

azure workbooks powershell

azure workbooks powershell is a powerful tool that enhances the capabilities of managing and visualizing data in Microsoft Azure. By integrating Azure Workbooks with PowerShell, users can automate reporting, streamline data analysis, and create dynamic dashboards. This article will explore the essential features of Azure Workbooks, the role of PowerShell in managing these workbooks, and provide a step-by-step guide on how to effectively use PowerShell with Azure Workbooks. Additionally, we will discuss best practices and common use cases, ensuring that you have a comprehensive understanding of how to leverage these tools for enhanced productivity and insight.

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Understanding Azure Workbooks

Azure Workbooks is a flexible canvas that allows users to visualize and analyze data from various Azure resources. It is a part of Azure Monitor and provides rich visualization options, including charts, grids, and tables, making it easier to interpret complex data sets. Azure Workbooks supports a variety of data sources, including Log Analytics, Application Insights, and Azure Metrics, allowing users to create detailed reports and dashboards tailored to their needs.

One of the standout features of Azure Workbooks is its capability to combine data from multiple sources into a single view. This enables users to create comprehensive reports that provide insights into system performance, operational health, and security status. Additionally, Azure Workbooks offers pre-built templates to help users get started quickly, which can be customized to meet specific requirements.

Key Features of Azure Workbooks

Azure Workbooks offers several key features that enhance its functionality:

- **Interactive Visualizations:** Users can create dynamic and interactive charts that allow for deeper analysis of data.
- **Custom Queries:** Users can utilize Kusto Query Language (KQL) to fetch and manipulate data from various sources.
- **Templates and Sharing:** Pre-built templates can be used and shared across teams, promoting collaboration.
- **Rich Formatting Options:** Workbooks support various text formatting and layout options for better presentation.

PowerShell Overview

PowerShell is a task automation framework that consists of a command-line shell and an associated scripting language. It is widely used by IT professionals to manage and automate tasks across various platforms, including Azure. PowerShell provides a comprehensive set of cmdlets that allow users to interact with Azure resources programmatically, making it an essential tool for administrators.

With PowerShell, users can execute commands to create, modify, and delete Azure resources, as well as manage configurations and deployments. This capability extends to Azure Workbooks, allowing users to automate workbook management and streamline processes that would otherwise be time-consuming when performed manually.

Benefits of Using PowerShell with Azure

Integrating PowerShell with Azure provides numerous benefits:

- **Automation:** Repetitive tasks can be automated, saving time and reducing the potential for human error.
- **Scalability:** PowerShell scripts can be deployed across multiple resources, enabling scalable management.
- **Consistency:** Automation ensures that tasks are performed consistently, adhering to best practices.

- **Advanced Reporting:** PowerShell can be used to extract data and generate reports from Azure Workbooks, providing better insights.

Integrating Azure Workbooks with PowerShell

Integrating Azure Workbooks with PowerShell involves several key steps. By leveraging Azure PowerShell modules, users can manage their workbooks efficiently. The following steps outline how to get started with this integration:

Step 1: Install Azure PowerShell Module

To use PowerShell with Azure Workbooks, the Azure PowerShell module must be installed. This can be done by executing the following command in a PowerShell terminal:

```
Install-Module -Name Az -AllowClobber -Scope CurrentUser
```

Step 2: Authenticate to Azure

After installing the module, users need to authenticate to their Azure account using:

```
Connect-AzAccount
```

This command prompts users to enter their Azure credentials, establishing a connection to their Azure environment.

Step 3: Interacting with Azure Workbooks

Once authenticated, users can create or manage workbooks using PowerShell cmdlets. Some common commands include:

- **Get-AzWorkbook:** Retrieve information about existing workbooks.
- **New-AzWorkbook:** Create a new workbook with specified properties.
- **Set-AzWorkbook:** Update an existing workbook.

- **Remove-AzWorkbook:** Delete a workbook when it is no longer needed.

Common Use Cases for Azure Workbooks and PowerShell

The combination of Azure Workbooks and PowerShell opens up a myriad of use cases that benefit organizations looking for efficient data management solutions. Here are some common scenarios:

Automated Reporting

Organizations can use PowerShell scripts to automatically generate reports from Azure Workbooks, allowing stakeholders to receive timely updates without manual intervention. This can include performance metrics, cost analysis, and security compliance reports.

