for single activities.
* **Desktop :**It is great for multiple actions and desktop apps. It is much faster than the basic and uses the container where the activities will be enclosed and will also have a partial selector.
* **Web:**It is used for recording in the web pages and for browsing. It also generates the container.
* **Citrix:**It is used for the recording of virtualized environments, permits texts, images, and keyboard automation.

**36. What is the While Activity in UiPath?**

* While activity enables you to execute a specific process repeatedly, while a specific condition is met. The main difference between this and the Do While activity is that, in the first one, the condition is evaluated before the body of the loop is executed.
* This type of activity can be useful to step through all the elements of an array or execute a particular activity multiple times. You can increment counters to browse through array indices or step through a list of items.

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

## Cognizant UiPath Interview Questions

##### 1. Do we need excel installed on the system when we use the workbook read range activity?

No.

##### 2. What are pdf activities used to get text from an image?

Read PDF Text  
  
Read PDF with OCR

##### 3. What is switch flow?

A Flowchart specific activity that splits the control flow into three or more branches, out of which a single one is executed based on a specified condition.

##### 4. What is the Queue? Use the case of Queue?

* The queue is a list of items that you want to be processed by Robots. When you create a queue in Orchestrator, it is empty. To populate the queue with items, change their status and process them, you have to use activities from Studio.
* 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.
* The **Queues** page enables you to create queues, view information about queue items (such as average execution time and the total number of successful transactions), display charts with the transaction status progress over time.
* Queues enable you to create large automation projects underlined by complex logic. For example, you can create a process that collects all invoice information and creates a queue item for each piece of data to store it.
* Subsequently, you can create another process that gathers the information from Orchestrator and uses it to perform additional tasks, such as paying the invoices in a different application, postponing their payment according to their due date or value, sending emails to the accounting team every time a bill is paid, etc.

##### 5. What are the activities used in Queues?

**The following activities from Studio are used with queues :**

* **Add Queue Item**– populates the queue with items and defines a time frame when these items must be processed. By default, when an item is added to the queue its status is **New**.
* **Get Transaction Item**– gets an item from the queue so that you can process it (start the transaction) and sets its status to **In Progress**.
* **Set Transaction Status**– changes the status of the transaction item to **Failed** (with an Application or Business Exception) or **Successful**. Application Exceptions should be used when the app you are automating fails, while Business Exceptions should be used when a certain queue item value does not meet a business requirement.

**Note :**

* Only items that fail with an Application Exception are retried (if you also configure the **Auto-Retry** options in the queue, in Orchestrator).
* **Add Transaction Item:**adds an item in the queue, starts the transaction and sets the status to **In Progress**.
* **Postpone Transaction Item:**adds time parameters between which a transaction must be processed (not before **Defer Date**and no later than **Due Date**).
* All these activities are part of the **Core** activities package and can be found in the **Activities** panel, under **Orchestrator > Queues**.
* By default, the queue items that have been processed successfully are archived on a daily basis, while the others remain in the queue so that you can decide what to do with them

##### 6. What are the Queue and Transactions?

The queue is a type of Data and Transactions are Data for the Processing  
  
For e.g., **Queue :**is Invoice Number: String type and Transactions are INV132 each time Transactions will be updated once it completed the process

##### 7. Difference between RPA and BPM?

|  |  |  |
| --- | --- | --- |
| **Function** | **RPA** | **BPM** |
| Technology | Software bots are configured to complete monotonous tasks that humans would normally do | Encompasses a wide range of software technology components such as workflow engine, business analytics, etc., to improve business performance. |
| Automation focus | Minimizes manual/ repetitive/rule-based tasks that do not require complex decision making | remove bottlenecks and shorter process cycle times, and improves productivity business-wide |
| Deployment effort | Non-disruptive works across an organization’s existing processes and applications | A longer-term effort that requires dedicated technical resources depending on process complexity and depth of integrations. |
| Business impact | Returns can be acquired quickly and cost-effectively. | Wide gains can be achieved in overall productivity |
| Cost | Less expensive when compared to BPM | BPM is expensive for enterprise applications. |

##### 8.If there is a System exception in GetTransition Data State in REFramework? Which state in the REFramework stage would be executed next and Why?

