Telecommunication Services Engineering (TSE) Lab

Elec 68661 - Fall 2012- Preview: Voting Based - Conferencing Applications

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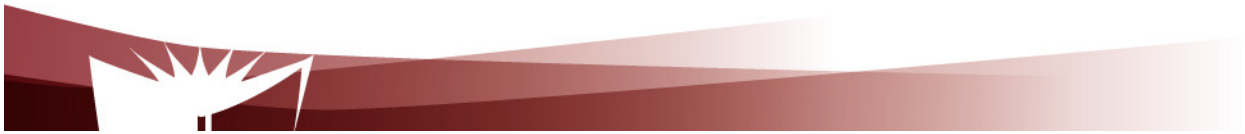
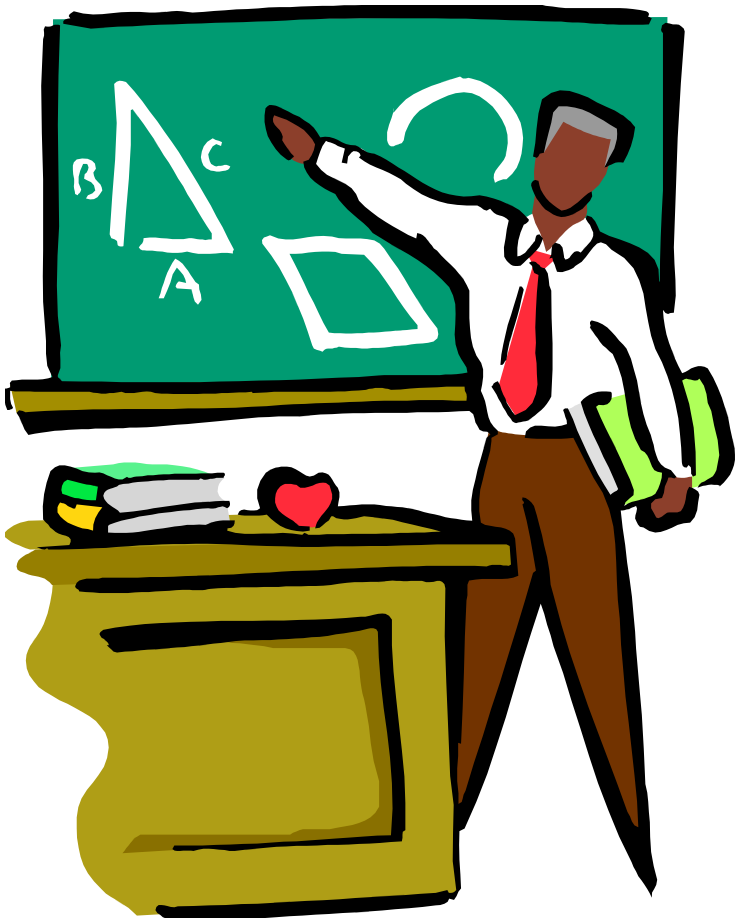


Voting Based - Conferencing



- 1 – Objectives
- 2. Overview
- 3 - Part I, Part II and Part III
- 4 – Groups
- 6. Expected output

You will be overwhelmed by the project if …

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- If you do not have a very good programming knowledge, preferably Java
- If you cannot take full responsibility for a software module (design and implementation) as part of a team of 2 during the project
- If you are planning to “free ride” during the project or get your software module designed and implemented by somebody else
  - If you get your software module designed and implemented by somebody else the odds that you are caught are very high.

Objectives

- Use of application layer freeware re-use and integration with other application layer protocols (i.e. SIP / RTP for conferencing)
- Design of simple application layer protocols
- TCP/UDP level programming (i.e. socket programming)

Overview

Overview

- A client / server application running on top of TCP/UDP which creates a conferencing application between a given number of users when they are on-line:
  - Interested users publish their presence to the application
  - The application triggers a voting process to decide who should participate (and who should not participate) in the conference
    - Voting process to be selecting by students (e.g. blackballing)
  - The application sends a notification to the users who should participate
  - The users who should participate dial-in and the conference starts
    - Text and voice should be exchanged during the conference (video is a plus)
  - The conference ends when all participants dial-out

Two distinct parts: Part I

- Interested users publish their presence to the application
- The application triggers a voting process to decide who should participate (and who should not participate) in the conference
  - Voting process to be selecting by students (e.g. blackballing)
- The application sends a notification to the users who should participate

1. Protocols design
2. Protocols implementation on top of TCP or UDP with sockets

   Week 9 (TCP/UDP Basics, socket programming)

Three distinct parts: Part II

- The users who should participate dial-in and the conference starts
  - Text and voice should be exchanged during the conference (video is a plus)
- The conference ends when all participants dial-out

Dial in conference with SIP and RTP

- Selection of appropriate SIP and RTP tool kits to be used as basis
  - Weeks 4 & 5 (SIP for multimedia sessions)

Three distinct parts: Part III

Integration of parts I and II

Notes: Part I and part II are independent and could be done in parallel, or in any order

Groups

- The project should be done in groups of 2
  - Each group should appoint a responsible for each part (i.e. Part I, Part II)
  - Groups of 1 will be exceptionally considered, but will be graded exactly as a group of 2 (no bonus !!!)
- Each group should implement the whole functionality

Expected output

- Live demo introduced by a short power point presentation (5 slides maximum)
- Report (20 pages maximum)