Visualizing and Predicting Heart Diseases with an Interactive Dash Board

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IBM Cloud:

IBM Cloud is a suite of cloud computing services from IBM that offers both platform as a service (PaaS) and infrastructure as a service (IaaS). IBM offers three hardware platforms for cloud computing. These platforms offer built-in support for virtualization. IBM also offers a virtualization application infrastructure, Web sphere, which supports programming models and open standards for virtualization.

The management layer of the IBM cloud framework includes IBM Tivoli middleware. Management tools provide capabilities to regulate images with automated provisioning and de-provisioning, monitor operations and meter usage while tracking costs and allocating billing. The last layer of the framework provides integrated workload tools. Workloads (in the context of cloud computing) are services or instances of code that can be

executed to meet specific business needs. IBM also offers tools for cloud based collaboration, development and testing, application development, analytics, business-to-business integration, and security.

IBM Cloud features :

There are a number of IBM cloud services that are a part of the IBM cloud. These services are grouped into 16 categories:

AI/machine learning: A collection of Watson-based AI resources and tools for building your own AI models.

Automation: Automation resources enable business workflows to be automated using IBM Cloud Pak. Turbonomic is also available as an automation resource and can be used for application resource management and cost optimization.

Containers: IBM offers its own cloud Kubernetes service, as well as access to the container registry, Red Hat OpenShift and Istio (a server mesh for microservices).

IBM Cloud Paks: IBM Cloud Paks are applications that are certified for use on Red Hat Open Shift. Cloud Paks exist for business automation, data, integration, network automation, security and Watson.

Quantum: Provides the ability to run workloads on quantum systems through IBM Quantum composer, the IBM Quantum Lab and the Qiskit SDK.

Compute: Offers various compute resources, including bare-metal servers, VMs and serverless computing on which enterprises can host their workloads.

Networking: Provides cloud networking services, such as a load balancer, a content delivery network, VPN tunnels and firewalls.

Storage: IBM's cloud storage offerings include object, block and file storage for cloud data.

Logging and monitoring: Provides tools to log, manage and monitor cloud deployments, including Cloud Activity Tracker, Cloud Log Analysis and Cloud Monitoring.

Security: Includes services for activity tracking, identity and access management and authentication.

Databases: Provides a variety of SQL and NoSQL databases, as well as data querying, warehousing and migration tools.

Analytics: Offers data science tools such as Apache Spark, Apache Hadoop and IBM Watson Machine Learning, as well as analytics services for streaming data.

Internet of things (IoT): Includes the IBM IoT Platform, which provides services that connect and manage IoT devices, and analyzes the data they produce.

Developer tools: Includes a CLI, as well as a set of tools for continuous delivery, continuous release and application pipelines.

Blockchain: Provides IBM's Blockchain Platform, a SaaS offering to develop apps, enforce governance and monitor a blockchain network.

Integration: Offers services to integrate cloud and on-premises systems or various applications, such as API Connect, App Connect and IBM Secure Gateway.

The IBM Smart Cloud brand includes three primary services: **the infrastructure, software, and platform services,** each of which is offered through public, private and hybrid cloud delivery models. IBM places these offerings under three umbrellas: the Smart Cloud Foundation, Smart Cloud Services and Smart Cloud Solutions.

The Smart Cloud Foundation consists of the infrastructure, hardware, provisioning, management, integration and security that serve as the underpinnings of a private or hybrid cloud. Built using those foundational components, PaaS, IaaS and backup services make up Smart Cloud Services. Running on this cloud platform and infrastructure, Smart Cloud Solutions consist of a number of collaboration, analytics and marketing SaaS applications.

IBM also builds cloud environments for clients that are not necessarily on the Smart Cloud Platform. For example, features of the Smart Cloud platform—such as Tivoli management software or IBM Systems Director virtualization—can be integrated separately as part of a non IBM cloud platform. The Smart Cloud platform consists solely of IBM hardware, software, services and practices.

• Private cloud, owned and operated by the customer

 • Private cloud, owned by the customer, but operated by IBM (or another provider)

 • Private cloud, owned and operated by IBM (or another provider)

 • Virtual private cloud services (based on multi-tenanted support for individual enterprises)

 • Public cloud services (based on the provision of functions to individuals)

The majority of cloud users choose a hybrid cloud model, with some workloads being served by internal systems, some from commercial cloud providers and some from public cloud service providers.

IBM participates in several cloud standards initiatives within various standards development organizations involved in cloud service models IaaS, PaaS and SaaS, all of which work toward improvements in cloud interoperability and security.

IBM is a member of The Open Group, a council that works for the development of open, vendor-neutral IT standards and certifications. Other members of the group include HP, Oracle, SAP and numerous others. IBM contributed the Cloud Computing Reference Architecture in February 2011 to The Open Group as the basis of an industry-wide cloud architecture. IBM's CCRA is based on real-world input from many cloud implementations across IBM. It is intended to be used as a blueprint/guide for architecting cloud implementations, driven by functional and non-functional requirements of the respective cloud implementation. HP and Microsoft have also published Cloud Computing Reference Architectures.

Within the IaaS space, IBM is a member of the Cloud Management Work Group (CMWG) within the Distributed Management Task Force (DMTF), which released a draft version of their IaaS APIs, called the Cloud Infrastructure Management Interface (CIMI), on September 14, 2011. The CIMI APIs define a logical model for the management of resources within the Infrastructure as a Service domain. With these APIs, clients can create, manage and connect machines, volumes and networks.

IBM CLOUD ACCOUNT :

Create and login to IBM Account.

Link: https://cloud.ibm.com/registration