

MICROSOFT AZURE WORKBOOKS

MICROSOFT AZURE WORKBOOKS ARE A POWERFUL TOOL FOR VISUALIZING AND ANALYZING DATA WITHIN THE AZURE ECOSYSTEM. THEY PROVIDE A FLEXIBLE CANVAS FOR USERS TO CREATE RICH REPORTS, DASHBOARDS, AND INSIGHTS, MAKING IT EASIER TO MONITOR AND MANAGE AZURE RESOURCES. THIS ARTICLE WILL DELVE INTO THE KEY FEATURES OF MICROSOFT AZURE WORKBOOKS, HOW THEY INTEGRATE WITH OTHER AZURE SERVICES, THEIR BENEFITS FOR DATA ANALYSIS, AND PRACTICAL USE CASES. WE WILL ALSO EXPLORE BEST PRACTICES FOR CREATING EFFECTIVE WORKBOOKS AND ADDRESS COMMON QUERIES RELATED TO THIS ROBUST TOOL.

FOLLOWING THIS COMPREHENSIVE EXPLORATION, YOU WILL GAIN A THOROUGH UNDERSTANDING OF MICROSOFT AZURE WORKBOOKS AND HOW THEY CAN ENHANCE YOUR DATA MANAGEMENT AND VISUALIZATION STRATEGIES.

- INTRODUCTION TO MICROSOFT AZURE WORKBOOKS
- KEY FEATURES OF MICROSOFT AZURE WORKBOOKS
- INTEGRATION WITH OTHER AZURE SERVICES
- BENEFITS OF USING MICROSOFT AZURE WORKBOOKS
- PRACTICAL USE CASES OF AZURE WORKBOOKS
- BEST PRACTICES FOR CREATING EFFECTIVE WORKBOOKS
- FREQUENTLY ASKED QUESTIONS

INTRODUCTION TO MICROSOFT AZURE WORKBOOKS

MICROSOFT AZURE WORKBOOKS ARE AN INTEGRAL PART OF THE AZURE ECOSYSTEM, DESIGNED TO FACILITATE DATA ANALYSIS AND VISUALIZATION. THEY ALLOW USERS TO COMBINE DATA FROM VARIOUS SOURCES AND PRESENT IT IN AN INTERACTIVE AND VISUALLY APPEALING MANNER. WITH AZURE WORKBOOKS, USERS CAN CREATE CUSTOM REPORTS AND DASHBOARDS TAILORED TO SPECIFIC BUSINESS NEEDS, ENABLING THEM TO MAKE DATA-DRIVEN DECISIONS EFFECTIVELY.

WORKBOOKS SUPPORT A VARIETY OF DATA SOURCES, INCLUDING AZURE MONITOR, APPLICATION INSIGHTS, AND LOG ANALYTICS. THIS VERSATILITY ALLOWS USERS TO PULL IN DATA FROM MULTIPLE AZURE SERVICES, MAKING IT A COMPREHENSIVE SOLUTION FOR MONITORING AND ANALYZING CLOUD RESOURCES. FURTHERMORE, AZURE WORKBOOKS SUPPORT RICH TEXT FORMATTING, VISUALIZATIONS, AND INTEGRATED QUERIES, PROVIDING A ROBUST PLATFORM FOR USERS TO DERIVE INSIGHTS FROM THEIR DATA.

KEY FEATURES OF MICROSOFT AZURE WORKBOOKS

AZURE WORKBOOKS COME EQUIPPED WITH A PLETHORA OF FEATURES THAT ENHANCE THEIR FUNCTIONALITY AND USABILITY. UNDERSTANDING THESE FEATURES IS CRUCIAL FOR LEVERAGING THE FULL POTENTIAL OF AZURE WORKBOOKS.