Resource Monitoring and Alerts

By integrating Azure Workbooks with PowerShell, users can set up automated monitoring of Azure resources. PowerShell scripts can be configured to trigger alerts based on specific conditions, allowing for proactive management of resources.

Data Analysis and Visualization

Using PowerShell, users can extract data from Azure and push it to Azure Workbooks for visualization. This enables teams to analyze trends, identify issues, and make data-driven decisions more effectively.

Best Practices for Using Azure Workbooks with PowerShell

To maximize the effectiveness of Azure Workbooks and PowerShell, following best practices is essential. These practices ensure that users can manage their resources efficiently and maintain optimal performance.

- **Use Version Control:** Maintain version control for PowerShell scripts to track

changes and updates.

- **Test Scripts in Development:** Always test scripts in a development environment before deploying them in production.
- **Document Your Scripts:** Provide clear documentation within scripts to explain their purpose and functionality.
- **Regularly Review Workbooks:** Periodically review and update Azure Workbooks to ensure they reflect current organizational needs and data.

Conclusion

azure workbooks powershell is a powerful combination that empowers users to manage and visualize their Azure data effectively. By understanding how to integrate PowerShell with Azure Workbooks, users can automate tasks, enhance reporting, and gain valuable insights into their Azure resources. This integration not only saves time but also ensures that organizations can respond to data trends and operational needs promptly. As businesses continue to leverage cloud technologies, mastering Azure Workbooks and PowerShell will remain critical for achieving operational excellence.

Q: What are Azure Workbooks?

A: Azure Workbooks are tools that allow users to create visual reports and dashboards using data from various Azure sources, enabling effective analysis and monitoring.

Q: How does PowerShell integrate with Azure Workbooks?

A: PowerShell integrates with Azure Workbooks by using cmdlets to automate workbook management tasks such as creating, updating, and deleting workbooks.

Q: Can I create reports automatically using PowerShell?

A: Yes, you can create automated reports using PowerShell scripts that interact with Azure Workbooks to generate and deliver reports on a scheduled basis.

Q: What is Kusto Query Language (KQL)?

A: Kusto Query Language (KQL) is a powerful query language used in Azure for querying large datasets, particularly in Log Analytics and Azure Workbooks.

Q: What are some best practices for using Azure Workbooks with PowerShell?

A: Best practices include using version control for scripts, testing in a development environment, documenting scripts, and regularly reviewing workbooks.

Q: How can I monitor Azure resources with PowerShell?

A: You can monitor Azure resources using PowerShell by setting up automated scripts that check resource statuses and trigger alerts based on predefined conditions.

Q: Are there pre-built templates available for Azure Workbooks?

A: Yes, Azure Workbooks provide pre-built templates that users can utilize and customize to quickly create dashboards and reports.

Q: What types of visualizations can I create in Azure Workbooks?

A: Azure Workbooks support various visualizations including charts, tables, grids, and time series, allowing users to present data in a meaningful way.

Q: Is it possible to share Azure Workbooks with my team?

A: Yes, Azure Workbooks can be shared with team members, promoting collaboration and enabling teams to work together on data analysis and reporting.

Q: Can PowerShell scripts be scheduled to run automatically?

A: Yes, PowerShell scripts can be scheduled using Windows Task Scheduler or Azure Automation to run at specified times, allowing for automated management tasks.

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azure workbooks powershell: *Pro PowerShell for Microsoft Azure* Sherif Talaat, 2015-11-24

