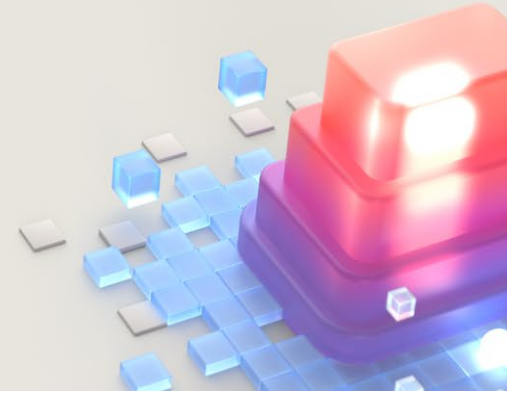


Data Feeds

Preparation guide for attendees



Microsoft Learn Cloud Games

Join Microsoft Learn Cloud Games and collaborate with other technical professionals to role-play your way through real-world tech problems. Implement solutions with Microsoft technologies in this hands-on, multiplayer learning game that offers a fun, risk-free, simulated environment where you can apply what you know and add to your technical skills, knowledge, and experience.

Data Feeds

Data Feeds is a multiplayer game set in the near future in which you validate your data & AI skills as you create and power data models to help Trey Research tackle the global problem of food waste. Trey Research is a specialized consulting firm with clients around the world. The firm focuses on technology solution delivery and information insight, and it uses its expertise to help solve food-waste crises.

As a key member of Trey Research's data team, you package, predict, and present data that powers the circuitry of the firm's Insight Engine, collaborating with other data pros to complete tasks and gain Insight Power to run the engine. You unlock and apply upgrades, and you replay the tasks to find optimal food-waste solutions. You also apply these solutions to help alleviate a food crisis in the South Pacific.

To play this cooperative game, you choose from tasks associated with data & AI roles—data engineer, data scientist, or data analyst.

Data Feeds will have related episodes with multiple challenges that can be played in any order, including:

- **“Stop the Waste!”** in which you build an initial demo by “completing the circuit” activities to gather Insight Power, generating the energy to run the Insight Engine. And you work with fellow data pros to create a product to help address and end food waste.
- **“Crisis Response,”** in which you and your colleagues put the model to the test and implement scalability in a high-stakes, time-sensitive go-to-market strategy, when a natural disaster hits the island country of Hadria and its citizens are in dire need of food.

To make the most of the experience, you:

- Currently work in data & AI, possibly as a data engineer, data scientist, or data analyst.
- Have completed the training for or have skills associated with any of these roles: Azure data scientist ([Exam DP-100: Designing and Implementing a Data Science Solution on Azure](#)), Azure data engineer ([Exam DP-203: Data Engineering on Microsoft Azure](#)), Power BI data analyst ([Exam PL-300: Microsoft Power BI Data Analyst](#)), or Azure enterprise data analyst ([Exam DP-500: Designing and Implementing Enterprise-Scale Analytics Solutions Using Microsoft Azure and Microsoft Power BI](#)).
- Are familiar with Azure Synapse Analytics, Azure Machine Learning, and Power BI.
- Have knowledge of core data concepts, along with analytics workloads on Azure.

“Stop the Waste!”

Trey Research’s visionary Founder and Chief Executive Officer (CEO) Mattia Trentini has tasked the company’s data team (you and your colleagues) with generating key insights for a new initiative to help solve the problem of food waste, since he believes that the current global food-waste crisis heralds even greater difficulties to come.

You use Microsoft data & AI solutions to swiftly transform swaths of data into powerful insights with predictive models that become the drivers of the initiative to confront this worldwide issue. Results of your team’s work in this episode include a prototype storage solution that combines food waste data from multiple sources, a prototype dashboard showing how and where food is wasted, and a prototype model that predicts food waste over time.