If there is a System Exception in GetTransition Data State in ReFramework, End Process State is executed next because as there will be no data to be processed, the So End Process state is executed.

##### **9. What is the Credentials Manager? How it is used in Project?**

In Windows, you can view and manage your network-based login credentials (i.e., usernames and passwords) using Credential Manager.  
  
With UiPath, you can automate the process of creating, querying, and deleting the credentials through some dedicated activities.  
  
To get credentials from the windows credential manager, you have to use the Get Secure Credential activity.

##### 10. Which desktop application have you automated in UiPath?

* Automatic Data Entry into ExpenseIt Application from CSV file.
* Moving Files and Folder Automation
* PDF Data Extraction
* Automation of Order Management System application.
* Automation of CRM AnyTeller Application
* Automation of Inflow Inventory System Automation.

##### 11.If suppose there are 2 excel and Each Excel contains 1000 records each. If Suppose 100 records are added into Another Second Excel? How would you Compare and Fetch 100 Records from Excel?

* *Using Macro or Compare each row of one excels with each row of other excel.*
* *Creating a comparison macro for an excel file will be easier*
* *Simply picking one record of excel file A and compare it with all the records of excel file B.*
* *Using Vlookup Option*
* *You can do it in A excel as database inner join between two sheets.*

##### 12. What is FTE?

Full-time equivalent (FTE): the amount of work a full-time employee does in a department, or on a certain project.  
  
It is nothing but the number of employees who are doing manual activities and if you implement RPA how many FTE you will save.

##### 13. What is the difference between mainframe and non-frame

**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.

##### 14. I am your client, you give me two workflows one with activities and one with using a recording. Which one do you suggest using and why?

I will suggest workflow with activities. Because in the recording we can’t get exact selectors, if we get exact selectors then we have to do all selectors as a dynamic one. So it would be better to go with workflow with activities.

##### 15. Suppose there is url that is dynamic? How would automate Url in UiPath Studio? What is the solution for dynamic url?

Use UiExplorer to get the exact selector and use dynamic selector using **\***, in url element for changing value. And also you can use screen-scraping to get the value.

**For Example-: In aaname you can assign as \***

**aaname=’\*’ and title also \***

**Use the below selector**

**<html app=’chrome.exe’ title=’\*’ /> <Webctrl aaname=’\*’ tag =’SPAN’/>**

##### 16. How will you handle Credentials?

* By using Credential manager: a window based application to save user credentials in secured
* By storing in Orchestrator as Credential: variable type
* Just prompting as input box using: Get Secure text activity

##### **17. Explain the main components of the orchestrator?**

* **Processes :**A process represents the association between a package and an environment. Each time a package is linked to an environment, it is automatically distributed to all the Robot machines that belong to that environment.
* **Assets :**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.
* **Queues :**A queue is a container that enables you to hold an unlimited number of items. New queues created in Orchestrator are empty by default and can store multiple types of data.
* **Schedules :**Schedules enable you to execute jobs in a pre-planned manner, at regular intervals on Robots. Input values for processes that support input and output parameters can be managed at this level as well
* **Robots :**A Robot is an execution host that runs processes built-in UiPath Studio. The Robots page enables you to add robots, edit them, view their status and other settings.
* **Jobs :**A job is the execution of a process on one or multiple Robots. After creating a process, the next step is to execute it by creating a job. When creating a new job, you can assign it to specific Robots.
* **Transactions :**The Transactions page displays the transactions from a given queue. It also shows their statuses, the dates when they should be processed, the Robot that processed them, and the type of exception thrown or assigned reference, if any.

##### 18. How many .xaml have you created for your project? How would publish multiple Processes to Orchestrator?

The Answer to the Question depends on the candidate Project and the number of processes that the user creates for the Project. Orchestrator will trigger based on the reference xaml given in the project.json file.

