NIST stands for National institute of standards and technology.

According to NIST there are five essential characteristics of cloud computing:

1. On Demand Self Service
2. Broad network access
3. Resource pooling
4. Rapid elasticity
5. Measured service

1. On Demand Self Service

User gets on demand self-services. User can get computer services like email, applications etc. without interacting with each service provider.
Some of the cloud service providers are- Amazon Web Service, Microsoft, IBM, Salesforce.com.

2. Broad network access

Cloud services are available over the network and can be accessed through different clients such as mobile, laptops etc.

3. Resource pooling

Same resources can be used by more than one customer at a same time.
For example: storage, network bandwidth can be used by any number of customers and without knowing the exact location of that resource.

4. Rapid elasticity

On users demand cloud services can be available and released. Cloud service capabilities are unlimited and used in any quantity at any time.

5. Measured service

Resources used by the users can be monitored, controlled. This reports is available for both cloud providers and consumer. On the basis of this measured reports cloud systems automatically controls and optimizes the resources based on the type of services.

Services like- Storage, processing, bandwidth etc.