Prerequisites

- Understanding of data fundamentals in Azure
- Experience working with Azure data services, including at least one of the following: Azure Synapse Analytics, Azure Machine Learning, or Power BI

Learning outcomes

In “Stop the Waste!,” you collaborate with other data professionals to build an analytics solution for Trey Research. You problem-solve together with colleagues and work with stakeholders, as you make the most of Microsoft data tools. The game provides you a unique opportunity to work on a data team and to practice skills essential for in-role success, including effective communication, problem-solving, collaboration, and teamwork.

Player roles and tasks in “Stop the Waste!” include:

Data engineer. Explore, build, and maintain secure data-processing pipelines by using Azure Synapse Analytics.

Data scientist. Create a working environment for data science workloads, run data experiments, and train predictive models in Azure Machine Learning.

Data analyst. Use Power BI to help the business maximize the value of its data assets and to make data-driven decisions.

In this episode, you practice the following skills. To refresh your knowledge before or after the event, check out the recommended learning paths.

Area	Skills practiced	Recommended learning paths
All roles	Get familiar with data fundamentals in Azure	Exam DP-900: Microsoft Azure Data Fundamentals
Data engineer	Learn about Azure Synapse Analytics features and components	Introduction to Azure Synapse Analytics
	Design data storage	Design a Modern Data Warehouse using Azure Synapse Analytics
Data scientist	Create and publish models without writing code	Microsoft Azure AI Fundamentals: Explore visual tools for machine learning
	Learn how to work with data stores and datasets	Work with Data in Azure Machine Learning
Data analyst	Find out how to tell a compelling story through reports and dashboards	Get started with Microsoft data analytics
	Get the details on how to simplify a complicated model, change data types, and more	Clean, transform, and load data in Power BI
	Explore visual types to meet design and report layout requirements	Design Power BI reports

“Crisis response”

Trey Research CEO Trentini is happy with your work thus far. When a natural disaster hits the island country of Hadria, Trentini tasks you and your team with the responsibility of adapting the “complete the circuit” solution (created in *Data Feeds* Episode 1: “Stop the Waste!”) to the current circumstances, in which Hadria’s citizens are in dire need of food. And, since the future is always uncertain, Trentini wants you to build a robust and scalable data platform.

In this second *Data Feeds* episode, “Crisis response,” you learn how to work with large amounts of data at scale, by using Microsoft data & AI solutions, and you explore ways to automate and optimize data workloads. Your team’s work results in data transformation pipelines that deliver data to Microsoft Power BI and Azure Machine Learning, a retrainable machine learning pipeline, and a high-performing Power BI report that provides insights for demand planning to avoid food waste and to help alleviate a food crisis.

Prerequisites

- Understanding of data fundamentals in Azure
- Experience working with Azure data services, including at least one of the following: Azure Synapse Analytics, Azure Machine Learning, or Power BI

Learning outcomes

In “Crisis response,” get ready for production. Together with other data professionals, think about scaling the solution for Trey Research and how to make it future-proof. After learning from a high-impact project, the team needs to enhance workloads that are executed with Microsoft data tools. With your team, learn how to take the next steps toward a robust data platform.

Player roles and tasks in “Crisis response” include:

Data engineer. Gather and transform data at scale with Azure Synapse Analytics. Use code and no-code approaches to process the data.

Data scientist. Train a model with automated machine learning. Get the code production-ready, and deploy the model for inferencing.

Data analyst. Optimize the data model and report in Power BI. Set up automatic deployment of Power BI assets for end users.

In this episode, you practice the following skills. To refresh your knowledge before or after the event, check out the recommended learning paths.

Area	Skills practiced	Recommended learning paths
All roles	Get familiar with data fundamentals in Azure	Exam DP-900: Microsoft Azure Data Fundamentals
Data engineer	Learn how to transform data with Azure Synapse Analytics	Data integration at scale with Azure Data Factory or Azure Synapse Pipeline
Data scientist	Create a forecasting model with automated machine learning	Microsoft Azure AI Fundamentals: Explore visual tools for machine learning
	Learn how to deploy a machine learning model to production	Build and operate machine learning solutions with Azure Machine Learning
Data analyst	Learn more about how to optimize the data model	Model data in Power BI
	Automate the deployment of assets in Power BI	Manage workspaces and datasets in Power BI