THIRD YEAR PROJECT 2012-2013

EduSoc: The Social Learning Environment

Anuvabh Dutt (543)
Mourjo Sen (561)
Jennifer Shah (1539)

Under the guidance of
Prof. Kaushik Goswami

DEPARTMENT OF COMPUTER SCIENCE,
ST. XAVIER'S COLLEGE,
30 MOTHER TERESA SARANI,
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Certificate

This is to certify that the project titled "*EduSoc: The Social Learning Environment"*, submitted by Anuvabh Dutt (543), Mourjo Sen (561) and Jennifer Shah (1539) in partial satisfaction of the requirements for the degree of Bachelor of Science in Computer Science has been completed and is an original work of their own. This work has not been submitted for any other degree in this institution or any other institution.

_____   _____

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Acknowledgement

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Anuvabh Dutt (543)   Mourjo Sen (561)   Jennifer Shah (1539)

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1   Introduction

For centuries the art of education and teaching has been perfected by the traditional methods of classroom based teaching. In the modern age, the use of technology in education has shown significant increase in the responses of the students as well as the teachers. The use of computer hardware and software in education and training dates to the early 1940s, when American researchers developed flight simulators which used analog computers to generate simulated on board instrument data. The use of ICT in education has been increasingly growing since the advent of the World Wide Web. Many web-based learning management systems are in the market today most notably among them are Blackboard, Moodle etc. What a typical learning management system (LMS) does is to provide an alternative way to learn over the internet which goes beyond the requirements of infrastructure, manpower and strong financial support. LMSs range from systems for managing training and educational records to software for distributing online or blended/hybrid college courses over the Internet with features for online collaboration. Colleges and universities use LMSs to deliver online courses and augment on-campus courses. Corporate training departments use LMSs to deliver online training, as well as automate record-keeping and employee registration. In this project, we have designed a system based on a model for a new wing of educational software.

2   Objective

EduSoc is designed to be an educational software that allows its students to study from anywhere, at any time and also allows course instructors to design courses with course material like text, images, videos. The main objective is to promote education through use of social networking.

3   Social Education: The Model

The National Literacy Mission defines literacy as acquiring the skills of reading, writing and arithmetic and the ability to apply them to one's day-to-day life. The achievement of functional literacy implies self-reliance, awareness of the causes of deprivation, acquiring skills to improve economic status and general wellbeing, and imbibing values such as national integration, conservation of environment, women's equality, and observance of small family norms. In the age of informatics, where the social structure is defined by social networking, education can no longer be kept separate from the social system, which in turn cannot be viewed without taking social networks into account. In this project, we view the learning process as a social behaviour. In our view, since education is an integral part of the development of the self, one's experiences in the process of learning can be shared so that the entire society's leaning ability can be enhanced. The current system uses social networking as a platform for education and can be termed as social education software.

Social networks have become a part of everyone's lives today. We know that the key to the success of social networks is the connectivity to one another. That is, no one is secluded in the system. One person's activity affects those close to him/her and the process is a ripple effect. A social network is a social structure made up of a set of actors (such as individuals or organizations) and a complex set of the dyadic ties between these actors. The social network

perspective provides a clear way of analysing the structure of whole social entities. The study of these structures uses social network analysis to identify local and global patterns, locate influential entities, and examine network dynamics. The diagram below shows a typical social network where the nodes are users and they themselves connect to one another over time and create a graph of interconnected users.
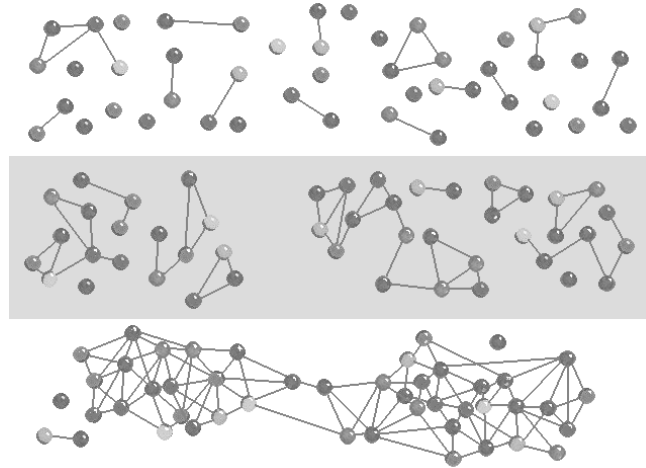

