Purpose

This document is for Microsoft Certified Trainers (MCTs) teaching the *AZ-400T01 through AZ-400T07 courses*. This document contains general information for preparation and awareness. Information about specific topics is included in the student content and the instructor Microsoft PowerPoint Notes.

Azure DevOps Role

A Job Task Analysis (JTA) was conducted for the Azure DevOps role in June 2018. A JTA is list of tasks that are performed in a specific job role. The completed JTA can be used to determine what content is needed to define certification tests for the role, develop learning plans for the role, create content to support the role, and much more. The JTA is the foundational information needed to help persons in that role be successful in their job.

Before you can define the job tasks for a role you have to define the role itself. A working definition for the role was developed.

DevOps combines people, process, and technologies to continuously deliver valuable products and services that meet end user needs and business objectives. DevOps professionals streamline delivery by optimizing practices, improving communications and collaboration, and creating automation. They design and implement strategies for application code and infrastructure that allow for continuous integration, continuous testing, continuous delivery, and continuous monitoring and feedback.

Azure DevOps professionals must be proficient at agile practices. They must be familiar with both Azure administration and Azure development and experts in at least one. Azure DevOps professionals must be able to design and implement DevOps practices for version control, compliance, infrastructure as code, configuration management, build, release, and testing by using Azure technologies.

Role Considerations

DevOps is usually performed by a team of professionals that can leverage each other's strengths. In preparing this Job Task Analysis, we had to envision a hypothetical role that was entirely filled by one person that could help implement DevOps practices across a team.

Role Assumptions

As noted and discussed by the JTA participants, the following assumptions were made regarding the Azure DevOps job role:

* An Azure DevOps professional is an expert at either Azure Administrator or Azure Developer and has an entry-level knowledge of the category in which they are not an expert.

Certification exam

The courses in this series map directly to, and are intended to prepare students for, the AZ-400: Microsoft Azure DevOps Solutions exam.

Each study area in the exam has a percentage indicating the relative weight of the area on the exam. The higher the percentage, the more questions students are likely to see in that area.

Study Areas	Weights
Design a DevOps Strategy	20-25%
Implement DevOps Development Processes	20-25%
Implement Continuous Integration	10-15%
Implement Continuous Delivery	10-15%
Implement Dependency Management	5-10%
Implement Application Infrastructure	15-20%
Implement Continuous Feedback	10-15%

Program Offerings

The Azure DevOps courses can be offered in a variety of ways.
- Individually. The courses can be taught standalone; however, a certain amount of foundational information about Azure is required.
- Certification preparation. The courses can be bundled to support preparing for the certification exams.
- Deep dive. The courses can be combined to provide a more complete deep dive into an area.
- Custom. The course modules can be grouped to create an entirely new course or workshop.

Preparing to Teach

In the next sections we will cover the main course components and how they can used in class. This includes PowerPoint slides, videos, module review questions, reference links, and practice exercises. There is a lot of flexibility in how you use this content to create the best learning experience for your students.

Content

The content for your courses has been chunked into small topics. Each topic/slide focuses on a single concept. Use the topic and reference links to fully cover the concept. If you simply read the slide you will not have enough content to fill the scheduled time.

PowerPoint Slides

PowerPoint slides are provided to help you teach the course.

- There is a Module 00 PowerPoint file. This includes an agenda, listing modules and lessons for the course. It also includes the mapping from the certification study areas to the modules in the course. We recommend you customize this file for your specific situation. For example, you could add an introduction slide and an overview of the classroom facilities.

- Additionally, each module within the course has a separate file. These slides were designed to supplement the student materials. You should review how the topics are presented to the student versus how the slides are organized. You can customize the slides to make your presentation more interesting.

Videos

Your student materials include links to videos which provide conceptual information about a topic area. Some videos are marked as Demonstrations. These videos walk through how to do something. This video content is optional. In other words, you must decide how to use the videos. There are many ways to use this media in your course.

- You can play the videos and demonstrations during the course or use them as review or homework. We recommend a short review or discussion after each video.
- The videos are inserted in line with the content topics. You may wish to rearrange the videos. For example, you could play the videos first to introduce the content. Or, you could play the videos last as a review.
- • You can create your own demonstrations from the walk throughs and do that instead of playing the video.
- We have curated the videos in the course to align with the content, but there are many other videos to choose from. Channel 9 is a great source for videos.

Module Review Questions

Module review questions are provided at the end of the module. Note these questions are not at the level of the certification exam. You may wish to supplement with questions of your own choosing. These are open ended questions designed to spark some discussion and review of the most important points in the content. You can use these review questions in several ways:

- Have the student's pre-test before the course starts and then at the end to see what they have learned.
- As a group, go through the questions before moving on to another section.
- Sprinkle the questions into the content as you cover the appropriate material.

Reference Links

The course content includes many reference links. The main reason for this is the Azure documentation is constantly being updated.