CUSTOM VISUALIZATIONS

ONE OF THE STANDOUT FEATURES OF AZURE WORKBOOKS IS THE ABILITY TO CREATE CUSTOM VISUALIZATIONS. USERS CAN DISPLAY DATA IN VARIOUS FORMATS, SUCH AS CHARTS, TABLES, AND GRAPHS, MAKING COMPLEX DATA SETS EASIER TO

UNDERSTAND. THE CUSTOMIZATION OPTIONS ALLOW USERS TO ADAPT THE PRESENTATION TO MEET THEIR SPECIFIC NEEDS.

INTEGRATION WITH KUSTO QUERY LANGUAGE (KQL)

AZURE WORKBOOKS UTILIZE KUSTO QUERY LANGUAGE (KQL) TO QUERY DATA EFFICIENTLY. KQL IS A POWERFUL QUERY LANGUAGE DESIGNED FOR LARGE-SCALE DATA ANALYSIS, ENABLING USERS TO FILTER, AGGREGATE, AND VISUALIZE DATA EFFECTIVELY. WITH KQL, USERS CAN CRAFT INTRICATE QUERIES TO EXTRACT MEANINGFUL INSIGHTS FROM THEIR DATA.

INTERACTIVE DASHBOARDS

WORKBOOKS OFFER THE ABILITY TO CREATE INTERACTIVE DASHBOARDS THAT ALLOW USERS TO DRILL DOWN INTO DATA FOR DEEPER ANALYSIS. THIS INTERACTIVITY IS ESSENTIAL FOR USERS WHO NEED TO EXPLORE DATA DYNAMICALLY, ENABLING THEM TO FOCUS ON SPECIFIC METRICS OR TRENDS.

COLLABORATION AND SHARING

ANOTHER SIGNIFICANT FEATURE OF AZURE WORKBOOKS IS THE CAPABILITY TO COLLABORATE AND SHARE INSIGHTS WITH OTHERS. USERS CAN SHARE THEIR WORKBOOKS WITH COLLEAGUES OR STAKEHOLDERS, FACILITATING TEAMWORK AND ENSURING EVERYONE HAS ACCESS TO THE LATEST DATA AND INSIGHTS.

INTEGRATION WITH OTHER AZURE SERVICES

MICROSOFT AZURE WORKBOOKS ARE DESIGNED TO INTEGRATE SEAMLESSLY WITH VARIOUS AZURE SERVICES, ENHANCING THEIR FUNCTIONALITY AND BROADENING THEIR USE CASES.

AZURE MONITOR

AZURE WORKBOOKS CAN BE INTEGRATED WITH AZURE MONITOR, ALLOWING USERS TO VISUALIZE AND ANALYZE MONITORING DATA IN REAL-TIME. THIS INTEGRATION IS PARTICULARLY BENEFICIAL FOR IT TEAMS LOOKING TO MONITOR APPLICATION PERFORMANCE AND INFRASTRUCTURE HEALTH.

LOG ANALYTICS

WITH LOG ANALYTICS, USERS CAN PULL LOGS AND TELEMETRY DATA DIRECTLY INTO THEIR WORKBOOKS. THIS INTEGRATION ENABLES COMPREHENSIVE ANALYSIS OF LOG DATA, HELPING USERS IDENTIFY TRENDS, ANOMALIES, AND POTENTIAL ISSUES WITHIN THEIR APPLICATIONS OR SERVICES.

APPLICATION INSIGHTS

APPLICATION INSIGHTS PROVIDES DEVELOPERS WITH POWERFUL TOOLS FOR MONITORING APPLICATION PERFORMANCE. WHEN INTEGRATED WITH AZURE WORKBOOKS, USERS CAN VISUALIZE APPLICATION METRICS, USER BEHAVIOR, AND PERFORMANCE DATA, PROVIDING A HOLISTIC VIEW OF APPLICATION HEALTH.

BENEFITS OF USING MICROSOFT AZURE WORKBOOKS

UTILIZING MICROSOFT AZURE WORKBOOKS PROVIDES NUMEROUS ADVANTAGES FOR ORGANIZATIONS LOOKING TO ENHANCE THEIR DATA ANALYSIS CAPABILITIES.

