

# COS5005-B - SOFTWARE ENGINEERING WITH GROUP PROJECT

## Coursework Assignment - 2

### *Weekly Meeting Minutes*

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Project: Web Browser  
Group Mentor: Dr. Noman Javed

Group # 3

#	Group Members
1	Mohammad Shoaib Khan
2	Mohammad Hassan Iqbal Khan
3	Ramzan Shahid Khan
4	Badar Shahzad Khan
5	Naeem Rashid
6	Sana Ullah Khan

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## GROUP MEETINGS:

### Group Meeting No# 1

<b>Meeting Date</b>	18/11/2016
<b>Meeting Time Duration</b>	30 Minutes
<b>Location</b>	D-area

### Summary of Discussion

The purpose of the discussion was to share with each other the literature review about main components of the browser and how it works. The technologies we are going to use and the dependencies of the project. We planned the meeting with client to get the functional requirement of the product.

We also did brainstorming of different questions which we will ask from the client about web browser and get basic requirement of web browser from the client.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"><li>Plan about questions to be asked from client.</li><li>Search different core functionality of existing browsers.</li></ul>	Sana Ullah	19/11/2016
<ul style="list-style-type: none"><li>Plan about questions to be asked from client.</li></ul>	Shoaib Khan	19/11/2016

<ul style="list-style-type: none"> <li>• Update the proposal document</li> <li>• Search different core functionality of existing browsers.</li> </ul>		
<ul style="list-style-type: none"> <li>• Plan about questions to be asked from client.</li> <li>• Plan to get the functional requirements</li> </ul>	Badar Shahzad	19/11/2016
<ul style="list-style-type: none"> <li>• Search different core functionality of existing browsers.</li> <li>• Update the weekly minutes document.</li> </ul>	Hassan Iqbal	19/11/2016
<ul style="list-style-type: none"> <li>• Gave a short overview how browser work</li> <li>• Search different core functionality of existing browsers.</li> </ul>	Naeem Rashid	19/11/2016
<ul style="list-style-type: none"> <li>• Read the literature of browser's internal working and prepare questions to be asked from client</li> </ul>	Ramzan Shahid	19/11/2016

## Group Meeting No# 2

<b>Meeting Date</b>	25/11/2016
<b>Meeting Time Duration</b>	30 Minutes
<b>Location</b>	Lecture hall 2

### Summary of Discussion

This was group meeting. The purpose of this meeting was to brainstorm about the proposal document. We defined the scope of project and assign different tasks to each member. Different tasks includes writing about the scope of browser, functional requirements, responsibilities of each member during the implementation of project etc.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes

<b>3</b>	Sana Ullah Khan	<b>Yes</b>
<b>4</b>	Badar Shahzad Khan	<b>Yes</b>
<b>5</b>	Naeem Rashid	<b>Yes</b>
<b>6</b>	Mohammad Hassan Iqbal Khan	<b>Yes</b>

<b>Action Items</b>	<b>Person Responsible</b>	<b>Deadline</b>
Scope of proposal document	Sana Ullah	27/11/2016
Requirements given by client	Shoaib Khan	27/11/2016
Gantt Chart	Badar Shahzad	27/11/2016
List down responsibilities and tasks assign to each member, update Weekly Minutes	Hassan Iqbal	27/11/2016
Gantt Chart, Weekly Minutes	Naeem Rashid	27/11/2016
Responsibilities and task of each person	Ramzan Shahid	27/11/2016

### Group Meeting No# 3

<b>Meeting Date</b>	1/12/2016
<b>Meeting Time Duration</b>	35 minutes
<b>Location</b>	D Area

### Summary of Discussion

The purpose of this meeting was to discuss about the defense of our project proposal. We worked on the tasks given by our mentor and there were some changes in our proposal. At start we were about to build our own parser and renderer but it was out of scope to build parser and renderer and to integrate with our project. So we have to somehow change our proposal. Gantt chart was changed according to new proposal document.

<b>#</b>	<b>Group Members</b>	<b>Present</b>
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1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>To analyze the requirement of client</li> </ul>	Sana Ullah	2/12/2016
<ul style="list-style-type: none"> <li>Requirements given by client, Weekly Minutes</li> </ul>	Shoaib Khan	2/12/2016
<ul style="list-style-type: none"> <li>Gantt Chart, Weekly Minutes</li> </ul>	Badar Shahzad	2/12/2016
<ul style="list-style-type: none"> <li>Gantt chart and write responsibilities of each member in proposal document.</li> </ul>	Hassan Iqbal	2/12/2016
<ul style="list-style-type: none"> <li>Gantt Chart</li> </ul>	Naeem Rashid	2/12/2016
<ul style="list-style-type: none"> <li>Search renderer and parser of different browsers using and give idea of these in team</li> </ul>	Ramzan Shahid	2/11/2016

### Group Meeting No# 4

Meeting Date	11/12/2016
Meeting Time	9:00am to 12:00pm & 1:15pm to 3:00pm
Duration	4 hour 45 minutes
Location	Badar Shahzad Home

## Summary of Discussion

In previous meeting some steps were told by our mentor. During our meeting we searched about different parsers and Renderers which will help us in our project. We found some renderers e.g. Gecko, Blink, Web kit etc. and we have also found some good parsers like jsoup etc. We parsed a simple html page from our local machine.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
Develop Simple GUI for browser	Sana Ullah	13/12/2016
Write SRS	Shoaib Khan	13/12/2016
Update Meeting Minutes	Badar Shahzad	13/12/2016
Parsing html page.	Hassan Iqbal	13/12/2016
Resolving DNS	Naeem Rashid	13/12/2016
Parsing an html page from local machine.	Ramzan Shahid	13/12/2016