Figure 1: Social Graph

Exposure and awareness are the two important pillars that are required to have an educated society. The reason for the use of social networks as a basis for our model is because it provides both. No extra effort will be required in promoting education if it is implemented as a social network. The utility of using social network as the platform is apparent after looking at what we regard as expected behaviour of the system. Let us take an example where a student A signs up for a course X. All friends of A (those who are connected to A in the social graph) are notified of this action. On being notified, some of A's connections take a look at what the course is about and what it addresses. Some of them may be interested into taking the course for themselves (and this is so because no amount of advertising can compete with the traditional word of recommendation from a friend – that the course is studied by a person close to one often provides the necessary incentive to actually sign up for a course). The process repeats recursively henceforth. Now, when A finishes a chapter or a unit his connections and subscribers are again notified. So if there are some connections and/or subscribers who (were interested but) have not yet signed up or thought they will later sign up are again reminded about their interest in the course. Moreover, with each chapter completion, A's connections and subscribers get notifications about the entire course structure and the duration that A takes in completing the course. When A is certified after the completion of the course, a certification is added to A's profile which again creates awareness instigating people to take the course.

The principal reason for having an education system based on social interactions is aimed solely at creating awareness among people to take the courses and study to get certification. This objective has been derived from the rural villages of India where illiteracy is at its apex only because there has been a lack of infrastructure and awareness in education and literacy. The need for elaborate infrastructure is overcome since the system is web-based (a computer

with internet connectivity is enough) and the awareness is created through the social networking.

What we aim to achieve through this model is to promote education through social networking. The intersection of social networks and educational software is what makes this model uniquely suited for today's world.
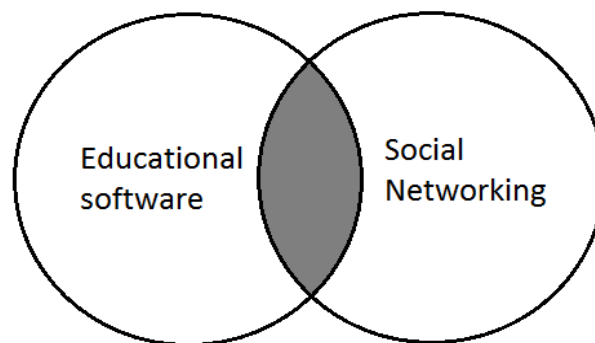
Figure 2: EduSoc is an educational software that uses social networking

To illustrate how e-learning is made more accessible with social networking as its backbone, let us understand the following points:

1. The system visualizes each user as a node in the social network. We call this network the learning environment. Any student user in the network can take courses in any stream. These become the user's activity which can be viewed on the user's profile.

2. Connections: A user can subscribe to another user's activities in the learning environment, if permission is granted. That is, if permission is given, the user gets updates when the subscribed user starts a course, completes a chapter, or finishes a unit of the course. On certification of the course, the subscribed user's course statistics is updated to the user. Connections are termed as friends in the software we implement. This naming convention is drawn from the most popular social networking sites today so as to familiarize the user with the terminology.

3. A short history of recent developments in the form of the courses taken, courses discontinued, courses completed, etc. is displayed as notifications on subscribed user's profile page.

4. Once friend requests are accepted, users get updates of the course stats that the subscribed user, get notified by his/her reviews about the course after the completion.

5. Forums: Learning groups and topics can be formed for collaboration and working towards newer techniques towards designing and taking the courses in the system. Both students and the instructors can be part of the same group.

6. Interaction with course instructors provides a way to deal with common misconceptions and doubts that instructors want to convey to students.

The main aim of the groups is to create an educated society from the projections of elementary interaction between the members of the groups.

4 System Requirements and Specifications (SRS)

The first stage in the development of this software, a detailed requirements study was carried out keeping in mind the goals that the system was to achieve. This section gives an account of the study of the requirements based on which the system was ultimately designed and developed. The server side development has to be done as to ensure fast response to users, while not compromising on security. The client side development has to be done, keeping in mind that the software should be available to all users, irrespective of the browser that they may be using. Also, the software should appear and function the same on all systems.

4.1 Functional Requirements

4.1.1 Online Courses From Anywhere

The primary requirement of the system is to make courses available to students irrespective of where they are located, what computer they are using and without any time constraints. The system was developed as an online web application so as to overcome geographical barriers and the vast diversity of computer systems. A student can take as much time as needed to complete the course, without any time restrictions as opposed to traditional teaching methodologies.

4.1.2 Education as a Social Activity

The system is required to socially bind users together in order to build a network of users whose learning activities are used to provide impetus to other learners to take up courses. In this way, the system becomes self-sustained in promoting education.

