System Performance tuning and optimization.

#### Client Performance.

- Performance of client/server can be improved in many ways.
- This section of client performance mainly focuses on the attributes that we can examine in order to improve the performance of client machine.
- They can be maintainability, dependability, efficient, usability.
- It mainly includes two types of performance. They are:
  - Hardware performance
  - Software performance

#### Hardware

- The performance of client is to certain extent dictated by a particular hardware within the client. Client performance can be improved by improving any of the subsystems.
- When purchasing a client machine the best way is to purchase the fastest, most reliable, accurate, machine available .And it also should have the properties of safety and security.

#### Software

 The software of the client workstation can be broken down into two performance reasons:-

Operating system

Application

#### **Operating System**

- The capability to be simultaneously involved in multiple process is an essential for client/server system.
- Independent tasks can be activated to manage communication processes.
- Multiple personal productivity application such as word processor, spreadsheets and presentation graphics can be active.
- Most multitasking operating system today are thirty two bits

#### **Application**

- The client application is normally used where largest improvements can be made.
- Performance of client level is very difficult to judge because each user perception of response is different.
- The best way of determining problem areas is to ask users what areas of application they consider now.

## Performance tuning

 Performance tuning is the improvement of system performance. Typically a computer system. The system ability to accept higher load is called scability and modifying a system to handle a higher load is synonymous of performance tuning.

### Systematic Tuning in steps

- Assess the problem and establish numeric value that categorize acceptable behavior
- Measure the performance of the system before modification
- Identify the part of the system that is critical for improving the performance called bottleneck.
- Modify the part of the system to remove the bottleneck
- Measure the performance of the system after modification
- If the performance make better than adopt otherwise put it the back it was.

### Performance Optimaization

- Performance optimization is the field of knowledge about increasing the speed
- Performance optimization employees a number of technique that are implemented within an organization
- It includes functionality of network, the monitoring of bandwidth, capacity application protocals, network traffic and many others.

# Database performance tuning

- Efficient index design
- Efficient Query design
- Efficient database schema

Thank you

Any Questions?