## Group Meeting No# 5

Meeting Date	23/12/2016
Meeting Time Duration	2 hours 10 minutes
Location	CL-1



## Summary of Discussion

The purpose of the meeting was to install software's which we will use in coming days. We installed javafx, jsoup libraries etc. We all have parsed an html page from our local machines and now moving towards network so that we could parse any page search from any location.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
Develop Simple GUI using javaFx and parse html page from local machine	Sana Ullah	24/12/2016
Develop Simple GUI using javaFx and parse html page from local machine + Searching about good renderers	Shoaib Khan	24/12/2016
Develop Simple GUI using javaFx and parse html page from local machine + update SRS template	Badar Shahzad	24/12/2016
Parse html page from local machine +update SRS template	Hassan Iqbal	24/12/2016
Develop Simple GUI using javaFx and parse html page from local machine + Meeting Minutes	Naeem Rashid	24/12/2016
Develop Simple GUI using javaFx and parse html page from local machine + Meeting Minutes	Ramzan Shahid	24/12/2016

## Group Meeting No # 6

<b>Meeting Date</b>	02/01/2017
<b>Meeting Time Duration</b>	1 hour
<b>Location</b>	Lab 1

### Summary of Discussion

This was our group meeting. The purpose of the meeting was to discuss about the prototype and its working. Hassan gave the demo of the prototype. Prototype was fulfilling the client's requirements. The main purpose of the prototype was to be confirmed about the requirements given by our client.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
• Update SRS document	Sana Ullah	04/01/2017
• Build GUI according to Prototype	Shoaib Khan	04/01/2017
• Integrate different GUI parts.	Badar Shahzad	04/01/2017
• Build GUI according to prototype	Hassan Iqbal	04/01/2017
• Update Weekly meeting Minutes + Search about renderer	Naeem Rashid	04/01/2017
• Search how parser can be integrated with GUI.	Ramzan Shahid	04/01/2017

## Group Meeting No # 7

<b>Meeting Date</b>	26/01/2017
<b>Meeting Time Duration</b>	6 hour
<b>Location</b>	Lab 1 & Lab 2

### Summary of Discussion

Today, we resolve few bugs in our browser that were raised by group members. We approximately spent 2 hours to solve these errors. After that few of group members have issues with their repository and moreover today the interesting thing was Shoaib mistakenly **push** to master branch to this issue we spend approximately much time to resolve errors. Well that was an error that we will learn a lot about Github and git tool.

In this meeting we also discuss about our database system design. How we will integrate the database in our browser. Well that was also an issue raised by Naeem on Github and after a healthy discussion we concluded and embedded database in our browser.

Today we request mentor we want to meet and discuss the project progress and we want feedback. Our mentor gave the next week time for meeting as he said he is busy in this whole week and he will be surly free next week.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	No
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	No

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"><li>SRS writing</li></ul>	Sana Ullah	18/01/2017- 26/01/2017
<ul style="list-style-type: none"><li>Testing of code raised an issues for Tab</li><li>Database design and</li></ul>	Shoaib Khan	18/01/2017- 26/01/2017

<ul style="list-style-type: none"> <li>integration with browser</li> <li>SRS writing</li> </ul>		
<ul style="list-style-type: none"> <li>Resolve the repository issues from group members</li> <li>Menu Tabs and their views UI developing.</li> <li>Navigation Bars for browser.</li> </ul>	Badar Shahzad	18/01/2017- 26/01/2017
<ul style="list-style-type: none"> <li>HTML to PDF developing code</li> <li>SRS writing</li> </ul>	Hassan Iqbal	18/01/2017- 26/01/2017
<ul style="list-style-type: none"> <li>Downloader developing</li> <li>Proxy setting</li> <li>Designing Database</li> </ul>	Naeem Rashid	18/01/2017- 26/01/2017
<ul style="list-style-type: none"> <li>Backward and Forward buttons for browser developing</li> </ul>	Ramzan Shahid	18/01/2017- 26/01/2017

## Group Meeting No # 8

<b>Meeting Date</b>	30/01/2017
<b>Meeting Time Duration</b>	1:30 minutes
<b>Location</b>	CL1

### Summary of Discussion

This was our group meeting. The purpose of the meeting was to discuss the tasks mentor has assigned us during the meeting. Each member will work on given tasks two members will work on integration of downloader, two members will be working on maintaining history and two members will be working on converting an HTML page into PDF file. Everyone has to complete his task before Thursday which is the due day of our tasks.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes

6	Mohammad Hassan Iqbal Khan	Yes
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Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>SRS writing + Developing code for downloading any file from browser</li> </ul>	Sana Ullah	30/01/2017- 02/02/2017
<ul style="list-style-type: none"> <li>Testing of code raised an issues for Tab</li> <li>Database design and integrate with browser</li> <li>SRS writing</li> </ul>	Shoaib Khan	30/01/2017- 09/02/2017
<ul style="list-style-type: none"> <li>Menu Tabs and their views UI developing.</li> <li>Navigation Bars for browser.</li> </ul>	Badar Shahzad	30/01/2017- 09/02/2017
<ul style="list-style-type: none"> <li>HTML to PDF developing code</li> <li>SRS writing</li> </ul>	Hassan Iqbal	30/01/2017- 02/01/2017
<ul style="list-style-type: none"> <li>Downloader developing</li> <li>Designing Database</li> <li>Backward and Forward buttons for browser developing</li> </ul>	Naeem Rashid	30/01/2017- 09/02/2017
<ul style="list-style-type: none"> <li>Downloader developing</li> <li>Designing Database</li> <li>Backward and Forward button for browser developing</li> </ul>	Ramzan Shahid	30/01/2017- 09/02/2017