4.1.3 Quality of Offered Courses

A user can sign up as a course instructor. On registration, the instructor is required to submit a bio data in support of his ability to design courses. The administrator(s) grants or denies permission on the basis of the instructor's credentials. Only if the instructor is granted permission can he proceed to design courses that students can sign up for. At any time the administrator(s) can remove a course from the system, revoke instructor status of a user on grounds of course quality.

4.2 Non-functional Requirements

4.2.1 Reliability and Availability

The software is a web application. The reliability and availability will depend on the uptime of the server on which it is hosted.

4.2.2 Security

Sensitive data has to be made secure from malicious intent.

4.2.3 Portability

Learners can view course material in any computer system and not be restricted to any particular computer system.

5 Anatomy of the System

There are two entities in the system – users and courses. In the following sections we give the details about them in the following sections.

5.1 Types of Users

Our system consists of a set of user types, each of which has its own role to play in the system. The user types are clearly defined so as to facilitate maximum efficiency.

1. **Student**: The students are class of users the entire system is built around. Users can register as students in the homepage of the system and choose any course of their choice. A student can enroll in any number of courses that the system offers. Students can save their progress at any time and come back later to continue where they left off in the last session. They are given a certificate on successful completion of a course.

2. **Course Instructor**: This class of users is responsible for designing a course. They are given the permission from the system administration to create a new course and amend any course that they had previously created. The course instructors have the option of using text, image, audio and video for building a course.

3. **Administrator**: This is a class of users who have the authority to control the activities of the system and maintaining the integrity of the system. It is the administrators' duty to monitor the system regularly, grant permissions, carry out regular back up of the system, handle the security of the system, and define registry values etc.

5.2 Structure of a Course

Broadly a course can be thought of to be made up to two parts:

- Course contents or course material
- Certification or examination

5.2.1 Course Contents

The system deals with a hierarchical structure of the course. The levels are indicated as follows, from top level to the bottom:

1. **Subject**: Before a course can be created, the course instructor has to classify the course into a broad subject. The subjects are defined by the administrator. It is to classify courses on the basis of the subject area they address.

2. **Course**: The course is the central entity in this system. The instructor creates a course and a student takes up the course that he/she wants to study. Courses are grouped according to their subject area and the keywords mentioned in the course description. Thereby making it easier to search for a course.

3. **Unit**: A course is divided into units, each of which is numbered according to the progress of the course. The order is to be maintained.

4. **Chapter**: A unit is divided into chapters. A chapter contains the chapter heading, a description about what the chapter deals with and references and sources of further information.

5. **Page**: A chapter is divided into pages that contain the course material for the student to study from.
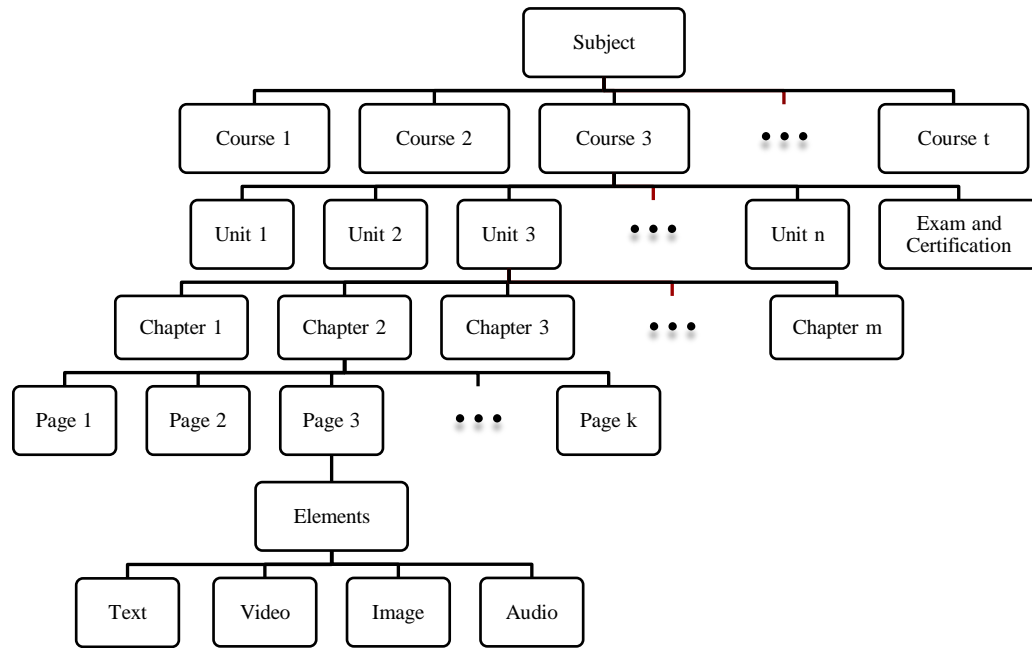
Figure 3: The course structure

