INDIVIDUAL REPORT

COMP1640 – Enterprise Web Software Development

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CHAPTER 1: INTRODUCTION

1.1 Group Introduction and Project Description

This report is about an individual reflection for Group Project in Enterprise Web Software Development. Our group task was to create a secure web based content management system or intranet system for managing public lectures series at an educational institute. Our group consists of six members who were ethnically diverse.

My group members were

- Irsa Waqar
- Amit Singh
- MD Masud Lincon
- Sarangan Sivapalan
- Atif Bilal Jadoon

During the course of this project, we were required to adopt agile scrum practices and minute them accordingly. These intranet systems also required communicate with a relational database, which can able to provide content back to the user. We also built our website on HTML/CSS and later integrated with PHP. This website is also required to develop in mobile-responsive, which able to work with any smart device (mobile, tablet or desktop).

These are the technical functionality that we were planning to implemented in our website.

- Arranging lecture information, presenter, specific room, date and time
- Delegate booking for specific lectures based on room, date & time
- Profile Management
- Resource Management for rooms, staff etc.

According to the project context, these are the four major roles that are responsible for interacting with this system.

They are,

- Delegates - (target user) for user registration & booking public lectures.

- Organizer - Responsible for managing lectures information and managing presenters.
- Presenter - Responsible to view existing bookings by the organizer and view the lecture content.
- Administrator - Responsible managing staff and resources such as room etc.

1.2 Project Approach

The project initially started by investigating current and past uses of booking system and public lecture system. This leads to the research about the web designs used by educational institutes. Next we were able to use the scrum practices for creating our product backlog and our sprint backlog. After that, we created our design solutions for developing this project. Once created design solutions are implemented as a working website. Finally we concluded our project by doing some testing on our website.

1.3 Project Assumptions

While developing this project, we were able to create assumptions for this project.
In General, every user has a profile page that can able to see/amend their details.
Lecture

- Free to attend (given by product context)
- Lecture are conducted by two departments in Business & Computing

Delegates

- Only delegates can self register & login to the website.
- After login, there can book any available lectures
- Cancel booking can be accomplished by send an email to the organizer
- Forgotten passwords/ username done through system admin.

Presenter

- Login to system
- No self-registration needed - admin provides login information.
- Can able to view existing bookings

Organizer

- Login to system
- No self-registration needed - admin provides login information.
- Can able to create Lecture information

1.4 Report Outline

Chapter 2 – Literature Review

This chapter's goal is to analysis and understands about booking systems, web architecture & design principals for educational institutes.

Chapter 3 – Methodology

This chapter will discuss about the practices on agile and scrum methodology used for developing this project.

Chapter 4 – Feasibility Study

This chapter will focus on information gathering & tools used for conducting this project.

Chapter 5 – Design

This chapter will talk about the design process used for developing this project.

Chapter 6 - Development & Test

This chapter will focus on the development side of the project.

Chapter 7 – Project Evaluation & Conclusion

This will be the final chapter for concluding the whole project in an overall status & discuss the future improvements.

CHAPTER 2: LITERATURE REVIEW

2.1 Booking System

Booking system is a system that allows organizers to allocate their resource to members before hand. It gives a flexible communication method between the members and organizers. Compare to other alternatives, its main purpose is to give flexibility towards members and reduce time & effort for organizers while using this system. (Teach-ICT, nd) The origin of booking system derived from airline industry in 1946 by American Airlines. It was called as “electromechanical reservisor” and used as ticket reservation system for passengers. Later this system was revised & developed a better-automated system in 1959 by IBM. This system was later known as Semi-Automatic Business Research Environment (SABRE). It was the largest civil data processing system in the world by 1964. (Ross, 2013)

Over the years, booking systems has evolved into various technologies and platforms. This has managed to improve the e-Commerce business model in the world. Growth of e-Commerce, means business has utilize more investment towards web-based service such as payment service, online booking etc.

Here’s list of some of the famous online booking services, currently at operation

- Theater, film booking, musical: http://www.ticketmaster.co.uk/
- Hotel, apartments booking: http://www.booking.com

- Flights and holidays: http://www.ba.com
- Restaurant booking: http://www.toptable.co.uk

These online booking systems are managed by web-based applications.

2.2 Web and Web Application

Web has become very popular tool among the businesses and the community. Firstly, it is very essential to talk about the web. Web primary purpose is to provide content (information) in a meaningful way back to the user. It uses hypertext markup language (HTML) and cascading style sheets (CSS) for display these content. In contrast, web applications are integrate within the web, which offers advance user interactions and more application functionality that previously only available through installed software. (Borodescu, 2013). Therefore these web applications can able do more than send email, make travel reservations, property search, online payment, online banking model, and many more.

It is very popular since,

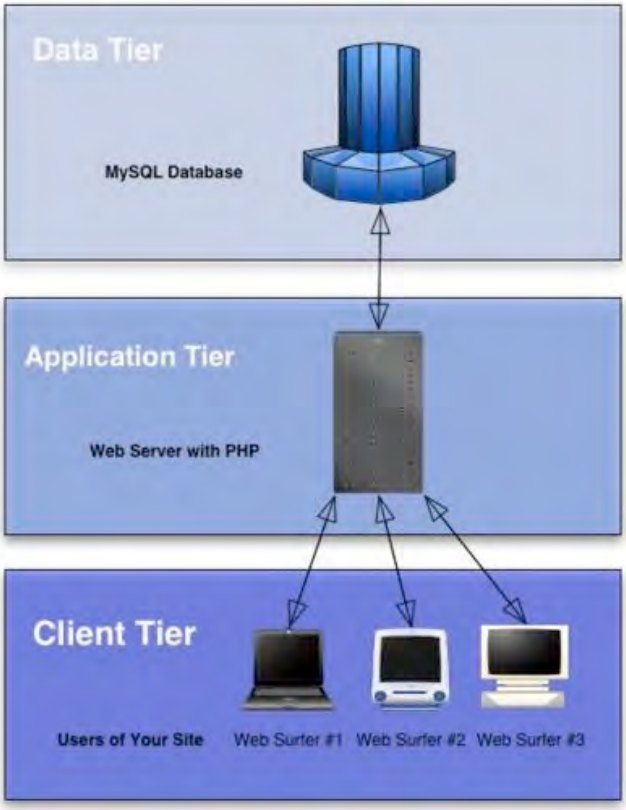
- Comfortable access
- Easy to develop
- Trained user based. (Alan Jolliffe, 2012)

According to Bordescu blog, developer also mentioned that there are certain compounds for web application, namely

- Self-contained
- Rich/interactive user interface, possibly mimicking the native UI of the device
- Using advanced device capabilities – like geo-location, camera integration, or other technologies that the W3C Device APIs and Policy Working Group is developing
- Action-oriented rather than information oriented
- Not relying heavily on (or hiding when possible) the browser chrome (back button, reload button, address bar)
- Working off-line, for example using HTML5 Application Cache, local Storage, or indexed database

2.3 Three-Tiered Web Architecture

There are different types of Architecture used for development web based-applications. Most commonly used architecture is called Three-Tiered Web Architecture. In a large environment, they may use separate machines to run on. However in a small environment, it might run on the same machine.



Three-tiered Web application consists of three main layers.

They are:

- Data Tier

  Data Tier (Back End Layer) is responsible for holding data for web application. It has the ability to read & write data, manage storage for the database. It runs database servers such as Open Source MySQL, Oracle DBMS etc.

- Application Tier

  Application Tier (Middleware Layer) is responsible controlling the functionality of web application such as decision-making, processing, calculation etc. It may also reside as a web server for HTTP, PHP, JSP & many more. Moreover it acts as third person between client tier and data tier.

- Client Tier

Client Tier (front end layer) is responsible providing content back to user from application tier. The content is display through browser software in HTML & CSS as a GUI (Graphical User Interface).

(Trinity College The Humanitarian FOSS Project, nd)

2.4 Designing Concept for Educational Institute

When designing this project, it is very essential understand about the target audience. As project context described, this web-based application need to build around educational institute. (University style branding).

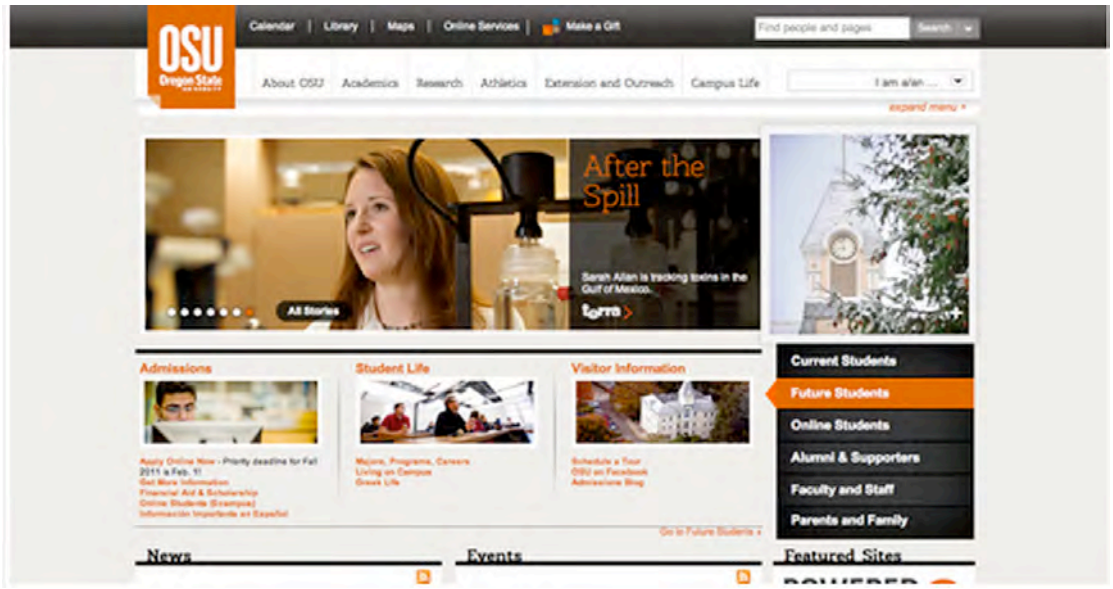
When design a web page for educational institute, it is very essential capture certain aspects of design principal and patterns.

According to Katie Sherwin from Nelson research group, have concluded some good insights for creating better web designs for education institutes. They have done this research by involving prospective students as well as their parents. (Sherwin, 2014) These are the recommendation,

1) Clearly identify University on every Page.
2) Use images that reflect your university's values and priorities
3) Make your *About Us* page count
4) Highlight your strengths and achievements
5) Make it easy for users to view a list of majors and programs
6) Provide information about job placement after graduation, and link to it from the alumni section of the website
7) Clearly show the application deadlines, and offer a step-by-step description of the application process
8) Follow the user journey: check the main tasks for each of your audiences
9) Beware the perils of "making your website cool"
10) Be prepared for users to search for information about your university on external sites

It also necessary to understand existing university website designs and how they preform with the users. For this evaluation, I used the guidance from Design Shack article based on Best and Worst Design: 50 University Websites From 50 States. (Johnson, 2011)

According their evaluation, most attracted university websites considered as University of North Dakota, University of Kentucky and Oregon state university. All of these universities used better background gradients, layout arrangements, highly quality photography as well as minimum content.



In contrast, university of Alaska, Penn State University and West Virginia State University consider as poor designed web site. These websites considered having poor links, poor layouts, no coloring coding, not-well organized…etc.

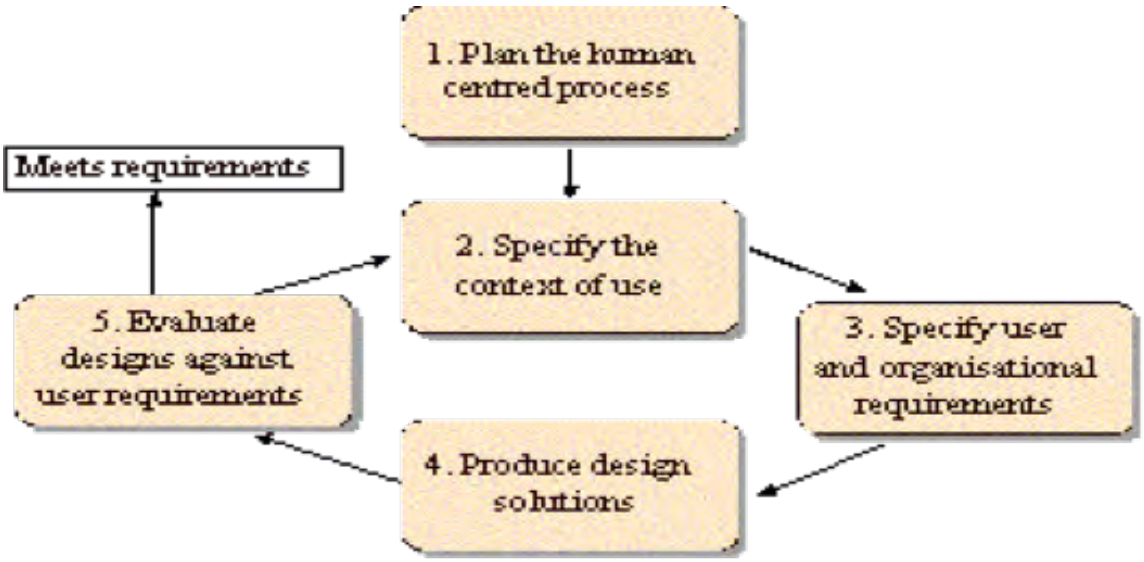
Any design should meet the minimum requirements of Human Centered Design. It gives clear understand about the user and design interaction.

2.5 Human Center Design

Human Centered Design (HCD) is a study that gives a clear direction about the users interaction with system. This will enable designers and developers to create, better understanding system for the intended user. Here is the clear definition about HCD,

"*Provides requirements and recommendations for human-centered design principles and activities throughout the life cycle of computer-based interactive systems. It is intended to be used by those managing design processes, and is concerned with ways in which both hardware and software components of interactive systems can enhance human–system interaction.*" (ISO, 2010)

The figure given below is design process of HCI:



1) Plan the human centered process - how this task/design can be accomplished with user.

2) Specify the context of use - describe how the system work

3) Specify user and organizational requirements -describe user and organizational requirements

4) Produce design solution - create a design using prototypes, storyboard...etc.

5) Evaluate design against user requirement- validate design whether it has accomplished requirements for the user.

(usability.net, nd)

According to the HCI, can be evaluated as

- Efficiency: how well people can accomplish tasks in given time or scenario.
- Effectiveness: how well task is managed and processed for the user

- Satisfaction – Is the task is enjoyable to complete

When designing a system, it also necessary consider the user characteristics such as personality, age, gender… etc.

Best way of getting feedback from user by getting quantitative and qualitative analysis (questionnaires, observations …etc.) from the user.

2.6 Responsive Design

There is has being huge number of different shapes & sizes of device growing rapidly in the world. Most of these devices are called as smart device. Since they have reputation for portability, mobile – friendliness and always online. Therefore it also necessary to show the web content according to their screen size.