This book is written for Windows professionals who are familiar with PowerShell and want to learn to build, operate, and administer their Windows workloads in the Microsoft cloud. Pro PowerShell for Microsoft Azure is packed with practical examples and scripts, with easy-to-follow explanations for a wide range of day-to-day needs and essential administration tasks. Author Sherif Talaat begins by explaining the fundamental concepts behind the Microsoft Azure platform and how to get started configuring it through PowerShell. Readers will find out how to deploy, configure and manage the various components of the Azure platform, from storage and virtual networks to Azure Web Sites, HDInsight clusters and the Azure SQL Database. Workload automation, scheduling and resource management are covered in depth to help build efficiency in everyday tasks, and administrators will gain full control over Azure identity and access rights using Azure Active Directory and Rights Management Services. Put your PowerShell skills to good use and ensure that your applications and data are available anywhere at any time, with Pro PowerShell for Microsoft Azure. What You'll Learn Create and manage virtual networks and VPNs using PowerShell. Configure and maintain Azure Storage accounts, blobs, and containers. Provision and manage a redundant Windows or Linux server. Deploy and configure your sites in the cloud using Microsoft Azure Web Sites. Provision Apache Hadoop clusters in the cloud using Azure HDInsight. Deploy, configure and manage a Microsoft Azure SQL Database. Protect and secure identities and resources with Azure Active Directory and Azure Rights Management Services. Who This Book Is For This is book is for the intermediate to advanced Windows professional who is ready to make the leap to the cloud.

azure workbooks powershell: *Azure Data Engineering Cookbook* Nagaraj Venkatesan,

Ahmad Osama, 2022-09-26 Nearly 80 recipes to help you collect and transform data from multiple sources into a single data source, making it way easier to perform analytics on the data Key FeaturesBuild data pipelines from scratch and find solutions to common data engineering problemsLearn how to work with Azure Data Factory, Data Lake, Databricks, and Synapse AnalyticsMonitor and maintain your data engineering pipelines using Log Analytics, Azure Monitor, and Azure PurviewBook Description The famous quote 'Data is the new oil' seems more true every day as the key to most organizations' long-term success lies in extracting insights from raw data. One of the major challenges organizations face in leveraging value out of data is building performant data engineering pipelines for data visualization, ingestion, storage, and processing. This second edition of the immensely successful book by Ahmad Osama brings to you several recent enhancements in Azure data engineering and shares approximately 80 useful recipes covering common scenarios in building data engineering pipelines in Microsoft Azure. You'll explore recipes from Azure Synapse Analytics workspaces Gen 2 and get to grips with Synapse Spark pools, SQL Serverless pools, Synapse integration pipelines, and Synapse data flows. You'll also understand Synapse SQL Pool optimization techniques in this second edition. Besides Synapse enhancements, you'll discover helpful tips on managing Azure SQL Database and learn about security, high availability, and performance monitoring. Finally, the book takes you through overall data engineering pipeline management, focusing on monitoring using Log Analytics and tracking data lineage using Azure Purview. By the end of this book, you'll be able to build superior data engineering pipelines along with having an invaluable go-to guide. What you will learnProcess data using Azure Databricks and Azure Synapse AnalyticsPerform data transformation using Azure Synapse data flowsPerform common administrative tasks in Azure SQL DatabaseBuild effective Synapse SQL pools which can be consumed by Power BI Monitor Synapse SQL and Spark pools using Log AnalyticsTrack data lineage using Microsoft Purview integration with pipelinesWho this book is for This book is for data engineers, data architects, database administrators, and data professionals who want to get well versed with the Azure data services for building data pipelines. Basic understanding of cloud and data engineering concepts will help in getting the most out of this book.

azure workbooks powershell: *FinOps Handbook for Microsoft Azure* Maulik Soni, 2023-05-12

Drive financial visibility, set cost optimization goals, and reap savings for your organization with

