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## What The Hack - Repo

Welcome to the What The Hack repo on GitHub. This repo contains Coach content designed for people planning to host a What The Hack event with students in an organization.

If you are an organization that is interested in attending or hosting a What The Hack event, please visit the What The Hack website at: **<https://aka.ms/wth>**

**If you are a student attending a What The Hack event, please go to the What The Hack website.**



## What is What The Hack?

“What the Hack” is a set of challenge based hackathons that can be hosted in-person or virtually via Microsoft Teams.

Attendees work in squads of 3 to 5 people to solve a series of technical challenges for a given technology or solution scenario. Challenges describe high-level tasks and goals to be accomplished. Challenges are not step-by-step labs.

What The Hack is designed to be a collaborative learning experience. Attendees “learn from” and “share with” each other. Without step-by-step instructions given for the challenges, attendees have to “figure it out” together as a team. This results in greater knowledge retention for the attendees.

The attendee squads are not alone in solving the challenges. Coaches work with each squad to provide guidance for, but not answers to, the challenges. The coaches may also provide lectures and demos to introduce the challenges, as well as review challenge solutions throughout the event.

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## How to Host a What The Hack

Would you like to host a What The Hack for your organization? The WTH format and content has been designed for hosting a hack with groups of 5 to 50 people. We welcome anyone to use the content here to host their own WTH event!

See our complete guide on “How To Host A Hack”.

## How to Contribute to What The Hack

What The Hack is community driven. Here are our core principles: - Anyone can contribute a new hack. - Anyone can use the content to host their own WTH event. - Anyone can modify or update a hack as needed. - Contributing updates back via a pull request is encouraged. - The content can always be shared with hack attendees **(Only do this after the event is over!)**

Would you like to contribute to What The Hack? We welcome new hacks and updates to existing hacks! We have developed a process for doing this.

See our What The Hack Contribution Guide to learn about the contribution and review process.

## How to Author a What The Hack

What makes a good hack? We have a guide that helps answer that question!

Hacks can focus on a single technology or focus on a solution scenario that features multiple technologies working together to solve a business problem.

Read our What The Hack Author’s Guide for details on how to author a hack. The author’s guide contains a set of markdown template files that help you quickly create new hack content that is consistent with the WTH format.

## The What The Hack Collection

Here is the current list of What The Hack hackathons available in this repository:

### Infrastructure

- Intro To Kubernetes

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- Advanced Kubernetes
  - AKS Enterprise-Grade
  - Intro to Azure Red Hat OpenShift
  - Azure Arc Enabled Kubernetes
  - Azure Arc enabled servers
  - Infrastructure As Code: Bicep
  - Infrastructure As Code: ARM & DSC
  - Infrastructure As Code: Terraform
  - Infrastructure As Code: Ansible
  - Azure Front Door
  - Advanced Networking
  - Azure Networking with Hub & Spoke
  - Using BGP Networking for Hybrid Connectivity
  - Azure Virtual WAN
  - Azure Route Server
  - Azure Governance
  - Linux Fundamentals
  - Azure Virtual Desktop
  - SAP On Azure

## **Application Development**

- Java on Azure App Service
- Rock, Paper, Scissors, Boom!
- App Modernization
- Microservices In Azure
- Serverless
- Migrating Applications To The Cloud
- Identity For Apps
- Microsoft Entra ID for B2B
- Linux Fundamentals
- FHIR Powered Healthcare
- Traffic Control with Dapr
- Azure Integration Services - API Management with Function Apps
- SAP on Azure: Application Modernization
- Power Platform Basics

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## Operations

- Azure Monitoring
- Datadog On Azure
- DevOps with GitHub
- Modern Development and DevOps with GitHub
- DevOps with GitHub Actions
- Azure DevOps
- Open Source DevOps
- MLOps from Scratch
- Linux Fundamentals
- Data Governance with Microsoft Purview
- Sentinel Automated Response
- Azure Load Testing
- Azure Chaos Studio for AKS

## Data & AI

- Azure OpenAI Fundamentals
- Fabric Real-time Analytics
- Cosmic Troubleshooting
- Data Governance with Microsoft Purview
- SQL Modernization and Migration
- OSS Database Migration
- MLOps from Scratch
- IoT Process Control at the Edge
- BI 2 AI
- This Old Data Warehouse
- Modern Data Warehouse - Covid 19
- Do You Even Synapse
- Incremental Synapse Pipelines
- Synapse Dedicated SQL Pool - Performance Best Practices
- Bronze/Silver/Gold Using Synapse & Databricks
- Conversational AI
- Databricks/Intro to ML

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## **Microsoft Teams Platform**

- Microsoft Teams: Make It Real

## **Smart Edge & Devices**

- IoT Process Control at the Edge
- Azure Arc enabled Kubernetes
- Azure Arc enabled servers

## **Networking**

- Advanced Networking
- Azure Networking with Hub & Spoke
- Using BGP Networking for Hybrid Connectivity
- Azure Virtual WAN
- Azure Front Door
- Azure Route Server

## **SAP on Azure**

- SAP on Azure
- SAP on Azure: Application Modernization

## **Power Platform**

- Power Platform Basics

## **Archived**

These hacks have been archived due to obsolescence or dependencies on sample code or data that is no longer available. If you are interested in updating these hacks, contributions are welcome! Please consider contributing to keep What The Hack up to date.

- Intro To Azure AI - Be sure to see our NEW hack on Azure OpenAI Fundamentals
- Driving Miss Data

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## License

This repository is licensed under MIT license. More info can be found [here](#).