Over years, web designers used two different types of websites for displaying same content to mobile and desktop users. This might allow mobile-users to see decrease content from main content. This made designers, put more time & effort for creating these type website.

In order to overcome this problem designer used a method called responsive design. Responsive web design meant by a design that responds to their environment. It is widely used in modern web and smart phone application. It helps designers to provide same content without reducing or hindering content for all cross devices. Therefore this method is very appealing towards the users. (Pettit, 2012)

2.7 Search Engines Optimization

What is Search Engines Optimization (SEO)?

All around the world, Search Engines are the most common gateway to access content. It uses a specified application (spider crawler) that helps to searches for sites based on the words users have keyed in or that have to do with the subject of their interest (karmasnack, 2013). They act as agents who accumulate billions of response to billions of queries everyday. Therefore SEO is technique that helps to increase the popularity of the website using the search engine.

Importance of SEO

Business and organization are heavily depending upon marketing their products online. SEO bring the capabilities of increase their revenue by attracting customers towards their products & services.

How does the SEO?

As mentioned earlier, SEO is data hungry software that runs on the web. Spider is a small AI program that uses special algorithm to find special keywords inside the web page. Then they index each key word according to the matches of the query. This technique is called spider crawler. In Google search result sidebar, indicate how fast this program was able to capture result in seconds.

To improve this method, designer could implement methods such as

- Update website frequently. (Then spiders knows that rich content up to date)
- Increase the key words in your content. (For e.g.: if mentioned shoes in u topic, try to have more shoes words in your content. this helps to increase indexing of your website)
- Another method is having meta-tags, that helps to increase get more indexing for the website.
- Use of better navigation.

(Google, 2010)

These are the some of the techniques that used at SEO improvement.

CHAPTER 3: METHODOLOGY

3.1 Methodology

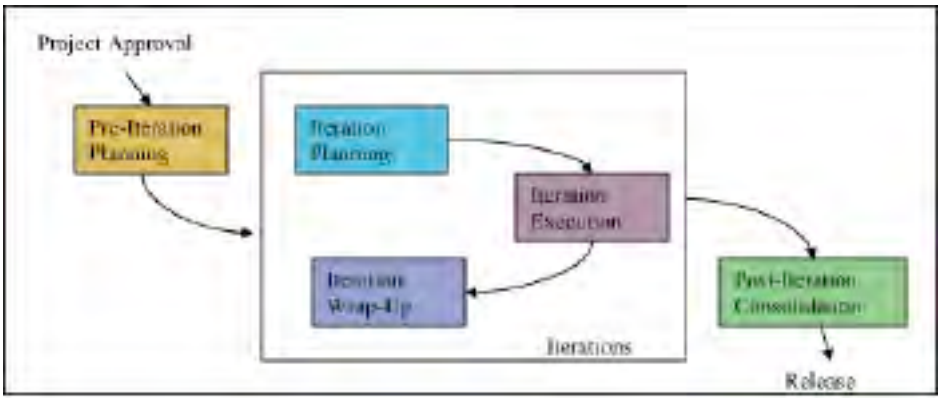
Methodology can help to address the key concerns in a software project. Since it address the key concerns, selecting appropriate methodology is useful for project successfulness'. In past many software projects failed because of not selecting the best & appropriate methodology for their project. (Cadle & Yeates, 2008)

Therefore "A methodology" is a study of methods, which involves performing a coherent set of tasks or methods used in carrying out some complex activities (Oxford University Press, 2008). These set of tasks and their output can able to resolve each part of the analysis, design or implementation stage. It also helps to document the templates and notation. In order to carry out these tasks, there will be various models and guideline used at. These models are based on waterfall model, spiral model, iterative and incremental development, agile development and many more.

As group, we decided purse our development on Agile Software Development.

3.2 Agile Software Development

Agile software development works around various iterations, on small teams working together with stakeholders to define quick prototypes, proof of concepts, or other visual means to solving the problem. The team defines the requirements for the iteration, develops the code, and defines and runs integrated test scripts, and the users verify the results. (Serena, 2007)



Agile Software Development was introduced in 2001. As part of introduction, it was build upon Agile Manifesto.

This Manifestos clearly states,

“We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.”

(Alliance, 2001)

Agile software development consists of various software methodologies.

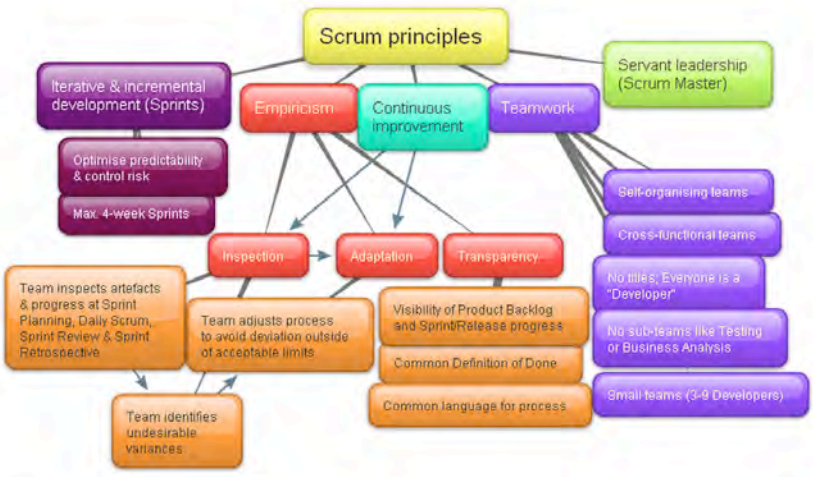
They are namely:

- Adaptive Software Development
- Scrum
- Extreme Programming (XP)
- Feature-Driven Development
- Many more

As coursework described, we were required to adopt on Scrum methodology for our project.

3.3 Scrum

Scrum is a system that organizes a small team to work together for a common goal & develop a product in small iterations. These small iterations can able to help the team members to manager time, be more productive and listen to feedback.



(Habib, 2013)

When developing product on scrum, it employees following core roles, namely

- Scrum Master

  Scrum master is responsible managing team during the product development. She/he insures to avoid any obstacles during the development process. Scrum master responsible for arranging substitutes (if needed) during the product iteration. Scrum master was according Product owner's vision.

- Product Owner

  Product Owner is responsible for laying requirements & vision of product to the development team. He/she may represents as the voice of the customer. During development product owner is responsible for maintain the product backlog.

- Development Team

  Development team consists of small no of members who has various skills in analyze, design, develop, test, technical communication, document, etc. They also ensure, every sprint life cycle is met during the development process.

(Scrum Methodology, nd)

Scrum also maintains two important artifacts while producing the final product.

They are namely:

- Product Backlog

  List an ordered list of requirements that ensure to maintain product/ product owner's vision. This will give a clear hierarchy of guidance for completing this product process.

- Sprint Backlog

  List of work that development team need to address on each sprint. Each sprint cycle is discussed & decided upon on the team before starting project. Each sprint cycle is either in 1 week or two days or so on. Usually these list of work derived from the above the product backlog. Scrum master & team ensure that each sprint can be achieved before proceeding to the next sprint cycle.

3.4 Scrum and Our Project Development

Product Owner

Our course leader played product Owner's role for this subject. She ensure project running smoothly over the development. As for the product owner's requirement were acquired by the coursework context. Based on that product owner requirements, we were able to create our own Product backlog for this project.

Product Backlog

Our product backlog's tasks were divided according to the principal of Software Life Cycle Model.

Task No	Task Name	Description	Done By	Priorities	Estimating Days	Status
01	Assumption	A clear process or step of our website.	All	High	2	Done
02	Database Design	Create and design tables.	Irsa	High	3	Done
03	ERD	Design an Entity Relationship Diagram of our proposed database.	Masud	Very High	2	Done
04	Validation Requirement	A validation requirement that shows how they are to be implemented.	Tharinda	High	2	Done
05	Use Case Diagram	A Use Case diagram showing the roles of the users.	Amit	Very High	1	Done
06	Sequence Diagram	A Sequence diagram showing the workflow of the web-based system.	Amit	Very High	2	Done
07	Prototypes	Sketches of interface like wireframes, paper prototypes.	Masud	High	3	Done
08	Database Develop	Select a high quality database.	Sarangan	High	2	Done
09	Design Home Page	Design Home page and required all the information of our website.	Tharinda	High	3	Done
10	Design Gallery	Design our gallery views.	Irsa	Medium	3	Done
11	Design Department page	Create Department page and provide the information about all courses.	Irsa	High	4	Done
12	Design Lecture Page	Create a booking system and provide presenter name, date, time, room number etc.	Tharinda	Very High	5	Done

13	Design Login Page	Make a Login page and provide all information.	Sarangan	Very High	5	Done
14	Implementation	How to execute the package, How to enter the data, How to process the data and How to take out the reports. All the thinks we need to do.	All	Very High	5	
15	Testing	Individually tested with the prepared test data. Make a test plan.	Masud	Very High	4	

Sprint Backlog

Based on this product backlog, were able to create the sprint backlog for this project. Our sprint life cycle ran once a week. Therefore every week, we manage to meet and discuss about the project progression.

	Days Left For Sprint	98	91	84	77	70	63	56	49	42	35	28	21	14	7	0
Who	**Description**	24/01/2014	03/01/2014	07/02/2014	14/02/2014	21/02/2014	28/02/2014	07/03/2014	14/03/2014	21/03/2014	28/03/2014	04/04/2014	11/04/2014	18/04/2014	25/04/2014	02/05/2014
	Total Estimated Hours	1300	1290	1180	1086	970	840	750	630	520	425	360	262	170	90	0
	User's Guide															
ALL	Start on study variable example as review and make draft	16	16	16	16	16	16	16	16	16	16	16	16	16	16	0
	Import the 1st draft	20	18	20	18	20	18	16	20	18	22	16	14	20	20	0
	Give that draft	12	14	10	12	14	12	12	16	8	8	12	10	12	12	0
Tharinda	User's Requirements	10	12	10	8	12	14	16	12	10	8	6	10	12	10	0

Irsa/Tharinda	List the responsibility of each member	4	6	2	8	6	4	2	8	6	2	4	6	4	4	0
	Misc. Small Bugs															
Sarangan	Fix connection	16	16	16	12	14	6	18	20	14	16	12	10	8	16	0
Irsa	Delete Unnecessary queries	8	2	4	10	6	6	4	2	6	2	4	6	8	8	0
Sarangan	Fix the bugs	8	10	8	12	10	6	4	10	4	8	4	8	10	8	0
Irsa	View History for matching column in a outcome set	6	6	12	10	8	8	8	6	10	4	6	10	8	8	0
Sarangan	Check the validation of input	4	2	4	4	2	2	4	4	6	6	4	2	6	4	0
	Environment															
ALL	Install database server	16	10	16	14	10	12	16	14	12	10	12	14	16	16	0
Sarangan	Script the source code for connection with web	40	36	34	30	38	40	30	40	42	42	34	36	38	40	0
Tharinda	More code into HTML and PHP	16	12	14	10	12	16	18	14	10	18	14	12	16	16	0
	Database															
Irsa	Create tables for database	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0
ALL	Normalized existing table	8	10	6	8	10	10	8	6	6	10	4	10	6	8	0
ALL	Queries and	8	6	6	6	6	6	10	4	10	6	10	6	10	8	0

	Reports															
	Security for user															
Sarangan	Login Method	16	14	12	10	14	16	12	14	18	16	14	16	18	16	0
Irsa	Remove risky adds	16	14	16	14	14	20	16	14	16	16	14	16	18	16	0
	Validation															
Irsa	Consider input validation	18	18	18	18	18	18	18	18	18	18	18	18	18	18	0
	Testing															
Masud	Test plan	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0

Scrum Master

Irsa and myself mostly played the role of Scrum Master for this project. There were sub tasks, which were accomplished by other group member of my group.

- Irsa - design & development of the project phase.
- Myself- design & feasibility study of this project.
- Masud- test plan of the project
- Amit- feasibility studies for diagrams
- Sarangan – final development phase

CHAPTER 4: FEASBILITY STUDY

4.1 Designs

During our first few meetings, Amit and Irsa bought their previous Web designs based on Educational Institutes. This gave us clear strategy for developing our website.

Amit's College Management System Website based on HTML\CSS with JSP

B. TECH. COMPUTER SCIENCE AND ENGINEERING

I Year
COURSE STRUCTURE

HS 05231 English
MA 05363 Mathematics – I
MA 05361 Mathematical Methods
PY 05047 Applied Physics
CS 05106 C Programming and Data Structures
EE 05068 Basic Electrical Engineering
EC 05210 Electronic Devices and Circuits
ME 05220 Engineering Drawing Practice Lab
CS 05144 Computer Programming Lab
EE 05188 Electrical and Electronics Lab
HS 05232 English Language communication skills Lab
CS 05337 IT Work-Shop

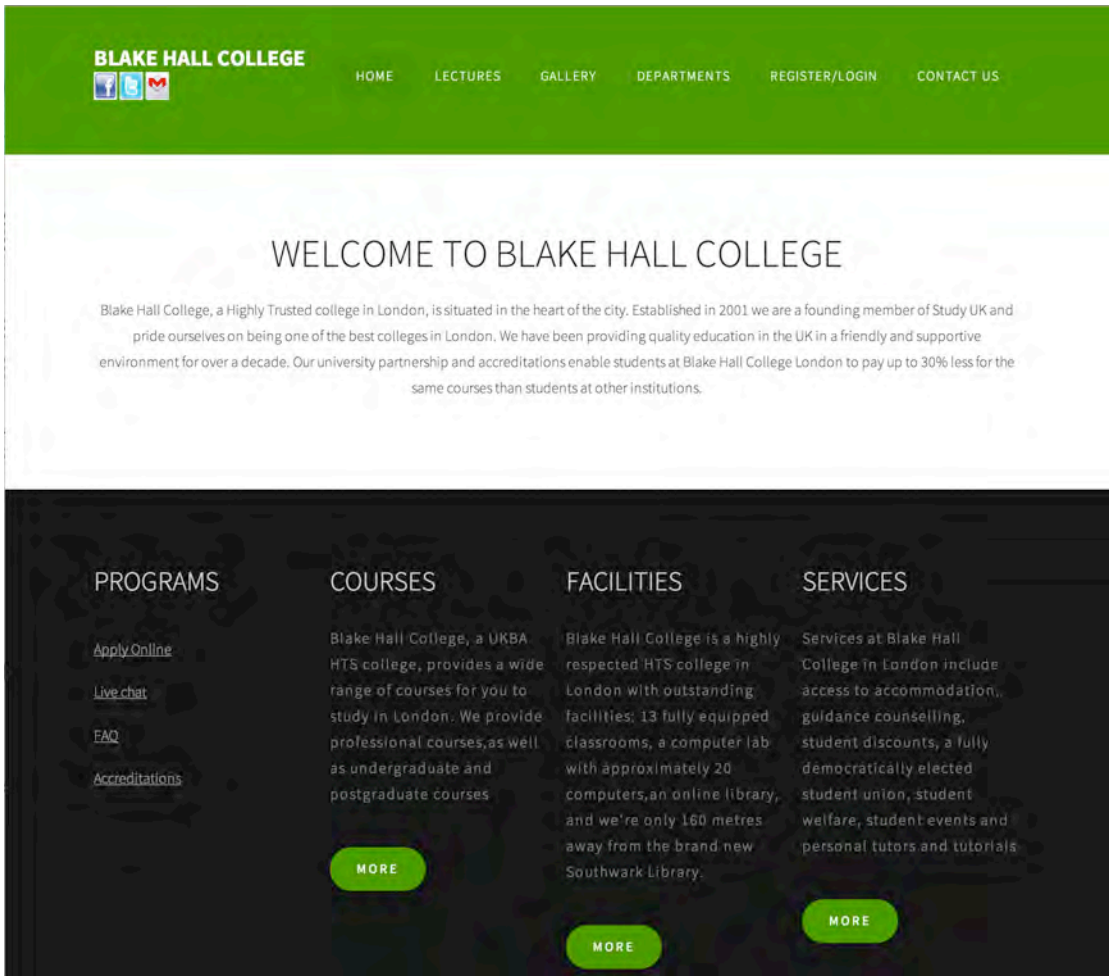
II Year I Semester
COURSE STRUCTURE

MA 05476 Probability & Statistics
CS 05360 Mathematical Foundations of Computer Science
CS 05007 Advanced Data Structures
CS 05175 Digital Logic Design
CS 05140 Computer Organization
CS 05159 Data Base Management Systems
CS 05008 Advanced Data Structures (C++) Lab
CS 05157 Data Base Management Systems Lab.