* **Main:**The entry point of the automation project. It consists of a .xaml file. The default name is **Main.xaml**. It is displayed both as the title of the Designer panel and in the Properties panel in Studio.
* If you want to execute a different project first, change the value of this parameter to the name of the .xaml file to be processed.
* If you want to change the entry point of the xaml file you can change it in this project.json file.
* ‘Project.json’ is an automatically generated file that is included in the folder of each automation project made in Studio. The file holds information about the project dependencies.

Note: If your automation project contains multiple files, each of them should be linked to the Main.xaml file through the Invoke Workflow File activity. This is especially useful when the project is published to Orchestrator and sent to a Robot, as the Robot executes only the file provided in this parameter.

##### 19. Suppose there are 5 different Processes, how would you schedule all these processes in Orchestrator?

We can schedule all 5 processes for one machine, One by one. It will start the process one by one. If the machine is different then 5 Processes can be scheduled simultaneously.  
  
Schedules enable you to execute jobs in a pre-planned manner, at regular intervals on Robots. Input values for processes that support input and output parameters can be managed at this level as well.  
  
**You can assign Robots to perform different schedules according to the following options :**

* **All Robots :**Schedules are executed by all the Robots in a specific environment.
* **Specific Robots :**Schedules are executed by the Robots selected by the user.
* **Allocate dynamically :**Define how many times a process is to be executed according to the given schedule. This option enables you to utilize your resources to their greatest extent. As soon as a Robot becomes Available, it executes the indicated process according to the provided schedule.  
  The Schedules page enables you to create new schedules. It also displays all previously created schedules, which can be further edited, enabled, or disabled.
* You can view the jobs started by a specific schedule on the Jobs window,
* By selecting More Actions > View jobs. A scheduled job can also be stopped after a custom amount of time with the Stop or Kill options on the Actions tab.

## UiPath Interview Questions And Answers

##### 1. What is RPA?

**Answer :**[Robotic Process Automation](https://chercher.tech/uipath/introduction-robotic-process-automation-uipath) 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 the business process.  
Automate the business process by the Robot is known as RPA.

##### 2. What is the RPA LIFE CYCLE?

**Answer :**Phases of RPA Life Cycle:  
  
**Analysis :**The first phase in RPA begins with analysis. The 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 that performs a dedicated QA like normal SDLC flow. The best practice is to have a dedicated testing team that performs QA of a developed bot.  
  
**Deployment and Maintenance :**After the Development and Testing phases, a bot is ready for distribution and enters the maintenance phase.  
This question is frequently asked in RPA interviews. You should know the RPA Life Cycle.

##### 3. Why UiPath is best in RPA?

**Answer :**Uipath RPA is an enterprise computing platform dedicated to automating the business process. It provides the below options in full compliance with enterprise security and governance.

* Process modeling
* Change Management
* Deployment Management
* Access Control
* Remote Execution
* Scheduling

##### 4.Components of Uipath?

**Answer :**[UiPath Platform](https://chercher.tech/uipath/install-uipath) 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](https://chercher.tech/uipath/interview-questions-rpa-uipath)- 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](https://chercher.tech/uipath/uipath-orchestrator)- UiPath Orchestrator is a web application that enables you to orchestrate your UiPath Robots in executing repetitive business processes.  
Orchestrator manages the creation, monitoring, and deployment of resources in your environment, acting in the same as an integration point with third-party solutions and applications.

##### 5. Types of Workflows in UiPath?

**a) Sequences :**The sequence is the small type of project which are suitable mainly for linear processes & will enable you to switch from one activity to another seamlessly. It acts as a single activity block. We can reuse them 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 country to another if any action is triggered.

##### 6. What is the difference between the 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 Robot, 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.

##### 7. What are the benefits of using RPA?

**Answer: Benefits of using RPA**

* **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.
* **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.
* **Easy to Implement and learn :**As earlier stated, there is no coding required. Any automation can be created using a simple drag and drop.
* **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, and if the process is repetitive, it can be automated, that too with minimum coding required.

##### 8.Which types of documents you have created in Uipath?

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

##### 9.What is Ui-path Automation?

**Answer :**Uipath is a processed Automation vendor through that tool; we can automate any type of process.

##### 10. What is the difference between Test Automation & Process Automation?

**Test Automation :**For testing purposes, we automate the application & getting the result of how many test cases are pass & fail.  
  
