

CERTIFICATION

Automation Engineer - Basic

Connected World.

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Why be an Automation Engineer

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- We launched our Automation Framework called AQT(Automation, Quality, Time) to increase Business Efficiencies for our stakeholder and ourselves.
- Refer to the below link to know more about AQT. https://kee.techmahindra.com/Automation/_layouts/15/start.aspx#/SitePages/AQT.aspx
- Automation Thinking is one of key enablers of AQT to accelerate the behavioral transformation through Learning and skill enhancements.
- To promote Automation Thinking a training and certification program called Automation Engineer Basic (AEB) is rolled out. Sessions of this program will enable you to be well-versed with the SureSmart suite of tools and Scripting languages, which form the foundation.
- Following SureSmart suites are covered in AEB
 - Java and Microsoft
 - Testing
 - AMS/IMS services (Apps, Infra and Network)
 - SAP and Oracle Apps

AEB - Program Contours

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Eligibility Criteria

- Associates upto U4
- Technically strong and highly motivated towards learning new tools and technologies
- Must for the associates of projects which have automation opportunities to be addressed. (Will be mandated in system for U1-U4 associates for projects with addressable opportunities)
- No prior nomination is required.

Training

- Self Learning Avenues in form of eLearnings, Online learning, and Recorded sessions.
- Monthly Training Calendar with virtual trainings covering Tools and Scripts by Experts. (Associates can attend sessions relevant and of interest to them.)

Exit Criteria for Final AEB Certification

- 100% Attendance in minimum 3 virtual tool training session series.
- Clearing objective assessments AQT_AEB_Certification for minimum 2 scripts and 3 tools.

(Registration Link: Register Here)

AEB – SOP (3 months)

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Week 1

 Select 2 scripting languages and 3 tools based on service lines most relevant to your line of work from the published curriculum

Week 1, 2,3

 Learn Scripting languages using Self-learning avenues

Week 3-12

 Attend sessions of Scripting languages and/or tools most relevant to you. (Monthly Training Calendar will be published)

Week 6 - 12

 Give online assessments for 2 scripting languages and 3 tools to get training credits and AEB certification.

AEB – Curriculum - Scripts

(any two compulsory)

AEB – Scripts

Scripting Language	Description	Pre- requisites
Perl	Perl is a programming language especially designed for text processing. It runs on a variety of platforms, such as Windows, Mac OS, and the various versions of UNIX. The Perl languages borrow features from other programming languages including C, shell script, AWK and SED. It provide powerful text processing facilities without the arbitrary data-length limits of many contemporary Unix command-line tools facilitating easy manipulation of text files.	
Python	Python is an extremely flexible and elegant object-oriented language that can be used for a myriad of tasks. You can create anything, whether it be games, crossplatform desktop apps, web apps or scripts.	
PowerShell	Windows PowerShell is a task automation and configuration management framework from Microsoft, consisting of a command-line shell and associated scripting language built on the .NET Framework. PowerShell provides full access to COM and WMI, enabling administrators to perform administrative tasks on both local and remote Windows systems as well as WS-Management and CIM enabling management of remote Linux systems and network devices.	
VBScript	is a simple and easy to understand because it is like an English language with proper syntax. HP UFT/QTP is one of leading tool for functional test automation which understand VB Script, Test Complete tool also uses VB Script.	Exposure (a least basic) to any programmin g language

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Automation Engineer Basic – Curriculum – **Tools** (any three compulsory)

