

# 1- What are the main motivation on DS?

Web search

Finance and commerce

The information society

Creative industries and

Entertainment

Healthcare

Education

Transport and logistics

Science

Environmental management

## 2- State examples .....?

**1- networks** : Internet consist of many different sorts of network , and computers used internet protocol to communicate with one another , for example , a computer attached to an Ethernet has an implementation of the internet protocol over the Ethernet

**2- Computer hardware** : Data types such as integers may be represented in different ways on different sorts of hardware – for example, there are two alternatives for the byte ordering of integers.

**3- Operating Systems** : Although the operating systems of all computers on the Internet need to include an implementation of the Internet protocols, they do not necessarily all provide the same application programming interface to these protocols. For example, the calls for exchanging messages in UNIX are different from the calls in Windows.

**4- Programming Languages :** Different programming languages use different representations for characters and data structures such as arrays and records. These differences must be addressed if programs written in different languages are to be able to communicate with one another.

**5- Different developers :** Programs written by different developers cannot communicate with one another unless they use common standards, for example, for network communication and the representation of primitive data items and data structures in messages. For this to happen, standards need to be agreed and adopted – as have the Internet protocols.

### **3- What are types of security Threats ?**

Malware

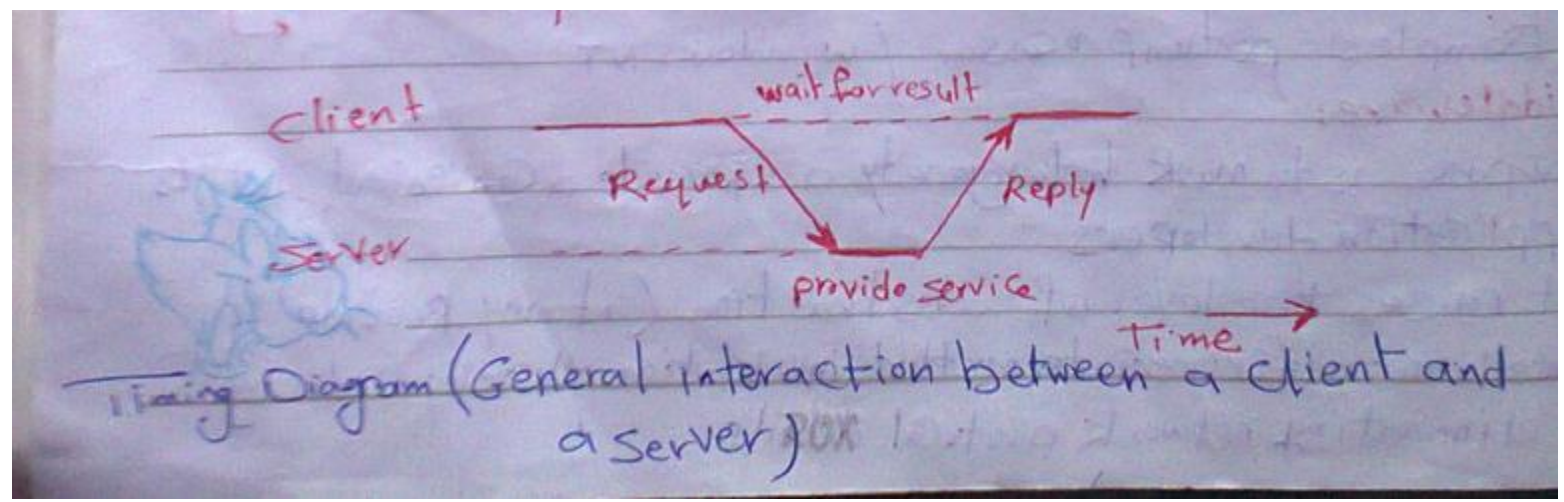
Computer virus

Trojan horse:

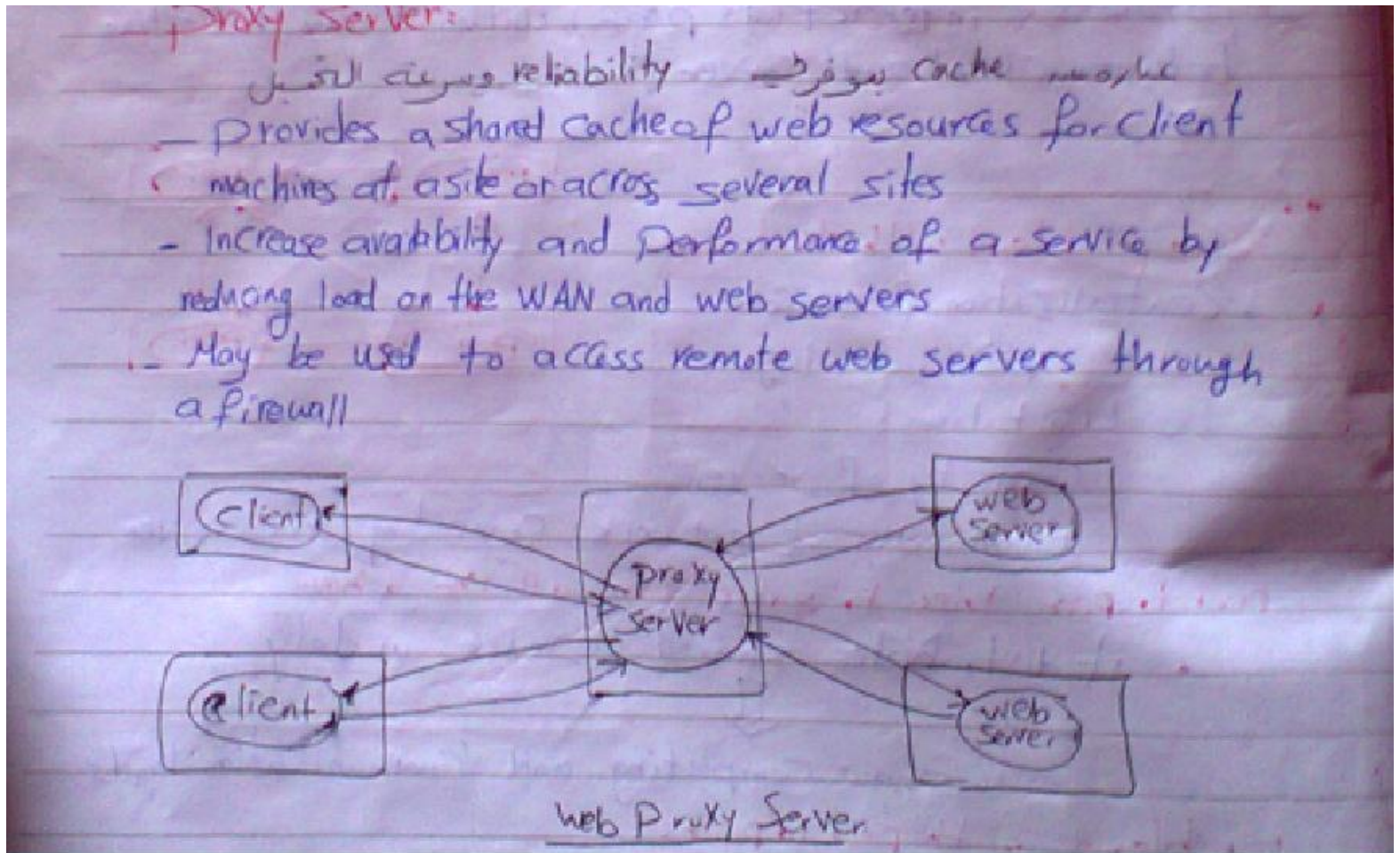
Malicious spyware

Phishing

### **4- Draw .....?**



## 5- Why using Proxy server in DS ?



## 6- What is the failure model taxonomy ?

**1- Omission Failure** : When process or channel failed to do something

**2- Arbitrary Failure** : Any type of error can occur in processes or channels

**3- Timing Failure** : Applicable only to synchronous distributed system where time limits may not be met