**Process Automation :**Automating the process without human intervention is called Process automation.

##### 11. How many types of variables & direction of the Argument you have used till now?

**The mostly used variable is**String, Int32, Double, Data Table, Array, List, Generic Value, Boolean.  
  
**The direction of Argument :**In, Out, In/Out

##### 12.Difference between Array, List & Enumeration?

* **Array :**The array variable is a type of variable that enables you to store multiple values of the same kind. UiPath Studio supports as many types of arrays as it does types of variables. This means that you can create a variety of numbers, one of the strings, one of the Boolean values, and so on.
* **List :**If you want to work with a collection that doesn’t have a fixed number of elements, you can use a file instead of an array.
* **Enumeration :**It is a fixed data type.

##### 13. What is the value & type of scope used in UiPath?

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

##### 14. What is the difference between Sequences, Flowchart & State Machine?

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

##### 15. What are the 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 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.

##### 16. What is branching in Uipath?

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

##### 17. What are the selectors & types of selectors?

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.

##### 18.Types of Wildcards in UiPath?

* **Asterisk (\*) :**replaces zero or more characters
* **Question mark (?) :**replaces a single character

##### 19. 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:

##### 20. 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.  
  
The activities package is installed as a dependency on the project. To open the UI Explorer window, click the button in the Selectors section, in the Design tab.

##### 21. 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.

##### 22.Types of recordings available in Uipath?

* **Basic :**generates a full selector for each activity and no container; the resulted automation is slower than one that uses boxes and is suitable for single activities.
* **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.
* **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.
* **Citrix :**used to record virtualized environments (VNC, virtual machines, Citrix, etc.) or SAP, permits only image, text, and keyboard automation, and requires explicit positioning.

##### 23. 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 that they can be executed. The default local publish location is **%ProgramData%UiPathPackages.**

##### 24. How to run a bot through a robot?

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

##### 25. How to run bot through command prompt & create a shortcut of Robot?

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

##### 26. How to save credentials in the window & use them through Uipath?

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

##### 27. How to automate 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 inactivity properties.

##### 28. How to create a database connection with Uipath & take the data from the database?

For database automation, you have to install Uipath database activity from the Manage package,  
& You have to provide all the details of whatever database you are using inactivity properties.

##### 29. Which activity you have used in the database.

For databases, there are lots of activities like Connect, Disconnect, Execute query & Non execute the query.

##### 30. 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

##### 31. What is Citrix automation in Uipath? Have you worked on Citrix?

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

##### 32. What is the difference between thin & thick clients?

* **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 the RPA tool, e.g., calculator, Internet Explorer.

##### 33. How many activities you have used in UiPath?

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

##### 34. Have you automated a virtual machine?

A virtual machine(VM) is an emulation of a Computer System. The virtual machine is based on computer Architecture & provides the 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.

##### 35. 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 automation. Breakpoints enable you to pause the execution of a project so that you can check its state at a given point.

##### 36.Difference between Step into & Stepover in Uipath?

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

##### 37. What are arguments in Uipath & directions of Argument?

Arguments are used to pass data from one 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)  
  
**IN:**This means they are passed in and not returned.  
  
**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.  
  
In fact, if it is passed by a 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.  
  
An IN/OUT parameter usually indicates something where both the input and output values are meaningful.

##### 38. 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.

##### 39. What is the difference between for each, for each row & parallel For each?

* **Each :**allow you to iterate through a collection of items. It can be an array, a list, a data table, etc.
* **For each row :**When using For each, you need to specify the data type, and because you might need to iterate through a data table 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.

##### 40. 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.**

Accenture UiPath Interview Questions

**1. What is the 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 an error before the execution of the step.  
  
**2. How you have handled exceptions in your project?**  
  
It depends on your project, you have to tell about your project exception handling process.  
  
**3. What is the difference between Try, Catch & Finally?**  
  
To solve such kinds 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.  
  
**4. What is the difference between Data scrapping & screen scraping?**  
  
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.

