

**King Saud University**  
**College of Computer and Information Sciences**  
**Department of Information Technology**

**CAP240**

**first semester 1429/1430**

**Instructor: Dr. Gihan Naguib**

**Computer Networks Project**

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**Objective:**

A LAN is group of computers and associated devices that share a common communications line or wireless link and share the network resources. The wireless aspect of the LAN provides mobility of the computers on the network.

You are required to **build and test** an *integrated wired and wireless LAN configuration*, containing the following devices:

- 4 laptops ( 2 connected with cables, and 2 wireless )
- 1 printer or scanner ( to demonstrate sharing )
- 1 Wireless-G (802.11g) Access Point Router, to wirelessly bridge the wired network across rooms to the wireless laptops (2).
- 3 100Base-TX UTP CAT 5 cables ( 3m )
- 4 or 5-port 10/100Mbps Switch (for connecting the wired LAN)

**You are required to:**

- § *Submit a well-documented report* about your work (see Report Requirement in the next page).
- § *Perform a presentation* of your LAN and be ready to answer any questions about your work.

## **Project Report**

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### **1- introduction about the LAN**

- **Type** (What is the category of your network)
- **Structure** (use a graph to show how do you connect the LAN)

### **2- Equipment Specification** (specification of: NIC,CAT5 cables, Router, Switch)

### **3- Setup in detail** (with print screens of wired and wireless network)

### **4- LAN testing** (with print screens)

- **Demonstrate the following network utilities**

(Explain the purpose of the command and put an example)

- a. Ping**
- b. Hostname**
- c. Net view**
- d. Ipconfig**
- e. Net send**

- **Demonstrate Remote Desk Top**
- **Demonstrate network resource sharing** (folders, printer, etc...)
- **Demonstrate network chatting** (use special software)

### **5- Write the work responsibilities** (what did every student do on the project?)