Service Line	Tool	Description	Pre-requisites
MS- Apps/MS- Infra	CUBES (TechM Tool)	CUBES is TechM's Integrated suite for Infrastructure and Application Operation Automation with an Intelligent Management system covering all aspects of AMS/IMS including service Operations, Monitoring and Transformation. Built on the principles of ITIL, CUBES enables Automation, Predicability, Throughpur Optimization and Shared Services in mS.	AMS/IMS Service Management fprocesses
	Talend (Open Source)	Talend Orchestrator (Open Source) is used for automating complex SOP based tasks, complex health-check and intelligent monitoring. Talend offers robust data integration in an open and scalable architecture to maximize its value to your business. As part of the Talend Data Fabric, Talend Data Integration provides the unified tools to integrate, cleanse, mask and profile all of your data, enabling you to turn data into decisions.	
	Nagios (Open Source)	For the standardized monitoring NAGIOS is used to implement automated monitoring of network devices and infrastructure. The solution is proposed for automating ASM services and optimizing the efforts.	 ITIL 3.0 Unix/Linux administration Shell scripting, Perl scripting Networking SNMP interface Apache tomcat administration
	OTRS (Open Source)	OTRS is ITSM tool for ticket management, service request, change management, problem management for small or medium level customer requiring cost effective ITSM solution.	• ITIL 3.0

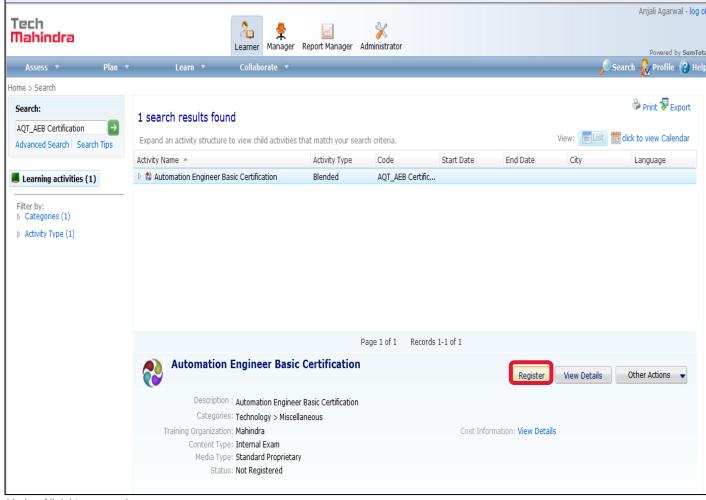
Testing Selenium (Open Source) Selenium is a portable software testing framework for web applications. Selenium provides a record/playback tool for authoring tests HP-UFT (Commercial) HP-UFT automates functional tests by recording the actions of a user on the system under test and replaying the actions on demand to execute a test. The recorded actions are stored in UFT as a simple program known as a script. Scripts can be displayed in UFT either as a Visual Basic Script (VB Script) program (expert view), or as a		Service Line	Tool	Description	Pre-requisites
on remote servers and can interact with all types of infrastructure elements such as applications, databases, cloud and hardware. BMC Atrium Orchestrator is an IT process automation solution that allows IT personnel to create workflows across applications, platforms, and tools to orchestrate critical activities for compliance, security, and competitive edge. Testing Selenium (Open Source) Selenium is a portable software testing framework for web applications. Selenium provides a record/playback tool for authoring tests HP-UFT (Commercial) HP-UFT automates functional tests by recording the actions of a user on the system under test and replaying the actions on demand to execute a test. The recorded actions are stored in UFT as a simple program known as a script. Scripts can be displayed in UFT either as a Visual Basic Script (VB Script) program (expert view), or as a	1	• •	Orchestrator	processes and tasks, repetitive in nature. It allows	
BMC Atrium Orchestrator is an IT process automation solution that allows IT personnel to create workflows across applications, platforms, and tools to orchestrate critical activities for compliance, security, and competitive edge. Testing Selenium (Open Source) Selenium is a portable software testing framework for web applications. Selenium provides a record/playback tool for authoring tests HP-UFT (Commercial) HP-UFT automates functional tests by recording the actions of a user on the system under test and replaying the actions on demand to execute a test. The recorded actions are stored in UFT as a simple program known as a script. Scripts can be displayed in UFT either as a Visual Basic Script (VB Script) program (expert view), or as a	2		(Commercial)	on remote servers and can interact with all types of infrastructure elements such as applications, databases,	
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9 Basic Script (VB Script) program (expert view), or as a	8		(22	the actions on demand to execute a test. The recorded actions are stored in UFT as a simple program known as a	
sequence of steps labelled by icons (keyword view).	9			· · · · · · · · · · · · · · · · · · ·	