### Group Meeting No # 9

Meeting Date	02/02/2017
Meeting Time Duration	2:30 minutes
Location	CL2

### Summary of Discussion

This was our group meeting. The purpose of the meeting was to review the tasks and understand the code and its working. If anyone was having any problem regarding code

and its working then other members has helped them out. We checked each possibility of code to find out errors if occurs. There were proxy errors which were resolved. Each member gave demo of the work he has done regarding the task given to each member. After this meeting we were going to have meeting with mentor so that everyone should be clear about the working and implementation of the code.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>SRS, review the code of GUI</li> </ul>	Sana Ullah	04/02/2017
<ul style="list-style-type: none"> <li>Gave demo of creating database and integrating it with GUI</li> </ul>	Shoaib Khan	04/02/2017
<ul style="list-style-type: none"> <li>Integration of different GUI's with browser</li> </ul>	Badar Shahzad	04/02/2017
<ul style="list-style-type: none"> <li>SRS, Weekly Meeting Minutes</li> <li>Review code and find errors and improve the interface.</li> </ul>	Hassan Iqbal	04/02/2017
<ul style="list-style-type: none"> <li>Integrate downloader and gave demo of downloader and its working</li> </ul>	Naeem Rashid	04/02/2017
<ul style="list-style-type: none"> <li>Review the code and find any error if possible.</li> </ul>	Ramzan Shahid	04/02/2017

## Group Meeting No # 10

<b>Meeting Date</b>	09/02/2017
<b>Meeting Time Duration</b>	2:45 minutes
<b>Location</b>	CL1

### Summary of Discussion

This was our group meeting. The purpose of the meeting was to discuss about the requirements and tasks mentor has assigned us to be completed before next meeting.

Main tasks were:

- Downloading files from either https or http.
- Converting dynamic HTML page to PDF.
- Maintaining history and bookmarks of the web pages.

We have already converted static HTML pages to PDF but mentor asked for converting dynamic pages to be converted in PDF, so we are working on it and will complete before next meeting. Any type of file was being downloaded from http protocol but we cannot download file from https protocol, now we are going to develop code for downloading files from https protocol.

History and bookmarks were created but were not stored in the database, so our next tasks was to store history and bookmarks into database. All these issues were discussed in our group meeting and we started working to resolve these issues.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>• GUI of history and bookmarks</li> <li>• SRS</li> </ul>	Sana Ullah	09/02/017 to 11/02/017
<ul style="list-style-type: none"> <li>• Maintaining History and Bookmarks</li> </ul>	Shoaib Khan	09/02/017 to 11/02/017

<ul style="list-style-type: none"> <li>Integrating all components and classes with the main class and adding functionality accordingly.</li> </ul>	Badar Shahzad	09/02/017 to 11/02/017
<ul style="list-style-type: none"> <li>Improve code for converting Dynamic HTML pages to PDF</li> <li>Meeting Minutes</li> </ul>	Hassan Iqbal	09/02/017 to 11/02/017
<ul style="list-style-type: none"> <li>Making changes so that browser can download http + https files of any type from the internet.</li> </ul>	Naeem Rashid	09/02/017 to 11/02/017
<ul style="list-style-type: none"> <li>Coding Convention</li> <li>Maintaining History and Bookmarks and creating database.</li> </ul>	Ramzan Shahid	09/02/017 to 11/02/017

## Group Meeting No # 11

<b>Meeting Date</b>	13/02/2017
<b>Meeting Time Duration</b>	1:30 minutes
<b>Location</b>	CL2

### Summary of Discussion

This was our 10th meeting. The purpose of the meeting was to discuss the problems faced in the progress of our project. We have created multi tab browser. Browser can maintain history and bookmarks. Browser can convert HTML pages to PDF. These were some requirements given by our client and we are still working to complete them.

#	Group Members	Present
1	Mohammad Shoaib Khan	No
2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes



Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Development of GUI of Signup and login of user</li> </ul>	Sana Ullah	13/02/017 to 17/02/017
<ul style="list-style-type: none"> <li>Still working on maintaining history and bookmarks</li> </ul>	Shoaib Khan	13/02/017 to 17/02/017
<ul style="list-style-type: none"> <li>Integration of Signup and login GUI with browser and adding functionality to take input and verify input</li> </ul>	Badar Shahzad	13/02/017 to 17/02/017
<ul style="list-style-type: none"> <li>Improve code for converting HTML to PDF</li> <li>Meeting Minutes</li> </ul>	Hassan Iqbal	13/02/017 to 17/02/017
<ul style="list-style-type: none"> <li>Create database for maintaining passwords and username of different users.</li> </ul>	Naeem Rashid	13/02/017 to 17/02/017
<ul style="list-style-type: none"> <li>Still working on creating GUI for maintaining history and bookmarks</li> </ul>	Ramzan Shahid	13/02/017 to 17/02/017

## Group Meeting No # 12

Meeting Date	05/03/2017
Meeting Time Duration	5:30 minutes
Location	Badar Shahzad Home

### Summary of Discussion

This was our group meeting at Badar home. The purpose of the meeting was to discuss the remaining requirements of the client and also about the new requirements. During this meeting we created GUI of history, bookmarks and downloads tables. These tables contain the necessary information about the visited or bookmarked links. Created database for managing history, bookmarks and downloading information. After creating database, we integrated it with the browser.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes

<b>2</b>	Ramzan Shahid Khan	<b>Yes</b>
<b>3</b>	Sana Ullah Khan	<b>Yes</b>
<b>4</b>	Badar Shahzad Khan	<b>Yes</b>
<b>5</b>	Naeem Rashid	<b>Yes</b>
<b>6</b>	Mohammad Hassan Iqbal Khan	<b>Yes</b>

<b>Action Items</b>	<b>Person Responsible</b>	<b>Deadline</b>
<ul style="list-style-type: none"> <li>GUI of Managing passwords</li> </ul>	Sana Ullah	05/03/2017
<ul style="list-style-type: none"> <li>Creation of Database for history, bookmarks and downloads.</li> </ul>	Shoaib Khan	05/03/2017
<ul style="list-style-type: none"> <li>Integration of database with browser and Weekly meeting minutes.</li> </ul>	Badar Shahzad	05/03/2017
<ul style="list-style-type: none"> <li>GUI for adding Proxy manually and for showing progress of downloading files.</li> </ul>	Hassan Iqbal	05/03/2017
<ul style="list-style-type: none"> <li>Working on managing passwords of different accounts of users.</li> </ul>	Naeem Rashid	05/03/2017
<ul style="list-style-type: none"> <li>GUI for creating tables for maintaining history, bookmarks and downloads.</li> </ul>	Ramzan Shahid	05/03/2017