- Before you teach the course, use the reference links to validate the content is still current. Pay attention to capabilities and limits. For example, preview features and virtual machine sizes.
- The reference links have been added to your PowerPoint slides/notes to make it easy for you to access more detailed information. Use these links to walk through specific details that are not covered in the content. For example, licensing and pricing options. Also, lengthy steps that have only been summarized in the content.
- Let students know they can use the reference links after the course to review and confirm what they learned. You will need to decide how to use the documentation and the reference links. Teaching from the documentation is a new concept in this series of courses. When you leave the slide deck, how will you get students focused back on the course?

Azure Subscriptions

To complete the labs and any additional practice exercises in this course, students need an Azure Subscription. The recommended way to give students access to Azure is by requesting Microsoft Learning Azure Passes. You can request Microsoft Learning Azure Passes for yourself and your students. Ensure that you request these passes at least two weeks before the class starts. After receiving the passes each student will need to activate their pass.

✔ It is very important you ensure students activate their passes before class. You don't want to lose time configuring the passes.

✔ It is also important you ensure the Azure pass can be used for the practice exercises. The pass effectively functions in the same way as the publicly available Microsoft Azure Trial Subscription. This means there are limitations on what you can do with the pass.

Hands-on

There are two hands on-elements present in the course.:

1) End of Module labs - There are labs for students to complete at the end of each module. Steps for the labs are available on GitHub at the below sites under the Infrastructure as Code sections.

   o https://microsoft.github.io/PartsUnlimited
   o https://microsoft.github.io/PartsUnlimitedMRP

   Note:
   o There are many different labs present on these GitHub pages, not all of which are relevant or intended for this course.
   o Each Module has a link/s out to the appropriate lab for that module.
   o Click on the link/s for the lab in each module and follow the steps outlined there for each lab task.
   o In some modules there is more than one lab available. Students can choose to complete one lab from the available lab list, depending on their area of interest and available time, or alternatively the MCT can provide direction on the preferred lab for the class to complete.

o   A Microsoft account and an Azure subscription is required to complete the labs.

2) Walkthroughs – The course contains several "walkthrough" topics. These are step-by-step guides for completing a task. Students can just read through the tasks and get a feel for how they work or step through them like a lab task.

Another option could be for the MCT to perform them as instructor led demonstrations. How you approach this may depend on your available time.

Group discussions

Consider initiating group discussion around certain topics. You can use the end-of module review questions as conversation starters at any stage during the course delivery.

Course timing

This is a full course with many technologies and products being covered and delivering the course on time will be a big enough challenge. Remember you have discretion and flexibility to show a feature at a high level or to dig deeper as you go, and this freedom should allow you to quicken or slow the course pace as you need. Also, based on the students' experience, you might be able to skip over or quickly go through certain topics or product areas.

Resources

There are a lot of resources to help you and the student learn about Azure. We recommend you bookmark these pages and offer the list to your students:

- [Azure forums](#). The Azure forums are very active. You can search the threads for a specific area of interest.

- [Azure DevOps Forums](#). Search for issues or subject matter that may be useful or around which you have questions.

- [Microsoft DevOps Blog](#): Get details on products and features related to Microsoft DevOps solutions.

- [Microsoft Learning Blog](#). Get the latest information on the certification tests and exam study groups.

- [Channel 9](#). Channel 9 provides a wealth of informational videos, shows, and events.

- [Tuesdays with Corey](#). Corey Sanders answers your questions about topics such as Azure VMs, websites, mobile services, and Dev/Test.

- [Azure Friday](#). Join Scott Hanselman as he engages one-on-one with the engineers who build the services that power Azure as they demo capabilities, answer Scott's questions, and share their insights.

- [Microsoft Azure Blog](#). Keep current on what's happening in Azure, including what's in preview, what's generally available, and news and updates.

- [Azure Newsletter](#). Stay informed on the latest Azure features, events, and community activities. Browse through past newsletters or subscribe and get the latest Azure news delivered to your inbox.

Connect with others

You also can connect directly with others preparing to teach the course or to get assistance if necessary:

- [MCT Central](#) – Your one stop for all things MCT. Stay up to date with the latest MCT news, learn about upcoming events, find job opportunities, or connect with other MCTs around the world. You can also ask questions and discuss a variety of topics including courseware and certification with Microsoft through the MCT central forums.

- [MOC Courseware Support](#) – If there are problems with a course or you need to log a support ticket, contact the Official Support channel for MOC courses. This channel is monitored by support agents and is the quickest way to log your course support issue. It is the official support channel for courseware.

Feedback

These courses differ from the traditional MOC courses that Microsoft has provided in the past. This course has a framework for you to work within. Take time to prepare and think about the value that only an instructor can bring to training. We hope to partner with you to provide an exceptional student experience and we welcome your feedback.

Happy learning!

Courseware Development Team