II Year II Semester
COURSE STRUCTURE

CS 05521 Software Engineering
CS 05160 Design and Analysis of Algorithms
CE 05239 Environmental Studies
EC 05471 Principles of Communications
EC 05400 Microprocessors and Interfacing
CS 05434 OOPS through Java
CS 05338 Java Lab
EC 05401 Microprocessors Lab

Irsa's Blake Hall College website (replica) based on HTML\CSS only.



As a group, we decided to use Irsa's web design layout for creating our own web-based system. We came to this decision based on her layout, which matches according to the key requirements given in Chapter 2. (website designs on education institutes) Based on her design we decided improve it with more content and integrate it according to our product context.

4.2 Content Capturing

During a meeting with my group, I was assigned with task for capturing content for our website. My responsibility was to capture similar public lecture information from online resources and provide it in meaningful context. I gather content through online web resource.

Most of the information was gathered from well-reputed Educational Institutes. Here is list of website that managers public lectures in the world

For Computer Science

- Computer Department at University of York - http://www.cs.york.ac.uk/events/public-lectures/
- Institute of mathematics & its applications- http://www.ima.org.uk/viewItem.cfm-cit_id=384189.html
- Math Department at University of Stiriling - http://www.maths.stir.ac.uk/lectures/

For Business

- Nottingham Trend University – http://www.ntu.ac.uk/nbs/news_events/business_leaders_lecture_series/index.html
- University of Sussex -http://www.sussex.ac.uk/economics/showcase/lectures
- University of Maryland - http://www.eng.umd.edu/events/whiting-turner

4.3 Development feasibility

During our feasibility study for development, we use various online study tools such as W3C School, YouTube Video Tutorial and other web materials. This helps us to create & develop our website with responsive web design, database design & PHP connections.

We also used various software development tools for developing our web site & the database.

- Web Development Tools: - Notepad++, Brackets, Adobe Dreamweaver CC
- Database Tools: - My PHP admin with MySQL
- Server Tools: - XAMPP Server

CHAPTER 5: DESIGN

5.1 Project Database Design

During table designs, we decided to use our table design on an Entry Relationship Diagram (ERD). ERD is considered as a graphical data modeling technique consists of three parts, namely entity, relationship and cardinality.

We first decide to create our table on a excel sheet to represent our entities without any relationship or cardinality. This was very useful to understand, how the table structures associate with our web based-system. The figure given below is example of an Excel sheet that we used for create our tables.

Date	Time	Lecture Nam	Presenter	Overview	No of Delegates	List of Delga	Orgniser	Room	Capcatiy

Lec_ID	Lecture Name		Room_ID	Room Name	Capactiy

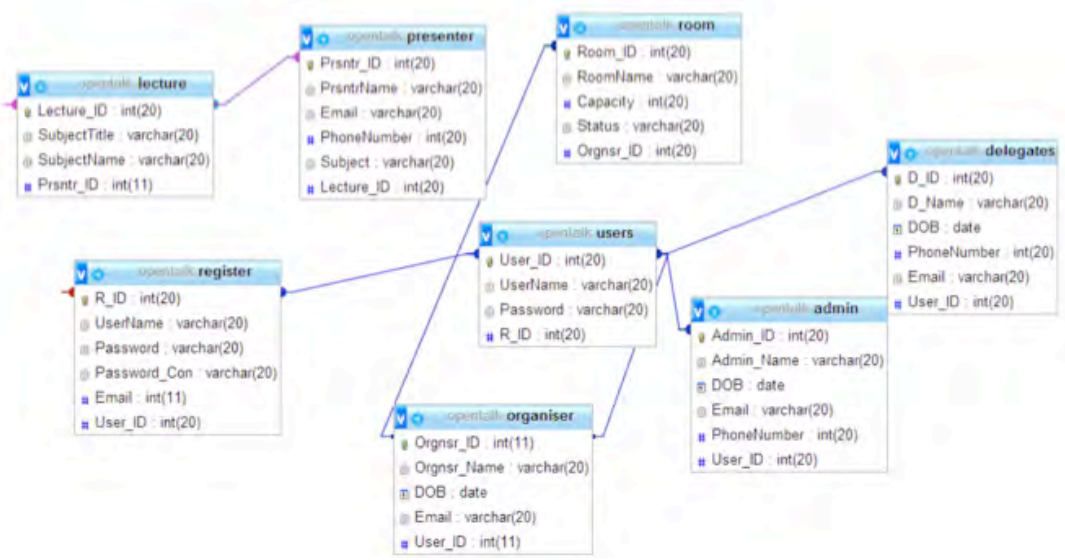
Organiser _ID	Organiser Name	Address	dob	contact no	username	pwd#

Present_ID	Presenter Name	Address	dob	contact no	username	pwd#

Del_ID	Delagate Name	Address	dob	contact no	username	pwd#

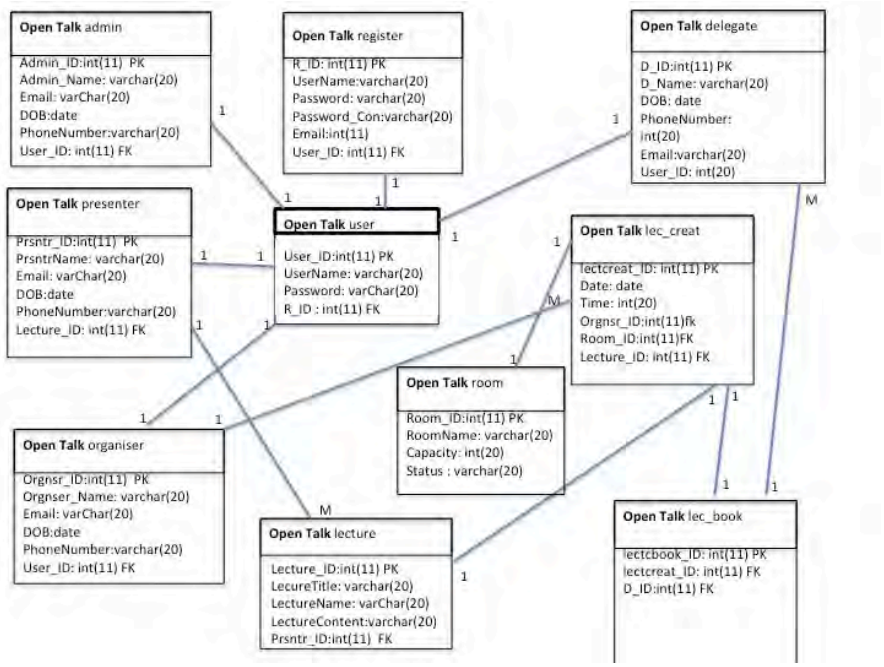
Sysadm_ID	System Admin Name	Address	dob	contact no	username	pwd#

Then we decided to create the table designs using the database normalization technique and show relationship model between the tables. Normalization technique is a crucial part of the ERD. It helps to reduce data redundancy and maintain the data dependency around the database.



Our table designs are set according to the 1NF, 2NF and 3NF. Therefore every table has been assigned with a unique identification key called primary key. Moreover any tables that associate with another table's columns are represented through a foreign key. A foreign key helps to reduce any columns that aren't depended upon the primary key.

Finally we concluded our ERD diagram by adding the cardinality to our diagram. This ensures database has valid relationships between each tables.



Based on this ERD designs, here are sample relationship models from our database design

1) <u>One to One relationship:</u>
   One user login can be associated with a one user.
   One user can be associated with a one-user login

2) <u>One to many relationships:</u>
   One presenter can be associated with many lectures *whereas*
   Many lectures can be associated with one presenter.

5.2 Project Web Design

For creating our website, we first decided to create our website on a prototype design. Prototype design meant by having an initial design concepts or trials before creating actual designs.

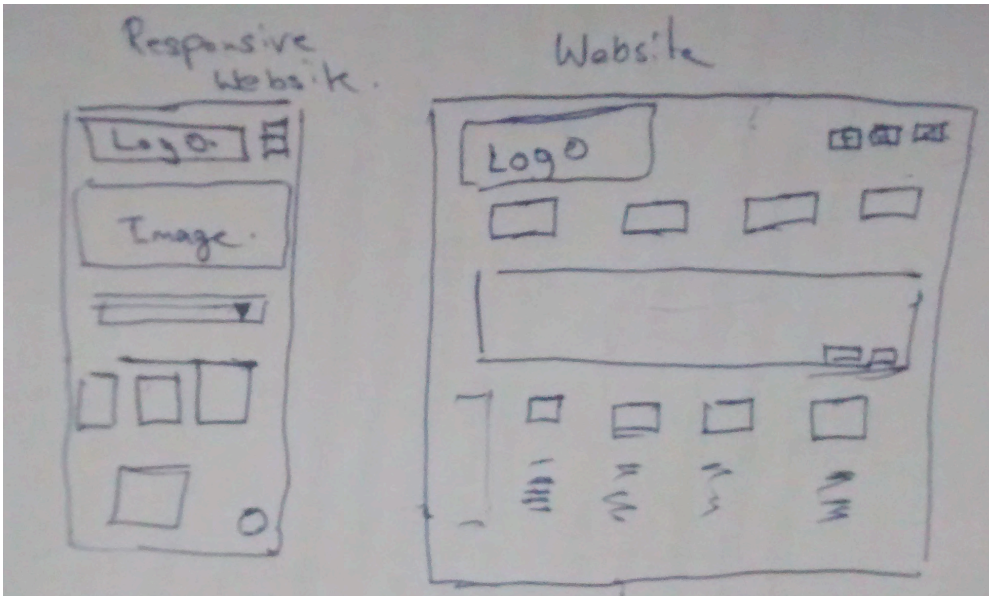
A prototype design helps deliver

- Create detail designs rather than describing them verbally
- See the functionality of the system
- Determine the approach to be taken
- Get feedback from user (target users)
- Designs economically and effectively

In order to create our prototype designs, we used various researches on literature and requirement analysis. We used various prototype design frames such as paper prototype, wireframe designs and PowerPoint presentation slides(Snyder,2003).

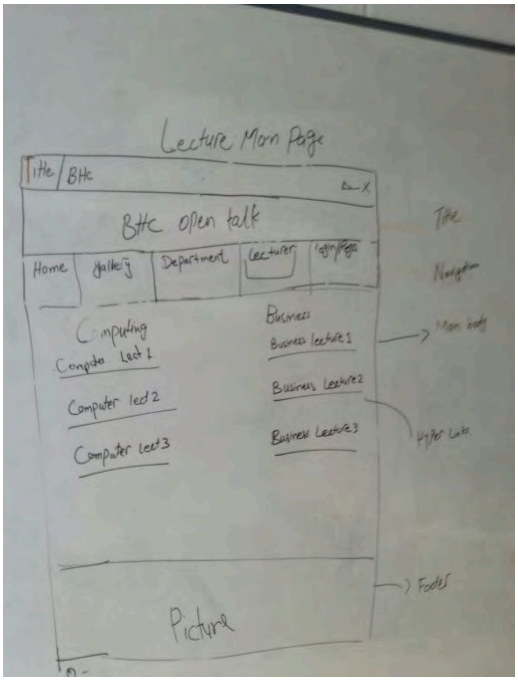
Paper-prototype

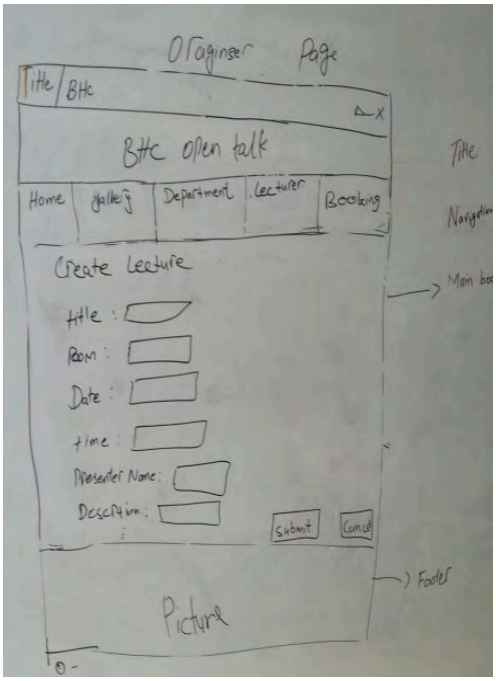
We used this technique as brainstorm our concepts during our group meetings. Paper-prototype help us to draw sketches about the website while discussing about the content & layout of the website

