



DENVER INTERNATIONAL AIRPORT



Challenge 1

Sponsor

Denver International Airport (DEN) is sponsoring this challenge. DEN is the third busiest airport in the United States and the sixth busiest in the world, the largest airport site in North America, and creates over \$36 billion annually in the Denver metropolitan area. Its size and potential for even more growth make it a leader in the aviation space.

Background

Handling over 77 million passengers and 280 million pounds of cargo per year requires a lot of data analytics to do efficiently. Today, data analytics customers submit requests for assistance through a ServiceNow enhancement at DEN. The customer has access to ServiceNow to see the status of their requests. The data analytics/BI customers complete their Azure DevOps (ADO) work, which is better set up for spring work than ServiceNow. There is an integration between the systems, so an ADO feature is automatically created when an enhancement is created. And when the State in ADO is updated, the Enhancement Record is also updated.

Data analytics customers have expressed frustration that they cannot get timely updates in ServiceNow on the status of their enhancement, what percentage has been completed, how much work is needed to complete it, or, if it hasn't been started yet, an estimate of when it will.

Objective and Requirements

Hackathon Challenge: Building a PowerBI Dashboard to Bridge ServiceNow Enhancements and Azure DevOps Features

In this challenge, your goal is to design an interactive, data-driven PowerBI dashboard that connects ServiceNow enhancement requests to their respective Azure DevOps (ADO) features. This dashboard will serve two distinct audiences—customers and the internal team—delivering each group the insights most relevant to them for efficient, informed decision-making.

The dashboard should at minimum display the following:

- **Work Status:** Show real-time status updates for each enhancement request.
- **Completion Progress:** Track and display how close each enhancement is to completion.
- **Estimated Start Date:** For requests not yet started, include a projected start date.
- **Customer Distribution:** Visualize which customers are making the most enhancement requests.
- **Developer Allocation:** Provide insights into how enhancement requests are distributed among developers.

To enrich insights, populate empty or less-utilized columns logically to add value. Apply text summarization to long descriptions to create concise, informative summaries.

This dashboard will empower customers to understand the progress of their requests while providing the internal team with a high-level view of workload distribution, project timelines, and demand patterns.

Dataset  03. Dataset - Google Drive

Terms

- ServiceNow: An IT Service Management platform where customers can submit IT incidents, requests, and enhancements. At DEN it was rebranded to "AskIT".
- Enhancement: A request in ServiceNow submitted by a customer that could be a request for a completely new BI solution or a modification to an existing solution.
- Azure DevOps (ADO): A Microsoft application to track development work in a Scrum or Agile methodology.
- Feature: A high-level request from the customer in ADO. A feature is linked to an Enhancement in ServiceNow.
- User Story: A smaller chunk of work that must be completed in order to fulfill a Feature request. There can be one or more user stories associated with a feature.
- Area: A configurable list that could be used in several ways to categorize work. For example, by application module, or by customer department. We are not using this currently.
- Iteration: A configurable list used to categorize work into sprints.

ServiceNow and ADO Examples

ServiceNow Enhancement Example:

Enhancement
New record View Search

Number
IDNR00012345

Created for
Rebecca Ockertis

Requester for
Sales

Expected start
Service

Product
Product

Division
None

Application
None

Subsection
None

Assignment group
None

Assignment
None

Planned effort
Days 00 Hours 00 Mins 00

Actual effort
Days 00 Hours 00 Mins 00

Altium DevOps ID
None

Last Asset Comment ID
None

Must description
Description

Requirements

Worknotes

ADO Feature Example:

FEATURE 29348
29348 - CRM Maintenance

No one selected

0 Comments Add Tag

State
Active

Tags
Data Analytics

Report
Report introduced in Google

Report
Report

Data Analytics
Data Analytics

Description

Workday

Discussion

Planning

Priority
1

Risk

Level of Effort

Business Value

Time Criticality

Start Date

Target Date

Classification

None user

Business

ADOIT Enhancement Number

Customer Name

ADO User Story Example:

[illegible]

Integration Mapping

The mapping for ServiceNow "State" values to ADO "State" values:

```
if (current.state.getDisplayValue() == "Cancelled") { request.setStringParameterNoEscape("state", "Removed"); } else if (current.state.getDisplayValue() == "Closed Complete") { request.setStringParameterNoEscape("state", "Closed"); } else if (current.state.getDisplayValue() == "Draft") { request.setStringParameterNoEscape("state", "New"); } else if (current.state.getDisplayValue() == "On Hold") { request.setStringParameterNoEscape("state", "On Hold"); } else if (current.state.getDisplayValue() == "Work in Progress") { request.setStringParameterNoEscape("state", "Active"); }
```

Submission Guidelines & Evaluation Process

Step 1: Submit Google Form

You need to submit the following information:

- Team Information
- Elevator Pitch Video (Max 90 secs)
- Solution Screenshots (Anything that makes you stand out!)

⚠ No duplicate submissions are allowed.

 Submit a separate form for each challenge you are participating in.

Form Link: [forms.gle](#)

Step 2: Finalist Selection

- Judges will review all submissions and select the **Top 10 teams** to advance to the final presentation round.
- Selection will be based solely on the submitted materials.

Step 3: Final Presentation

Finalists will be given a **10-minute time slot** to present their solutions to the judges virtually. The presentation structure will be as follows:

- 5 minutes for the presentation
- 3 minutes for Q&A with the judges
- 2 minutes for grading

Solutions will be evaluated based on the following criteria:

Criteria	Weightage
Impact: The team's ability to focus on relevant solutions that meet key needs and demonstrate practical value.	30%
Innovation & Creativity: The team's ability to apply innovative approaches that enhance the overall effectiveness of the solution.	30%
Dashboard Design: The team's ability in making a clear and visually appealing dashboard that is easy to use and interact with.	20%
Presentation: The team's ability to clearly communicate their approach, demonstrate understanding of their solution, and respond confidently to questions.	20%

🏆 The **Top 2** teams, based on the evaluation criteria, will be awarded during the closing ceremony!

Judges



Rebecca DeSantis.
IT Manager - Business Technologies at DEN



Tracy Whitting.
Sr. Director of Analytics & Innovation



Renata Contogiannis.
Lead Strategic Data Analyst

FAQs

▼ How are the 'work item type' 'Features' and 'User Story' linked?

A feature is a request by the customer, and it is split into simpler tasks as a user story.

▼ What does 'Iteration Path' mean?

The iteration path refers to the sprint planning week name. Sprints are fixed-length periods of work that last one month or less to create consistency and ensure short iterations for feedback to inspect and adapt both how work is done and what is being worked on

► [Toggle](#)