Service Line	Tool	Description	Pre- requisite
SAP	Upgrade Analyzer for HANA migration (TechM Tool)	Upgrade Analyzer tool makes the SAP system assessment before actual upgrade and provides impact analysis for custom development, processes, testing which helps for better planning and resource estimation	SAP Version < than ECC 6.0 EhP7
	SolMan CBT Test Automation (TechM Tool)	CBTA is a new functionality available with SAP Solution Manager 7.1 SP 7 onwards which enables to create automated scripts for business processes. With seamless integration between Solution Manager and CBTA, it is easy for the business analysts to test the processes automatically. Scripting expertise is not required. Supports predominantly SAP technologies, SAP GUI, SAP CRM web client, ABAP web Dynpro SP10, Java Web Dynpro SP10 etc	SAP Solution Manager 7.1 SP07 onwards
	SAP Monitoring Automation (TechM Tool)	For automation of SAP ECC / PI monitoring tasks. Features: IDOC Monitoring, Inbound / Outbound Queue Monitoring, RFC & ALE Monitoring	
Oracle	Upgrade xPress (TechM Tool)	This tool covers the entire upgrade lifecycle right from Environment assessment, Impact Analysis, Data Objects Extraction and Regulation and Code Remediation to verification of data model changes.	
	REAP (TechM Tool)	Automated tool for accurate effort estimation for Oracle E Business Suite and PeopleSoft across Implementation, Upgrade and AMS opportunities. This tool takes input on multiple parameters based on the scope of work, customer landscape, technology, industrialization usage and many more and provides accurate output considering all these parameters.	
	CSL Kit (TechM Tool)	48 Countries Localization with more than 2000 rules for regulatory compliance across HCM and Financials	

	Service Line	Tool	Description	Pre-requisites
2	LIIIG	SonarQube (Open Source)	Sonar is an open-source product used to gather code quality metrics and show it in a single dashboard, and provide tips to help the developers to make code better, more sustainable, more reliable, less bugged. Supports languages like Java, C/C++, Objective-C, C#, PHP, Flex,	Java / C / C++ / PHP / .NET skills
			Groovy, JavaScript, Python, PL/SQL, COBOL.	
3	Java	Jenkins (Open Source)	Jenkins provides continuous integration services for software development. It is a server-based system running in a servlet	Java and Web Development
4	Dev		container such as Apache Tomcat. It supports SCM tools including CVS, Subversion, Git, Mercurial, Perforce, Clear case	frameworks
5		Mavern	Maven is a build automation tool used primarily for Java projects. Maven addresses two aspects of building software - how software is built and its dependencies.	Java
6			An POM (XML) file describes the software project being built, its dependencies on other external modules and components, the build	
7			order, directories, and required plug-ins	
8		Team Foundation Server 2015 / Visual Studio	Team Foundation Server 2015 is a source-code-control, project-management, and team-collaboration platform at the core of the Microsoft suite of ALM tools, which help teams be more agile, collaborate more effectively, and deliver quality software more	Users must be familiar with Visual Studio IDE, Power Shell would help
9	9 MS Dev	Team Services (Commercial)	consistently. Supports Build Automation, Continuous Integration, Continuous Deployment and a lot more.	but not a must pre- requisite
		Application Insight (Commercial)	Designed to help development teams get 360° views of their applications across Availability, Performance and Usage with fast & powerful troubleshooting, diagnostics and usage insights.	