proven practices and invaluable insights Purchase of the print or Kindle book includes a free PDF eBook Key Features Build a FinOps team and foster cross-organizational collaboration to optimize costs Gain a deep insight into resource usage and rates to unlock the secrets of cost optimization Apply your FinOps expertise to run a successful practice, reinvesting savings into new feature development Book Description To gain a competitive edge in today's unpredictable economic climate, you'll need to unravel the mystery of saving costs on Microsoft Azure Cloud. This book helps you do just that with proven strategies for building, running, and sustaining repeated cost optimization initiatives across your organization. You'll learn how to collaborate with finance, procurement, product, and engineering teams to optimize your cloud spend and achieve cost savings that can make a significant impact on your bottom line. The book begins by showing you how to effectively monitor and manage your cloud usage, identify cost-saving opportunities, and implement changes that'll reduce your overall spend. Whether you're a small start-up or a large enterprise, this book will equip you with the knowledge and skills needed to achieve cost savings and maintain a lean cloud infrastructure. As you advance, you'll find out how to benchmark your current cloud spend and establish a budget for cloud usage. Throughout the chapters, you'll learn how to negotiate with your cloud provider to optimize your rate, allocate cost for the container, and gain a solid understanding of metric-driven cost optimization. By the end of this FinOps book, you'll have become proficient in Azure Cloud financial management with the help of real-world examples, use cases, and scenarios. What you will learn Get the grip of all the activities of FinOps phases for Microsoft Azure Understand architectural patterns for interruptible workload on Spot VMs Optimize savings with Reservations, Savings Plans, Spot VMs Analyze waste with customizable pre-built workbooks Write an effective financial business case for savings Apply your learning to three real-world case studies Forecast cloud spend, set budgets, and track accurately Who this book is for This book is for cloud governance experts, finance managers, procurement specialists, product developers, and engineering teams looking to get clear and actionable guidance needed to implement all the phases of the FinOps life cycle in the Microsoft Azure context. This book is ideal for anyone with a basic understanding of financial terms, analytics tools, and the Azure cloud.

azure workbooks powershell: Microsoft Azure Monitoring & Management Avinash Valiramani, 2022-12-05 Proven best practices for success with every Azure monitoring and management service For cloud environments to deliver optimal value, their monitoring and management services must be designed, deployed, and managed well. Leading cloud consultant Avinash Valiramani shows how to simplify administration, reduce downtime, control cost, solve problems faster, and prepare for any workload in any environment. Explore detailed, expert coverage of Azure Backup, Azure Site Recovery, Azure Migrate, Azure Monitor, Azure Network Watcher, Azure Portal, Azure Cloud Shell, Azure Service Health, Azure Cost Management, and more. Whatever your role in delivering efficient, reliable cloud services, this best practice, deep dive guide will help you make the most of your Azure investment. Leading Azure consultant Avinash Valiramani shows how to: Back up on-premises, Azure-based, and other cloud workloads for short- and long-term retention Implement simple, stable, cost-effective business continuity/disaster recovery with Azure Site Recovery Discover, assess, and migrate diverse workloads to Azure, VMs, web apps, databases, and more Monitor all Azure applications, VMs, and other deployed services centrally via Azure Monitor Track, troubleshoot, and optimize networking for IaaS resources Create and manage anything from single-service solutions to complex multi-service architectures Run Azure Cloud Shell's cloud-native command line from any device, anywhere Monitor service health, workload levels, service layer resources, and availability Also look for these Definitive Guides to Azure success: Microsoft Azure Compute: The Definitive Guide Microsoft Azure Networking: The Definitive Guide Microsoft Azure Storage: The Definitive Guide

azure workbooks powershell: Azure FinOps Essentials Parag Bhardwaj, Arun Kumar Samayam, 2024-09-30 DESCRIPTION Azure FinOps, the intersection of finance, operations, and technology, has become paramount in optimizing cloud spending. "Azure FinOps Essentials" is a guide to help you navigate easily with cost management and optimization within Microsoft Cloud.

This book is a practical guide to cutting cloud costs in Microsoft Azure. It covers everything from understanding Azure services and cost management to advanced strategies like Infrastructure as Code and serverless computing. You will learn to set up Azure Cost Management, optimize resources with tools like Reserved Instances, and enforce governance using Azure Policy. The book also highlights case studies and best practices to help you build a FinOps culture, streamline costs, and enhance cost-efficiency in your cloud environment. If you are new to cloud financial management or need a refresher on some of the best practices, Azure FinOps Essentials is designed for anyone running an operational workload in both public and private clouds who wants to improve their expense management within the environment.

KEY FEATURES

- An in-depth guide to the fundamentals of Azure cost management.
- Detailed instructions for creating cost alerts and establishing budgets.
- Practical strategies to enhance cloud resource efficiency.