5.2.2 Certification

A student is prompted to take the test on completion of all the units in the course. The examination is based on a set of n questions (n is determined by the administrator). The course instructor has to provide a set of questions to the question bank for that course. The course instructor also has to provide four options of which only one is correct. The system selects n questions from the question bank at random, in each of which the options are also randomly ordered. In a question bank of size m, the probability of getting the same question in two consecutive tries to take the exam is n/m. If m is large, the probability of repeated questions is less.

6 System Design

6.1 SDLC

We have used the spiral model of software development methodology in the development of EduSoc. The spiral model combines the idea of iterative development (prototyping) with the systematic, controlled aspects of the waterfall model. It allows for incremental releases of the product, or incremental refinement through each time around the spiral. The spiral lifecycle model allows for elements of the product to be added in when they become available or known. This assures that there is no conflict with previous requirements and design.
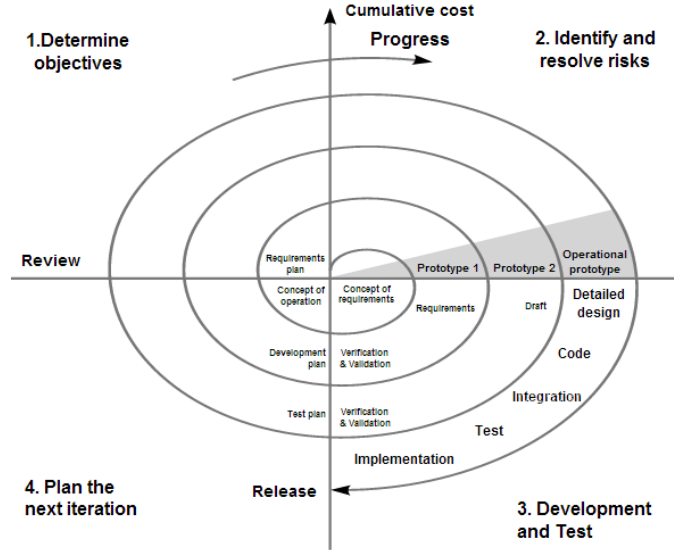
Figure 4: The Spiral Model

6.2 System Metrics

Analysis of big data is one key feature to understand the users better. Here based on the data the system gathers from the students and the instructors, we calculate certain parameters that help us understand the trend of the users more. Here we have given a list of such parameters that help us analyse the data in the database.

1. **Course popularity**: The system can determine how popular a course depending on two parameters from the system. The course popularity is determined by the following:

$$P = \frac{n_c}{N}$$

where **P** = Course Popularity, n_c = Number of students signing up for that course, **N** = Total number of students

2. **Course rating**: Average of the rating (between 1 and 5) given by course takers.

3. **Completion rate**:

$$C = \frac{n_s}{n_c}$$

where n_s = number of people completing the course, n_c = Number of students taking up that course

4. **Instructor demand**: The instructors are ranked according to their demand from the students taking courses. The instructor demand is defined as follows.

$$I = \frac{\sum P_i}{c}$$

where **I** = Instructor demand, P_i = Popularity of ith course by that instructor, **c** = Number of courses by that instructor.

5. **Difficulty index of a question**: In our system, the course instructor sets questions for the tests and the course instructor defines the difficulty of the course at an initial level. The difficulty then varies as and how the question is answered correctly by the students. The difficulty index of the question helps in indexing questions into four sets of groups of easy, medium, standard and hard questions. Based on the difficulty level, the jumbling of the questions is done so that each student taking the test gets the same number of questions (as defined by the instructor) from a given difficulty level.

$$Q = \begin{cases} Q' \;\; intitially \\ Q + 1 \;\; if \;\; \dfrac{n_R}{N} < \dfrac{Q}{100} \;\; and \;\; Q < 100 \\ Q - 1 \;\; if \;\; \dfrac{n_R}{N} > \dfrac{Q}{100} \;\; and \;\; Q > 0 \\ Q \;\; otherwise \end{cases}$$

where Q' = initial difficulty index of a question given by the instructor, $0 \le Q' \le 100$

Q = difficulty index of a question, $0 \le Q \le 100$

$n_R = \dfrac{Number\ of\ students\ correctly\ attempting\ question}{Total\ number\ of\ students\ attempting\ the\ question}$

6.3 Unique Identification

The users of EduSoc are identified by the software using a unique code that is assigned to each user at the time of registration. The IDs used for the system were so developed that chance of having clashes is minimum even if they are generated almost concurrently. Clashing is an important issue because two or more IDs generated almost at the same time runs the risk of having the same value and that will cause a fault in the database. Parallel generation of IDs is not rare in web based systems because it is available to many people at the same time.