ENHANCED DATA VISUALIZATION

AZURE WORKBOOKS ENABLE USERS TO CREATE VISUALLY APPEALING REPORTS THAT MAKE DATA EASIER TO INTERPRET. BY PRESENTING DATA IN A CLEAR AND CONCISE MANNER, ORGANIZATIONS CAN IMPROVE THE DECISION-MAKING PROCESS.

INCREASED EFFICIENCY

THE ABILITY TO COMBINE MULTIPLE DATA SOURCES AND CREATE INTERACTIVE DASHBOARDS SIGNIFICANTLY INCREASES EFFICIENCY. TEAMS CAN QUICKLY ACCESS THE INSIGHTS THEY NEED WITHOUT NAVIGATING THROUGH VARIOUS TOOLS OR PLATFORMS.

REAL-TIME MONITORING

WITH AZURE WORKBOOKS, USERS CAN MONITOR THEIR AZURE RESOURCES IN REAL-TIME. THIS CAPABILITY ALLOWS ORGANIZATIONS TO RESPOND QUICKLY TO ISSUES AS THEY ARISE, MINIMIZING DOWNTIME AND IMPROVING OVERALL SERVICE RELIABILITY.

PRACTICAL USE CASES OF AZURE WORKBOOKS

MICROSOFT AZURE WORKBOOKS CAN BE APPLIED ACROSS VARIOUS SCENARIOS, SHOWCASING THEIR VERSATILITY AND EFFECTIVENESS.

IT OPERATIONS MANAGEMENT

IN IT OPERATIONS, AZURE WORKBOOKS CAN BE USED TO MONITOR SYSTEM PERFORMANCE, TRACK INCIDENTS, AND ANALYZE SERVICE HEALTH. THIS APPLICATION HELPS IT TEAMS MAINTAIN OPTIMAL PERFORMANCE AND QUICKLY RESOLVE ISSUES.

BUSINESS PERFORMANCE ANALYTICS

ORGANIZATIONS CAN LEVERAGE AZURE WORKBOOKS TO ANALYZE BUSINESS PERFORMANCE METRICS, SUCH AS SALES DATA, CUSTOMER ENGAGEMENT, AND OPERATIONAL EFFICIENCY. THIS ANALYSIS AIDS IN STRATEGIC PLANNING AND RESOURCE ALLOCATION.

SECURITY MONITORING

AZURE WORKBOOKS CAN ENHANCE SECURITY MONITORING BY VISUALIZING SECURITY LOGS AND ALERTS. SECURITY TEAMS CAN USE WORKBOOKS TO IDENTIFY POTENTIAL THREATS, TRACK SECURITY INCIDENTS, AND ENSURE COMPLIANCE WITH REGULATIONS.

BEST PRACTICES FOR CREATING EFFECTIVE WORKBOOKS

TO MAXIMIZE THE EFFECTIVENESS OF MICROSOFT AZURE WORKBOOKS, USERS SHOULD ADHERE TO CERTAIN BEST PRACTICES.

DEFINE CLEAR OBJECTIVES

BEFORE CREATING A WORKBOOK, IT IS ESSENTIAL TO DEFINE CLEAR OBJECTIVES. UNDERSTAND WHAT INSIGHTS ARE NEEDED AND HOW THE WORKBOOK WILL BE USED. THIS CLARITY WILL GUIDE THE DESIGN AND DATA SELECTION PROCESS.

UTILIZE DATA SOURCES WISELY

SELECT RELEVANT DATA SOURCES THAT ALIGN WITH YOUR OBJECTIVES. AVOID CLUTTERING THE WORKBOOK WITH UNNECESSARY DATA, AS THIS CAN LEAD TO CONFUSION AND HINDER EFFECTIVE ANALYSIS.