### Group Meeting No # 13

<b>Meeting Date</b>	13/03/2017
<b>Meeting Time Duration</b>	3 hours
<b>Location</b>	CL2

## Summary of Discussion

This was our group meeting at CL2. The main purpose of the meeting was to complete coding convention of the language we have used in development of our project. The task of each member was just to collaborate for completing the coding convention. We created document on Google Docs and start editing. Working at Google Docs was really good, each member was working and correcting other's mistakes. We completed this coding convention in almost 3 hours.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
• Coding Convention	Sana Ullah	13/03/2017
• Coding Convention	Shoaib Khan	13/03/2017
• Coding Convention	Badar Shahzad	13/03/2017
• Coding Convention	Hassan Iqbal	13/03/2017
• Coding Convention	Naeem Rashid	13/03/2017
• Coding Convention	Ramzan Shahid	13/03/2017

## Group Meeting No # 14

Meeting Date	19/03/2017
Meeting Time Duration	2 hours
Location	CL2

## Summary of Discussion

This was our group meeting. The purpose of the meeting was to discuss about the new requirements suggested by the mentor. In this meeting few members were not present so we did work on github to learn how actually it is working. Because whenever we try to update our code on github it creates many errors in our code.

#	Group Members	Present
1	Mohammad Shoaib Khan	No
2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	No
6	Mohammad Hassan Iqbal Khan	No

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"><li>Learning to use github and solve problems related to github.</li></ul>	Sana Ullah	19/03/2017
<ul style="list-style-type: none"><li>Absent</li></ul>	Shoaib Khan	19/03/2017
<ul style="list-style-type: none"><li>Learning to use github and solve problems related to github.</li></ul>	Badar Shahzad	19/03/2017
<ul style="list-style-type: none"><li>Absent</li></ul>	Hassan Iqbal	19/03/2017
<ul style="list-style-type: none"><li>Absent</li></ul>	Naeem Rashid	19/03/2017
<ul style="list-style-type: none"><li>Absent</li></ul>	Ramzan Shahid	19/03/2017

## Group Meeting No # 15

Meeting Date	24/03/2017
Meeting Time Duration	3 hours

<b>Location</b>	CL2
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## Summary of Discussion

This was our group meeting in CL2. The main purpose of the meeting was to discuss the overall progress of our project. Till this meeting the following requirements given by our client have been completed:

1. Maintain History
2. Maintain Bookmarks
3. Maintain Downloads record
4. Save HTML page as PDF document
5. Set Proxy Manually
6. Create Account for new User to secure history and passwords.
7. Downloading Files from HTTP/HTTPS by creating TCP and UDP connections.

These are requirements which are completed and we are still working on the remaining requirements which include

1. Open multiple tabs
2. Make master password to secure different passwords of different accounts.

We are working on the remaining requirements and also completing documentation. Now, our new tasks were to complete the remaining tasks and SRS.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Update SRS + GUI</li> </ul>	Sana Ullah	24/03/2017 to 9/04/2017
<ul style="list-style-type: none"> <li>Update GUI of maintaining history and bookmarks.</li> </ul>	Shoaib Khan	24/03/2017 to 9/04/2017
<ul style="list-style-type: none"> <li>Integration of multi tabs with the browser.</li> </ul>	Badar Shahzad	24/03/2017 to 9/04/2017
<ul style="list-style-type: none"> <li>GUI of master password Fields +SRS</li> </ul>	Hassan Iqbal	24/03/2017 to 9/04/2017

<ul style="list-style-type: none"> <li>Development of Master Passwords</li> </ul>	Naeem Rashid	24/03/2017 to 9/04/2017
<ul style="list-style-type: none"> <li>Weekly Meeting Minutes + SRS.</li> </ul>	Ramzan Shahid	24/03/2017 to 9/04/2017

## Group Meeting No # 16

<b>Meeting Date</b>	9/04/2017
<b>Meeting Time Duration</b>	5 hours
<b>Location</b>	Badar Shahzad Home

### Summary of Discussion

This was our group meeting. The main purpose of the meeting was to complete documentation. During this meeting we worked on SRS and Weekly meeting minutes. SRS document is almost completed and we have to give it final touch. All the group members contribute in the documentation because we created file on the Google Docs, which help each member to collaborate at the same time.

#	Group Members	Present
1	Mohammad Shoaib Khan	No
2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>SRS + Weekly Meeting Minutes</li> </ul>	Sana Ullah	9/04/2017
<ul style="list-style-type: none"> <li>Absent</li> </ul>	Shoaib Khan	9/04/2017
<ul style="list-style-type: none"> <li>SRS + Weekly Meeting Minutes</li> </ul>	Badar Shahzad	9/04/2017

• SRS + Weekly Meeting Minutes	Hassan Iqbal	9/04/2017
• SRS + Weekly Meeting Minutes	Naeem Rashid	9/04/2017
• Absent	Ramzan Shahid	9/04/2017

## Group Meeting No # 17

<b>Meeting Date</b>	26/04/2017
<b>Meeting Time Duration</b>	6 hours
<b>Location</b>	CL3

### Summary of Discussion

This was our group meeting. The main purpose of the meeting was to complete documentation. During this meeting we worked on testing report. We run our project and find each possibility where error will occur and try to resolve issues. We tried to find possibility of errors in client requirements. We almost completed testing report.