**5. Difference between the Output panel & outline?**  
  
Output panel is the 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  
  
**6. Do you know about TFS, SVN & all repository in Uipath?**  
  
**TFS :**Stands for Team foundation server f **SVN :**SubVersion  
  
**7. 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.  
  
**8. How many Activities you have used for excel Automation?**  
  
There are lots of activity in excel automation  
  
**9.Difference between Excel & Workbook activity?**

|  |  |
| --- | --- |
| **Excel** | **Workbook** |
| To use Excel Application scope Excel should be installed on the local system | For using Workbook not required to install excel |
| In the excel sheet, you will not able to access the chart and diagram related data with excel activities you will get an error | It's working fine with Workbook |
| It is fine in this condition | Workbook related activity the Excel workbook file should be close at the time of robot run otherwise it will give an error |
| In Excel application scope, we are not able to access the Password protected excel & popup was asking for to enter credentials. | It is fine in this condition. |

**10.Types of data table activity you have used in the project?**  
  
There are lots of mostly used data table activities like Build data Table, Output data table, Merge data table, filter data table, Clear data table & join data table.

**11. How many ways to read a column of excel through Uipath?**  
  
There are lots of ways to get the column value. There is Get row item activity through that activity.  
You can get all data from the proper column.  
  
**12. How to automate excel macro through Uipath?**  
  
There is execute the macro activity, You have installed from manage package  
  
**13. What is Anchor & find the 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.  
  
**14. 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 a proper cell, through read CSV, we read all CSV data, through writing CSV .we write data into excel sheet, through write cell we write data into the proper column, through writing CSV we write data in CSV format.

**15. 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.  
  
**16. What is the email protocol in Uipath?**  
  
IMAP, SMTP, GET OUTOUTLOOK, SEND OUTLOOK, POP3  
  
**17. 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 a simple mail transfer protocol for sending the dynamic mail.
* **Send Outlook :**Through this activity, we can automatically send the static mail.

**18. How many activities you have used in Email Automation?**  
  
There are four most used activity like Get outlook, Imap, Send outlook & SMTP  
  
**19. How to download Gmail attachments?**  
  
We will start with a new automation process. Let’s call it Email Automation.

* Add a new Flowchart and inside drag and drop a new Sequence. Rename the Sequence to Download Email Attachment.
* Open the sequence and create 3 new variables:  
  EmailAddress: String type  
  EmailPassword: String type  
  MailMessages: List<MailMessage> type (System.Net.Mail.MailMessage)
* Drag and drop a new Assign activity and set the EmailAddress to your email address.
* Drag and drop a new Get Password activity and set the EmailPassword variable. On the Misc, a section set the Password and on Result select EmailPassword variable.
* Next, drag and drop Get IMAP Mail Message. Make the following changes:  
  Set MailFolder to “Inbox”  
  Port to 993  
  Server to “imap.gmail.com”  
  Email to EmailAddress variable  
  The password to EmailPassword variable  
  Top to 10 (get the first 10 emails)  
  Save the Messages to MailMessages variable
* Drag and drop a new For Each activity and inside of it drop an If activity. It should look like this:
* For each item in the MailMessages check if the subject contains a specific word. For example, get emails with a request word in the subject. Use Contains method.**item.Subject.ToLower.Contains(“request”)**
* Inside Then branch drag and drop the Save Attachment activity. Set the Message as item variable and select the path where to download the email attachment.
* If you want to download only specific files use the Filter option on Save Attachment activity. For example, if you want to download only .jpg and .png files use this regular expression as a filter: **“^.+.(([pP][nN][gG])|([jJ][pP][gG]))$”**
* Before running the email automation please configure your Gmail account for IMAP/POP3 protocols and generate and use an App password from Google.

**20. How to filter the 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 conditions in Get outlook filter option.  
  
**21. How to select the folder of mail through Uipath?**  
  
For folder selection, you have to change from IMAP or get an outlook mail setting.  
  
**22. What is PDF Automation?**  
  
Pdf Automation is that type of automation where can fetch all the information from pdf.  
  