DESIGN FOR USABILITY

ENSURE THE WORKBOOK IS DESIGNED FOR USABILITY. USE CLEAR LABELS, CONSISTENT FORMATTING, AND LOGICAL LAYOUTS. A WELL-ORGANIZED WORKBOOK ENHANCES USER EXPERIENCE AND FACILITATES BETTER INSIGHTS.

REGULARLY REVIEW AND UPDATE

WORKBOOKS SHOULD BE REVIEWED AND UPDATED REGULARLY TO ENSURE THEY REMAIN RELEVANT AND ACCURATE. AS BUSINESS NEEDS EVOLVE, SO SHOULD THE DATA AND INSIGHTS PRESENTED IN WORKBOOKS.

FREQUENTLY ASKED QUESTIONS

Q: WHAT ARE MICROSOFT AZURE WORKBOOKS?

A: MICROSOFT AZURE WORKBOOKS ARE A FLEXIBLE TOOL WITHIN THE AZURE ECOSYSTEM THAT ALLOWS USERS TO CREATE INTERACTIVE REPORTS AND DASHBOARDS TO VISUALIZE AND ANALYZE DATA FROM MULTIPLE AZURE SERVICES.

Q: HOW DO I CREATE A WORKBOOK IN AZURE?

A: TO CREATE A WORKBOOK IN AZURE, NAVIGATE TO THE AZURE PORTAL, SELECT THE DESIRED RESOURCE, AND CHOOSE "WORKBOOKS" FROM THE MENU. FROM THERE, YOU CAN START A NEW WORKBOOK AND UTILIZE VARIOUS DATA SOURCES.

Q: CAN AZURE WORKBOOKS INTEGRATE WITH POWER BI?

A: WHILE AZURE WORKBOOKS AND POWER BI SERVE SIMILAR PURPOSES, THEY ARE DISTINCT TOOLS. HOWEVER, DATA VISUALIZATIONS FROM AZURE WORKBOOKS CAN BE EXPORTED FOR USE IN POWER BI, ALLOWING FOR ENHANCED REPORTING CAPABILITIES.

Q: WHAT DATA SOURCES CAN BE USED WITH AZURE WORKBOOKS?

A: AZURE WORKBOOKS CAN INTEGRATE WITH MULTIPLE DATA SOURCES, INCLUDING AZURE MONITOR, LOG ANALYTICS, APPLICATION INSIGHTS, AND EVEN CUSTOM DATA SOURCES THROUGH APIS.

Q: ARE THERE ANY COSTS ASSOCIATED WITH USING AZURE WORKBOOKS?

A: AZURE WORKBOOKS ARE FREE TO USE, BUT THE DATA SOURCES AND SERVICES THEY CONNECT TO MAY INCUR COSTS. IT IS IMPORTANT TO REVIEW THE PRICING OF UNDERLYING AZURE SERVICES.

Q: HOW CAN I SHARE MY AZURE WORKBOOK WITH OTHERS?

A: YOU CAN SHARE AZURE WORKBOOKS BY PROVIDING ACCESS TO OTHER USERS WITHIN YOUR AZURE ENVIRONMENT. YOU CAN ALSO EXPORT THE WORKBOOK AS A TEMPLATE FOR OTHERS TO USE.

Q: WHAT IS KUSTO QUERY LANGUAGE (KQL)?

A: KUSTO QUERY LANGUAGE (KQL) IS A POWERFUL QUERY LANGUAGE USED IN AZURE WORKBOOKS TO QUERY AND ANALYZE LARGE DATASETS EFFICIENTLY. IT ALLOWS USERS TO FILTER, AGGREGATE, AND VISUALIZE DATA EFFECTIVELY.

Q: CAN I CUSTOMIZE THE VISUALIZATIONS IN AZURE WORKBOOKS?

A: YES, AZURE WORKBOOKS ALLOW EXTENSIVE CUSTOMIZATION OF VISUALIZATIONS, ENABLING USERS TO SELECT THE TYPE OF CHARTS, TABLES, AND GRAPHS THAT BEST REPRESENT THEIR DATA.