#	Group Members	Present
1	Mohammad Shoaib Khan	No
2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
• Testing Report + finding errors if occurred	Sana Ullah	26/04/2017
• Absent	Shoaib Khan	26/04/2017
• Testing Report + resolving	Badar Shahzad	26/04/2017

issues if occurred		
<ul style="list-style-type: none"> <li>Testing Report + finding errors if occurred</li> </ul>	Hassan Iqbal	26/04/2017
<ul style="list-style-type: none"> <li>Testing Report + resolving issues if occurred</li> </ul>	Naeem Rashid	26/04/2017
<ul style="list-style-type: none"> <li>Testing Report</li> </ul>	Ramzan Shahid	26/04/2017

## Group Meeting No # 18

<b>Meeting Date</b>	21/04/2017
<b>Meeting Time Duration</b>	5 hours
<b>Location</b>	Badar Shahzad Home

### Summary of Discussion

This was our group meeting. The main purpose of the meeting was to modify our application and correct the errors which were occurring during the client meeting. Some errors include

- html to pdf converting
- tabs titles
- login and signup error

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline



<ul style="list-style-type: none"> <li>Run project and test each possibility of finding errors</li> </ul>	Sana Ullah	29/04/2017
<ul style="list-style-type: none"> <li>Update and set html to pdf converter errors</li> </ul>	Shoaib Khan	29/04/2017
<ul style="list-style-type: none"> <li>Set tab names according to link titles.</li> </ul>	Badar Shahzad	29/04/2017
<ul style="list-style-type: none"> <li>Run project and test each possibility of finding errors</li> </ul>	Hassan Iqbal	29/04/2017
<ul style="list-style-type: none"> <li>Resolve signup and login issues</li> </ul>	Naeem Rashid	29/04/2017
<ul style="list-style-type: none"> <li>Update Weekly minutes + search about testing report templates.</li> </ul>	Ramzan Shahid	29/04/2017

## Group Meeting No # 19

<b>Meeting Date</b>	30/04/2017
<b>Meeting Time Duration</b>	5 hours
<b>Location</b>	Badar Shahzad Home

### Summary of Discussion

This was our group meeting. The main purpose of the meeting was to complete documentation. During this meeting we worked on SRS and Weekly meeting minutes and testing reports. All the group members contribute in the documentation because we created file on the Google Docs, which help each member to collaborate at the same time.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Review SRS + Weekly Meeting Minutes + Testing Report</li> </ul>	Sana Ullah	30/04/2017
<ul style="list-style-type: none"> <li>Review SRS + Weekly Meeting Minutes + Testing Report</li> </ul>	Shoaib Khan	30/04/2017
<ul style="list-style-type: none"> <li>Review SRS + Weekly Meeting Minutes + Testing Report</li> </ul>	Badar Shahzad	30/04/2017
<ul style="list-style-type: none"> <li>Review SRS + Weekly Meeting Minutes + Testing Report</li> </ul>	Hassan Iqbal	30/04/2017
<ul style="list-style-type: none"> <li>Review SRS + Weekly Meeting Minutes + Testing Report</li> </ul>	Naeem Rashid	30/04/2017
<ul style="list-style-type: none"> <li>Review SRS + Weekly Meeting Minutes + Testing Report</li> </ul>	Ramzan Shahid	30/04/2017

## Mentor Meetings:

### Mentor Meeting No# 1

<b>Group No.</b>	Group 3
<b>Meeting Date</b>	17/11/2016
<b>Meeting Time Duration</b>	30 Minutes
<b>Location</b>	D-area

### Summary of Discussion

The purpose of this meeting was to meet our mentor and get specific information about our project. The key points of this meeting were to get information of the product from the client. Search for the core functionality of the browser and its working.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Search about questions to be asked from client</li> </ul>	Sana Ullah	18/11/2016
<ul style="list-style-type: none"> <li>Search about the different parts that a browser may have.</li> </ul>	Shoaib Khan	18/11/2016
<ul style="list-style-type: none"> <li>Weekly Meeting Minutes</li> </ul>	Badar Shahzad	18/11/2016
<ul style="list-style-type: none"> <li>Weekly Meeting Minutes, create list of questions to be asked from client</li> </ul>	Hassan Iqbal	18/11/2016
<ul style="list-style-type: none"> <li>Search about the core functionalities that each browser have.</li> </ul>	Naeem Rashid	18/11/2016
<ul style="list-style-type: none"> <li>Research on Web browser and Weekly meeting minutes</li> </ul>	Ramzan Shahid	18/11/2016

## Mentor Meeting No# 2

Meeting Date	23/11/2016
Meeting Time Duration	30 Minutes
Location	Lecture hall 2

## Summary of Discussion

This was our second meeting with mentor. In this meeting we discussed about the components and tools needed for the project. We were told that we can use built-in components that are out of scope of our project. We discussed the requirements given by our client. Mentor asked us to search about different renderers and search engines to be used in our web browser.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"><li>Search about different renders.</li></ul>	Sana Ullah	25/11/2016
<ul style="list-style-type: none"><li>Weekly Minutes</li></ul>	Shoaib Khan	25/11/2016
<ul style="list-style-type: none"><li>Search about different renders made in java.</li></ul>	Badar Shahzad	25/11/2016
<ul style="list-style-type: none"><li>Search about different open source parsers to be used in browser.</li></ul>	Hassan Iqbal	25/11/2016
<ul style="list-style-type: none"><li>Search about renderers for implementation.</li></ul>	Naeem Rashid	25/11/2016
<ul style="list-style-type: none"><li>Research about renderer and Parsing html pages through it</li></ul>	Ramzan Shahid	25/11/2016

## Mentor Meeting No# 3

<b>Meeting Date</b>	30/11/2016
<b>Meeting Time Duration</b>	30 minutes
<b>Location</b>	Dr Noman Javed Office

### Summary of Discussion

The purpose of this meeting was to discuss about how to defend our project proposal document. We discussed our plan with the mentor and he gave his suggestions to modify our plan. Presentation demonstration of the project was modified according to the suggestion given by our mentor. Mentor also mentioned the new ideas after having brief explanation of the proposal document.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
Update Scope of proposal document	Sana Ullah	2/12/2016
Requirements given by client	Shoaib Khan	2/12/2016
Update Gantt Chart	Badar Shahzad	2/12/2016
Update and Review Proposal document and make changes if required.	Hassan Iqbal	2/12/2016
Update Gantt Chart, Weekly Minutes	Naeem Rashid	2/12/2016

Made presentation of proposal	Ramzan Shahid	2/12/2016
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## Mentor Meeting No# 4

<b>Meeting Date</b>	6/12/2016
<b>Meeting Time Duration</b>	25 minutes
<b>Location</b>	Mentor Office

### Summary of Discussion

The purpose of this meeting was to discuss about the strategies required to start the project and to discuss the flow of our project.

