LAB MANUAL

FOR

Internet Fundamental

Syllabus of Internet Lab

<u>Exercises involving:</u>

- Sending and receiving emails
- Chatting on the net
- Using FTP and Telnet server
- Using HTML(table, form, image, anchor etc)
- Making a web page of your college using HTML tags.

Note: At least 10 exercises to be given by the teacher concerned.

Objective of Internet Lab

The Internet has experienced spectacular growth over the last few years. Today we need a wide range of knowledge in publishing on and participating in the world wide web. In other words, every student should Internet Literate.

IF Lab is designed for the students, so that they can learn:

- ➢ Sending and receiving electronic mails

- ➢ Browsing the world wide web

- ➢ Coding in HTML, JavaScript, ASP, VBScript, etc

- ➢ Using Search Engines

- ➢ Processing on line information in a critical fashion

- ➢ Using such Internet Applications as Telnet & FTP

- ➢ Submitting Forms on line

- ➢ Conducting research on line

- ➢ Reading and posting to newsgroups and mailing lists

- ➢ Understanding chat rooms and MUDS

- ➢ Downloading and Installing Plug-ins to view multimedia

- ➢ Understanding basic security and copyright issues involving computers

So all students are directed to perform at least 10 Assignments issued by Professor Incharge of IF Lab. The main objective of this lab is to make the students well adverse with Internet Technology and become Internet Literate.

INTERNET LAB

List of Experiments

1 Describe the stages of create e-mail id on yahoo web site, how will you send and receive e mail.

2 Describe the chatting components on the internet.

3. Describe the use and function of the following (a) telnet (b) TCP/IP (c) HTTP.

4 Create your first web page using notepad in HTML.

5 Create your login webpage for your college website or company website.

6 Create the web page with the following constraints
(a) an image on the webpage.
(b) a hyperlink to college website (c) a table of marks of IT class students.

7 Show blinking effect on web page using java script.

8 Design a digital clock on your web page using java script.

9 Design a digital calculator using HTML and java Script.

10 Design the web site on your college.

Experiment No-1

Aim:- Describe the stages of create e-mail id on yahoo web site, how will you send and receive e mail.

E-Mail: - E-Mail is one of the most popular services available through internet for sending and receiving of messages. In early days of the internet E-mail emerged as an inexpensive and efficient means of communication between researchers, scientists, people in high-tech jobs, and those in academics. The message is forwarded from one computer to other computer on the network until it reaches the destination. It is the most popular and the simplest method for the transmission of data and information throughout the world within the shortest interval of time.
E-MAIL ADVANTAGES AND IDSADVANTAGES…..

Today many people all over the world have been exposed to E-mail- they have either heard of it, used it occasionally, or left they could not function without it.E-mail has grown in ways that no one predicted. People can send and receive E-mail to:
1. Nearly any country in the world.
2. One of the millions of computer users.
3. Many users at once.
4. Computer programs.

ADVANTAGES …

CONVENTENENCE- There are no trips to post office, no need for stationary and stamps. Sending a short note is easy . E-mail makes publishing and discussing very easy for example in the forms of mailing lists and newsgroups.

SPEED- E-MAIL is fast, based on the sped of the underlying

Experiment No-2

Aim:-Describe the chatting components on the internet.

Chatting and Chatting Components

A chat workspace is like any other standard workspace except that it only includes features for chatting, and ends when you close it.

You can start a new chat anywhere in Groove you see a list fof contact names(for example the contacts panel in the Launchbar or the workspace members panel for a workspace). Right click one or more contact and select Invite to new chat. Invitations to the chat are sent immediately and the chat opens on your desktop.

If you want to invite people to chat whom you don't have in a contact list, you can create a chat invitation and search directories for contacts:

1. Select option- New Chat… to open the send Chat Invitation dialog box.
2. Select option in the Invitation dialog box the same way you would for inviting people to a workspace.
3. Click Invite.

Using a chat workspace

The features in a chat are much the same as those for chatting in a workspace. There is one important exception: Alerts are not supported in a chat workspace.