Q: HOW OFTEN SHOULD I UPDATE MY AZURE WORKBOOK?

A: IT IS ADVISABLE TO REVIEW AND UPDATE AZURE WORKBOOKS REGULARLY, ESPECIALLY IF THE UNDERLYING DATA OR BUSINESS NEEDS CHANGE, TO ENSURE THEY PROVIDE ACCURATE AND RELEVANT INSIGHTS.

Microsoft Azure Workbooks

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microsoft azure workbooks: *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.

microsoft azure workbooks: Microsoft Azure Sentinel Yuri Diogenes, Nicholas DiCola, Jonathan Trull, 2020-02-25 Microsoft Azure Sentinel Plan, deploy, and operate Azure Sentinel, Microsoft's advanced cloud-based SIEM Microsoft's cloud-based Azure Sentinel helps you fully leverage advanced AI to automate threat identification and response - without the complexity and scalability challenges of traditional Security Information and Event Management (SIEM) solutions. Now, three of Microsoft's leading experts review all it can do, and guide you step by step through planning, deployment, and daily operations. Leveraging in-the-trenches experience supporting early customers, they cover everything from configuration to data ingestion, rule development to incident management... even proactive threat hunting to disrupt attacks before you're exploited. Three of Microsoft's leading security operations experts show how to:

- Use Azure Sentinel to respond to today's fast-evolving cybersecurity environment, and leverage the benefits of its cloud-native architecture
- Review threat intelligence essentials: attacker motivations, potential targets, and tactics, techniques, and procedures
- Explore Azure Sentinel components, architecture, design considerations, and initial configuration
- Ingest alert log data from services and endpoints you need to monitor
- Build and validate rules to analyze ingested data and create cases for investigation
- Prevent alert fatigue by projecting how many incidents each rule will generate
- Help Security Operation Centers (SOCs) seamlessly manage each incident's lifecycle
- Move towards proactive threat hunting: identify sophisticated threat behaviors and disrupt cyber kill chains before you're exploited
- Do more with data: use programmable Jupyter notebooks and their libraries for machine learning, visualization, and data analysis
- Use Playbooks to perform Security Orchestration, Automation and Response (SOAR)
- Save resources by automating responses to low-level events
- Create visualizations to spot trends, identify or clarify relationships, and speed decisions
- Integrate with partners and other third-parties, including Fortinet, AWS, and Palo Alto

microsoft azure workbooks: Microsoft Defender for Cloud Cookbook Sasha Kranjac, 2022-07-22 Effectively secure their cloud and hybrid infrastructure, how to centrally manage security, and improve organizational security posture

Key Features

- Implement and optimize security posture in Azure, hybrid, and multi-cloud environments
- Understand Microsoft Defender for Cloud and its features
- Protect workloads using Microsoft Defender for Cloud's threat detection and prevention capabilities

Book Description Microsoft Defender for Cloud is a multi-cloud and hybrid cloud security posture management solution that enables security administrators to build cyber defense for their Azure and non-Azure resources by providing both recommendations and security protection capabilities. This book will start with a foundational overview of Microsoft

Defender for Cloud and its core capabilities. Then, the reader is taken on a journey from enabling the service, selecting the correct tier, and configuring the data collection, to working on remediation. Next, we will continue with hands-on guidance on how to implement several security features of Microsoft Defender for Cloud, finishing with monitoring and maintenance-related topics, gaining visibility in advanced threat protection in distributed infrastructure and preventing security failures through automation. By the end of this book, you will know how to get a view of your security posture and where to optimize security protection in your environment as well as the ins and outs of Microsoft Defender for Cloud. What you will learn

- Understand Microsoft Defender for Cloud features and capabilities
- Understand the fundamentals of building a cloud security posture and defending your cloud and on-premises resources
- Implement and optimize security in Azure, multi-cloud and hybrid environments through the single pane of glass - Microsoft Defender for Cloud
- Harden your security posture, identify, track and remediate vulnerabilities
- Improve and harden your security and services security posture with Microsoft Defender for Cloud benchmarks and best practices
- Detect and fix threats to services and resources

