COMP4021
Internet Computing

Assignment 3
Chat Room Requirements

Course Learning Outcomes

By the end of this course, you will have the following skill set.

Course Outcomes (Reminder)

1. General Appreciation

1.1. Have a general appreciation of the use of the Internet in society

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3. Server Based Skills

3.1. Be able to install and understand the operation of a server such as Apache

3.2. Develop server side code in an appropriate language such as PHP

4. Skills Related to Both

4.1. Have a working knowledge of the most common HTTP instructions and their methods of client-server interaction, including cookies

4.2. Understand XML and related technologies including DOM handling

4.3. Develop complex programs for browser-server communications, including use of Ajax

2. Browser Based Skills

2.1. Be knowledgeable about HTML and related display techniques including CSS

2.2. Understand how to build browser based programs using the JavaScript language, including DHTML and event handling

2.3. Be able to program advanced browser display technologies including Flash and SVG, and to appreciate the differences

2.4. Develop code for handling communication between web page components such as JavaScript, and applets

Overview

- 12 marks – Chat Engine
- 10 marks – User Name Checking
- 14 marks – Logging In
- 8 marks   – Logging Out
- 8 marks   – Chat Message Input
- 16 marks – Select Message Color
- 14 marks – Automatic Hyperlink
- 18 marks – Online User List

Max Mark = 100

12 Marks – Chat Engine

- Basic chat system issues
  - Correct system procedure
  - Appropriate transmissions from client to server
  - i.e. Automatic update of the chat room when someone types a message
  - And so on

Technologies Used

- Client side skills: JavaScript, AJAX, HTML forms, event handling
- Server side skills: PHP
- Both: Cookies/sessions, XML, DOM handling, HTTP
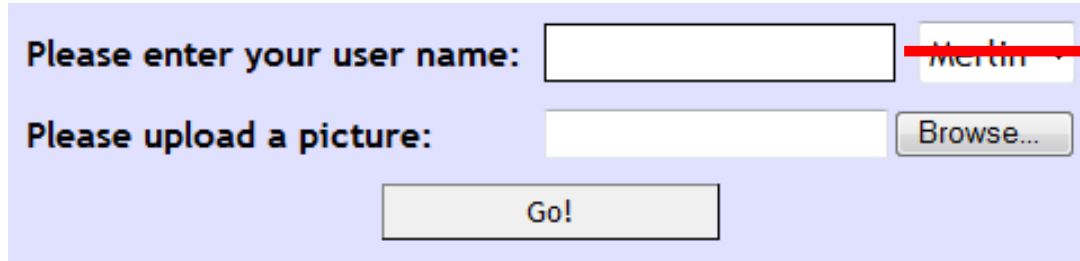
10 Marks – User Name Checking

- Username cannot be empty, or contains any illegal characters

- In login.html, complete the function checkInput()

- If username is empty, then alert(5 points)

- (5 points)If username contains any illegal character, alert

localhost 上的网页显示：

Invalid user name!
Please don't use space and the following characters.
"':;<>()[]{}!@#$%^&*-+=

☐ 禁止此页再显示对话框。

确定

14 Marks – Logging In

- A user must enter name and upload a picture to enter the chat room

- An error will be shown if any of the information is not correctly entered or selected

- The pictures of the currently logged in users are displayed in the online user list (see later slides)

8 Marks – Logging Out

- There should be a 'log out' button somewhere
- The 'button' could be anything you want – some HTML, etc (3 points)
- After logging out, the browser returns to the log in page (5 points)

8 Marks – Chat Message Input
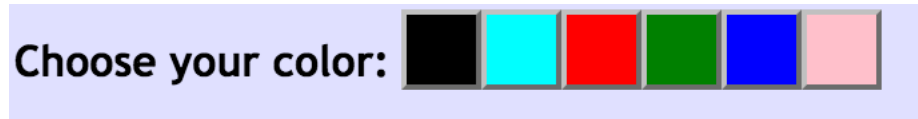
What is your message?

Send Your Message   **Choose your color:**

- User can enter his/her chat message in a text field
- Once the text message is sent it is shown as the latest message on the chat room
- User has the ability to change the colour of this message (see next slide)

