# Performance and Query Execution

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**Contents**

- Azure SQL Database Performance
- Automatic Tuning
- Intelligent Insights

## Azure SQL Database Performance

Managing and tuning the performance of relational databases takes expertise and time. Azure SQL DB service provides customized recommendations that enable you to maximize the performance of your SQL databases. SQL Database continuously assesses and analyzes the usage history of your SQL databases. The recommendations that are provided are based on database-unique workload patterns and help improve performance.

## Automatic Tuning

Azure SQL Database Automatic tuning provides peak performance and stable workloads through continuous performance tuning based on AI and machine learning. It is a fully managed intelligent performance service that uses built-in intelligence to continuously monitor queries executed on a database, and it automatically improves their performance. This is achieved through dynamically adapting database to the changing workloads and applying tuning recommendations. Automatic tuning learns horizontally from all databases on Azure through AI and it dynamically improves its tuning actions. The longer an Azure SQL Database runs with automatic tuning on, the better it performs.

## Intelligent Insights

Intelligent Insights (preview feature - as of 2/5/2020) uses built-in intelligence to continuously monitor database usage through artificial intelligence and detect disruptive events that cause poor performance. Once detected, a detailed analysis is performed that generates a diagnostics log with an intelligent assessment of the issue. This assessment consists of a root cause analysis of the database performance issue and, where possible, recommendations for performance improvements.

For more info refer:

How intelligent insights works. ↗

Troubleshoot issues with Intelligent Insights ↗

**How good have you found this content?**

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