Who this book is for This book is for Security engineers, systems administrators, security professionals, IT professionals, system architects, and developers. Anyone whose responsibilities include maintaining security posture, identifying, and remediating vulnerabilities, and securing cloud and hybrid infrastructure. Anyone who is willing to learn about security in Azure and to build secure Azure and hybrid infrastructure, to improve their security posture in Azure, hybrid and multi-cloud environments by leveraging all the features within Microsoft Defender for Cloud.

microsoft azure workbooks: 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 cloud models. Next, you'll gain insights into Azure App Service web apps, containers and container-related services in Azure, Azure Functions, and solutions using Cosmos DB and Azure Blob Storage. Later, you'll learn how to secure your cloud solutions effectively as well as how to implement message- and event-based solutions and caching. You'll also explore how to monitor and troubleshoot your solutions effectively. To build on your skills, you'll get hands-on with monitoring, troubleshooting, and optimizing Azure applications, ensuring peak performance and reliability. Moving ahead, you'll be able to connect seamlessly to third-party services, harnessing the power of API management, event-based solutions, and message-based solutions. By the end of this MS Azure book, you'll not only be well-prepared to pass the AZ-204 exam but also be equipped with practical skills to excel in Azure development projects. What you will learn 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.

microsoft azure workbooks: *Cloud Observability with Azure Monitor* José Ángel Fernández, Manuel Lázaro Ramírez, 2024-11-22 Implement real-time monitoring, visualization, analytics, and troubleshooting strategies on Azure to ensure optimal performance and reliability in your cloud environment Key Features Monitor Azure-native, hybrid, and multi-cloud infrastructure effectively Design proactive incident responses and visualization dashboards for configuring, optimizing, and monitoring data Implement strategies for monitoring Azure applications using real-world case studies Purchase of the print or Kindle book includes a free PDF eBook Book Description Cloud observability is complex and costly due to the use of hybrid and multi-cloud infrastructure as well as various Azure tools, hampering IT teams' ability to monitor and analyze issues. The authors distill their years of experience with Microsoft to share the strategic insights and practical skills needed to optimize performance, ensure reliability, and navigate the dynamic landscape of observability on Azure. You'll get an in-depth understanding of cloud observability and Azure Monitor basics, before getting to grips with the configuration and optimization of data sources and pipelines for effective monitoring. You'll learn about advanced data analysis techniques using metrics and the Kusto Query Language (KQL) for your logs, design proactive incident response strategies with automated alerts, and visualize reports via dashboards. Using hands-on examples and best practices, you'll explore the integration of Azure Monitor with Azure Arc and third-party tools, such as Datadog, Elastic Stack, or Dynatrace. You'll also implement artificial intelligence for IT Operations (AIOps) and secure monitoring for hybrid and multi-cloud environments, aligned with emerging trends. By the end of this book, you'll be able to develop robust and cost-optimized observability solutions for monitoring your Azure infrastructure and apps using Azure Monitor. What you will learn Get a holistic overview of cloud observability with Azure Monitor Configure and optimize data sources to monitor Azure solutions Analyze logs and metrics using advanced data analysis techniques with KQL Design proactive incident response strategies with automated alerts Visualize monitoring data through impactful dashboards and reports Extend observability to hybrid and multi-cloud environments with Azure Arc Build and implement monitoring solutions on Azure, aligned with industry standards Who this book is for If you're a seasoned cloud engineer, cloud architect, DevOps engineer, SRE, or an aspiring cloud practitioner eager to elevate your observability skills on Azure and implement monitoring strategies using Azure Monitor, then this book is for you. A basic understanding of Azure cloud services, cloud infrastructure management, and network virtualization will be helpful.

