National Institute of Technology Calicut Department of Computer Science and Engineering CS3093D:Networks Laboratory

Assignment #4 (15.02.2021)

1. Design a communication platform for the employees in a firm working under a joint project. There should be an Admin to control the communication. Admin must issue a predefined password to all employees. Whenever an employee wants to join the communication platform, he should enter the password, and the admin has to verify it. Once the access is attained, the employee should enter a username for that session. He has to send a "Hello" message to all connected users to notify his arrival. Similarly, he has to send a "Bye" message whenever he leaves the session. Each message should be prefixed with username of the employee to track the sender of the message. Each time a new employee joins the discussion, the admin must send a list of currently joined employees. A sample communication procedure is given below.

Employee 1:	Employee 2	Employee 3
Enter the password		
12345		
Connected to the server		
Enter the Username		
Sam		
No other employees are connected		
	Enter the password	
	12345	
	Connected to the server	
	Enter the Username	
	Arun	
	Connected users : Sam	
[Arun]:Hello	[Arun]:Hello	
[Sam]:Hello	[Sam]:Hello	
[Arun]:Shall we start the meet-	[Arun]:Shall we start the meet-	
ing?	ing?	
[Sam]:No.Let's wait for others to	[Sam]:No.Let's wait for others to	
join	join	
		Enter the password
		12345
		Connected to the server
		Enter the Username
		George
		Connected users : Sam, Arun
[George]:Hello	[George]:Hello	[George]:Hello
[George]:I am busy now. You	[George]:I am busy now. You	[George]:I am busy now. You
may start the meeting. I will join	may start the meeting. I will join	may start the meeting. I will join
later	later	later
[George]:Bye	[George]:Bye	[George]:Bye
[Sam]:Let's start	[Sam]:Let's start	
[Arun]:OK	[Arun]:OK	