Crash Logging with App Center and App Insights

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Introduction

- In this presentation, we will explore how App Center and App Insights can be used to log and analyze crashes in your mobile applications.
- Mobile applications can experience crashes due to a variety of reasons, including bugs in the code, memory leaks, and unexpected user interactions.
- Accurately logging and analyzing these crashes is critical to ensuring the stability and reliability of your application.

What is App Center?

- App Center is a cloud-based platform for building, testing, and deploying mobile applications.
- It provides a suite of tools and services to help you manage the entire lifecycle of your mobile application, from development to deployment.
- One of the key features of App Center is its crash reporting capabilities, which allow you to log and analyze crashes that occur in your application.

What is App Insights?

- App Insights is a real-time application performance monitoring solution from Microsoft Azure.
- It provides you with detailed insights into the performance of your application, including information about application usage, errors, and crashes.
- By integrating App Insights with App Center, you can gain a comprehensive understanding of the performance and stability of your application.

Integrating App Center and App Insights

- Integrating App Center and App Insights is straightforward and can be done in just a few steps.
- First, you need to set up an account with App Center and App Insights.
- Next, you need to install the SDKs for both platforms into your mobile application.
- Finally, you need to configure the platforms to work together and start logging crashes.

Configuring App Center for Crash Logging

- Once you have installed the App Center SDK in your application, you need to configure it to log crashes.
- To do this, you need to add a few lines of code to your application to initialize the SDK and start logging crashes.
- App Center provides detailed documentation on how to do this for different platforms and programming languages.
- https://learn.microsoft.com/en-us/appcenter/analytics/
- https://learn.microsoft.com/en-us/appcenter/analytics/export

Analyzing Crashes with App Insights

- Once crashes are being logged by App Center, you can view and analyze them in App Insights.
- App Insights provides a user-friendly interface for viewing crash reports, including a detailed stack trace of the crash and information about the devices and operating systems that the crash occurred on.
- You can also view statistics and trends related to crashes, such as the frequency of crashes and the types of crashes that are occurring.

KQL (Kusto Query Language)

- Kusto Query Language (KQL) is a powerful query language used by App Insights to search, analyze, and visualize data.
- With KQL, you can write complex queries to extract insights from your crash data, including data from App Center.
- For example, you can use KQL to find the most frequent crashes in your application, the devices and operating systems where the crashes are occurring, and the time periods when the crashes are most likely to occur.
- https://learn.microsoft.com/en-us/azure/data-explorer/kusto/query/

KQL Example

- Here is an examples of KQL queries that you can use to analyze your crash data:
- To find the most frequently logged custom events:

```
customEvents
| summarize count() by name
| sort by count_ desc
| take 10
```

- https://learn.microsoft.com/en-us/azure/data-explorer/kusto/query/tutorial?pivots=azuredataexplorer

DEMO