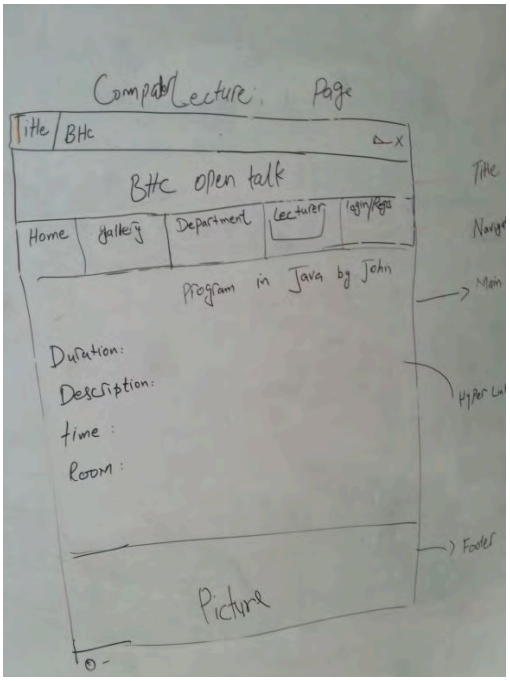


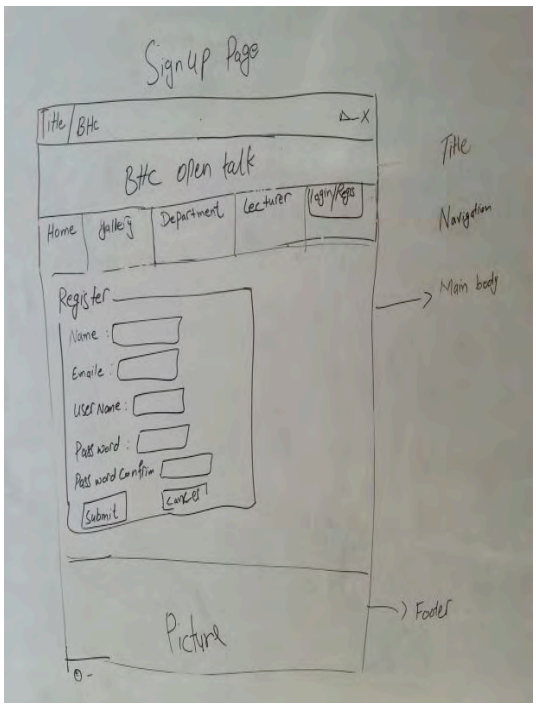
Wireframe

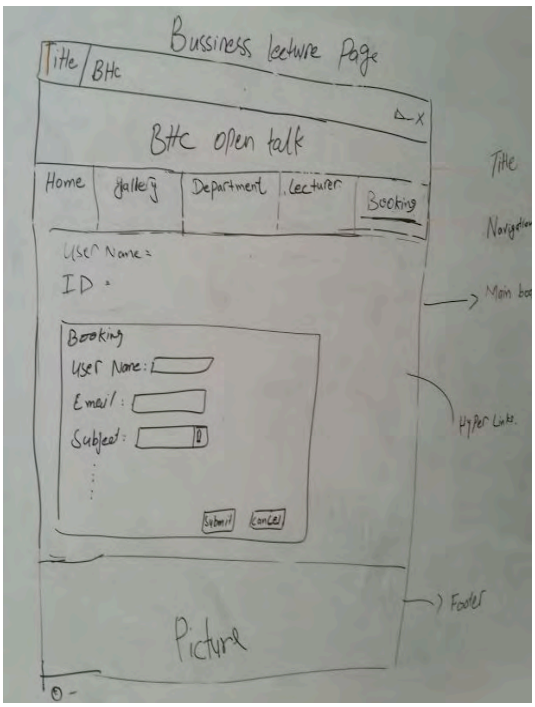
As group, we decided to use this method for test & improve our navigation system, creating sub page layouts, demonstrate different user views, understanding different user elements, usability evaluation etc. We used a whiteboard and mark to demonstrate this technique.

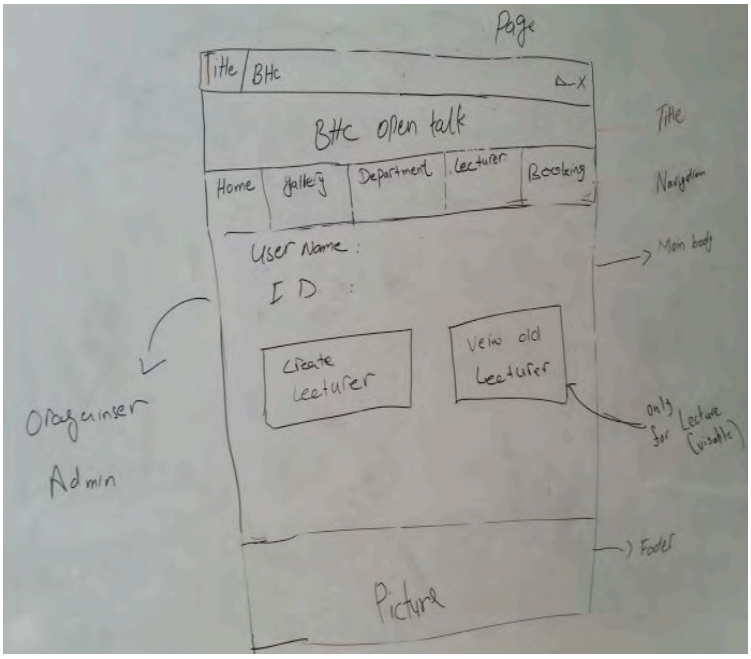

Lecture Main Page
Title / BHc
Bttc open talk
Home
Gallery
Department
Lecturer
Login/Regis
Computing
Computer Lect 1
Computer lect 2
Computer Lect 3
Business
Business lecture 1
Business Lecture 2
Business Lecture 3
Title
Navigation
Main body
Hyper Links
Footer
Picture

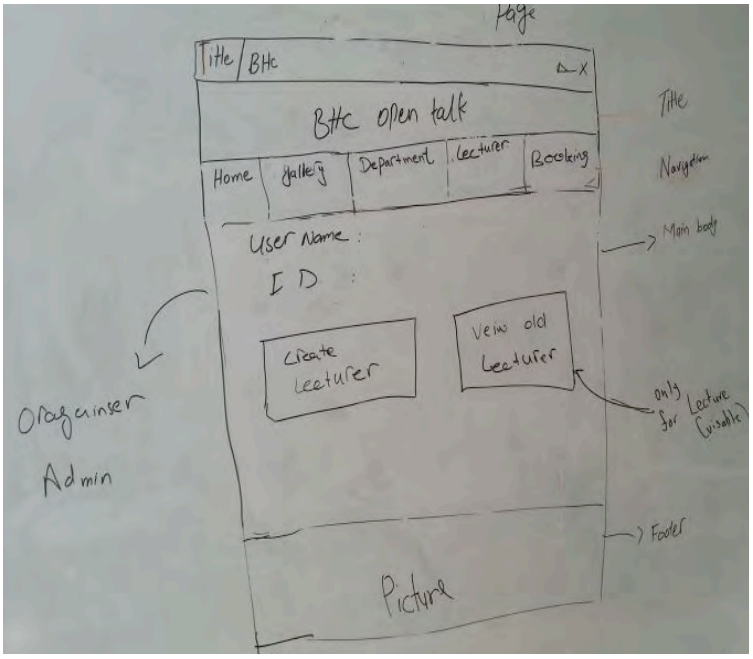

Oraginser Page
Title / BHc
Bttc open talk
Home
Gallery
Department
Lecturer
Booking
Create Lecture
title :
Room :
Date :
time :
Presenter Name :
Description :
Submit
Cancel
Title
Navigation
Main body
Footer
Picture


Computer Lecture Page
Title / BHc
Bttc open talk
Home
Gallery
Department
Lecturer
Login/Regis
Program in Java by John
Duration:
Description:
time :
Room :
Title
Main body
Hyper Links
Footer
Picture


Sign up Page
Title / BHc
Bttc open talk
Home
Gallery
Department
Lecturer
Login/Regis
Register
Name :
Email :
User Name :
Password :
Password Confirm :
Submit
Cancel
Title
Navigation
Main body
Footer
Picture


Bussiness lecture Page
Title / BHc
Bttc open talk
Home
Gallery
Department
Lecturer
Booking
User Name =
ID =
Booking
User Name :
Email :
Subject :
Submit
Cancel
Title
Navigation
Main body
Hyper Links
Footer
Picture


Page
Title / BHc
Bttc open talk
Home
Gallery
Department
Lecturer
Booking
User Name :
I D :
Create Leacturer
View old Leacturer
Oraginser
Admin
only for Lecture (visable)
Title
Navigation
Main body
Footer
Picture


Page
Title / BHc
Bttc open talk
Home
Gallery
Department
Lecturer
Booking
User Name :
I D :
Create Leacturer
View old Leacturer
Oraginser
Admin
only for Lecture (visable)
Title
Navigation
Main body
Footer
Picture

During this task, we agreed upon certain important facts for our website.

Establishment Name (Website title): BHC Open talk (Blake Hall College OPEN TALK)

Main Navigation panel consists of:

- Home
- Gallery
- Department
- Lecture
- Login/Register

Public Lectures only be conducted by Computing Department & Business Department

PowerPoint Presentation Prototypes

This was our final layout design before developing the final web-based system. Therefore this technique consider as a High Fidelity concept for creating on computer aid software. In contrast some of the wireframes and paper- prototypes considered as a low-fidelity concepts. Beneficial of using this technique, gives a clear understanding how the actual content and layout will look like on a final product design. This also gives clear indication over HCD process as discussed in Chapter 2.

BHC OPEN TALK

Home | Gallery | Department | Lecture | Login/ Register

Business Department Lectures

- Lecture 1 link
- Lecture 2 link
- Lecture 3 link
- Lecture 4 link
- Lecture 5 link
- Lecture 6 link

BHC OPEN TALK

Home | Gallery | Department | Lecture | Login/ Register

Computing Department Lectures

- Lecture 1 link
- Lecture 2 link
- Lecture 3 link
- Lecture 4 link
- Lecture 5 link
- Lecture 6 link

BHC OPEN TALK

Home | Gallery | Department | Lecture | Login/ Register

Computing Department

(ID) Lecture 1 Link..... (Topic)

Description about the lectures

>> Outline
>>
>>
>>

Presenter Name	
Duration	
Date	
Time	
Room	

Book Now

BHC OPEN TALK

Home | Gallery | Department | Lecture | Login/ Register

Login

Username	
Password	

Sign | Register

BHC OPEN TALK

Home | Gallery | Department | Lecture | Login/ Register

Register

Name	
Email	
username	
password	
Confirmation password	

Submit | Cancel

BHC OPEN TALK

Home | Gallery | Department | Lecture | Login/ Register

Welcome **User,**

Booking | View

Department Category	
Select Lecture	
Date & Time	
Venue	

Submit | Cancel

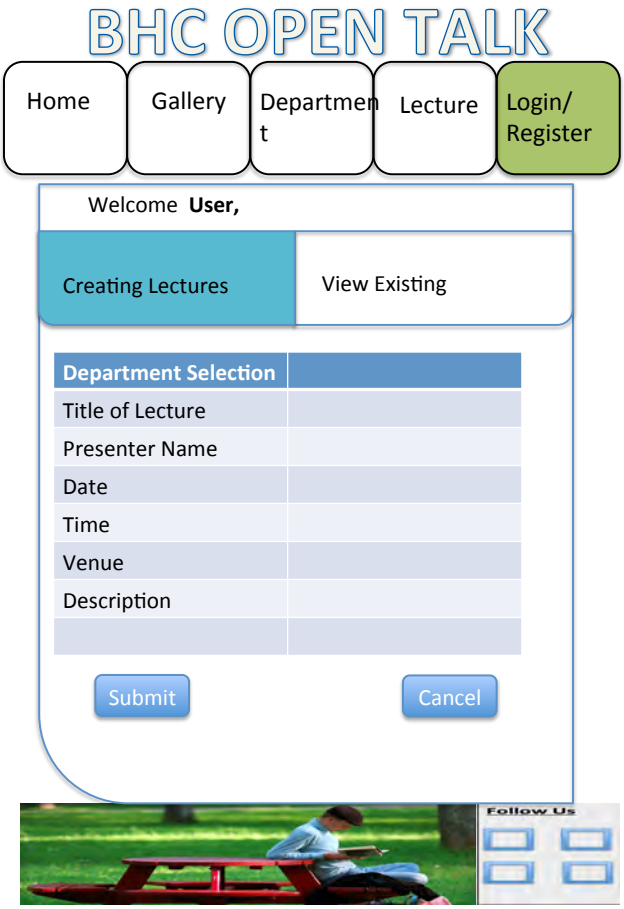
BHC OPEN TALK

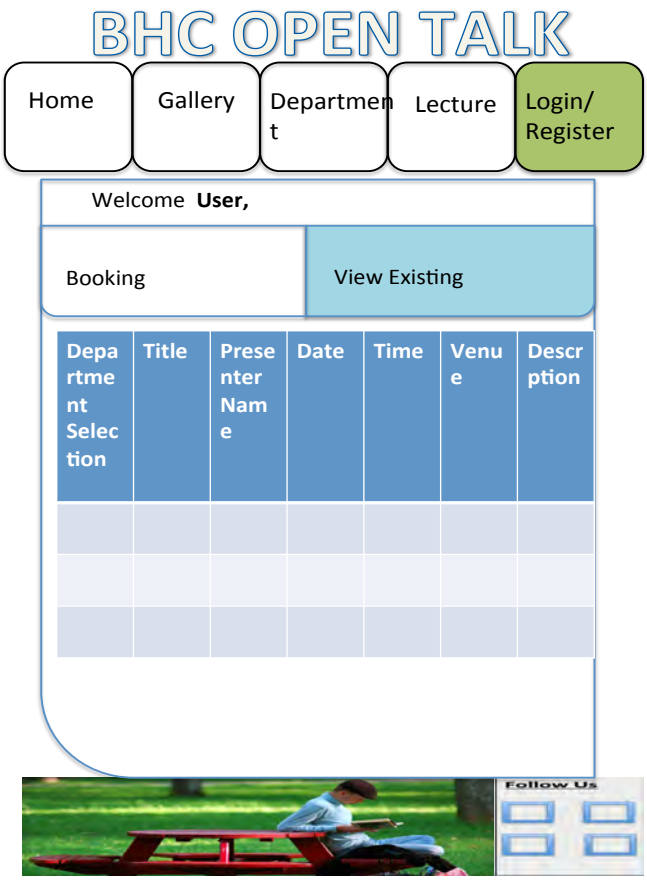
Home | Gallery | Department | Lecture | Login/ Register

Welcome **User,**

Booking | View

Booked Lecture	Date & Time	Venue





5.3 Web and Database connection model

Next we decided make model that represent which table associate with our main functionality of the system. This will help the PHP developers to understand which table need to be associated when developing the website. For example, when user registers with the system, register table need to update and create a new user login under the login table.

System Element	Table that associate
Register	register table, user table
Login	user table
Book a lecture	lec_book table
View Profile	delegate table
	admin table
	organiser table
	presenter table

Book Room	room table
View Booking	lec_book table
Create Lecture	lec_create table
Cancel Bookings	lec_book table
Reporting	lec_book table
	lec_creat table

5.4 Role-based Security Model

As part of our requirement analysis, we were required to design security analysis for our web-based system. Therefore I decide to adopt this technique called role based security for our project. Role based security provides limitation and restricted access to the system by providing enhanced security privileges for the users. The table given below shows access & limitation for this system.

