Frequently Asked Questions About SAP HANA®, Express Edition

The SAP HANA® platform makes real-time business the new norm through in-memory computing. With the express edition of SAP HANA, you gain free, hands-on experience for prototyping next-generation applications that use up to 32 GB of memory. With support from SAP® Community as you learn, you can develop modern applications that work easily with spatial, time-series, predictive, and graph data.

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What is SAP HANA?	SAP HANA is a revolutionary in-memory database management system and application development platform that lets you process both transactions and applications on a single copy of data. Using SAP HANA helps you radically simplify your IT landscape – while delivering real-time insights based on data that is always fresh and consistent. You can readily process structured, unstructured, and streaming data in any volume. You can take advantage of advanced processing capabilities for spatial, predictive, and graph data, along with intelligent text search and text analytics. SAP HANA also includes capabilities for data replication and Apache Hadoop integration, as well as extract, transform, and load (ETL) processing.
What is the express edition of SAP HANA?	The express edition is a community-supported starter version of SAP HANA that is optimized to run on a personal laptop or desktop computer, on a server, or in the cloud. This streamlined version of SAP HANA can be downloaded and installed either as a binary installation package for supported Linux Intel systems or as a virtual machine on any operating system that can run a hypervisor. That means you can use the express edition of SAP HANA on devices other than existing, SAP-certified, hardware appliances, or access it from the SAP Cloud Appliance Library tool on either Amazon Web Services or Microsoft Azure.

With the express edition of SAP HANA, you can jump-start application development today and move to other editions of SAP HANA as your needs grow tomorrow. Developers and independent software vendors (ISVs) can start using the express edition of SAP HANA at no cost to build and deploy applications that use up to 32 GB of memory. You can expand use for a fee, paying incrementally for up to 128 GB of memory use. To increase memory beyond 128 GB or to use advanced features such as smart data streaming, you can work with your IT organization to upgrade to a full-use license. |

How does the express edition streamline SAP HANA?

SAP HANA is an enterprise platform designed to handle a huge amount of data and a large number of applications in support of mission-critical business. To do that job right, it must provide features for multitenancy, high availability, disaster recovery, and dynamic tiering to help ensure 24x7 access and smooth scaling upward and outward. SAP HANA also lets you access a wide variety of data sources and support Big Data and the Internet of Things. These features are essential for enterprise operations, yet they also extend the size of the software.

To support application development on your personal computer, where data size and scalability are limited, we have streamlined the SAP HANA platform to fit within the constraints of PCs.

The following features are not available with the express edition:
• Data warehousing foundation
• Disaster recovery
• Dynamic tiering
• High availability
• Multihosting
• Outward scaling for multiple hosts
• Remote data synchronization
• SAP Solution Manager
• Smart data integration
• Smart data quality
• Smart data streaming
• System replication

What is the difference between the express edition and the developer edition of SAP HANA?

Both the express edition and the developer edition let you start learning about SAP HANA for application development. However, there are several differences between the two.

The express edition is ideal if you want to build applications on a personal computer, desktop computer, or small server – or in the cloud. You can use the applications you develop in nonproduction or production scenarios. On the other hand, the express edition restricts access to some features – such as smart data streaming and smart data integration – to address the size constraints of working on a personal computer.

The developer edition is also excellent for development use, and it provides hands-on experience with the technology behind SAP HANA. It is based on the platform edition of SAP HANA, which provides a few more features than the express edition. But the developer edition is available only for nonproduction use in the cloud under Amazon Web Services or Microsoft Azure, for which you need to pay the service provider a fee.

If you need more features than the express and developer edition of SAP HANA provide, you should license the base edition, the platform edition, or the enterprise edition with the appropriate options.

The following table highlights the differences between the express edition and the developer edition.

	SAP HANA®, express edition	SAP HANA, developer edition
Cost	Free to build and deploy applications that use up to 32 GB of memory; extensible to 128 GB for a fee When accessed from the cloud, infrastructure charges from third parties may apply.	Free, but infrastructure charges from third parties may apply
Use	Production and nonproduction	Nonproduction only
Memory Limit	32 GB at no charge Up 128 GB for a fee	64 GB
System Deployment	Personal computers running operating systems such as Windows, Mac OS X, or Linux Small servers with an Intel chip set (SUSE Linux or Red Hat Linux) Cloud (Amazon Web Services or Microsoft Azure)	Cloud only (Amazon Web Services, Microsoft Azure, or SAP HANA Cloud Platform)
Features	Includes built-in functions such as: • Core database features (for excluded features, see the list in **question 3**) • Advanced data processing services • Smart data access	Embeds into the platform edition a developer landing page with sample code, tutorials, and optimized configurations with test users

What's the upgrade path from the express edition?

The express edition of SAP HANA is a great way to learn SAP HANA, prototype applications, and deploy applications that use up to 32 GB of memory. You can expand memory use up to 128 GB for a fee.

You need to upgrade to a full-use license of SAP HANA when you want to work with larger volumes of data or use advanced features such as smart data streaming, remote data synchronization, system replication, or data integration to a variety of data sources, including Apache Hadoop.