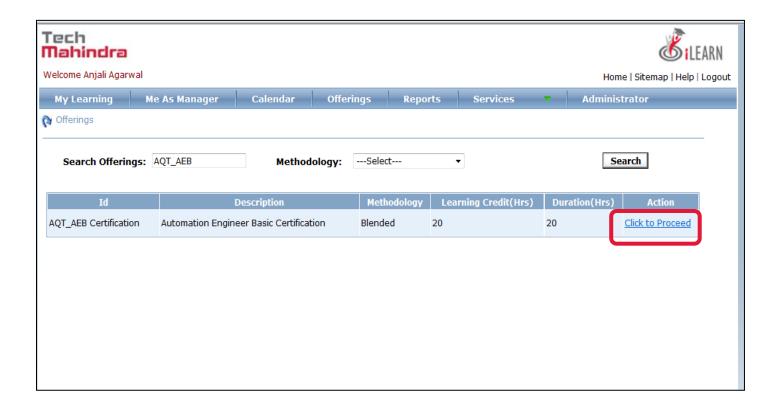
Service Lir	ne Tool	Description	Pre-requisites
Enterprise Project Managemer	, ,	The Microsoft Office Enterprise Project Management (EPM) Solution enables you to effectively manage and prioritize projects and resources across your organization. The EPM Solution includes Microsoft Project Professional 2013, Microsoft Project Server 2013, and Microsoft Project Web App	Users must possess basic project management and resource management skills. Must be familiar on Planning and Scheduling. Pre-requisite skills also include Microsoft Project and Microsoft Excel Pivoting. Must finish the EPM Learning Modules beforehand
Business Process Automation	·	UNO integrated desktop automation tool with RPA (Robotic Process Automation) capabilities, to help organizations improve operational efficiency and reduce costs. The unified desktop will help contact center agents to handle operations effectively with reduced average handling time and smoother end user experience. UNO with its robotic process automation & non-intrusive capability can automate manual predictive processes and deliver benefits to our customers in a cost effective manner.	

Register at the path below:
 MyBeat → Easy → Training → Offerings →
 Search for AQT_AEB Certification → Click Register



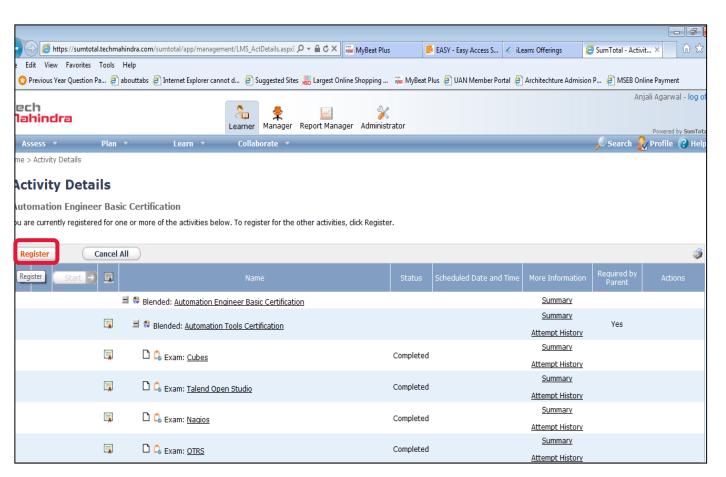
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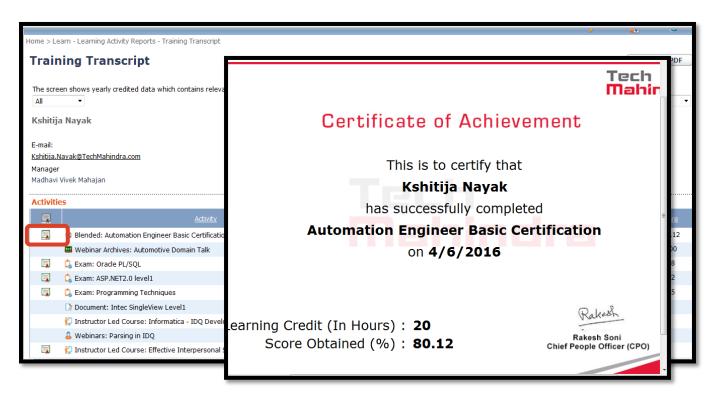
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3. Register for relevant tools and scripts.