microsoft azure workbooks: *Learn Azure Sentinel* Richard Diver, Gary Bushey, 2020-04-07 Understand how to set up, configure, and use Azure Sentinel to provide security incident and event management services for your environment Key Features Secure your network, infrastructure, data, and applications on Microsoft Azure effectively Integrate artificial intelligence, threat analysis, and automation for optimal security solutions Investigate possible security breaches and gather forensic evidence to prevent modern cyber threats Book Description Azure Sentinel is a Security Information and Event Management (SIEM) tool developed by Microsoft to integrate cloud security and artificial intelligence (AI). Azure Sentinel not only helps clients identify security issues in their environment, but also uses automation to help resolve these issues. With this book, you'll implement Azure Sentinel and understand how it can help find security incidents in your environment with integrated artificial intelligence, threat analysis, and built-in and community-driven logic. This book starts with an introduction to Azure Sentinel and Log Analytics. You'll get to grips with data collection and management, before learning how to create effective Azure Sentinel queries to detect anomalous behaviors and patterns of activity. As you make progress, you'll understand how to develop solutions that automate the responses required to handle security incidents. Finally, you'll grasp the latest developments in security, discover techniques to enhance your cloud security architecture, and explore how you can contribute to the security community. By the end of this book, you'll have learned how to implement Azure Sentinel to fit your needs and be able to protect your environment from cyber threats and other security issues. What you will learn Understand how to design and build a security operations center Discover the key components of a cloud security architecture Manage and investigate Azure Sentinel incidents Use playbooks to automate incident responses Understand

how to set up Azure Monitor Log Analytics and Azure SentinelIngest data into Azure Sentinel from the cloud and on-premises devicesPerform threat hunting in Azure SentinelWho this book is for This book is for solution architects and system administrators who are responsible for implementing new solutions in their infrastructure. Security analysts who need to monitor and provide immediate security solutions or threat hunters looking to learn how to use Azure Sentinel to investigate possible security breaches and gather forensic evidence will also benefit from this book. Prior experience with cloud security, particularly Azure, is necessary.

microsoft azure workbooks: The Art of Site Reliability Engineering (SRE) with Azure

Unai Huete Beloki, 2025-08-30 Gain a foundational understanding of SRE and learn its basic concepts and architectural best practices for deploying Azure IaaS, PaaS, and microservices-based resilient architectures. The new edition of the book has been updated with the latest Azure features for high-availability in storage, networking, and virtual machine computing. It also includes new updates in Azure SQL, Cosmos DB, and Azure Load Testing. Additionally, the integration of agents with Microsoft services has been covered in this revised edition. After reading this book, you will understand the underlying concepts of SRE and its implementation using Azure public cloud. What You Will Learn: Learn SRE definitions and metrics like SLI/SLO/SLA, Error Budget, toil, MTTR, MTTF, and MTBF Understand Azure Well-Architected Framework (WAF) and Disaster Recovery scenarios on Azure Understand resiliency and how to design resilient solutions in Azure for different architecture types and services Master core DevOps concepts and the difference between SRE and tools like Azure DevOps and GitHub Utilize Azure observability tools like Azure Monitor, Application Insights, KQL or Grafana Who Is This Book For: IT operations administrators, engineers, security team members, as well as developers or DevOps engineers.

microsoft azure workbooks: 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 DescriptionAre 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.

