IBM Infuses Db2 with AI to Bring Data Science and Database Management Under One Platform

- Db2 version 11.5 adds drivers for leading AI languages to help ease AI app dev with Db2
- New natural language querying and visualization capabilities designed to help speed data search
- Updated common SQL engine make Db2 more accessible to more data sources

ARMONK, N.Y., June 4, 2019 / PRNewswire -- IBM (NYSE: IBM) today announced a major upgrade to the Db2 database that is designed to enable enterprises to infuse AI and data science into their database management processes to more easily build AI into applications and gain greater insights from their data.

Among the many enhancements in Db2 version 11.5, is built-in support for data science development. Through a series of newly-available drivers for multiple open source programming languages and frameworks, it will now be easier for developers to analyze and build machine learning models into applications using Db2. The enhancements are designed to help Db2 developers more easily write applications that require less management, are more resilient to outages, and help improve productivity.

"Today, expectations for the database are higher," said Prasun Mahapatra, senior database administrator at Micro Focus, and a Db2 user. "Databases must be smarter. Building out Db2 as the new AI database will enable users to optimize everything from the usage of data structures, memory and disk, to the most complex queries. And the access to such an extensive set of Jupyter Notebooks enables people to kickstart their Db2 development."

The supported languages include Go, Ruby, Python, PHP, Java, Node.js, Sequelize. In addition there is support for popular frameworks such as <u>Visual Studio Code</u> and Jupyter notebook. The latest drivers and code samples for each are available now at <u>GitHub.</u>

Also new with Db2 11.5 is the <u>Augmented Data Explorer</u>, a new natural language querying feature that is designed to give developers a traditional search engine-like experience. Users can pose questions to Db2 and receive results in data visualizations and summaries written in natural language, for easy understanding. In addition, the tool, which is containerized for easy deployment and management, features dynamic

visualization, which can help speed the exploration of datasets when building applications.

In addition to these advances, Db2 users and developers will be able to take advantage of the new capabilities in IBM's <u>Data Virtualization</u> technology – already available with IBM Cloud Private for Data. Data Virtualization is designed to enable users to easily search across diverse data sources. With it, developers and data engineers can focus on development, minimizing time spent on extract, transform, and load (ETL) processes that are associated with moving data. Db2 now also includes BlockChain support that helps application developers pull data directly from a BlockChain and combine that data with other data sources for analytics or dashboards.

The extended language support and new capabilities are part of a broader strategy to further advance the IBM Hybrid Data Management portfolio of Db2 solutions into the era of AI. As organizations work to become nimble, they're looking for more ways to reduce the expensive and time-consuming processes required to prepare data to be analyzed and write applications.

Streamlined Portfolio / Shared Code Base

With the addition of Db2 11.5, IBM has streamlined the portfolio to three editions that share the same common code base: Db2, Db2 Standard, and Db2 Advanced.

IBM Db2 is a no charge download for trials and developers and is intended for a single application developer to use to design, build, test and prototype applications for deployment on Db2 client or server platforms. This edition includes all of the capabilities of Db2 but has specific hardware limitations.[1]

Db2 Standard is designed for production systems in medium-sized businesses and departments within large organizations. Db2 Advanced is designed for medium-to-large businesses and optimized for transactional and operational analytic workloads. Db2 Advanced has no compute or storage limitations and can be deployed on physical and virtual servers. It is delivered as part of the IBM Hybrid Data Management Platform, enabling administrators to access capabilities beyond the transactional database with greater ease.

Because each edition shares the same common code base, users can easily upgrade and scale from the no charge edition to Standard and Advanced, as their needs change. For existing Db2 clients, all licenses can be converted to Db2 version 11.5.

In addition, Db2 11.5 features an updated common SQL engine that enables users to access data from a

growing number of data sources. For example, with Db2 11.5, users can access data from any existing Db2 family offerings, including IBM Db2 Warehouse, IBM Db2 Big SQL, IBM Db2 Event Store, IBM Integrated Analytics System and existing IBM PureData® for Analytics (Netezza®) systems. In addition, Db2 users can access Oracle, Teradata, and Microsoft SQL Server, as well as new cloud sources like Amazon Redshift.

"The advances we've made to Db2 today are reflective of our clients' growth, and the acceleration of AI adoption we all expect," said Daniel Hernandez, Vice President, IBM Data and AI. "No longer a traditional system of record or datastore, the database is rapidly becoming a distinct component of the AI strategy, and Db2 is that AI database."

About IBM Data and AI

For more information go to https://www.ibm.com/analytics/

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[1] Db2 11.5 is limited to 4 cores and 16GB of RAM and cannot be used in production systems; Db2 Standard is limited to 16 cores and 128GB of RAM.

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