Note that closing a chat ends your participation in it. If you want, you can save a chat as a workspace as described in the next section.

The Chat System contains the following components:

1. Chat Client

A chat client is used by users to chat with other users in a Chat Room. A user must first register with a particular Chat Room before chatting with other users in that room. Each message sent or received through a chat Client identifies the user who sent the text of the message. When finished chatting in a Chat Room, the user unregisters with the room. There can be multiple Chat Clients, each under the exclusive control of a single user: that is, multiple users cannot share a single Chat Client, although a single user may start up multiple Chat Clients(to be able to chat in multiple Chat Rooms simultaneously).

2. Chat Room

A Chat Room provides automated processing of messages sent from Chat Clients. It queries the Registration Data Base to ensure that the user associated with a message is currently registered to chat in the Room. If user is not registered the Chat Room returns an error message. If the user is registered the message is delivered to all other users registered in the room and a copy of message is field in a Chat Log associated with the Room. There are multiple Chat Room components available, each devoted to a different Chat topic.

3. Registration Database

The registration Database stores the set of currently registered users for each Chat Room and is able to remember which users are registered with which Chat Room. Users are identified in this database by their email address. Any person with a valid email address can registered for a chat room. Users remain registered until they unregister themselves via a chat client. There is one Registration Database in the system.

4. Chat Controller

A Chat Controller is used by administrative personnel to monitor all the message traffic in the Chat Rooms, and to unregister users who send inappropriate messages. There is one Chat Controller in the system.

5. Chat Log

The Chat Log stores a record of all messages sent in a Chat Room. There is one Chat Log associated with each Chat Room.

Experiment No-3

Aim:- .Describe the use and function of the following (a) telnet (b) TCP/IP (c)HTTP (d) Usenet News

<u>TELNET</u>

Telnet and Remote Login are the two programs that allows you to log in to another Computer from an account in which you are already logged. They let you use and interact with software on the remote machine. To do this, you will need a second computer account that is accessible to you. The second computer is usually at different physical location.

Telnet uses the command TELNET PROTOCOL to log in to a remote computer on the internet. A wide range of telnet clients provide user-friendly interfaces. Most of them function in a similar

TCP/IP

TCP and IP was developed by DOD, USA in 1969 under research project to connect a numbers of networks designed by different vendors into a network of networks (i.e Internet). It was initially successful because it delivered a few basic services that everyone needs(file transfer, electronic mail, remote login) across a very large no of clients and server systems. Several computers in a small department can use TCP/IP (along with another protocol) on a single LAN. The IP component provides routing from the department to the enterprise network, then to regional networks, and finally to the global Internet. On the battlefield a communications network will sustain damage, so the DOD designed TCP/IP to the robust and automatically recover from any node or phone line failure. This design allows the construction of very large networks with less central management. However, because of automatic recovery, network problems can go undiagnosed and uncorrected for long period of time.

HTTP

Now that both HTTP extensions and HTTP/1.1 are stable specifications W3C has closed the HTTP activity. The activity has achieved its goals of creating a successful standard that address the weakness of earlier HTTP versions.

HTTP refers to Hyper Text Transfer Protocol and generally used to transfer and view the web pages stored on the Server to client Browser.

Usenet News

"Usenet is the set of machines that exchange articles tagged with one or more universally-recognized labels called newsgroups (Kehoe, 1996)." Usenet groups are used by governmental agencies, universities, businesses, and even some home computers. A Usenet group is managed by the system administrator and the system owner.

A Usenet group are created through a "vote" to determine popular support for the proposed newsgroup. If the guidelines are followed, the group will normally be created. Due to the nature of the vote, the newsgroup originator has no way to enforce the results of the vote.