microsoft azure workbooks: Microsoft 365 Security Administration: MS-500 Exam Guide Peter Rising, 2020-06-19 Get up to speed with expert tips and techniques to help you prepare effectively for the MS-500 Exam Key FeaturesGet the right guidance and discover techniques to improve the effectiveness of your studying and prepare for the examExplore a wide variety of strategies for security and complianceGain knowledge that can be applied in real-world situationsBook Description The Microsoft 365 Security Administration (MS-500) exam is designed to measure your ability to perform technical tasks such as managing, implementing, and monitoring security and compliance solutions for Microsoft 365 environments. This book starts by showing you how to configure and administer identity and access within Microsoft 365. You will learn about hybrid identity, authentication methods, and conditional access policies with Microsoft Intune. Next, the book shows you how RBAC and Azure AD Identity Protection can be used to help you detect risks and secure information in your organization. You will also explore concepts, such as Advanced Threat Protection, Windows Defender ATP, and Threat Intelligence. As you progress, you will learn about additional tools and techniques to configure and manage Microsoft 365, including Azure Information Protection, Data Loss Prevention, and Cloud App Discovery and Security. The book also ensures you are well prepared to take the exam by giving you the opportunity to work through a mock paper, topic summaries, illustrations that briefly review key points, and real-world scenarios. By the end of this Microsoft 365 book, you will be able to apply your skills in the real world, while also being well prepared to achieve Microsoft certification. What you will learnGet up to speed with implementing and managing identity and accessUnderstand how to employ and manage threat protectionGet to grips with managing governance and compliance features in Microsoft 365Explore best practices for effective configuration and deploymentImplement and manage information protectionPrepare to pass the Microsoft exam and achieve certification with the help of self-assessment questions and a mock examWho this book is for This Microsoft certification book is designed to help IT professionals, administrators, or anyone looking to pursue a career in security administration by becoming certified with Microsoft's role-based qualification. Those trying to validate their skills and improve their competitive advantage with Microsoft 365 Security Administration will also find this book to be a useful resource.

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source control systems, build systems, CI/CD platforms, and various artifacts. With the help of this book, you'll be able to enhance security and compliance in Azure software development processes. Starting with an overview of DevOps and its relationship with Agile methodologies and cloud computing, you'll gain a solid foundation in DevSecOps principles. The book then delves into the security challenges specific to DevOps workflows and how to address them effectively. You'll learn how to implement security measures in the planning phase, including threat modeling and secure coding practices. You'll also explore pre-commit security controls, source control security, and the integration of various security tools in the build and test phases. The book covers crucial aspects of securing the release and deploy phases, focusing on artifact integrity, infrastructure as code security, and runtime protection. By the end of this book, you'll have the knowledge and skills to implement a secure code-to-cloud process for the Azure cloud.

What you will learn

- Understand the relationship between Agile, DevOps, and the cloud
- Secure the use of containers in a CI/CD workflow
- Implement a continuous and automated threat modeling process
- Secure development toolchains such as GitHub Codespaces, Microsoft Dev Box, and GitHub Integrate continuous security throughout the code development workflow, pre-source and post-source control contribution
- Integrate SCA, SAST, and secret scanning into the build process to ensure code safety
- Implement security in release and deploy phases for artifact and environment compliance

Who this book is for

This book is for security professionals and developers transitioning to a public cloud environment or moving towards a DevSecOps paradigm. It's also designed for DevOps engineers, or anyone looking to master the implementation of DevSecOps in a practical manner. Individuals who want to understand how to integrate security checks, testing, and other controls into Azure cloud continuous delivery pipelines will also find this book invaluable. Prior knowledge of DevOps principles and practices, as well as an understanding of security fundamentals will be beneficial.

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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 Features

- Build data pipelines from scratch and find solutions to common data engineering problems
- Learn how to work with Azure Data Factory, Data Lake, Databricks, and Synapse Analytics
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Book 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 learn

- Process data using Azure Databricks and Azure Synapse Analytics
- Perform data transformation using Azure Synapse data flows
- Perform common administrative tasks in Azure SQL Database
- Build effective Synapse SQL pools which can be consumed by Power BI
- Monitor Synapse SQL and Spark pools using Log Analytics
- Track data lineage using Microsoft Purview integration with pipelines

Who this book is for

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It'll help you develop expertise in operating and administering the Azure cloud. This book will also be useful for CIOs and CTOs looking to understand more about how IT can make their business infrastructure more efficient and easier to use, which will reduce friction within their organization. Knowledge of Azure is helpful, but not necessary to get the most out of this guide.

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