- First step was to implement single tab which will be multi-threaded
- Resolve DNS
- Establish connection
- Render HTML
- Display in interface

These are some steps told by our mentor to be followed.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Muhammad Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
Develop Simple GUI	Sana Ullah	13/12/2016
Write SRS Document	Shoaib Khan	13/12/2016
Meeting Minutes	Badar Shahzad	13/12/2016

Development of Protocol	Hassan Iqbal	13/12/2016
Resolving DNS	Naeem Rashid	13/12/2016
Final presentation document and parsing html page through renderer	Ramzan Shahid	13/12/2016

## Mentor Meeting No# 5

<b>Meeting Date</b>	26/12/2016
<b>Meeting Time Duration</b>	45 minutes
<b>Location</b>	D-Area

### Summary of Discussion

The purpose of the meeting was to get the new requirements from the client. As we have formally started working on browser so it was necessary to get more requirements and more explanation about previous requirements. Client's main requirements are:

1. Password encryption
2. Save HTML page as PDF document
3. Downloader
4. Maintain history
5. Bookmarks favourite sites

We are starting with built in tools and will continuously work to improve the functionality of browser.

#	Group Members	Present
1	Mohammad Shoaib Khan	No
2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	No
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Learn how to implement built in renderer</li> </ul>	Sana Ullah	30/12/2016
<ul style="list-style-type: none"> <li>Implement built-in renderer and render a page from local machine.</li> </ul>	Shoaib Khan	30/12/2016
<ul style="list-style-type: none"> <li>Implement built-in renderer and render a page from local machine.</li> </ul>	Badar Shahzad	30/12/2016
<ul style="list-style-type: none"> <li>Implement simple GUI and use built-in renderer to render a page from local machine.</li> </ul>	Hassan Iqbal	30/12/2016
<ul style="list-style-type: none"> <li>Implement built-in renderer and render a page from local machine.</li> </ul>	Naeem Rashid	30/12/2016
<ul style="list-style-type: none"> <li>Use renderer in java and parse and render html pages</li> </ul>	Ramzan Shahid	30/12/2016

## Mentor Meeting No # 6

Meeting Date	30/01/2017
Meeting Time Duration	30 minutes
Location	Mentors Office

### Summary of Discussion

This was meeting with our mentor. The purpose of the meeting was to show the progress of our browser. We have also fixed meeting slot with mentor so that we can meet every week. Mentor was really pleased to see our progress. We have completed almost 50% of our project work. Mentor has given deadline for different tasks. According to the tasks assigned by our mentor, we divide our group into two teams. One team is working on development of downloader which is due on next Thursday. One team is working on development and integration of database with browser.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes



2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>SRS writing + Developing code for downloading any file from browser</li> </ul>	Sana Ullah	30/01/2017- 09/02/2017
<ul style="list-style-type: none"> <li>Testing of code raised an issues for Tab</li> <li>Database design and integrate with browser</li> <li>SRS writing</li> </ul>	Shoaib Khan	30/01/2017- 16/02/2017
<ul style="list-style-type: none"> <li>Menu Tabs and their views UI developing.</li> <li>Navigation Bars for browser.</li> </ul>	Badar Shahzad	30/01/2017- 26/02/2017
<ul style="list-style-type: none"> <li>HTML to PDF developing code</li> <li>SRS writing</li> <li>Integration of HTML to PDF converter with browser.</li> </ul>	Hassan Iqbal	30/01/2017- 16/01/2017
<ul style="list-style-type: none"> <li>Downloader developing</li> <li>Designing Database</li> <li>Backward and Forward for browser developing</li> </ul>	Naeem Rashid	30/01/2017- 09/02/2017
<ul style="list-style-type: none"> <li>Downloader developing</li> <li>Designing Database</li> <li>Backward and Forward for browser developing</li> </ul>	Ramzan Shahid	30/01/2017- 09/02/2017

## Mentor Meeting No # 7

Meeting Date	09/02/2017
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<b>Meeting Time Duration</b>	45 minutes
<b>Location</b>	Mentors Office

## Summary of Discussion

This was meeting with our mentor. The purpose of the meeting was to show the tasks given to us by our mentor. We show the downloading file through our browser but it was just downloading http file but not the https file, so mentor asked to improve our code so that it can download file of any type. We have to show this task on next Thursday.

Second task was to create PDF of html page. Browser was converting HTML page to PDF page but the layout was not good and clear, so mentor asked to improve so that the PDF file should be clear and layout should be good.

Third task was managing history of the links we searched from browser. So it was working and history was being maintained by browser. History is being saved into a table which contain Date, Time and URL of the searched page.

