CLOUD COMPUTING

TEAM 40

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❖ **Before discussing about cloud computing, we will discuss about some steps like central computer.**

The central computing:

- **It is made in the sixties. In the past ,individual devices such that the laptop and the Disktop, didn't have a great computing power as they didn't have enough rams or enough processor power or enough hard disk, So if you want to**

make calculation to see if your company's stock in decreasing or increasing or you want to do any complicated processes , So you have to go to this computer center and ask him to do the arthimetic operations you want to be done ,It's called center computer.

- The computer center system is present in large companies and in most institutions and still exists , , but to a small degree before the cloud computing appears in a large percentage .
- If your individual device like desktop ,it's computing power is less than the computing power you need to do, so you go to anthor device ,it's computing power is greater than your computer and it is located in large in institutions or specialized centers.
- With the increase of development in processors, rams and processing capabilities in devices, you can do processing operations, you want to do.

- **The central computer system is now limited to being used by space operations and large oil companies .**
- **What happened in the 20 or 15 years was simply that our needs increased and production requirements for the software product became very strong and Therefore, in order to be able to make any product ,you still need ,you need agiant data to be analyzed, you need a great computer power to be able to handle all the users who use your software product your operating requirements are much more than the capacity of normal devices or individual devices ,so the equation has increased again if your project requires a software ability, for example 100, and the device you have has a capacity of 20 or 25, we will come back again to the idea that we are increasing your capabilities, which means that you need more money in order to be able to rise capabilities and the problem here is**

mostly limited to money ,We do as we said in the past .I needed a server to store data, and I needed a computer with computing power to process the data, and I needed a computer with computing power to process the data. These countries could have been bought, but now you need processor power, and you need to provide services to a large number of clients. I mean ,for example 10 000 customers per day, so you need to buy a large number of computers in order to be able to implement all this, and this will lead to a very high cost that may difficult for the organization to pay, so the solution is that you can rent this computing power or simply rent the device you need in order to implement your product. I have the server, devices and storage spaces. I will rent this service to you.

We will talk about the term Cloud.

- **Cloud is an online store for selling and renting electronic services and all the**

electronic services required to produce your project, simply storage spaces for sending and receiving data.

- The most important services that Cloud provides is arithmetic ability, computing, or processing, whether it is research, arrangement, or complex relationships.

- I mean, for example, if you want to open a restaurant and want to make an application, you are supposed to have data for, say, 200 restaurants in this region or city, and you need to study their conditions in order to know the products that you are selling. For example, you will need a device at a cost of one million pounds. It has strong computing power to run the maps to deliver the requests in a good way. Therefore, you need to buy a

server. Try 3 million pounds from Russia to put it in the company to organize these operations, etc. In the event that the project fails, you will accumulate very high debts, and it will be difficult to sell all these devices in case buy it.

But the cloud deals with you as if you are a tenant. He has all these capabilities and you rent them from him at a simple price to perform the purpose. You use it by entering the site and you choose the services that your project needs, for example, such as storage spaces or computer capacity, or you want to choose your products or provide data through the monthly rent And all this before the advent of artificial intelligence, and among the set of services that it currently provides, any cloud, are

artificial intelligence models, so that they can do something called custom experience or the unique experience of its kind or the specific experience of each person, meaning, for example, someone who uses the application and I am using the application. This person will show him a completely different need than the need that appears to me, based on your use of the application, and since the application studies your use of this application and processes this data and does something called modeling or shows you a model to show you the appropriate data for you .

The component of cloud computing:

1-Application:

This is the application that the cloud works on, which does data analysis, as it provides all kinds of possible applications in the cloud.

2-Client

3-Infrastructure:

They are the giant services that remain underground or under water or exist for tens of miles of services that operate with a very large computer capacity and their locations are difficult to know.

4-Platform:

It is a website that is installed on more than one application

5-Serves:

The service that I provide to the customer, such as, for example, processing the images provided by canva website, is like sending or receiving emails provided by Gmail.

What are the models on the basis of which the cloud offers you services?

1-Application as a service:

Such as facebook, Gemail, Twitter and canva

2- Platform as a service :

Such as wix and go daddy.

3- Information as a service:

I mean, for example, that you are a merchant of hundreds of meters of servers, which will be under the control of the customer, and this is the same as what Netflix does with Amazon.

The advantages of cloud computing:

1- Saving a lot of money with high efficiency and producing wonderful products at a simple cost, and therefore it provided an opportunity for all small companies to

produce products like large companies at a very simple cost

2- Quick access to data
3- Protection from natural disasters:
If, for example, an earthquake occurred in the company's headquarters that led to its destruction, the company's data would be securely stored on the cloud without being affected.

The disadvantages of cloud:

- **Maintaining data security:**

If there are hackers, they can leak data, but the cloud works to solve it by encrypting the data even from the cloud itself.


cloud