System Element	System User	Access	Comments
Register	Delegate	Full Access	No limitation
	Presenter	No Access	Administrator can only able to register the user
	Organizer	No Access	
	Administrator	No Access	
Login	Delegate	Partial Access	>Can access able login with username and password given by administrator >For forgotten passwords/usernames need to contact the administrator
	Presenter		>Can access able login with username and password given by administrator >For forgotten passwords/usernames need to contact the administrator
	Organizer		
	Administrator		
View Profile	Delegate	Full Access	No limitation
	Presenter		
	Organizer		
	Administrator		
Book a lecture	Delegate	Full Access	Only delegate can able to book lectures for attending
	Presenter	No Access	
	Organizer	No Access	
	Administrator	No Access	
Book Room	Delegate	No Access	No limitation
	Presenter	No Access	
	Organizer	Full Access	Required to book a room for their lecture
	Administrator	Full Access	Manage rooms such as maintenance etc.
View Booking	Delegate	Full Access	To view existing bookings
	Presenter		

	Organizer		
	Administrator		
Create Lecture	Delegate	No Access	Organizer is allow to manage bookings for lectures
	Presenter	No Access	
	Organizer	Full Access	
	Administrator	No Access	
Cancel Bookings	Delegate	No Access	Organizer is allow to cancel any bookings
	Presenter	No Access	
	Organizer	Full Access	
	Administrator	No Access	
Reporting	Delegate	No Access	>Create reports for list of delegates (admin only) >A list of all lectures >A list of staff who have lecture origination responsibility >List of presenter and their lectures
	Presenter	No Access	
	Organizer	Partial Access	
	Administrator	Full Access	

5.5 Validation Requirement Design

Finally we decide to design model for our validation-requirement model.

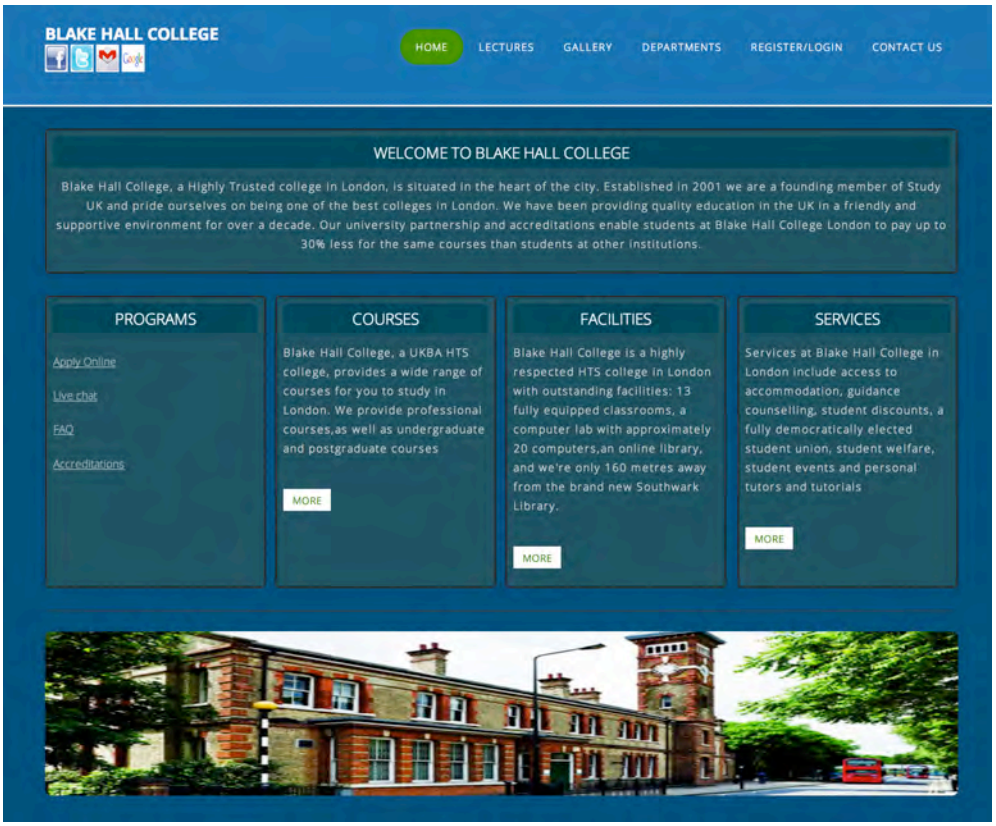
Area	Description	Validation
Self Registration	When user input name, email & password, system should able to recognize the correct format. Ex: - Email: theworlf@gmail.com User s	Pop-Up message stating, “Please ensure all fields corrected” Or “Password doesn’t match”
	User need to provide all the information before proceeding	Pop-Up message stating, “All fields, must be completed”
Login	Unable to enter username & password	Redirect the user to different page stating “need to contact administrator”
Create lecture	Organiser should able to enter the all the information as required for lecture bookings	Pop-Up message stating, “All fields, must be completed”
Booking a lecture	System should be able to stop users when room capacity is exceeds.	Pop-Up message stating, “All the Lectures are Fully Booked”

CHAPTER 6: DEVELOPMENT & TEST

6.1 Project Web Development

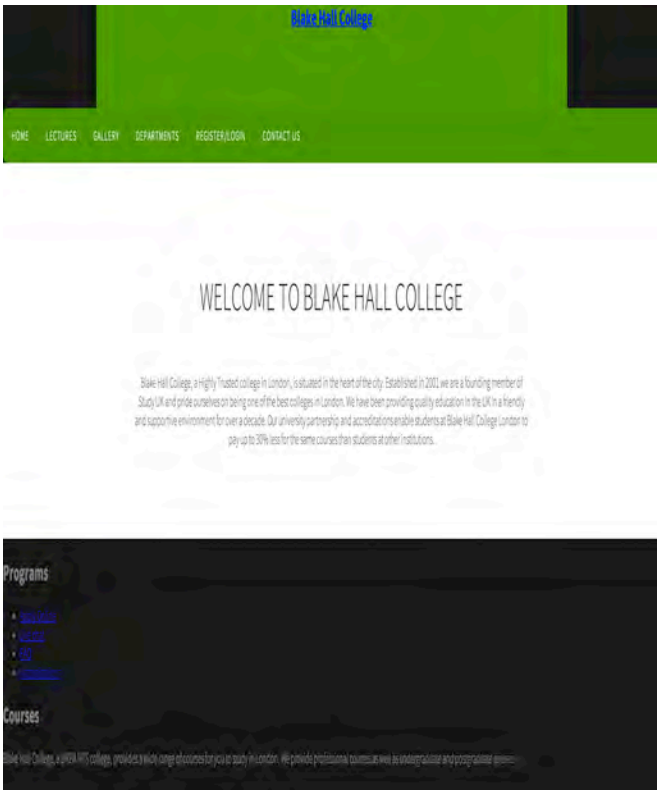
After designing the web pages and database, our next stage was developing web pages. This stage was again divided into three parts.

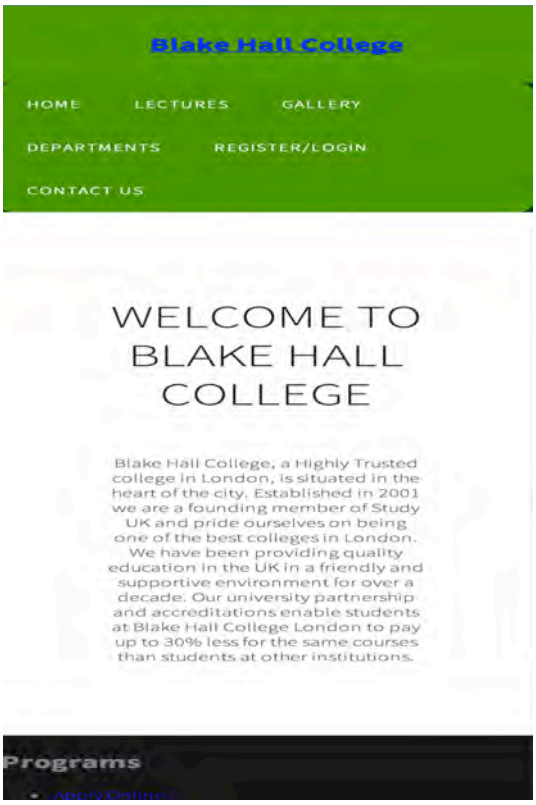
First part of the web development was developing website using Notepad ++. Notepad ++ help us to create entire web from scratch (HTML\CSS) without any dynamic elements such as PHP connection. We created our own design styles and layouts for implement this project.



However these content & layout not develop according to the prototype designs that we created earlier.

Second part of the project was to develop the entire website using responsive design elements. I was assign with this task for developing responsive web design for this project. First I develop the responsive home page using Bracket application (similar to Note Pad ++). This gave me idea, how to develop the website in Mobile-Responsive.





I used some of the development code from an online video tutorial to construct above webpage. According to the tutorial, it gave me some guidance for developing this website. Responsive Design elements are based on the CSS file. CSS file will define the relevant media queries and content for each output of display. (HTML5 Responsive Website - Start to Finish, 2013)

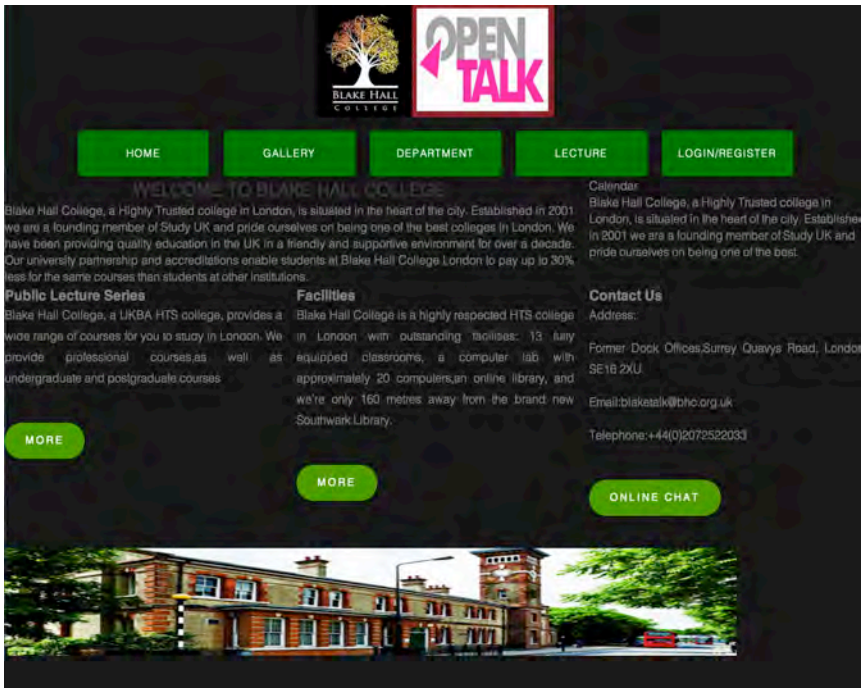
```
    html, body
    {
        height: 100%;
    }

    body
    {
    margin: 0px;
    padding: 0px;
    background: #151515 url(images/bg.png) repeat;
    font-family: 'Source Sans Pro', sans-serif;
    font-size: 12pt;
    font-weight: 300;
    color: rgba(255,255,255,0.4);
}

.container
    {
        overflow: hidden;
        margin: 0em auto;
        width: 1000px;
    }
#header-wrapper
    {
        overflow: hidden;
        background: #458f0b url(images/bg.png) repeat;
        text-align: center;
        margin : 0 auto;
        max-width : 980px;
        width : 96%;
        padding : 4%;

    }
#header
```

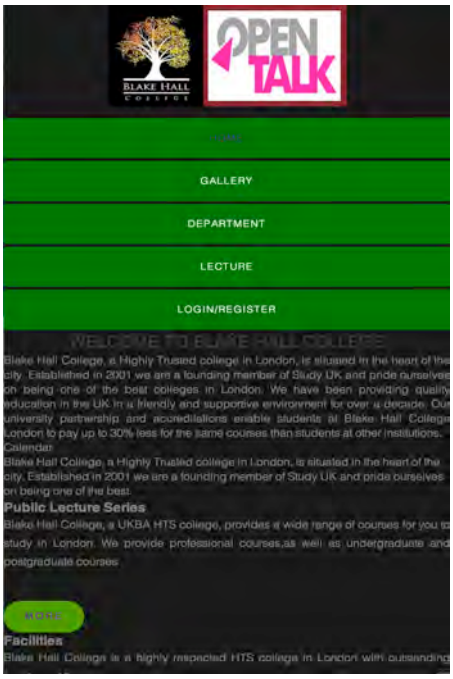
```
/*-------Media------*/


@media screen and (max-width: 740px)    {
.left-col {
    width: 100%;
}
.sidebar {
    width: 100%;
}
}
```

Subsequently, I used Adobe Dreamweaver CC software to develop the whole website using responsive design elements. I develop this website according to our final prototype design layout. When developing, Adobe Dreamweaver incorporates a file called “boilerplate.jsp” to the design. This file can able improve the performance

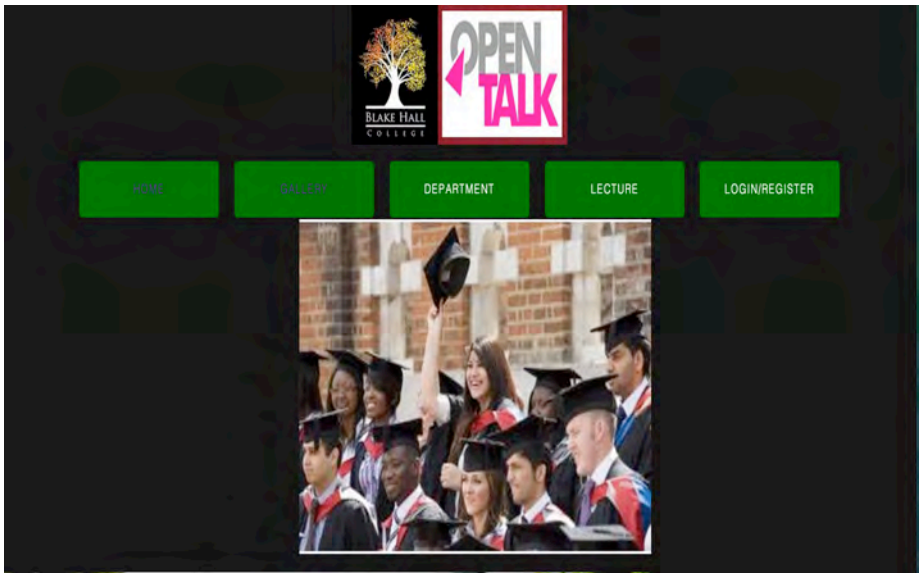
of the responsive site with a set of HTML-5 ready features and elements. (Exploring Fluid Grid Layouts, 2013)