**23. How many activities you have used in Pdf Automation?**  
  
Mostly used activity is Read pdf text, Read pdf with ocr & Get text  
  
**24. 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

**25. What is OCR? Different types of OCR?**  
  
**Ocr stands for Optical character recognition**  
  
i)Google ocr  
  
ii)Microsoft Ocr  
  
iii)Abbey ocr

**26. How to pass credentials from Orchestrator & window system?**  
  
You have to save credentials in the manage package & give the credential name in your secure credential variable, create both id & password & use where ever required.  
  
**27. What is Orchestrator?**  
  
Orchestrator is a web application that enables us to deploy schedule, monitor, and manages Robots & processes.  
  
**28. Different navigation of Orchestrator?**  
  
There is more than 8 navigation in orchestrator like Robot, process, Machine, Schedule, asset, Queue.  
  
**29. 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 the Convert to a Floating button displayed alongside Standard Robot.

**30. Different between Process, job, Scheduler, asset & queue?**

* **Process :**The Packages page displays all the projects published by 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.
* **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.
* **Scheduler :**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:
* **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.
* **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.

Problems Faced and Answers in UiPath

**1. We are scraping data from the website. i.e, Text and number then it's storing into a datatable variable by default. Can we Scrape Images(Hotel photos which are displaying on the website) along with text(HotelNames, Description,...), numbers(Rating, Price,....)? and storing them into the same Excel file?**  
  
**Answer :**yes you can store the image URLs in excel. Try extracting URLs in the wizard. These URLs help in downloading images.  
  
**2.Getting error during Execution using Excel Sheet.**  
  
**Answer :**If you are getting an error using Excel then try using Workbook activity.  
  
**3. I am trying to enter the string "Hello world" in google search and it's not entering it. rather it's entering "wld" and weird things every time. How to resolve this?**  
  
**Answer:**Try chrome. Also seems the system is outdated. Try another modern PC.  
  
**4. I am trying to Write Text instead of Message Box after reading file names in a folder using Directory.GetFiles.**  
  
**But the above function returns Object. How to get file names as a string so that it can be used elsewhere.**  
  
**Answer:**Directory.GetFiles will return an array of strings. Assign it to String array and then use a for each row then you can write it to a text file with names as**item.tostring.**

**5. Hi, I have to make one email alone to mark as read in outlook but not all mails. my requirement is something like, I have to loop mails with particular subject and mark as read, How to make this?**  
  
**Answer:**you need to filter emails using a specific subject. checkout <https://forum.uipath.com/t/how-to-filter-messages-in-get-outlook-mail-messages/74/3>.  
  
**6.how can I do to protect the source code of my workflows when I install the nupkg file on the client's computer?**  
  
With someone just changing the file extension from nupkg to .rar this person can access the entire source code of my development. Or even if this person accesses the folder C: Users chabc .nuget packages name\_of\_robot version\_of\_robot lib net45 after the robot is installed on the client's computer, he can also see all the source code in this folder. This seems to be a big problem. The client could alter or even commercialize my developments since the source code is 100% visible. Obviously, we are talking about developments and customers that use the Community Edition version in attended robots. Could you please help me find a solution to this?  
  
**Answer:**Good questions. This is something UIPath is working on. Check out their forums. example: <https://forum.uipath.com/t/encrypted-workflow-files/15757/12>.  
  
**7. Do you have anything similar video that uses google sheets and Docs, instead of Microsoft products and how to use the same actions that were used on Microsoft products on google products, I mean I need info on the usage of sheets and docs in a similar way of extracting, manipulating data and adding data to it?**  
  
**Answer:**It works best when it's desktop applications like word, excel. If it's online web products like google docs/sheets then you need to use web browser activities.

**9. Trying to configure Orchestrator on 2 separate computers with the same credentials.**  
  
**Answer :**Try creating 2 different accounts with 2 emails and see if that works.  
  
**10.In the Chapter PDF Invoices to single excel. The method to include a counter for excel would solve the issue of cell content override. However, how can we ensure that it does not override the content every time we run. Like the first time I run the program, it will read the pdf file and write it in excel. Suppose I add more pdfs (like on a daily basis ), so every time I run this program, it will override everything and start from the beginning since the program says counter = 1.**  
  
For example, on Tuesday I ran the program and my values are saved until D5.  
  