16 Marks – Select Message Colour

Choose your color:

- The user can select a colour from **at least 6 colours** in the chat message input form(4 points)

- The user selects a colour by clicking on a coloured box(2 points)

- When the chat message is sent to the server the message is displayed using the selected colour in the chat room(10 points)

- The default colour is the first colour shown in the GUI, e.g. the default colour is black in the above picture

14 marks – Automatic Hyperlink

- If a user enters a URL within the text of the chat message the URL is converted to a hyperlink automatically

- We assume that a URL is a substring in the text which starts with 'http://' and does not contain any space

- For example,
  - "Please look at http://google.com now!"

    This is a URL

Your code converts 'http://google.com' to a hyperlink automatically

A clickable link

- If a substring is a URL it is converted to a hyperlink so that:
  - The hyperlink is displayed as an underlined text(6 points)
  - The user can click on the hyperlink to display it in a new browser window (8 points)(if you are replacing the current page, i.e. the chatroom, you can only get 4 points)

18 Marks – Online User List

- The user can click on a button(2 points) to see the current online user list
- The online user list is shown using a new window(4 points, i.e., if the list replaces current window, 4 points will be deduct)
- The list contains current users on the chat system listed by their names(5 points) and uploaded pictures(7 points)
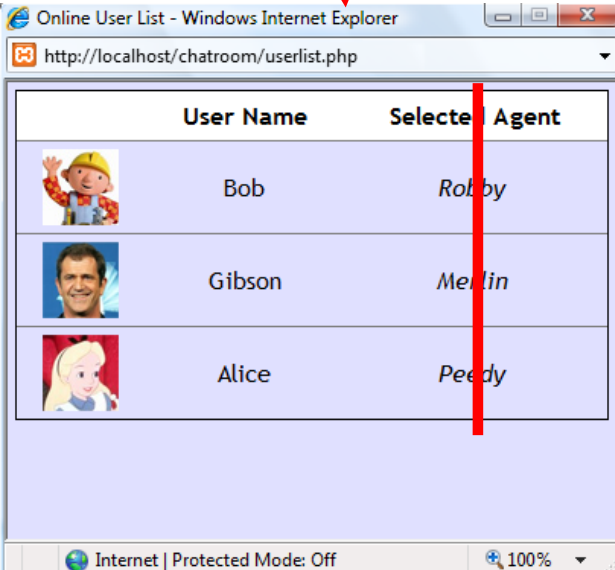- The pictures are displayed using a predefined width and height, i.e. 50 pixels by 50 pixels (using HTML)

- For example,
  1. The user clicks on the 'Show Online User List' button
  2. A new window is used to display the current online user list (this example has three currently logged on users)

- Similar to the text messages in the chat room the online user list must be automatically updated when a user logs in or out of the system

Single Person Work

- Single Person Work

- Keep backups of your work

- If you specify anything about your project, write it in a readme.txt file

Work in htdocs

- All your work must be developed in the *www* subdirectory inside the WAMP directory (or *htdocs* subdirectory inside the Apache/XAMPP directory), i.e. you can use *http://localhost/chatroom.html* to access the chat system on the server

- All project files in the directory must be submitted

- If you use sub-directories that's OK, as long as they are sensibly used

Dump Unnecessary Files

- Before you zip and submit your work remove all irrelevant files in *www* (or *htdocs*)

- For example, dump the example index.html files, etc

Submission

- Deadline: 23:59 Nov 29th,2015
  - If you submit after the due date, your score will be penalized by 20% for each day after the due date.
  - Submissions are rejected 2 days after the due date.
  - Do Not wait until last minute!

- Submit your project through CASS system

- Format of submissions
  - Put all the *www* (or *htdocs)* files into a single zip file
  - Filename: StudentID_Name_proj3_comp4021.zip