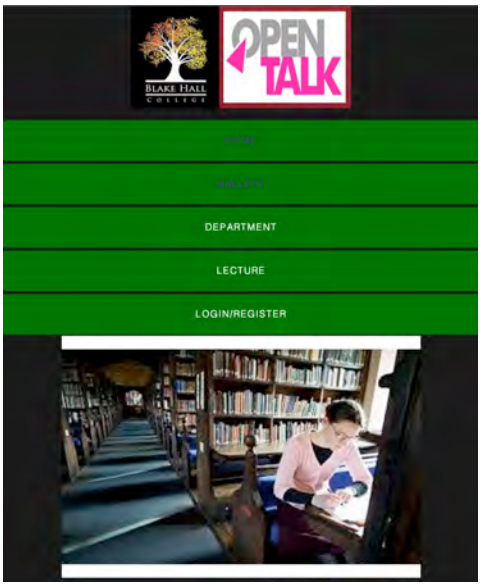
Home



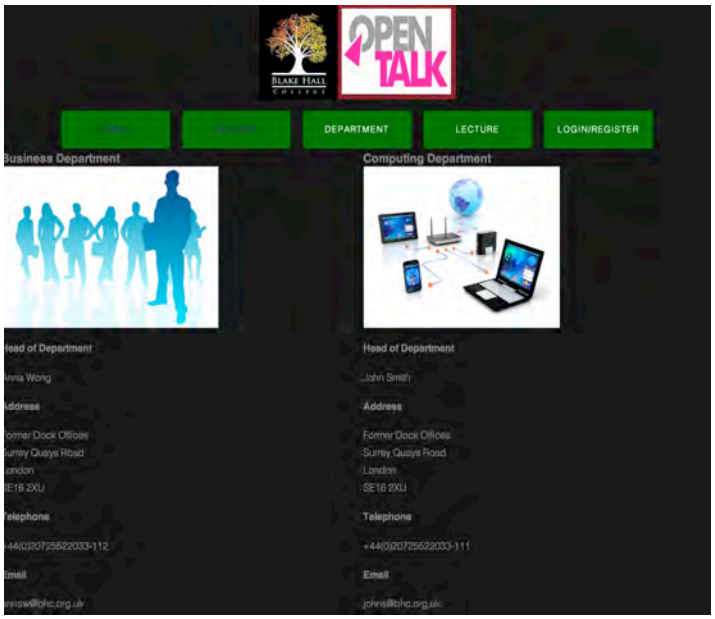


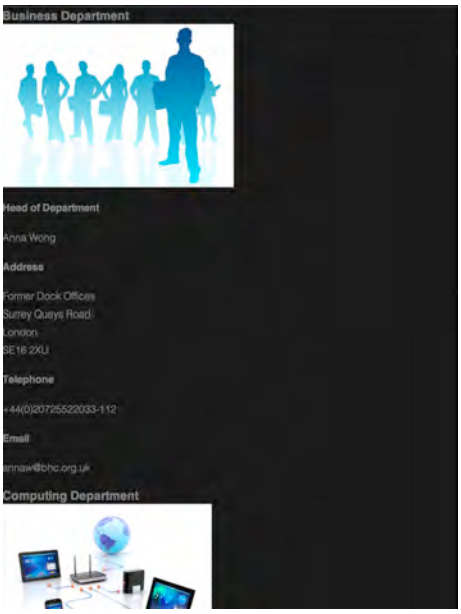
Gallery



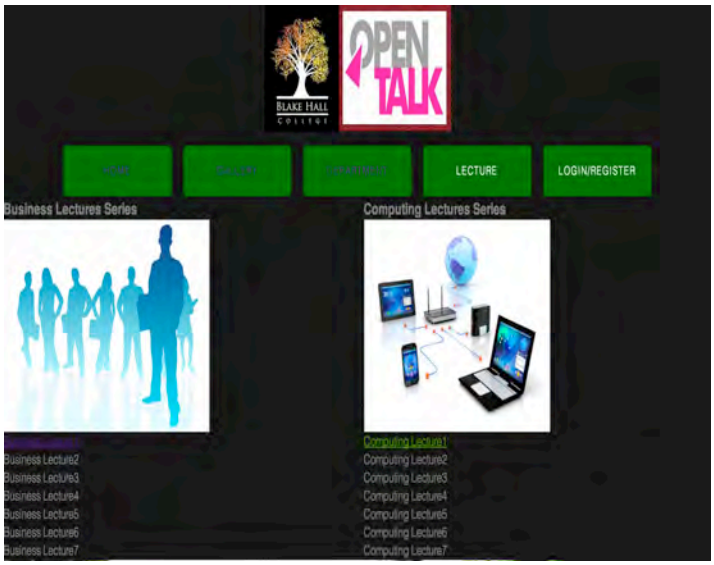


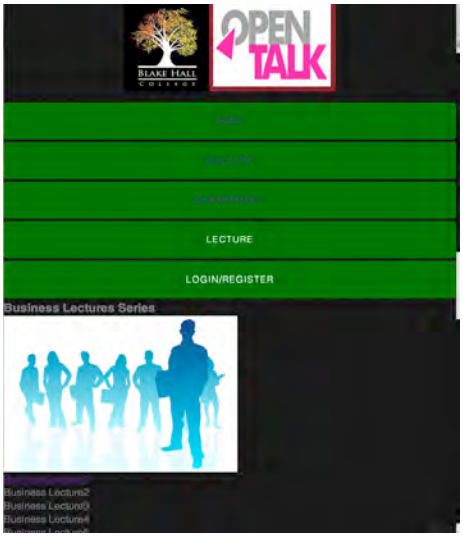
Departments



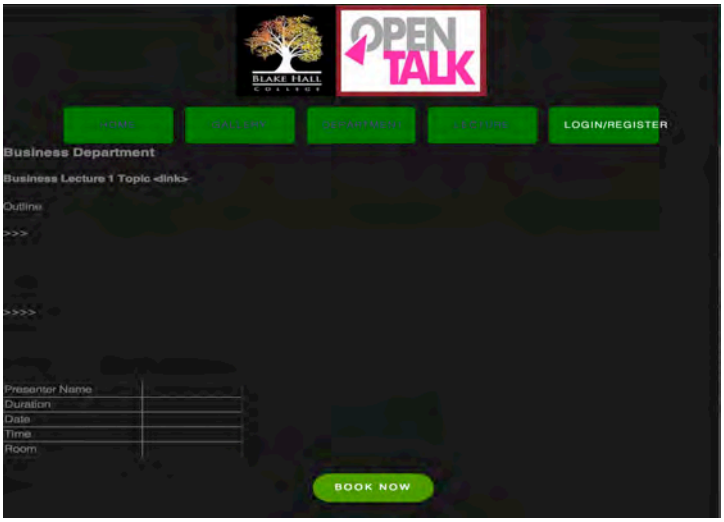


Lecture



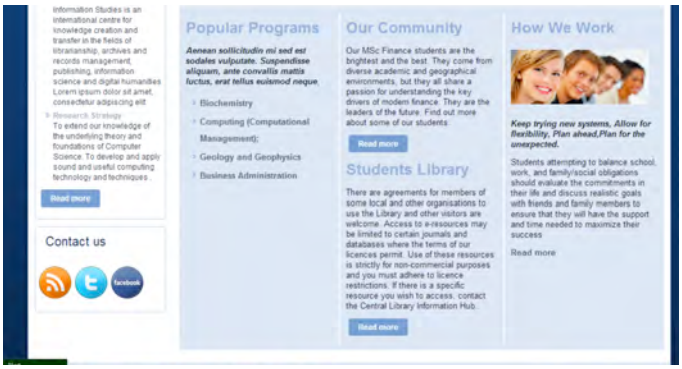


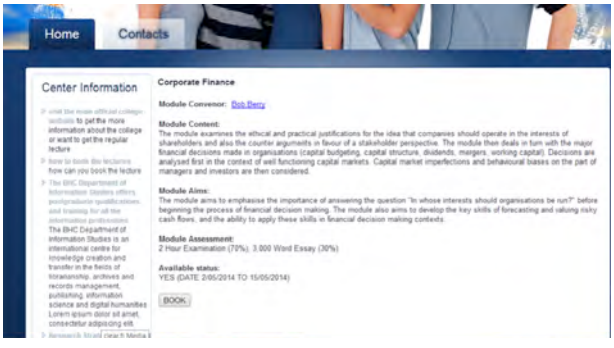
Sub Lecture



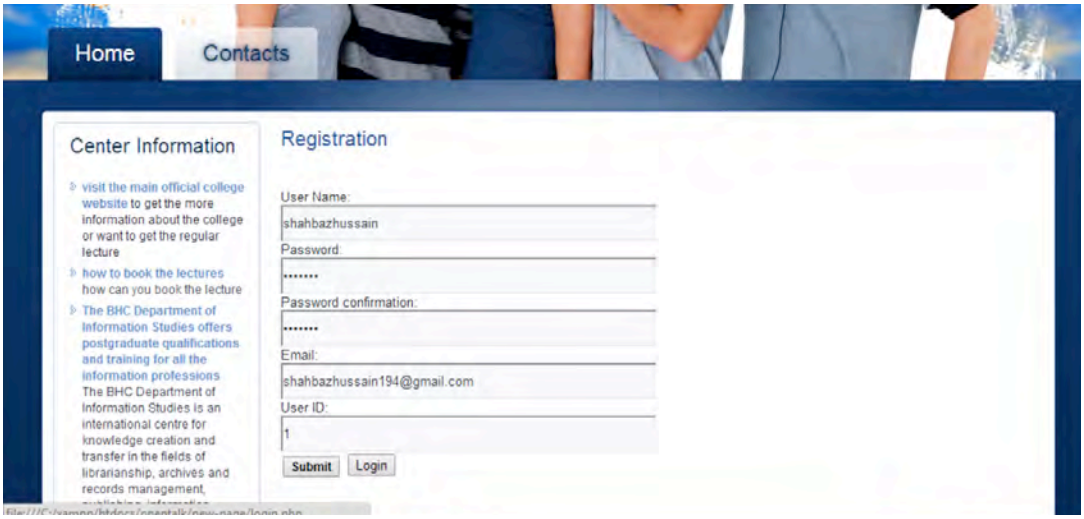
Once the database and responsive web sites are completely developed, then we decided to add the functionality to our website using PHP.

Due to unforeseen circumstances, one of the group members left the group without any prior communication. He was responsible for building last part of the development. Since the product was incomplete, Irsa took the responsibility of completing this project. Even though group have less technical knowledge in PHP, Irsa manage to develop another website by integrating PHP and MYSQL database together. The figures given below are the samples of our final product.





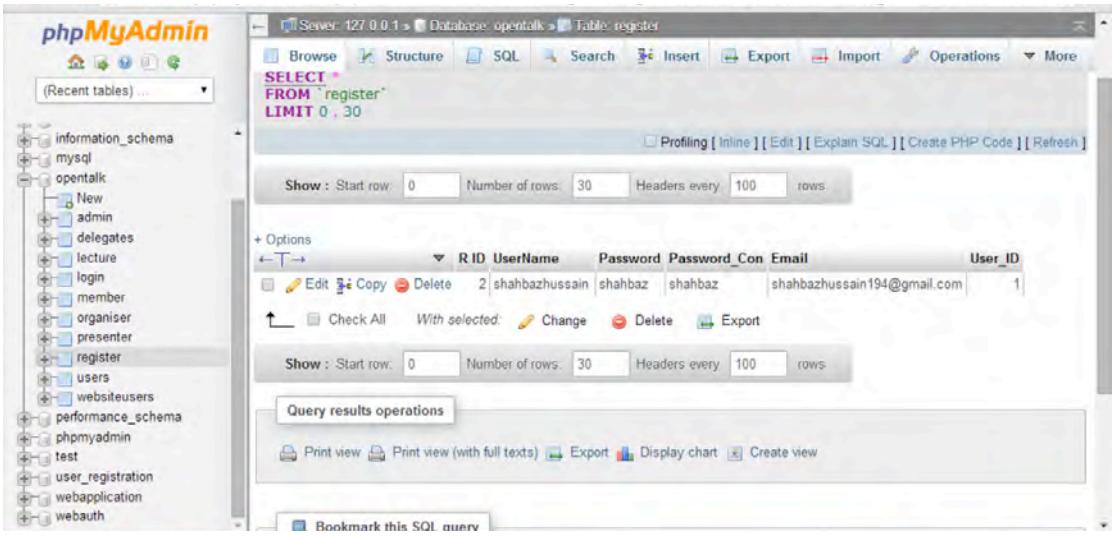
Here is example when user-register with our system, database fields is been updated.




```
alert("Record added Successfully");'; echo '
```

6.2 Project Database Development

We created our table using a web-based application provided by XAMPP server. Our database is structure is based on MYSQL database. The figure given below, how we incorporated our ERD design into this software.



6.3 Test

Testing can able to determine how would actual system would work on working environment scenarios. During the development stage, Masud was responsible for creating this test plan & test log for our website.

Test Scenario	Test Case Scenario Description	Function	Button/Link	Test data set	Expected Output
1.	Test corresponding user profiles to be shown as HTML (All users point of view)	Profile Page View	Profile Page	USER PROFILE DATA - dataset 3	Display profile information for all users
2.	Sample Lecture data sets are used for imputed at lecture creation (organizer point of view)	Lecture page information	Lecture creation link	Data set 2	Display Lectures information
3.	Test corresponding lecture booking function once data set 2 inputted into Lecture creation table (Delegate point of view)	Booking Lecture	Booking link	Lecture Creation data set - data set 2	Status lecture booked & update the Lecture Book table to be updated
4.	Sample User data sets are used for user registration function (delegate point of view)	User Registration	Registration	Data set 3	Update Register table/ user registered
5.	Once registered users, test to function login	Login	Login	Based on User-register data dataset 3	User login in to the system
6.	Test whether room are booked. (Organiser/admin point of view)	Book Room	Book a room	Data set -1	Status room booked
7.	Test the whole website for any broken links	Whole website links	Website links (Navigation, button, etc.)		Working
8	Test cancellation function for booked lectures (Organiser point of	Cancel booking	Cancel link	Based on already booked lecture	Update booked lecture table.

	view)				
9	Test function for fully booked (Delegate point of view	Booking Lecture	Book link	Lecture Creation data set - data set 2	Unable to book
10	Reporting (Admin/organiser point of view)	All function	Report link	Based on the whole system	Create/display reports

Here are some of the example dataset which we hoping to use at our web-based system.

Test Data Set	Data samples
Data set 1	Room no: 112 Room name: WestFrey Status: Available Room no: 284 Room name: EstWing Status: Unavailable Room no: 300 Room name: North Status: Available
Data set 2	Present Name: Professor Andy Stanford-Clark Lecture Title: Innovation for a Smarter Planet Department: Computer Science Lecture Content: ---- Date: 4/05/2015 Time: 1900 Room: 112 Present Name: Mr. Michael Chase Lecture Title: The Whiting-Turner Business and Entrepreneurial Lecture Department: Business Department Lecture Content: ---- Date: 17/05/2015 Time: 1900 Room: 284
Data set 3	Name: John Smith Email: smith@gmail.com Username jsmith11

	Password: $$$$$ Confirm Password: $$$$$ Name: Julia Rodríguez Email: julyrod@simontailor.com Username: julirod111 Password: $$$$$ Confirm Password: $$$$$

CHAPTER 7: EVALUATION & CONCLUSION

7.1 Project Evaluation

According to product criteria given in Chapter1, we have successfully developed working web-based based system with minimum functionality. Even though with minimum functionality, we have demonstrated all the design solutions for this web-based system, in Chapter 4 &5 of this report.