There are three full-use editions of SAP HANA: the base edition, the platform edition, and the enterprise edition. None has a specific memory limit, and all three are full-use editions that:
• Provide for production use
• Run on certified appliances, in the cloud, or through tailored data-center integration
• Scale up
• Scale out

	SAP HANA®, base edition	SAP HANA, platform edition	SAP HANA, enterprise edition
Features	Core database services, development tools, business function libraries (BFLs), and application function libraries (AFLs)	Base edition features, plus • Additional packaged business libraries • Analytics • Search • Support for the predictive analysis library (PAL) and R • Text, spatial, graph, and time-series data processing Separately priced options for: • Data distribution rights • Dynamic tiering • Operational process intelligence • Replication • Smart data integration • Smart data quality • Smart data streaming	Platform edition features, plus: • Additional bundled components for the rules framework and some data loading capabilities • Data distribution rights • Replication • Smart data integration • Smart data quality Separately priced options for: • Dynamic tiering • Operational process intelligence • Smart data streaming

What are the benefits of using the express edition of SAP HANA?

The express edition offers you the following benefits.

Free access
With the express edition, you can use a single instance of SAP HANA at no cost for up to 32 GB of memory. Community support is available 24x7 through SAP Community. SAP Cloud Appliance Library for Amazon Web Services or Microsoft Azure can provide cloud access. The downloadable installation package includes versions for Linux as well as virtual machine images for Microsoft Windows, Apple Mac OS, and other operating systems that include a hypervisor.

Flexibility for growth
The express edition lets you start small (32 GB of memory use) at no cost, but you have the option to upgrade to 128 GB of memory use for a fee. If you need more memory, you can upgrade to any of the full-use editions: the base edition, the platform edition, or the enterprise edition. See **question 5** for more information about these editions.

Fast start for application development
You can develop next-generation applications faster through access to:
• Open interfaces for standard application environments, protocols, and programming languages
• Built-in application services, processing services, integration services, and database services
• An advanced data processing engine to analyze numerous data types, including structured, unstructured, spatial, and graph data
• An embedded application function library (AFL) and R integration for data mining and predictive calculations
• Tutorials, sample code, worldwide users, and the extensive SAP Community to support your learning needs

What systems can run the express edition?

The express edition runs on any device with Linux, Windows, or Mac OS; there's no need for hardware certification. As shown in the table below, the express edition provides two different installation options – one for Linux and one for Microsoft Windows, Mac OS, or any operating system that runs a hypervisor.

Operating System	Linux	Windows and Mac OS with Hypervisor
Installation Option	Binary images	VM images
Package Details	Choose from two installation packages: • Express edition server package • Tools package, including SAP® Web IDE for SAP HANA® and various administration tools, such as the SAP HANA cockpit	Choose from two VM image options: • The server-only VM image provides the express edition server package. You need to separately install the tool package of SAP HANA extended application services, advanced model. • The full-version VM image includes both a preinstalled express edition server package and the tool package of SAP HANA extended application services, advanced model.
Other Requirements	• SUSE Linux Enterprise Server 11.x or 12 • Red Hat Enterprise Linux 6.x	Virtual machine with at least 16 GB of RAM

SAP HANA, express edition, runs under the following hypervisors:
• VMware Player 7.1
• VMware Workstation Pro 12.1
• VMWare Fusion 8.x
• VMWare Fusion Pro 8.x
• Oracle VM Virtual Box 5.0.14 or higher

Where can I download the express edition of SAP HANA?	Log in to **www.sap.com/sap-hana-express** and complete the registration form. Then choose the version you want to download. An installation guide is included in the download package.
What's the cost for the express edition of SAP HANA?	The express edition is free for up to 32 GB of memory use. If you need more, you can extend the memory up to 128 GB for a fee. Download and install an extension license for additional memory use from SAP Store. There's no need to reinstall the express edition.
Where do I go for help if I have a problem with the express edition of SAP HANA?	You can get support through SAP Community.
How do the SAP HANA extended application services work?	The extended application services are integrated fully into SAP HANA and run natively on the platform. They work through HTTP to present the data model – with its tables, views, and database procedures – to clients. The advanced model of SAP HANA extended application services provides a comprehensive set of embedded services for complete support of Web-based applications. Besides full access to Structured Query Language (SQL) and SQLScript, the advanced model includes a lightweight Web server, configurable Open Data Protocol (OData) support, and application execution functionality. For typical application development, you can use OData services or write dynamic HTML5 code. The express edition of SAP HANA provides a separate installation package for the advanced model of extended application services. You can install this package directly on any of the Linux versions specified in the previous table.

What tools can I use with the express edition of SAP HANA?

SAP Web IDE for SAP HANA is bundled into the express edition. It is a browser-based integrated development environment (IDE) for the creation of SAP HANA applications containing SAP HANA data models, business logic, and Web-based user interfaces.

SAP Web IDE for SAP HANA provides a variety of tools that support developers who use the advanced model of SAP HANA extended application services. These include syntax-aware editors for code and SAP HANA artifacts, along with various testing and debugging tools.

If you are running the express edition without extended application services, you can download SAP HANA studio, which supports Eclipse-based development, from **www.sap.com/sap-hana-express**.

The express edition provides a separate installation package for SAP Web IDE for SAP HANA. You can install this package directly on any supported Linux environment. Open interfaces and protocols allow you to bring your own tools to the game in the Windows, Mac OS, and Linux environments.

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