

PEDAGOGICAL ACTIVITY

CLASS : BTECH CS SEM_IV , AY 2024-25 ,TERM-I

FACULTY:- DR.DEEPTI BARHATE

DATE: 20 Sept 2024

SUB:-COMPUTER NETWORK

Topic: Understanding Different Types of Protocols in Networking (e.g., HTTP, FTP, TCP, UDP, IP)

Objective:

The objective was to help students understand the various protocols used in networking, their purposes, and how they function within the OSI and TCP/IP models.

Materials Needed:

1. Smartboard
2. Laptop/PC
3. Internet access
4. Packet sniffing tools (e.g., Wireshark)
5. Examples of network communication (e.g., accessing a webpage, FTP file transfer)

Introduction (10 minutes)

- **Concept Explanation:**
 - The teacher introduced common networking protocols (e.g., HTTP, FTP, TCP, UDP, IP).
 - The teacher explained the purpose of each protocol:
 - **HTTP (Hypertext Transfer Protocol):** Used for web communication.
 - **FTP (File Transfer Protocol):** Used for file transfer.
 - **TCP (Transmission Control Protocol):** Provides reliable, connection-based communication.
 - **UDP (User Datagram Protocol):** Provides connectionless, faster communication without guaranteed delivery.
 - **IP (Internet Protocol):** Handles addressing and routing of packets.
- **Visual Demonstration:** The teacher used diagrams of the OSI and TCP/IP models to show where each protocol functions within the layers.

Student Activity: 2. Think (10 minutes)

- **Individual Reflection:**

- Students reflected individually on how each protocol served its role in communication.
- They considered the following questions:
 - How do HTTP and FTP differ in their usage and functionality?
 - What are the differences between TCP and UDP? When would you use one over the other?
 - How does the IP protocol support communication between devices?

3. Pair (5 minutes)

- **Discussion in Pairs:**
 - Students discussed each protocol's function and the key differences between them.
 - They compared how protocols worked together (e.g., HTTP used TCP for reliable communication).
- **Hands-On Activity:**
 - Students used tools like Wireshark to capture network packets and identify which protocols were used in real-time communication (e.g., browsing a website or transferring a file).
 - They examined packet structure, protocol headers, and communication flow.

4. Share (5 minutes)

- **Class Discussion:**
 - Students shared insights on how each protocol worked, its strengths, and limitations.
 - Each pair presented findings on the protocols they observed in Wireshark (e.g., HTTP over TCP, FTP over TCP, UDP packets).
- **Teacher Activity:**
 - The teacher clarified and explained how each protocol's purpose aligned with the OSI and TCP/IP models.
 - The teacher provided examples of real-world usage for each protocol (e.g., HTTP for websites, FTP for file servers, TCP for email servers).

Student Activity: 5. Application (10 minutes)

- **Real-World Example:**
 - Students analyzed a specific communication scenario (e.g., sending an email, accessing a website, streaming video) and identified which protocols were involved at each step.
 - Students worked in pairs to trace the communication process and explained how different protocols interacted to enable the task.

Present students: All Present *

*Students were already being informed to attend this activity as it had importance.

Name	Roll No	Sign
YASHASVEEWANKHADE	E201	
LAXITAJAIN	E202	
UJJWALSEN	E203	
SHASHANK.	E204	
VIVEKKUMAR	E205	
NEHAMORE	E208	
SAMYAKPADLIYA	E210	
TANISHQNANDWANA	E211	
DHYANISILAH	E212	
VINAYAKGIRI	E213	
SRIKARMOLAHALLI	E214	
LAVESHPATIL	E215	
AVNIJAIN	E217	
ANUBHAVMISHRA	E219	
VISHAKHAKHETAN	E220	
M RNISHANT	E222	
OMDHANGAR	E223	
GAATHAPATEL	E224	
SOWPARNIKASELVANAYAGAM	E225	
NIYATISABALPARA	E226	
SIDDHANTBHAT	E227	
MEETALIDANGI	E228	
DIVYANSHUKUMBE	E229	
KARTIKTALATI	E230	
PRINCEROY	E231	
ARNABCHOWDHURY	E232	
GAURIMATHUR	E233	
LOKESHPATIL	E234	
DESHNASANCHETI	E236	
YASHGEHLOT	E237	
PRANAVMANTRI	E238	
JAYPATEL	E239	
ROHANPANTER	E242	
SHRUTIMISHRA	E243	
ROUNAKNEEMA	E244	
SAMRUDDHIJAIN	E245	
ASHMITPATIL	E246	
PINAKSAPENKE	E247	
ARPITAGIRASE	E248	
KRISHIPRAJAPATI	E249	
ABHIJTBORSE	E251	
AVNIGUPTA	E252	
ANSHUL SINGHIRAJPUT	E253	

ATHARVPUROHIT	E254	_____
NINADCHAVAN.	E255	_____
MANAS SANDEEBORSE	E257	_____
KUNDANPATIL	E258	_____
ISHANBAGORA	E259	Ellogora.
MANISHPATIL	E260	Mpatil
DURGESHAGRAWAL	E262	D. G. Grawal
MAHARSHIPRAJAPATI	E263	_____
VEDANTBHATT	E264	Bhatt.
SANKETMALI	E265	_____
VANISHASHARMA	E266	Van
VYOMADHYARU	E267	_____
PRAKRATIJAIN	E268	Prakrati
SOHAMLASHKARY	E269	_____
VRINDRAJVANSHI	E271	Dr. V. V. Vanshi
NIKHILMEHTA	E272	_____
YANSHUBARIA	E274	_____ Yanshu
ANKITJANGID	E275	_____
ARNAVJAIN	E276	A. Jain
JAINISHDEVPURA	E277	Jainish
JAYESHPAWAR	E278	J. P. Pawar
KESHAVGUPTA	E279	K. Gupta
AYUSHSHARMA	E280	_____
RAJDEORE	E282	R. Deore
JAINISHDEVPURA	E277	_____

List of students : Activity based Assignment (pedagogy)

YASHASVEEWANKHADE	E201	9
LAXITAJAIN	E202	9
UJJWALSEN	E203	7
SHASHANK.	E204	8
VIVEKKUMAR	E205	8
NEHAMORE	E208	8
SAMYAKPADLIYA	E210	7
TANISHQNANDWANA	E211	7
DHYANISHAH	E212	8
VINAYAKGRI	E213	7
SRIKARMOLAHALLI	E214	9
LAVESHPATIL	E215	9
AVNIJAIN	E217	8
ANUBHAVMISHRA	E219	7
VISHAKHAKHETAN	E220	7
M RNISHANT	E222	8
OMDHANGAR	E223	8
GAATHAPATEL	E224	7
SOWPARNIKASELVANAYAGAM	E225	7
NIYATISABALPARA	E226	8
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JAYPATEL	E239	7
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SHRUTIMISHRA	E243	8
ROUNAKNEEMA	E244	9
SAMRUDDHIJAIN	E245	8
ASHMITPATIL	E246	8
PINAKSALUNKE	E247	8
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ANKITJANGID	E275	8
ARNAVJAIN	E276	9
JAINISHDEVPURA	E277	7
JAYESHPAWAR	E278	9
KESHAVGUPTA	E279	8
AYUSHSHARMA	E280	8
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Subject Teacher

Dr. Deepti Barhate

Computer Network

BTech Cs Sem-III

AY (2024-25)