Steps to extract AEB Certification completion e-certificate

- MyBeat → Easy → Training → Learning Platform (SumTotal) → Learner → Learning Activity Reports → Training Transcripts
- 2. Click the **Certificate** icon in front of the Blended Automation Engineer Basic Certification activity to generate the e-certificate



If any of the tools/ scripts assessments have been given by registering directly for those assessments, then that will also be considered as completed for certification

Tool Name	Exam LP-id
CUBES	LP01545
Talend ETL Tool	LP01497
Nagios	LP01535
OTRS	LP01544
ServiceNow Orchestrator	LP01547
BMC Atrium Orchestrator L1	LP01546
Selenium-Web Browser Automation	LP01498
HP-UFT	LP01534
SureSmart for Suite on HANA	LP01510
SAP CBTA - Basic Level	LP01499
TechM's SAP Monitoring Automation Tool	LP01532
Oracle Ebusiness Suite UpgradeXpressTool	LP01533
kit	

Tool Name	Exam LP-id
Oracle Resourcing Estimation and	LP01509
Productivity (REAP) Kit	
Oracle Country Specific Localization	LP01503
SonarQube	LP01511
Jenkins	LP01512
Maven	LP01500
TFS for Automation Engineers	LP01502
Applnsight for Automation Engineers	LP01501
Microsoft Enterprise Project	LP01513
Management (MSEPM)	
Uno – The TechM's RPA Tool	LP01524

Script Name	Exam LP-id
Perl Level 1	LP01549
VBScript	LP1563
Python L1	LP01446
Powershell Scripting	LP01565

Self Learning Avenues - PERL

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Learning Avenues:

- eLearning SS0340 URL: https://sumtotal.techmahindra.com/sumtotal/app/management/LMS_ActDetails.aspx?UserMode=0&ActivityId=126416
- YouTube https://www.youtube.com/watch?v=7BPnrDPnlKo&list=PL4DE79AEF 93C8E4C7

Hands on Avenues

- S/W installation instructions
- Lab Guide
- Assignments



Perl and Python Installation Guide



Perl Lab Guide



Perl Assignments

Self Learning Avenues - Python

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Learning Avenues

- eLearning SS0763 URL https://sumtotal.techmahindra.com/sumtotal/app/management/LMS_ActDetails.aspx?UserMode=0&ActivityId=136317
- YouTube https://www.youtube.com/watch?v=GE3IHS1wAZI&list=PL_RGaFnxSHWpX_byHyTEj9hecPngl2DqR

Hands on Avenues

> S/W installation instructions



Assignments



Self Learning Avenues — VBScript, Powershell

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Learning Avenue - VBScript

eLearning SS0277_EL URL https://sumtotal.techmahindra.com/sumtotal/app/management/LMS_ActDetails .aspx?UserMode=0&ActivityId=107706

Learning Avenue – PowerShell

- Due to TechM alliance with Microsoft, Powershell online learning can be accessed on MS Virtual Academy. Instructions to access the MS Virtual Academy:- [ilearn → Services→Alliance→ trainings→Microsoft]
- Courses on Microsoft Virtual Academy with sample assessments Getting Started with PowerShell 3.0:

http://www.microsoftvirtualacademy.com/training-courses/getting-started-with-powershell-3-0-jump-start

Advanced Tools & Scripting with PowerShell 3.0:

http://www.microsoftvirtualacademy.com/training-courses/advanced-tools-scripting-with-powershell-3-0-jump-start#fbid=wdBipBJLtCB

Other Relevant Activities

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- Nurturing the SOIL
 - Reading Material
 - Relevant Blogs and Business Articles on Automation
 - Active participation in <u>Mybeat+ community on Automation</u>.
 - Attending Automation Webinars every Friday.
 - Keeping yourself up-to-date on <u>AQT.</u>
- Being AQTers
 - Engage with Project Managers to understand areas of automation in projects.
 - Seek consultancy from <u>Automation Commandos</u> and <u>Automation Leads</u>.
 - Get buy-in on identified opportunities and work in synergy with your teams.
 - Plan your current activities alongside projects for Automation.

Contact Information

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For more information on Tools, please contact

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Managed Services (Apps and Infra) ops.automation@techmahindra.com

RPA Automation for BPO bsg.automation@techmahindra.com

Testing Automation test.automation@techmahindra.com



THANK YOU

Connected World.
Connected Solutions