WHAT YOU WILL LEARN

- Establish and enforce standards for Azure cloud cost management through auditing.
- Learn cost-saving tactics like rightsizing and using Reserved Instances.
- Master Azure tools for monitoring spending, budgeting, and setting up alerts.
- Build custom dashboards to accurately display key financial metrics.
- Implement governance and compliance for effective cloud financial management.

WHO THIS BOOK IS FOR This book is for cloud architects, DevOps engineers and IT professionals managing costs in Azure environments. It provides the necessary knowledge and skills to optimize cloud spending, improve efficiency, and drive business value.

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1. Introduction to Azure FinOps
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12. Final Thoughts and Next Steps

azure workbooks powershell: Microsoft Azure Sentinel Yuri Diogenes, Nicholas DiCola, Tiander Turpijn, 2022-08-05 Build next-generation security operations with Microsoft Sentinel

Microsoft Sentinel is the scalable, cloud-native, security information and event management (SIEM) solution for automating and streamlining threat identification and response across your enterprise. Now, three leading experts guide you step-by-step through planning, deployment, and operations, helping you use Microsoft Sentinel to escape the complexity and scalability challenges of traditional solutions. Fully updated for the latest enhancements, this edition introduces new use cases for investigation, hunting, automation, and orchestration across your enterprise and all your clouds. The authors clearly introduce each service, concisely explain all new concepts, and present proven best practices for maximizing Microsoft Sentinel's value throughout security operations. Three of Microsoft's leading security operations experts show how to:

- Review emerging challenges that make better cyberdefense an urgent priority
- See how Microsoft Sentinel responds by unifying alert detection, threat visibility, proactive hunting, and threat response
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- Ingest alerts and raw logs from all sources you need to monitor
- Define and validate rules that prevent alert fatigue
- Use threat intelligence, machine learning, and automation to triage issues and focus on high-value tasks
- Add context with User and Entity Behavior Analytics (UEBA) and Watchlists
- Hunt sophisticated new threats to disrupt cyber kill chains before you're exploited
- Enrich incident management and threat hunting with Jupyter notebooks
- Use Playbooks to automate more incident handling and investigation tasks
- Create visualizations to spot trends, clarify relationships, and speed decisions
- Simplify integration with point-and-click data connectors that provide normalization, detection rules, queries, and Workbooks

About This Book For cybersecurity analysts, security administrators, threat hunters, support professionals, engineers, and other IT professionals concerned with security operations For both Microsoft Azure and non-Azure users at all levels of experience

azure workbooks powershell: MICROSOFT AZURE NARAYAN CHANGDER, 2024-05-16 If you need a free PDF practice set of this book for your studies, feel free to reach out to me at cbsenet4u@gmail.com, and I'll send you a copy!

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azure workbooks powershell: Active Directory and PowerShell for Jobseekers Mariusz Wróbel, 2024-02-09 Start your career in Identity and Access Management field by learning about Active Directory and automate your work using PowerShell KEY FEATURES ● Understand Active Directory design and architecture. ● Deploy AD test environment in Azure and implement it using PowerShell. ● Manage the AD environment in a secure way and automate management using DevOps and PowerShell. DESCRIPTION “Active Directory and PowerShell for Jobseekers” takes you by the hand, and equips you with essential skills sought after by employers in today's IT landscape. This book walks you through every step of the Active Directory lifecycle, covering design, deployment, configuration, and management. Automation using PowerShell is emphasized, helping you learn how to automate processes with scripts. It begins with Active Directory management, creating a development environment in Azure. In the next stage you get a thorough overview of environment creation, configuration, monitoring, security settings and recovery. With examples presented through both manual steps and automated PowerShell scripts, this book allows readers to choose their preferred method for learning PowerShell automation. Additionally, it also introduces DevOps tools for cloud infrastructure, covering update management, monitoring, security, and automation resources. By the end of this book, you'll be confident and prepared to tackle real-world Active Directory challenges. You will also be able to impress potential employers with your in-demand skills and launch your career as a sought-after IT security specialist. WHAT YOU WILL LEARN ● Learn about building the AD test environment in Azure. ● Configure Windows Servers to become AD domain controllers including DNS. ● Configure Active Directory to support network topology and customers' needs. ● Secure and automate infrastructure management. ● Get familiar with interview questions that are related to the AD and PowerShell related jobs market. WHO THIS BOOK IS FOR This book is for junior system administrators or students who would like to learn about Active Directory or for readers who want to become Active Directory engineers. TABLE OF CONTENTS 1. Introduction 2. Setting up the Development Environment 3. Active Directory Environment Creation 4. Active Directory Environment Configuration 5. Active Directory User Management 6. Active Directory Group Management 7. Active Directory Security Management 8. Monitor Active Directory 9. Active Directory Disaster Recovery 10. Manage Windows Server Using PowerShell 11. Securing PowerShell for AD Management 12. PowerShell DSC for AD Configuration Management 13. Interview Questions