The next day the program will run again, rewrites everything, and write till G5 (including the new PDFs).  
  
Is there a way where the bot starts from D5 and updates the table till G5.  
  
Using the orchestrator will solve the problem, but the Assign > Counter = 1 will cause the challenge to repeat again.  
  
**Answer :**Assign counter = datatableofexcel.rows.count . this will make sure we append the new entries to excel.

**11. I am not able to find Uipath Robot in the Window Search or system tray. How to install Uipath Robot?**  
  
**Answer:**If you install the UIPath Studio then Robot comes in default. Please re-install the UIPath studio from http://download.uipath.com/UiPathStudioSetup.exe. then search in windows start.  
  
**12. In the current website, there is no download option for UIPath Community Edition. How to download this.**  
  
**Answer:**Download url: <http://download.uipath.com/UiPathStudioSetup.exe>  
  
**13. I do not understand the meaning of the sentence I read in the sample exam. I assume the transaction is referring to the transactions written to the excel file for WIID over 200000? If so, what exactly am I supposed to do, with each transaction? Access the work Items page for each WIID and do what at that point?**  
  
Constraints to follow in the development, using the REFrameWork: 1.TransactionItem datatype should be a String. The process should recover and retry in case of errors in navigation between the WorkItems page. One transaction is the action of scraping one web page. By navigating to the next page, the next transaction will execute. (Same as ACME Process 4 Dispatcher from the UiPath Academy).  
  
Will, there be a PDD included to provide more detail, such as retrieving the Tax Information, Client info, etc? Where can I find the following reference?  
  
ACME Process 4 Dispatcher from the UiPath Academy  
  
**Answer :**https://academy.uipath.com/lms/ here login to find level 3 and you will find process 4 dispatcher. I would suggest checking out https://github.com/miyaichi for sample exams and code.

**14. Can we convert double-byte string to single-byte string in uipath? And how to create a byte data type variable.**  
  
**Answer:**Checkout Browse for types in variable type in the variables section. It has all the system datatypes including byte datatype.  
  
**15. I run the given url "platform.uipath.com" provided for the orchestrator for the learning purpose, but I do not get the orchestrator login page. Can you please check if the url has changed and provided the updated url.**  
  
**Answer :**Please use https://cloud.uipath.com/ and goto services for orchestrators.  
  
**16. I tried recreating the amazon example but I am getting an exception in KillAllProcess.xaml as Object reference not set to an instance of an object for in\_config argument.**  
**Followed the exact same steps as you have explained and also tried REFramework shared by you in resources. I am still getting the same error. Can you please help?**  
  
**Answer:**Check if you are passing the config parameter to killallprocess sequence. If it still gives the error, comment it out and run it to see if it works.  
  
**17.If I want to select 21days in the below sentence, then what formula I have to put**  
  
(net amount paid in 21 days) how to split the string, if I want both 21 and days in an excel.

**18. could you please share the XML activity by using uipath?**  
  
**Answer:**Sorry for the delay. Check this <https://docs.uipath.com/activities/docs/deserialize-xml>  
  
**19. Steps for URL Automation?**  
  
**Answer :**Steps:

* Use Read range activity to read excel data into the data table
* Use For each row activity to loop through the data table
* Use open browser activity with url text from datatable with formula **row.item(index of url column)**

**20. In my application, I need to enter fNAme and Lname and search the person. but after entering when clicking on the search button the Lname gets erased and I get the message "enter the name". need ur help. I tried with delays, simulate type, etc but no solution. sorry for the late response.its web-based application. The fields are not dynamic. The screenshot is as below**  
  
**Answer:**I didn't get the screenshot. I suspect the dynamic nature of the fields. few things to try:  
  
Delay after and before for each event.  
  
Try entering the Lname twice ( copy-paste activity 2 times)

**21. So, how to handle a popup in the chrome browser. Currently, the OK button on the text message is not recognized.**  
  
**Answer :**Popups on chrome are not handled well by UIPath. Please use Internet Explorer for such things.  
  
**22. I just got a question about the difference between the 'Disable Schedule' option and the 'Stop Job after' option. It's not very clear at my level.**  
  
**Answer:**Optional In the Actions tab, enable the Stop Job After toggle and enter the amount of time that needs to pass before the job is either stopped or killed.  
  
