## **Syllabus Template**

### **Course Name:** RPA Infrastructure/Architecture Engineer

**Instructor Name:** BHARTI DUBEY

1. **Who can take your course?**

Infrastructure Engineers, RPA Solution Architects, Orchestrator Administrators, Database Administrators or RPA Developers

1. **What is included in your course?**

Learning Objectives

* Understand the challenges of an RPA Infrastructure and define the ways to overcome them;
* Understand the Orchestrator ecosystem architecture and the Physical deployment options;
* Determine Infrastructure requirements in terms of both hardware and software during an RPA implementation;
* Identify the simplest deployment options with Robots, Orchestrator Web Application, SQL Server, and Elasticsearch;
* Articulate the functionality of each component in the deployment;
* Understand cloud deployment solution for Robot and Orchestrator;
* Understand the Active/Passive disaster recovery option in case of a natural disaster.

1. **What should I know before starting this course?**
2. Infrastructure-specific concepts and tools

As an Infrastructure Engineer, you should already be familiar with:

* + Microsoft IIS, Windows Server roles and features, TCP Ports and SSL certificates;
  + Interactive web applications;
  + Bar graphs and time-range reports.

2. RPA Developer Foundation

This learning plan will help you:

* + Build RPA automations and configure them to interact with applications and UI elements;
  + Publish projects to Orchestrator;
  + Run automations from Orchestrator.

**Syllabus:**

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| **Week** | **Topic** | **Description** |
| **1** | [**High Level Architecture and Deployment Options**](javascript:void(0)) | At the end of this module you will be able to:   * Understand the challenges of an RPA Infrastructure and define the ways to overcome them; * Understand the Orchestrator ecosystem architecture and the Physical deployment options; * Determine Infrastructure requirements in terms of both hardware and software during an RPA implementation; * Identify the simplest deployment options with Robots, Orchestrator Web Application, SQL Server, and Elasticsearch; * Articulate the functionality of each component in the deployment; * Understand cloud deployment solution for Robot and Orchestrator; |
| **2** | **Administrative Features in Orchestrator's Web Interface** | At the end of this module you should be able to:   * Identify the administrative features in Orchestrator's web interface; * Understand the recommended way to publish a Studio project from development to test, and from test to production in several environments; * Understand when does Orchestrator generates alerts and how to customize them; * Identify and understand the different Settings tabs and their functionalities in Orchestrator; * Identify the most important admin configurations in Orchestrator; * Explain how to troubleshoot the Orchestrator installation, connecting robots to Orchestrator, starting a job fails, and login to Orchestrator with Windows identity. |
| 3 | **Elasticsearch and Kibana** | At the end of this module you should be able to:   * Understand the functionality of Elasticsearch and Kibana in the Orchestrator ecosystem; * Understand the various processes of installing Elasticsearch and Kibana; * Recognize Important points to consider during the installation; * Identify what are visualizations and types of visualizations available; * Identify what are dashboards and types of dashboards available; * Determine what is Elasticsearch backup method and Elastic Snapshot tool; * Identify what is Elasticsearch maintenance using Kibana monitoring tool or Dev monitoring tool. |
| 4 | **Web.config Explained** | At the end of this module you should be able to:   * Identify how is Nlog in Web.config is used by Orchestrator; * Understand the default rules in Orchestrator; * Discuss the use of variables to store information, such as index names in Elasticsearch, file names, and so on; * Identify the Alerts parameters in Web.config; * Understand how Windows authentication can be enabled and how it works. |
| 5 | **Security Considerations** | At the end of this module you should be able to:   * Understand the security features implemented in UiPath products; * Identify trusted SSL certificates, and how to disable them; * Understand cloud deployment of on-premise robot and cloud orchestrator VPN connection. |
| 6 | **Installation and Update** | At the end of this module you should be able to:   * Identify the prerequisites to install Orchestrator; * Reproduce the Orchestrator installation instructions using MSI Installer; * Identify the prerequisites and the Orchestrator installation steps using PowerShell scripts; * Describe the steps followed to perform Orchestrator updates and what are the prerequisites. |
| 7 | [**Robot Setup**](javascript:void(0)) | At the end of this module you should be able to:   * Understand the step-by-step process to connect a robot to the Orchestrator manually, either using a Setting dialog box or the command line; * Identify the potential errors while connecting a robot to the Orchestrator; * Identify if a robot is using a proxy server and not a proxy script; * Identify the step-by-step process to connect to the Orchestrator when a robot uses a proxy server; * Identify how to automate the connections of robots to the Orchestrator; * Explain how to correctly import the public key of a self-signed certificate; * Identify the important steps to be perform while importing the public key to avoid common mistakes. |
| 8 | **Database Maintenance/**  **Hardware Requirements** | * At the end of this module you should be able to: * Understand database integrity check, index, and statistics maintenance; * Prepare an archive database and tables; * Identify how to archive and delete old messages logged by the robots; * Describe the process of deleting old unused indices from Elasticsearch; * Identify the process to backup a database . * Determine the hardware requirements to support up to 250 robots; * Determine the hardware configuration requirement for various servers, such as Web application server, SQL server, and Elasticsearch server. |
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