

**Professional English II 2016-2017****Homework 1****Cloud Computing**

What is Cloud Computing?

Cloud computing, often referred to as simply “the cloud,” is the delivery of computing services—servers, storage, databases, networking, software, analytics and more—over the Internet. Cloud provides a simple way to access servers, storage, databases and a broad set of application services over the Internet. A Cloud services platform such as Amazon Web Services owns and maintains the network-connected hardware required for these application services, while you provision and use what you need via a web application.

What are types of cloud computing?

Cloud computing comes in three forms: public clouds, private clouds, and hybrids clouds. Depending on the type of data you're working with, you'll want to compare public, private, and hybrid clouds in terms of the different levels of security and management required.

**Public Clouds :** Examples of public clouds include Amazon Elastic Compute Cloud (EC2), IBM's Blue Cloud, Sun Cloud, Google AppEngine and Windows Azure Services Platform.

**Private Clouds :** Private clouds are data center architectures owned by a single company that provides flexibility, scalability, provisioning, automation and monitoring. The goal of a private cloud is not sell “as-a-service” offerings to external customers but instead to gain the benefits of cloud architecture without giving up the control of maintaining your own data center.

**Hybrid Clouds:** By using a Hybrid approach, companies can maintain control of an internally managed private cloud while relying on the public cloud as needed. For instance during peak periods individual applications, or portions of applications can be migrated to the Public Cloud.

What are cloud services?

There are three main models for cloud computing. Each model represents a different part of the cloud computing stack.

-Infrastructure as a Service (IaaS):

IaaS is an instant computing infrastructure, provisioned and managed over the Internet. Quickly scale up and down with demand and pay only for what you use.

IaaS helps you avoid the expense and complexity of buying and managing your own physical servers and other datacenter infrastructure. Each resource is offered as a separate service component and you only need to rent a particular one for as long as you need it.

-Platform as a Service (PaaS):

Like IaaS, PaaS includes infrastructure—servers, storage and networking—but also middleware, development tools, business intelligence (BI) services, database management systems and more. PaaS is designed to support the complete web application lifecycle: building, testing, deploying, managing and updating.

PaaS allows you to avoid the expense and complexity of buying and managing software licenses, the underlying application infrastructure and middleware or the development tools and other resources. You manage the applications and services you develop and the cloud service provider typically manages everything else.

-Software as a Service (SaaS):

Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring and office tools (such as Microsoft Office 365).