So overall mentor appreciated our tasks and asked to improve them so that they can work more efficiently and generally.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>SRS, GUI</li> </ul>	Sana Ullah	09/02/017 to 13/02/017
<ul style="list-style-type: none"> <li>Implement code so that user can bookmark their favorite sites</li> </ul>	Shoaib Khan	09/02/017 to 13/02/017
<ul style="list-style-type: none"> <li>Update GUI and make changes to the GUI according to mentor's suggestions.</li> <li>Integrate GUI of downloader and history with browser.</li> </ul>	Badar Shahzad	09/02/017 to 13/02/017

<ul style="list-style-type: none"> <li>• Improve code for converting HTML to PDF</li> <li>• Meeting Minutes</li> </ul>	Hassan Iqbal	09/02/017 to 13/02/017
<ul style="list-style-type: none"> <li>• Improve downloader so that it can download file of any type i.e. https or http</li> </ul>	Naeem Rashid	09/02/017 to 13/02/017
<ul style="list-style-type: none"> <li>• GUI of History and Bookmarks</li> </ul>	Ramzan Shahid	09/02/017 to 13/02/017

## Mentor Meeting No # 8

<b>Meeting Date</b>	13/02/2017
<b>Meeting Time Duration</b>	45 minutes
<b>Location</b>	Mentors Office

### Summary of Discussion

This was meeting with our mentor. The purpose of the meeting was to show the progress of our browser and the tasks given by mentor. We have showed that we have improved the functionality of downloader and now it can download https as well as http file from the internet. Second, there was bit problem in converting dynamic html page to PDF, so we told our mentor that it was difficult to convert dynamic html page to pdf but static html page can easily be converted to pdf. Third, still working on maintaining history and bookmarks and creating databases.

New tasks given to us were,

Creating account for new user and maintaining his/her other accounts passwords and if he/she wants to access their passwords a master password should be asked from user to allow access to their saved passwords.

#	Group Members	Present
1	Mohammad Shoaib Khan	NO
2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Integrating GUI of bookmarks and History.</li> </ul>	Sana Ullah	Not Specified
<ul style="list-style-type: none"> <li>Maintaining History and Bookmarks.</li> </ul>	Shoaib Khan	Not Specified
<ul style="list-style-type: none"> <li>Integrating all components into main class.</li> <li>Meeting minute.</li> </ul>	Badar Shahzad	Not Specified
<ul style="list-style-type: none"> <li>SRS</li> <li>Making user accounts</li> <li>Saving usernames and passwords of different accounts into database.</li> </ul>	Hassan Iqbal	Not Specified
<ul style="list-style-type: none"> <li>Making user accounts</li> <li>Saving usernames and passwords of different accounts into database.</li> </ul>	Naeem Rashid	Not Specified
<ul style="list-style-type: none"> <li>Maintaining Database for History and Bookmarks.</li> </ul>	Ramzan Shahid	Not Specified

## Mentor Meeting No # 9

Meeting Date	17/03/2017
Meeting Time Duration	45 minutes
Location	Mentor office

### Summary of Discussion

This was meeting with our mentor. The purpose of the meeting was to show the overall progress of our project. During this meeting mentor thoroughly check our project and assigned some new tasks which includes:

1. Browser should maintain the count of each sites or link that how many time this site was visited.
2. Next time browser should suggest user about the links on behalf of counts.
3. AI should be implemented for the suggestions of websites.

#	Group Members	Present
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1	Mohammad Shoaib Khan	No
2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	No

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Develop GUI for maintaining count and links of most visited links</li> </ul>	Sana Ullah	17/03/2017
<ul style="list-style-type: none"> <li>Improve history and bookmarks so that user can see history of any time i.e. previous hour, today, yesterday etc.</li> </ul>	Shoaib Khan	17/03/2017
<ul style="list-style-type: none"> <li>Implement AI if possible to improve functionality.</li> </ul>	Badar Shahzad	17/03/2017
<ul style="list-style-type: none"> <li>SRS+ Meeting minutes + GUI for showing progress of downloading files.</li> </ul>	Hassan Iqbal	17/03/2017
<ul style="list-style-type: none"> <li>Multi tabs and adjusting the name of each tab on run time</li> </ul>	Naeem Rashid	17/03/2017
<ul style="list-style-type: none"> <li>SRS+ Weekly meeting minutes</li> </ul>	Ramzan Shahid	17/03/2017

### Mentor Meeting No # 10

Meeting Date	13/04/2017
Meeting Time Duration	30 minutes
Location	Cafeteria

## Summary of Discussion

We tried most of the time to contact our mentor. But he was busy with final year students and could not get time to meet us. We have completed all our tasks and documentation. We want to meet our mentor so that he should review our browser and documents. If any modification is needed, we can modify the project and documentation.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
• Waiting for mentors response	Sana Ullah	13/04/2017
• Waiting for mentors response	Shoaib Khan	13/04/2017
• Waiting for mentors response	Badar Shahzad	13/04/2017
• Waiting for mentors response	Hassan Iqbal	13/04/2017
• Waiting for mentors response	Naeem Rashid	13/04/2017
• Waiting for mentors response	Ramzan Shahid	13/04/2017

## Client Meetings:

### Client Meeting No# 1

Meeting Date	21/11/2016
Meeting Time Duration	30 Minutes
Location	Office

## Summary of Discussion

The main purpose of this meeting was to get the idea of what kind of product client wants. The main functionalities of the product as well as optional features that the product may have.

The outcome of this meeting were that browser can render html page, maintain history, save passwords and bookmarks the required web page as well provide downloader to download media.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"><li>Read how to parse html page.</li></ul>	Sana Ullah	23/11/2016
<ul style="list-style-type: none"><li>Search how to render a page.</li></ul>	Shoaib Khan	23/11/2016
<ul style="list-style-type: none"><li>Search about different functionality of browsers</li><li>Find to know the common features of different browsers.</li></ul>	Badar Shahzad	23/11/2016
<ul style="list-style-type: none"><li>Search about main features of browser and how it works internally</li></ul>	Hassan Iqbal	23/11/2016
<ul style="list-style-type: none"><li>Get the idea of http implementation and dns resolution.</li></ul>	Naeem Rashid	23/11/2016
<ul style="list-style-type: none"><li>Discuss requirements and the literature with client to get proper idea of requirements</li></ul>	Ramzan Shahid	23/11/2016

## Client Meeting No# 2

<b>Meeting Date</b>	28/12/2016
<b>Meeting Time Duration</b>	1 hour
<b>Location</b>	CL-4