Usenet groups are not an organization, a democracy, a right, or a software. Usenet groups are not a central authority on any one subject, they are just discussion tools. Newsgroups are not a democracy because of the lack of organization and there is no way to enforce any one person's wishes. When participating in a Usenet newsgroup you do not have the right to freedom of speech because you are an authorized user by the owner of the machine, and it is up the owner's discretion to allow any publications on their machine. Lastly, Usenet is not a software because there are several software applications that allow the use of Usenet newsgroups.

Experiment No-4

AIM: Create your first web page using notepad in HTML.

```
<html>
<head>
<title> My First web Page </title>
</head>
<body bgcolor="pink">
<h1><b> My First Web Page </h1>
</body>
</html>
```

Experiment No-5

AIM: Create your Student Web Form for the entry of Student's information.
```
<html>
<head>
<title>My first Web Page</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>

<body bgcolor="green" text="#99FFFF" link="#00FFFF"
alink="#FFFFFF" vlink="#99CCCC">
<h2 align="center"><b><font size="+2" color="red">STUDENT ID
FORM</font><font size="+2" color="blue">
 </font></b> </h2>
 <hr>
<form>
  <div align="left"><font size="3">Student ID:</font>
   <input type=text name="text2">
   </div>

  <div align="left">
   <p> </p>
   <p>Password..:
    <input type=password>
   </p>
   </div>

  <div align="left">
   <p> </p>
   <p>Sex:
    <input type=radio name=p>
    <font color="blue">male </font>
<input type=radio name=p>
    <font color="blue"> female</font></p>
   </div>
  <p> </p>
  <p>city:
```

```html
    <select>
      <option>Delhi </option>
      <option>Haryana </option>
      <option>Punjab </option>
    </select>
  </p>
  <p> </p>
  <p>or enter city
    <input type=text>
  </p>
  <p> </p>
  <p>Branch:
    <select>
      <option>IT
      <option>CSE
      <option>ECE
      <option>MECH</option>
    </select>
  </p>
  <p> </p>
  <p> <font color="black">
    <input type=submit value="Save on my website">
    <input type="reset"=clear>
    </font> </p>
</form>
</body>
</html>
```

Experiment No-6

AIM: Create the web page with the following constraints
(a) an image on the webpage.
(b) a hyperlink to college website (c) a table of marks of IT class
students.

```
<html>
<head>
<title> Experiment No 6</title>
</head>
<body bgcolor="pink">
<marquee>Quality Education as a highway to achieve
goals</marquee>
<h1><b> Dronacharya College of Engineering </h1>
<p align="center"><img src="logo.jpg" width="138"
height="118"></p>
TABLE border="4">
<TR>
<TD> Name
<TD> Roll No
<TD> Subject
<TR>
<TD>Rajesh
<TD> 60001
<TD>IF
</table>
</body>
</html>
```

Experiment No-7

AIM: Binking effect on web page using java script.

```
<HTML>
<head>
<title> Blinking text </title>
<SCRIPT LANGUAGE="JavaScript">
colours=new Array("green","blue")
index=0
document.write("<center><font size='11'
face='algerian'>DRONACHARYA COLLEGE OF
ENGINEERING</font></center>")
ref=setInterval("func()",500)
function func()
{
if(index>1)
{
index=0
document.fgColor=colours[index]
index++
}
else
{
document.fgColor=colours[index]
index++
}
}
</SCRIPT>
<body bgcolor=green>
</HEAD>
</HTML>
```

Experiment No-8

AIM:Design a digital clock on your web page using java script.

```
<HTML>
<head>
<title> Digital Clock </title>
<SCRIPT LANGUAGE="JavaScript">
function func()
{
mydate= new Date()
h=mydate.getHours()
m=mydate.getMinutes()
s=mydate.getSeconds()
document.F.H.value=h;
document.F.M.value=m;
document.F.S.value=s;
}
window.setInterval("func()",100)
</SCRIPT>
<H3 align="center"> D I G I T A L  C L O C K </h3>
<CENTER>
<FORM NAME="F">
<INPUT TYPE = "TEXT" NAME="H" SIZE="2">
<INPUT TYPE = "TEXT" NAME="M" SIZE="2">
<INPUT TYPE = "TEXT" NAME="S" SIZE="2">
</FORM>
</CENTER>
</HEAD>
</HTML>
```