Moreover due to time constraints, we wasn't able to deliverer the testing log for our final website. Although, we have successfully implemented our testing plan according our design requirements. Before delivering this product, we have tested the minimum functionally such as lecture booking, user login & user registration of our website.

7.2 Group Teamwork Skills

I believe that group has demonstrated poorly due to lack of cooperation between each other. It has clearly shown, only two or three group members are actively working on their tasks. While others making excuses for not completing their work. Subsequently this made more frustration towards other active members. Since they are putting more time & effort completing this project.

Nevertheless, we had better communication skills and good teamwork skills in the beginning of the term.

7.3 Group Weakness

Group's major weakness was inadequate knowledge in PHP. This gave us, a huge disappointed towards the last part of the development in our website. Since it took time to learn & develop the whole website in PHP. It also gave the time constraints for developing other functional requirements of this project.

I also found that group another weakness is language barrier in English. Since our group is ethnically diverse, therefore most of the group members speak their own native English ascents which unable to understand. Based on they understanding, most of the diagrams that we have created are based on a college course system rather than creating on a public lecture system. In this report, I have altered my diagrams according to the coursework context.

During each group meetings, I have tried to break the barrier by explaining the coursework requirements as many times. Due to my effort, most of the group members understood, how to implement functionalities according to the coursework context.

7.4 Group contribution

This project was successfully delivered because of the huge contribution by given by Irsa, Masud and myself. Although others, also contributed in a small no of tasks for completing this project.

Personally Irsa played huge role as a Scrum master for development stage. She was able take the authority when Saranga left the project without any prior reasons. She was able to complete the whole tasks without letting this project down. I believe that she acted as a strong leader for taking towards the final goal of this project.

7.5 My contributions

For this project, I also manage to play as a Scrum master in requirement gathering, design solutions & implementation in mobile-responsive design. Moreover I keep up-to date communication between each group member and arrange group meetings to discuss our progression of our project.

Based on term “code repository”, I also mange to create a common folder in Dropbox where members have the access for making changes and retrieving content for this project.

7.6 Further enhancement

Once the website is completely developed, I was hoping to integrate this with SEO (as discussed in Chapter 2). This will give a clear indication how this website will perform in search engines in the world. We can also determine how the competition website preform with our website.

7.7 Conclusion

In overall, I have worked with various groups of people. Some were very enthusiastic towards completing their groups’ goal. However in this group, I learnt to work with different types of people with different backgrounds of knowledge. For me, it was a huge learning curve to work with ethnically diverse community. Moreover I also gain knowledge to work in an environment where Agile Scrum practices are being used. Finally I was able understand to develop a dynamic website while integrating a database.

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APPENDIX

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 24-01-2014
Time: 12:15 PM to 2:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5.

Agenda Topics:
1. Discuss our aims.
2. Our course outcomes.
3. Position of each member.

Goals: To develop our knowledge of development a group website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 31-01-2014
Time: 12:30 PM to 3:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5. Atif

Agenda Topics:
1. Assumption.
2. Users: student.
3. Discuss admin, organizer, and lecturers
Lecture's room, lecture
Cancelation done by admin
Lecture register by the admin

Goals: Making our assumption and analyses our requirement to develop a website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 07-02-2014
Time: 1:00 PM to 2:45 PM.
Location: College Campus.

Attendees:

1.
2. Masud
3. Irsa
4. Tharinda
5.

Agenda Topics:
1. Discuss Scrum.
2. Discuss Database design.
3. Create and design tables.

Goals: To make a prototype and farm of our website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 14-02-2014
Time: 12:30 PM to 3:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5. Atif

Agenda Topics:
1. Discuss Data Normalization.
2. Making prototype and farm of our website.

Goals: To create a website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 21-02-2014
Time: 1:00 PM to 3:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5. Atif

Agenda Topics:
1. Discuss more about prototype.
2. Discuss more about design and farm layout.
3. How can improve login and password.

Goals: To develop a group website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 28-02-2014
Time: 01:00 PM to 3:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5.
6. Sarangan

Agenda Topics:
1. Discuss about Use Case diagram.
2. Discuss about Sequence diagram.
3. Discuss more about previous work.

Goals: To develop our knowledge about Use Case and Sequence Diagram. Then implement this knowledge in our website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 07-03-2014
Time: 12:15 PM to 3:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5. Atif
6. Sarangan

Agenda Topics:
1. Discuss more functional and none-functional requirements.
2. Domain requirements.
3. Discuss more about sequence diagram.

Goals: To develop our knowledge of development a group website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 14-03-2014
Time: 12:30 PM to 2:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3.
4. Tharinda
5. Atif
6. Sarangan

Agenda Topics:
1. Discuss the quality and testing process of our website.
2. How to make test plan and test log of our website.
3. Discuss about workflow.
4. Discuss more about our assessment writing process.

Goals: To develop our knowledge about test Plan and testing process.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 21-03-2014
Time: 12:30 PM to 2:30 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3.
4. Tharinda
5. Atif
6. Sarangan

Agenda Topics:
1. Discuss more about our report.
2. Our grammar rules.
3. Position of each member.

Goals: To develop our knowledge of development a group website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 28-03-2014
Time: 01:00 PM to 3:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5. Atif
6. Sarangan

Agenda Topics:
1. Discuss search engine optimization (SEO).
2. How to implement Google search in our website.
3. Discuss more about responsive design and implement it in our website.

Goals: To develop our knowledge about Google search.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 04-04-2014
Time: 12:30 PM to 3:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5. Atif
6. Sarangan

Agenda Topics:
1. Discuss management information systems for reporting.
2. Our previous work.
3. Position of each member.

Goals: To develop our knowledge of development a group website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 11-04-2014
Time: 11:00 PM to 2:00 PM.
Location: College Campus.

Attendees:

1. Amit
2. Masud
3. Irsa
4. Tharinda
5. Atif
6. Sarangan

Agenda Topics:
1. Discuss our Previous works.
2. Implement every works.

3. Discuss more about security of our website.
4. Discuss about the connection between database and web

Goals: To develop our knowledge of development a group website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 18-04-2014
Time: 12:30 PM to 2:30 PM.
Location: College Campus.

Attendees:

1.
2. Masud
3.
4. Tharinda
5.
6.

Agenda Topics:

1. Discuss about any improvement needed in our website.
2. Still awaiting for the final completion of the website

Goals: To develop our knowledge of development a group website.

Meeting agenda: Group Study.

Course name: Enterprise Web Software Development.
Date: 25-04-2014
Time: 12:00 PM to 2:30 PM.
Location: College Campus.

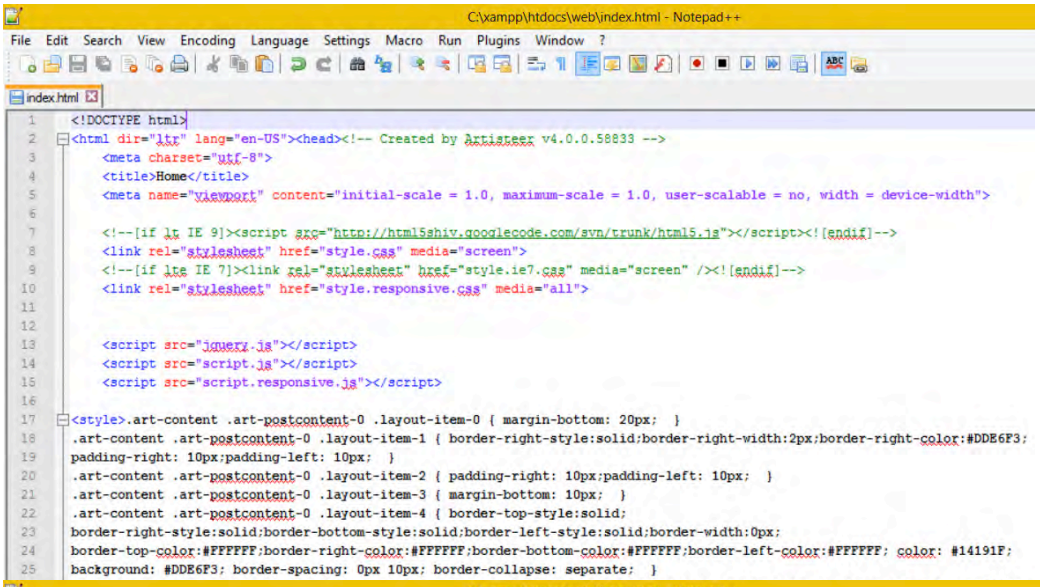
Attendees:

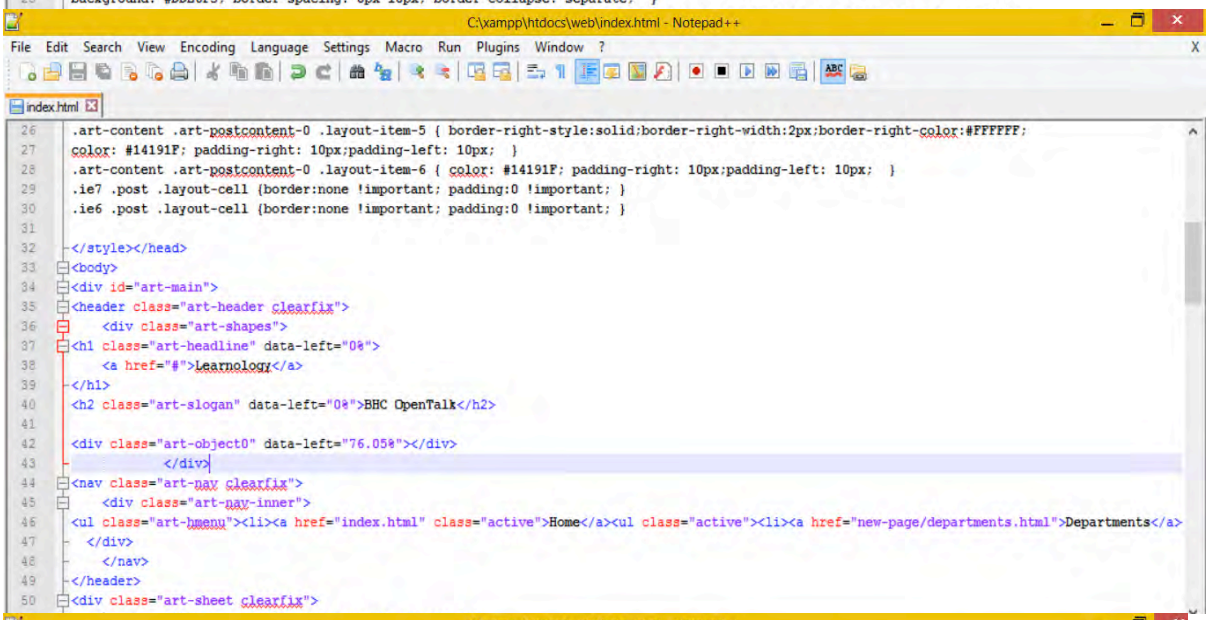
1.
2.
3. Irsa
4. Tharinda
5.
6.

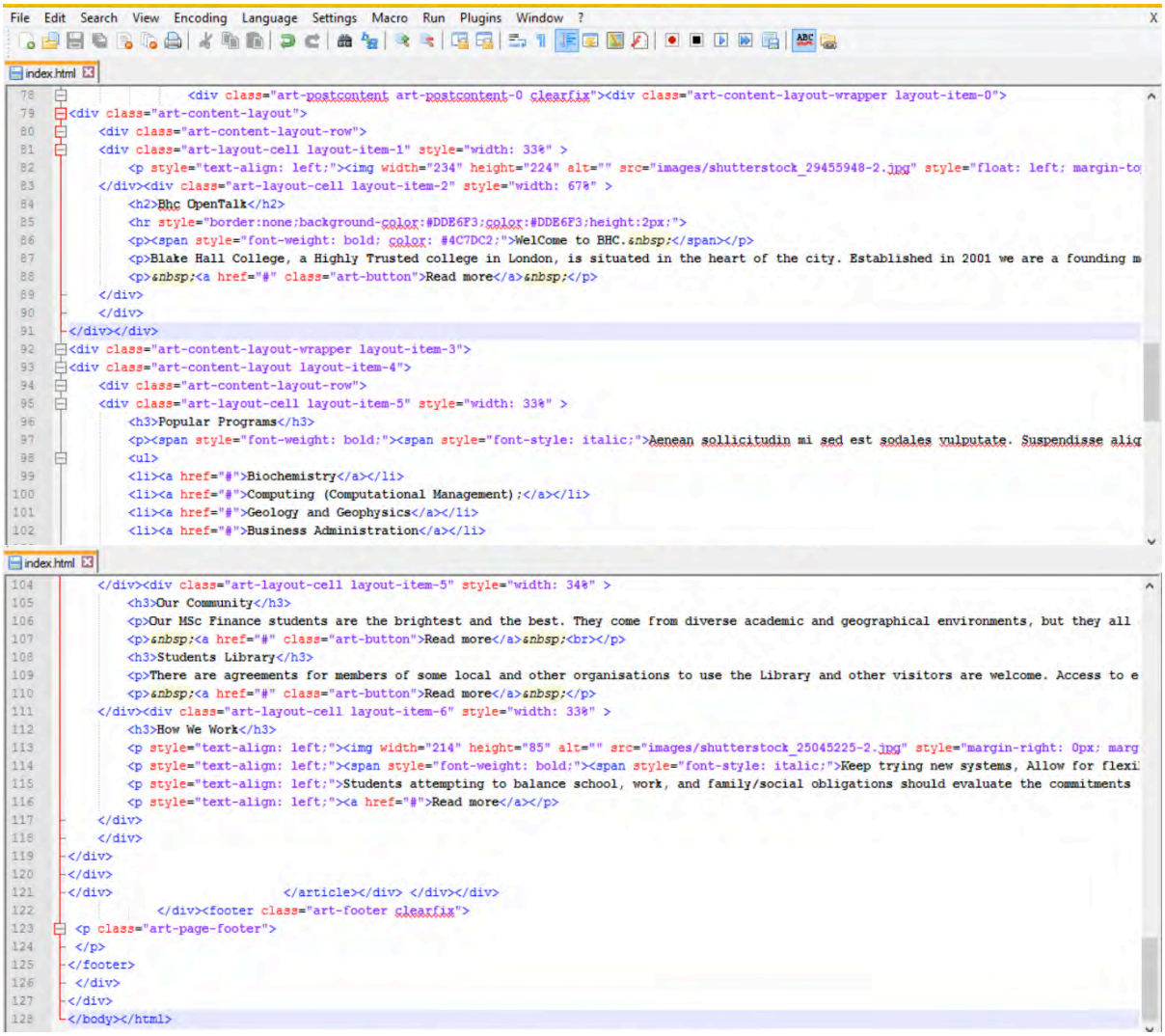
Agenda Topics:
1. Discuss more about how to complete the complete final part of the project.
2. Send all kind of paperwork to every group members.