To disable a schedule, click the corresponding More Actions button, and then Disable. A disabled schedule displays the disabled icon in front of it.  
  
Alternatively, you can select it and then click the Disableicon. You can also configure your schedule to get automatically disabled at a specific date and time in the future.  
  
**23. I used the Execute Query without first using the Connect successfully, however, does the database automatically get disconnected? Or must I still use the Disconnect Activity? If so how do I create the DbConn variable in that situation for Disconnect to use?**  
  
**Answer:**yes UIPath takes care of disconnection in this case.

**25. Assume, I have a list of questions in the first column (Column A) of excel and I am passing those values in the bot(like google assistant) and I have a list of expected answers respectively for all the questions in Column B and my question is I have to compare the response which given by bot with the expected response which I mentioned in the sheet and finally it should generate a report with listing all the passed and failed cases. Help me in doing this, please?**  
  
**Answer:**Steps:

* Read range from excel to datatable.
* For each row loop and take row.item(0) (first column) into variable called question
* Place that question into form or chatbot and click enter
* Use get text activity to get the latest response from the web
* Check it with row.item(1)

**26. When I click on Publish I didn't find the Robot Default option instead of robot default there is an orchestrator and custom option.**  
  
**Answer:**It seems you are connected to the orchestrator. Please disconnect your robot from the orchestrator then you will see robot defaults.  
  
**27.Couldn't able to download the .zip file of the Reframework example. Could you please attach the .zip file?**  
  
**Answer:**Couldn't able to download the .zip file of the Reframework example. Could you please attach the .zip file.  
  
**28. While watching videos should we download community version and start working simultaneously?**  
  
**Answer:**Yes You should download the community version to practice( **http://download.uipath.com/UiPathStudioSetup.exe** ). You watch a video and then practice it immediately this will give great results.

**29. I am facing the above-mentioned compile-time error while trying to print an integer variable value using Message Box in UiPath. Could anyone please let me know how we can resolve this issue without the use of it.ToString method?**  
  
**Answer :**Make the datatype generic. Else you have to use .tostring as the message box takes only strings.  
  
**30. Don't we have any update-specific line activities in Files? If I want to do which operation bests suits- E.g**

* **My Name,**
* **My location,**
* **My country.**

**Now I want to create 'location' which activity we should use?**  
  
**Answer:**You have created your custom workflow to find and update or replace. Try to replace activity.  
  
**31. Can we customize the pause interval after pressing F2?**  
  
**Answer:**I think for now we can't change the 3 secs interval.  
  
**32. I have tried web recording using chrome browser and internet browser. Every time I click the open browser and select the browser window I am getting the attached error and unable to proceed. Kindly help.**  
  
**Answer:**Seems this will help you:  
  
**https://forum.uipath.com/t/recording-web-ie-step-was-not-recorded-successfully/8461**  
  
**33. If I want to make my automation browser-agnostic, means can run with whatever browser available on the machine UI path is running is it possible?**  
  
**Answer:**Default is IE which is in every PC. so IE is preferred and default. if you want to choose a browser on the fly then you need to submit an idea to the UIPath software team.

**34.Got Error message while storing the text into the String of Array variable from UI.**  
**Error: Cannot convert Array into System.string. Could you please share the resolution.**  
  
**Answer:**You should store text into String but not to array. Change the variable type to String that should solve the problem.  
  
**36.how can extract specific images from the PDF? and how can you find specific content from the pdf and print in txt, doc files?**  
  
**Answer:**You can use the "Extract Images from PDF" activity to get images.

* If it's a pre-defined PDF format, you can use Screen Scraping to do specific content extraction.
* If it didn't work try to do string manipulation from the text extracted by "Read PDF Text"
* Try screen scraping activity on PDF files first.

**37. Open browser activity opens ie browser by default, how can open other browsers.**  
**How can make a click over dynamic content...search will always show different results.**