Experiment No-9

AIM: Design a digital calculator using HTML and java Script.

```
<HTML>
<HEAD>
<TITLE>SIMPLE Calculator </TITLE>
<SCRIPT LANGUAGE="JavaScript">
function calc (ch)
{
if (ch=="=")
{
document.form1.text1.value=eval(document.form1.text1.value);
}
else
{
if (ch=="C")
{
document.form1.text1.value="";
}
else
{
document.form1.text1.value +=ch;
}
}
}
</SCRIPT>
</HEAD>
<BODY bgcolor ="RED">
<h2 align="center"> Java Script </h2>
<center><p>
<FORM NAME="form1">
<INPUT TYPE="text" NAME="text1" VALUE="" SIZE=16>
<TABLE border="4">
<TR>
<TD> <INPUT TYPE="button" VALUE=" 7 " OnClick="calc('7')">
<TD> <INPUT TYPE="button" VALUE=" 8 " OnClick=" calc('8')">
<TD> <INPUT TYPE="button" VALUE=" 9 " OnClick=" calc('9')">
<TD> <INPUT TYPE="button" VALUE=" * " OnClick=" calc('*')">
```

```
<TR>
<TD> <INPUT TYPE="button" VALUE=" 4 " OnClick=" calc('4')">
<TD> <INPUT TYPE="button" VALUE=" 5 " OnClick=" calc('5')">
<TD> <INPUT TYPE="button" VALUE=" 6 " OnClick=" calc('6')">
<TD> <INPUT TYPE="button" VALUE=" / " OnClick=" calc('/')">
<TR>
<TD> <INPUT TYPE="button" VALUE=" 1 " OnClick=" calc('1')">
<TD> <INPUT TYPE="button" VALUE=" 2 " OnClick=" calc('2')">
<TD> <INPUT TYPE="button" VALUE=" 3 " OnClick=" calc('3')">
<TD> <INPUT TYPE="button" VALUE=" - " OnClick=" calc('-')">
<TR>
<TD> <INPUT TYPE="button" VALUE=" 0 " OnClick=" calc('0')">
<TD> <INPUT TYPE="button" VALUE=" C " OnClick=" calc('C')">
<TD> <INPUT TYPE="button" VALUE=" = " OnClick=" calc('=')">
<TD> <INPUT TYPE="button" VALUE=" + " OnClick=" calc('+')">
</TABLE>
</FORM>
</BODY>
</HTML>
```

Experiment No-10

AIM: Design the web site on your college.

Students have design their website as per lab Instructor's instruction and website design issued by Professor Incharge of IF Lab.

INTERNET FUNDAMENTAL LAB
FAQ

1) Explain E-mail Systems. What are the main advantages & disadvantages?

   Explain the following:
   a) Message Components
   b) Message Composition

2) Explain the Mailer's features

3) Explain the following terms:
   a) User ids
   b) Passwords
   c) E-mail addresses
   d) Domain Names And DNS

4) Explain the inner working of Emails

5) Explain the History of Internet, how it came into existence.

6) Explain the different modes of connecting your PCs with the Internet.

7) Explain the following terms:
   a) Telnet
   b) FTP
   c) MIME Types
   d) Web Browser

8) What are the main components of Search Engine? Explain in brief.

9) Explain the Various Tags in HTML..

10)   Explain the Basic Structure of HTML file.

11)   Explain the basic need of JavaScript in Web Page.

12)   Design a Calculator on the Web Page using HTML & JavaScript

13)   Explain the main steps in the installation of IIS .

14)   Explain the following terms:
   a) Telnet
   b) FTP
   c) MIME Types
   d) Web Browser

15) What do you mean by Encryption Schemes? Explain their different methods.
16) How does Digital Signatures provide Internet Security? Explain in brief.
17) Explain the concept and use of Firewalls in the Network System.