### Summary of Discussion

The purpose of this meeting was to discuss what we have done till today and brainstorming about requirements to be added in our project. We discuss with each other what facilitator (Dr. Adnan) told us. We distributed task that we will be doing in coming days. Badar gave presentation on git that how we will be doing collaborative work using git tool. We discussed the progress of project in team and the queries of each members were discussed.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"><li>Update the meeting minutes</li><li>Learn Balsamiq</li><li>Assign task Proposal document update</li></ul>	Sana Ullah	28/12/2016
<ul style="list-style-type: none"><li>Learn how prototype tool work</li><li>Learn git collaborative work</li><li>Learn Balsamiq</li></ul>	Shoaib Khan	28/12/2016
<ul style="list-style-type: none"><li>Planning for next 15 days work</li><li>Give a tutorial on git for collaborative work</li></ul>	Badar Shahzad	28/12/2016



<ul style="list-style-type: none"> <li>• Learn git collaborative work</li> <li>• Update the Weekly minutes document</li> <li>• Working to build prototype using Balsamiq tool.</li> </ul>	Hassan Iqbal	28/12/2016
<ul style="list-style-type: none"> <li>• Remind the group how the browser will work</li> <li>• Learn git collaborative work</li> </ul>	Naeem Rashid	28/12/2016
<ul style="list-style-type: none"> <li>• Give a glimpse to group members how to work on balsamiq</li> <li>• Learn git collaborative work</li> <li>• Build prototype of the proposal</li> </ul>	Ramzan Shahid	28/12/2016

### Client Meeting No# 3

<b>Meeting Date</b>	03/01/2017
<b>Meeting Time Duration</b>	40 minutes
<b>Location</b>	LH-2

### Summary of Discussion

The purpose of the meeting was to discuss and explain our prototype with client. We gave demo of prototype to client. He gave us suggestions about the prototype to improve our interface. He also asked us to include login functionality of a new user so that new user can create account in the browser. Overall the client was happy to see the interface of the browser.

#	Group Members	Present
1	Mohammad Shoaib Khan	No
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>I have to note the suggestions given by client and the requirements that the client asked to add in our prototype</li> </ul>	Sana Ullah	03/01/2017
<ul style="list-style-type: none"> <li>I was absent</li> </ul>	Shoaib Khan	03/01/2017
<ul style="list-style-type: none"> <li>I gave a short demo to client how the browser look like and how the UI will work.</li> </ul>	Badar Shahzad	03/01/2017
<ul style="list-style-type: none"> <li>I gave the demo of different functionalities client has asked to be available in our project</li> </ul>	Hassan Iqbal	03/01/2017
<ul style="list-style-type: none"> <li>Search about downloader functionalities.</li> </ul>	Naeem Rashid	03/01/2017
<ul style="list-style-type: none"> <li>Write down the new requirements given by client</li> </ul>	Ramzan Shahid	03/01/2017

### Client Meeting No # 4

Meeting Date	03/03/2017
Meeting Time Duration	30 minutes
Location	Cafeteria

### Summary of Discussion

This was meeting with our client. The purpose of the meeting was to show the progress of our project. During this meeting we showed him functional browser which can maintain history and bookmarks. We are still working on creating account for user to secure his history and bookmarks and passwords. Client was satisfied with the progress and development of the project. Some new requirements were given by the client and we just start working on it. The requirements were to manually set the proxy of the browser and lock on history and bookmarks.

#	Group Members	Present
1	Mohammad Shoaib Khan	No

2	Ramzan Shahid Khan	No
3	Sana Ullah Khan	No
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Meeting Minutes + SRS + GUI of user account</li> </ul>	Sana Ullah	03/03/017 to 10/03/017
<ul style="list-style-type: none"> <li>Integration of Database.</li> </ul>	Shoaib Khan	03/03/017 to 10/03/017
<ul style="list-style-type: none"> <li>Integration of GUI of login + signup + proxy setting</li> </ul>	Badar Shahzad	03/03/017 to 10/03/017
<ul style="list-style-type: none"> <li>GUI for Adding Proxy Manually + SRS</li> </ul>	Hassan Iqbal	03/03/017 to 10/03/017
<ul style="list-style-type: none"> <li>Working on functionality of managing Password</li> </ul>	Naeem Rashid	03/03/017 to 10/03/017
<ul style="list-style-type: none"> <li>GUI for managing history + Weekly meeting minutes.</li> </ul>	Ramzan Shahid	03/03/017 to 10/03/017

## Client Meeting No # 5

Meeting Date	17/04/2017
Meeting Time Duration	45 minutes
Location	LH2

### Summary of Discussion

This was meeting with our client. The main purpose of the meeting was to show the completion of our project. We gave demo of the requirements that client has asked to be available in our project. The project was working really well and client was happy with overall completion of the requirements. But there were some errors which need modifications. Main error was that if some link is opened in new tab, the tab name is not set to the title of the link. HTML to PDF converter was not working properly.

#	Group Members	Present
1	Mohammad Shoaib Khan	Yes
2	Ramzan Shahid Khan	Yes
3	Sana Ullah Khan	Yes
4	Badar Shahzad Khan	Yes
5	Naeem Rashid	Yes
6	Mohammad Hassan Iqbal Khan	Yes

Action Items	Person Responsible	Deadline
<ul style="list-style-type: none"> <li>Setting of tabs GUI</li> </ul>	Sana Ullah	21/04/2017
<ul style="list-style-type: none"> <li>Setting of delete functionality in History and bookmarks tables.</li> </ul>	Shoaib Khan	21/04/2017
<ul style="list-style-type: none"> <li>Update GUI of tabs and set name of tab as title of link.</li> </ul>	Badar Shahzad	21/04/2017
<ul style="list-style-type: none"> <li>Improve functionality of html to pdf converter.</li> </ul>	Hassan Iqbal	21/04/2017
<ul style="list-style-type: none"> <li>Working on signup and login functionality of new user.</li> </ul>	Naeem Rashid	21/04/2017
<ul style="list-style-type: none"> <li>Weekly meeting minutes + SRS + improve GUI of history and bookmarks.</li> </ul>	Ramzan Shahid	21/04/2017