azure workbooks powershell: Developing Solutions for Microsoft Azure AZ-204 Exam Guide Paul Ivey, Alex Ivanov, 2024-05-16 Uncover the fundamental elements for developing and maintaining cloud-based solutions on Azure Key Features Written by Microsoft technical trainers, to help you explore exam topics in a structured way Understand the why, and not just how behind design and solution decisions Learn Azure development principles with online exam preparation materials Purchase of this book unlocks access to web-based exam prep resources including mock exams, flashcards, exam tips, and the eBook pdf Book Description Get ready to delve into Microsoft Azure and build efficient cloud-based solutions with this updated second edition. Authored by seasoned Microsoft trainers, Paul Ivey and Alex Ivanov, this book offers a structured approach to mastering the AZ-204 exam topics while focusing on the intricacies of Azure development. You'll familiarize yourself with cloud fundamentals, understanding the core concepts of Azure and various

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- Identify cloud models and services in Azure
- Develop secure Azure web apps and host containerized solutions in Azure
- Implement serverless solutions with Azure Functions
- Utilize Cosmos DB for scalable data storage
- Optimize Azure Blob storage for efficiency
- Securely store secrets and configuration settings centrally
- Ensure web application security with Microsoft Entra ID authentication
- Monitor and troubleshoot Azure solutions

Who this book is for Whether you're looking to validate your existing skills or enhance your Azure knowledge, this comprehensive guide offers a structured approach to mastering key concepts and passing the AZ-204 certification exam. It will be beneficial to have at least one year of Azure development experience and proficiency in at least one Azure-supported programming language to get the most out of this book. Additionally, familiarity with Azure CLI and PowerShell will also be helpful.

azure workbooks powershell: Microsoft Azure Architect Technologies: Exam Guide AZ-300
Sjoukje Zaal, 2020-01-16

Become a certified Azure Architect and learn to design effective solutions that span compute, security, networking, and development

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- Learn to successfully design and architect powerful and cost-effective solutions on Microsoft Azure
- Prepare to gain AZ-300 certification with the help of mock tests and practice questions
- Enhance your computing, networking, storage, and security skills to design modern cloud-based solutions

Book Description

From designing solutions on Azure to configuring and managing virtual networks, AZ-300 certification can help you achieve all this and more. Whether you want to get certified or gain hands-on experience in administering, developing, and architecting Azure solutions, this study guide will help you get started. The book features not only the different exam objectives, but also guides you through configuring, managing, securing, and architecting Azure resources. Divided into five modules, this book will systematically take you through the different concepts and features as you advance through the sections. The first module demonstrates how to deploy and configure infrastructure. You will cover techniques related to implementing workloads and security, before learning how to create and deploy apps in the next module. To build on your knowledge, the final two modules will get you up to speed with implementing authentication, data security, and application and platform monitoring, along with covering Azure storage, alerting, and automation strategies. Finally, you'll work through exam-based mock tests with answers to boost your confidence in passing the exam. By the end of this book, you'll have learned the concepts and techniques you need to know in order to prepare for the AZ-300 exam, along with the skills to design effective solutions on Microsoft Azure. What you will learn

- Manage Azure subscriptions and resources
- Understand how to migrate servers to Azure
- Configure and manage virtual networks
- Monitor and troubleshoot virtual network connectivity
- Manage Azure Active Directory (Azure AD)
- Connect and implement multi-factor authentication
- Implement and manage hybrid identities
- Develop solutions that use Cosmos DB and the Azure SQL Database
- Get to grips with implementing secure data solutions