Goals: To develop our knowledge of development a group website.

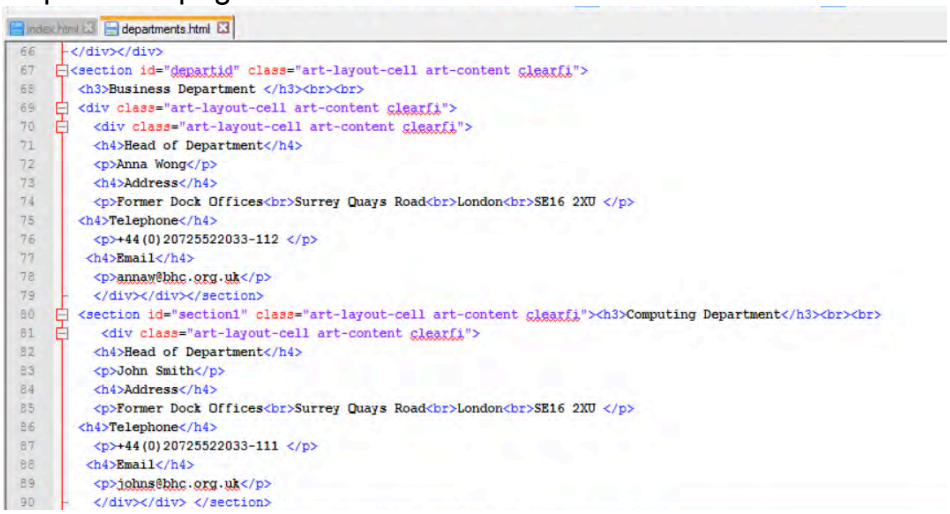
Final Website Code



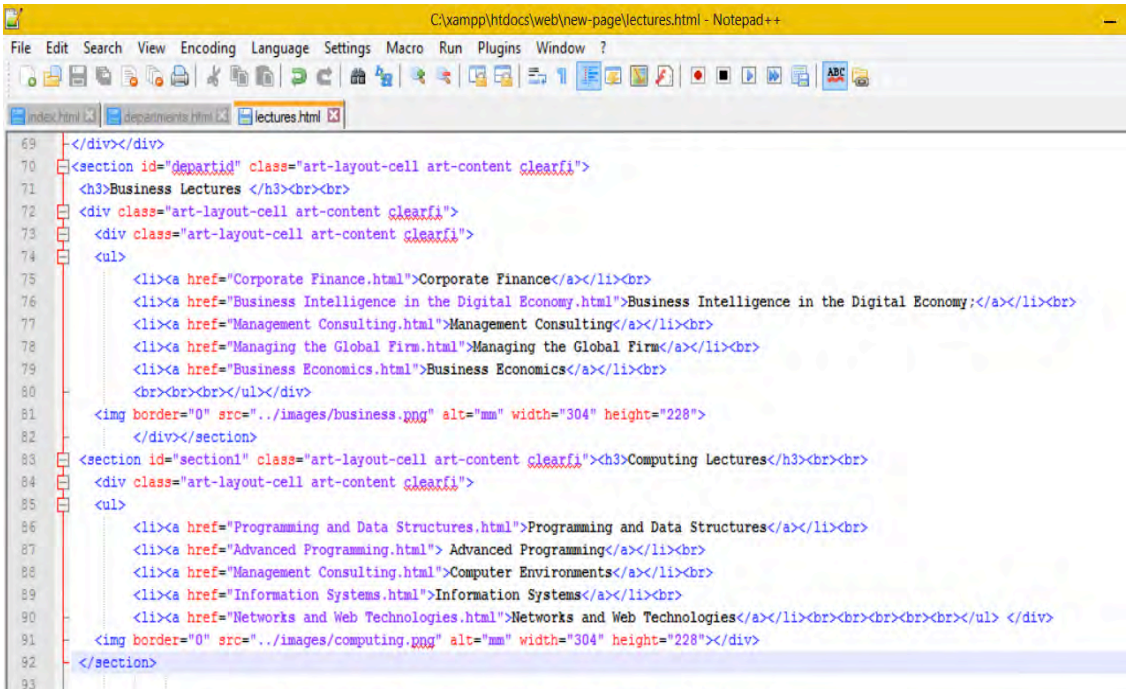




Department page codes



Lecture page coding




```
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 <div class="art-layout-cell art-content clearfi">
   <div class="art-layout-cell art-content clearfi">
   <ul>
        <li><a href="Corporate Finance.html">Corporate Finance</a></li><br>
        <li><a href="Business Intelligence in the Digital Economy.html">Business Intelligence in the Digital Economy;</a></li><br>
        <li><a href="Management Consulting.html">Management Consulting</a></li><br>
        <li><a href="Managing the Global Firm.html">Managing the Global Firm</a></li><br>
        <li><a href="Business Economics.html">Business Economics</a></li><br>
        <br><br><br></ul></div>
   <img border="0" src="../images/business.png" alt="mm" width="304" height="228">
        </div></section>
 <section id="section1" class="art-layout-cell art-content clearfi"><h3>Computing Lectures</h3><br><br>
   <div class="art-layout-cell art-content clearfi">
   <ul>
        <li><a href="Programming and Data Structures.html">Programming and Data Structures</a></li><br>
        <li><a href="Advanced Programming.html"> Advanced Programming</a></li><br>
        <li><a href="Management Consulting.html">Computer Environments</a></li><br>
        <li><a href="Information Systems.html">Information Systems</a></li><br>
        <li><a href="Networks and Web Technologies.html">Networks and Web Technologies</a></li><br><br><br><br><br><br></ul> </div>
   <img border="0" src="../images/computing.png" alt="mm" width="304" height="228"></div>
 </section>
```
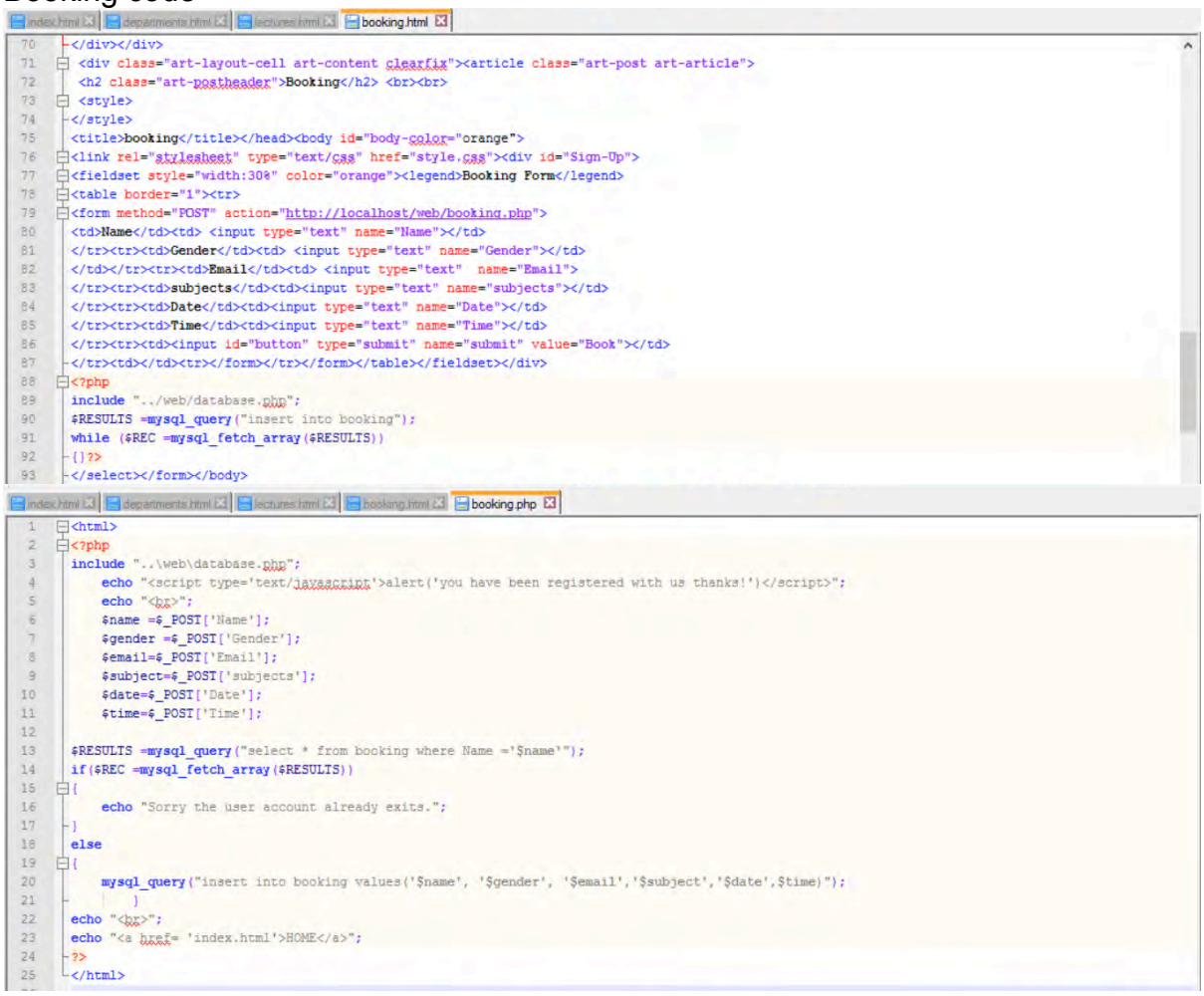

Booking code




```
</div></div>
 <div class="art-layout-cell art-content clearfix"><article class="art-post art-article">
 <h2 class="art-postheader">Booking</h2> <br><br>
 <style>
 </style>
 <title>booking</title></head><body id="body-color="orange">
<link rel="stylesheet" type="text/css" href="style.css"><div id="Sign-Up">
<fieldset style="width:30%" color="orange"><legend>Booking Form</legend>
<table border="1"><tr>
<form method="POST" action="http://localhost/web/booking.php">
 <td>Name</td><td> <input type="text" name="Name"></td>
 </tr><tr><td>Gender</td><td> <input type="text" name="Gender"></td>
 </td></tr><tr><td>Email</td><td> <input type="text"  name="Email">
 </tr><tr><td>subjects</td><td><input type="text" name="subjects"></td>
 </tr><tr><td>Date</td><td><input type="text" name="Date"></td>
 </tr><tr><td>Time</td><td><input type="text" name="Time"></td>
 </tr><tr><td><input id="button" type="submit" name="submit" value="Book"></td>
 </tr><td></td><tr></form></tr></form></table></fieldset></div>
<?php
include "../web/database.php";
$RESULTS =mysql_query("insert into booking");
while ($REC =mysql_fetch_array($RESULTS))
{}?>
</select></form></body>
```

```
<html>
<?php
include "..\web\database.php";
    echo "<script type='text/javascript'>alert('you have been registered with us thanks!')</script>";
    echo "<br>";
    $name =$_POST['Name'];
    $gender =$_POST['Gender'];
    $email=$_POST['Email'];
    $subject=$_POST['subjects'];
    $date=$_POST['Date'];
    $time=$_POST['Time'];

$RESULTS =mysql_query("select * from booking where Name ='$name'");
if($REC =mysql_fetch_array($RESULTS))
{
    echo "Sorry the user account already exits.";
}
else
{
    mysql_query("insert into booking values('$name', '$gender', '$email','$subject','$date',$time)");
        }
echo "<br>";
echo "<a href= 'index.html'>HOME</a>";
?>
</html>
```

Register

```
<title>Sign-Up</title>
</head>
<body id="body-color="orange">
<link rel="stylesheet" type="text/css" href="style.css">
<div id="Sign-Up">
<fieldset style="width:30%" color="orange"><legend>Registration Form</legend>
<table border="1">
<tr><form method="POST" action="http://localhost/web/createuser.php">
<td>Name</td><td> <input type="text" name="FullName"></td>
</tr><tr><td>Email</td><td> <input type="text"  name="Email">
</td></tr><tr>
<td>Password</td><td> <input type="password" name="Password"></td></tr><tr>
<td>Confirm Password </td><td><input type="password" name="PasswordConfirmation"></td>
</tr><tr><td><input id="button" type="submit" name="submit" value="Sign-Up"></td>
</tr><td></td><tr></form>
<form method="POST" action="http://localhost/web/login.html">
<td><input id="button" type="submit" name="login.html" value="Login"></td>
</tr></form></table></fieldset></div>
<?php
include "../web/database.php";
$RESULTS =mysql_query("insert into register");
while ($REC =mysql_fetch_array($RESULTS))
{}
?></select>
</form>
```

Login html

```
</style>
<title>Sign-Up</title>
</head>
<centre><font color='green' size='22'><b> Login</b></font></centre>
<body id="body-color="orange">
<link rel="stylesheet" type="text/css" href="style.css">
<div id="Sign-Up">
<fieldset style="width:30%" color="orange"><legend>Login</legend>
<table border="1">
<tr>
<form name='form1' method='post' action='http://localhost/web/login.php'>
<td> User Name</td><td><input name='UserName'><br></td>
</tr><td>Password</td><td> <input type ="Password" name='Pass'><br></td>
</tr><td><input type='submit' value='submit'></td>
</tr><td></td></form></</fieldset></div>
<?php
include "../web/database.php";
$RESULTS =mysql_query("insert into register");
while ($REC =mysql_fetch_array($RESULTS))
{
}
?>
</select>
```

Login PHP

```
<?php
include  "../web/database.php";
if (isset($_SESSION['UserName']))
    {
        $User_Name=$_SESSION['UserName'];
        $Password=$_SESSION['Pass'];
    }
else
    {
        $User_Name =$_POST['UserName'];
        $Password =$_POST['Pass'];
    }

$RESULTS =mysql_query("select * from register where FullName ='$User_Name' and Password ='$Password'");
if ($RECORD = mysql_fetch_array($RESULTS))
    {$_SESSION['UserName']=$User_Name;
        $_SESSION['Password']=$Password;
        echo "<br>";echo "<br>";
        echo "Welcome : " .$User_Name;echo "<br>";
        $CompanyInfo=mysql_query("SElect * from delegateS");
if($company=mysql_fetch_array($CompanyInfo))
        {echo $company['FullName'];echo "<br>";
            echo $company['DOB'];echo "<br>";
            echo $company['PhoneNumber'];echo "<br>";echo "<br><br><br>";}}else
    {echo "INVALID USER";
    }echo    "<br><br>";?>
```