CLOUD COMPUTING ASSIGNMENT 1

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Ques:- Write Role of Open standards in cloud computing.

Ans:- Building on open standards, especially when it comes to key components of a modern cloud infrastructure, is essential. We left the world of proprietary dominance a long time ago, with much of the public hyperscale cloud built on open-source technologies. Even Microsoft has its own Linux distributions, one for cloud networking and one for secure edge devices, and there's significant industry presence in organizations like the Cloud Native Computing Foundation. As we increasingly build apps by hooking together features and services from a host of cloud platforms, open standards like these reduce risk and increase interoperability.

The field of medical research provides a compelling illustration of this fact. In the pre-internet age, a medical research laboratory had to purchase specialized, high capacity computing for their research. Research activity was confined to the set of resources owned and maintained by the laboratory. Today, thanks to online providers, these researchers can take advantage of cloud-based computing resources that are maintained, configured, and amortized elsewhere. The real leap that cloud standards are poised to offer is the ability for the researcher to retrieve, manipulate, and move their work between cloud providers seamlessly.

There are global benefits to cloud computing standards, as well. Cloud computing will be implemented and used by consumers of IT resources all over the world, and global interoperability will be very important. Over the next several years, national and global standards for cloud computing will be developed and will enable IT administrators to meet unique local requirements while maintaining global interoperability.

Open cloud standards provide 3 important benefits to IT organizations:

- 1. **Increased Choice**: Open standards give customers the freedom to choose the products that work best with their tools and work in their environment. Constraints around specific interfaces disappear and decisions can be based upon performance.
- 2. **Reduced Cost**: Open standards lower costs by reducing the complexity and number of tools required to support an environment. Training is also more efficient in this environment.
- 3. **Improved Interoperability**: Ultimately, users want to integrate their business systems and the infrastructures that support them. Open standards enable that integration which drives greater business agility and responsiveness.