Who this book is for This book is for solution architects and experienced developers who advise stakeholders and translate business requirements into secure, scalable, and reliable solutions. Technical architects interested in learning more about designing cloud solutions will also find this book useful. Some experience and knowledge of various aspects of IT operations, including networking, security, business continuity, disaster recovery, budgeting, and governance are required to grasp the concepts covered in the book effectively.

azure workbooks powershell: Mastering Windows Security and Hardening Mark Dunkerley, Matt Tumbarello, 2022-08-19 A comprehensive guide to administering and protecting the latest Windows 11 and Windows Server 2022 from the complex cyber threats Key Features Learn to protect your Windows environment using zero-trust and a multi-layered security approach Implement security controls using Intune, Configuration Manager, Defender for Endpoint, and more Understand how to onboard modern cyber-threat defense solutions for Windows clients Book Description Are you looking for the most current and effective ways to protect Windows-based systems from being compromised by intruders? This updated second edition is a detailed guide that helps you gain the expertise to implement efficient security measures and create robust defense solutions using modern technologies. The first part of the book covers security fundamentals with details around building and implementing baseline controls. As you advance, you'll learn how to effectively secure and harden your Windows-based systems through hardware, virtualization, networking, and identity and access management (IAM). The second section will cover administering security controls for Windows clients and servers with remote policy management using Intune, Configuration Manager, Group Policy, Defender for Endpoint, and other Microsoft 365 and Azure cloud security technologies. In the last section, you'll discover how to protect, detect, and respond with security monitoring, reporting, operations, testing, and auditing. By the end of this book, you'll have developed an understanding of the processes and tools involved in enforcing security controls and implementing zero-trust security principles to protect Windows systems. What you will learn Build a multi-layered security approach using zero-trust concepts Explore best practices to implement security baselines successfully Get to grips with virtualization and networking to harden your devices Discover the importance of identity and access management Explore Windows device administration and remote management Become an expert in hardening your Windows infrastructure Audit, assess, and test to ensure controls are successfully applied and enforced Monitor and report activities to stay on top of vulnerabilities Who this book is for If you're a cybersecurity or technology professional, solutions architect, systems engineer, systems administrator, or anyone interested in learning how to secure the latest Windows-based systems, this book is for you. A basic understanding of Windows security concepts, Intune, Configuration Manager, Windows PowerShell, and Microsoft Azure will help you get the best out of this book.

azure workbooks powershell: Implementing Microsoft Azure Architect Technologies: AZ-303 Exam Prep and Beyond Brett Hargreaves, Sjoukje Zaal, 2020-12-18 Become a certified Azure Architect and learn how to design effective solutions that span compute, security, networking, and development Key Features Discover how you can design and architect powerful and cost-effective solutions on Microsoft Azure Prepare to achieve AZ-303 certification with the help of mock tests and practice questions Enhance your computing, networking, storage, and security skills to design modern cloud-based solutions Book Description From designing solutions on Azure to configuring and managing virtual networks, the AZ-303 certification validates your knowledge and skills for all this and much more. Whether you want to take the certification exam or gain hands-on experience in administering, developing, and architecting Azure solutions, this study guide will help you get started. Divided into four modules, this book systematically takes you through the wide range of concepts and features covered in the AZ-303 exam. The first module demonstrates how to implement and monitor infrastructure. You'll develop the skills required to deploy and manage core Azure components such as virtual machines, networking, storage, and Active Directory (AD). As you progress, you'll build on that knowledge and learn how to create resilient and secure applications before moving on to working with web apps, functions, and containers. The final module will get you up to speed with data platforms such as SQL and Cosmos DB, including how to configure the different high availability options. Finally, you'll solve mock tests and assess yourself with the answers provided to get ready to take the exam with confidence. By the end of this book, you'll have learned the concepts and techniques you need to know to prepare for the AZ-303 exam and design effective solutions on Microsoft Azure. What you will learn Manage Azure subscriptions and resources Ensure governance and compliance with policies, roles, and blueprints Build, migrate, and

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