In this system we have designed our IDs in a way that minimizes the probability of clashing and the IDs were so designed that the referenced entries' IDs are already deciphered from the face value of the ID.

Some IDs use timestamp. In our application, timestamp is calculated in the following way:
<sec><microsec>
      where **sec** = number of seconds from EPOCH to current time in GMT
      microsec = number of microseconds from **sec** to current time in GMT

There are 10^6 microseconds in 1 sec. Therefore in a period of 1 second, the probability of clashing for two independently generated IDs (of the form <sec><microsec>) is

$$1 \times 10^{-6}$$

Apart from the users, all the other entities,(courses, pages, forum threads, etc.) are also uniquely identified with the help of IDs. Courses codes are given by the course instructor. The units, chapters and pages in the course are defined such that form the ID of a chapter, we can decipher what the course code and unit code are for that chapter.

Given below are the IDs used in the system and the conventions used in generating them.

Type of data	ID form	Example
Student User ID	S<timestamp>	S135709576397674900
Instructor User ID	I<timestamp>	I135709576397671200
Administration User ID	A<timestamp>	A135709576397421100
Course ID	<timestamp>	135709576397612300
Course Code	<CODE>	WEBDEV
Unit	<Course CODE>-U<i^{th} unit>	WEBDEV-U1
Chapter	<Course CODE>-U<i^{th} unit number>-C<j^{th} chapter>	WEBDEV-U1-C5
Page	<Course CODE>-U<i^{th} unit number>-C<j^{th} chapter>-P<k^{th} page>	WEBDEV-U1-C1-P9
Question	<Course CODE>-U<i^{th} unit number>-C<j^{th} chapter>-Q<n^{th} Question>	WEBDEV-U4-C9-Q11
Certificate ID	<Course Code>-<User ID>	WEBDEV-S135709576397674900
Forum Thread ID	<Course CODE>-T<i^{th} thread>	WEBDEV-T5
Thread Post ID	<Course CODE>-T<i^{th} thread number>-P<j^{th} post>	WEBDEV-T5-P3

6.4 Use Case Diagrams
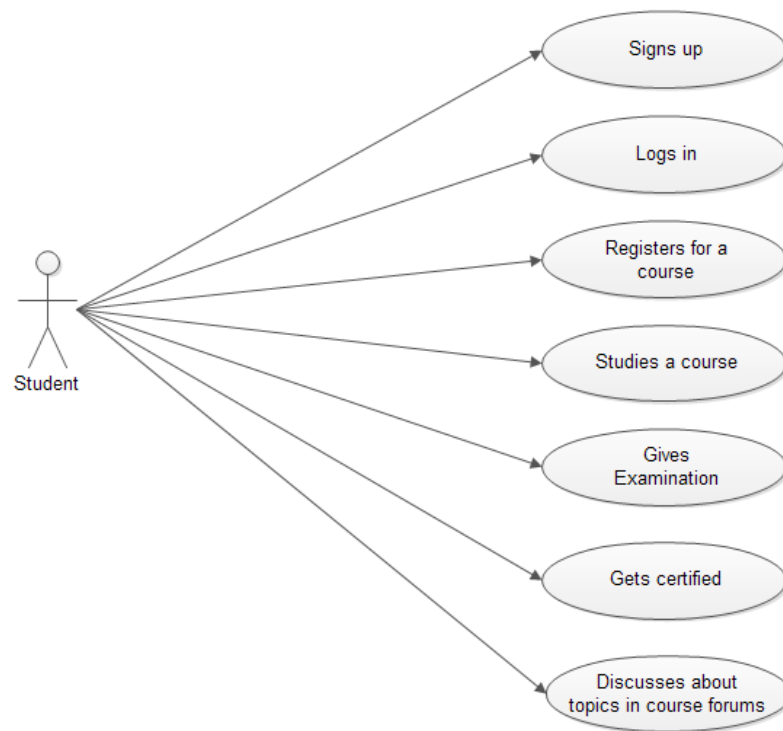
Figure 5: Student Use Case
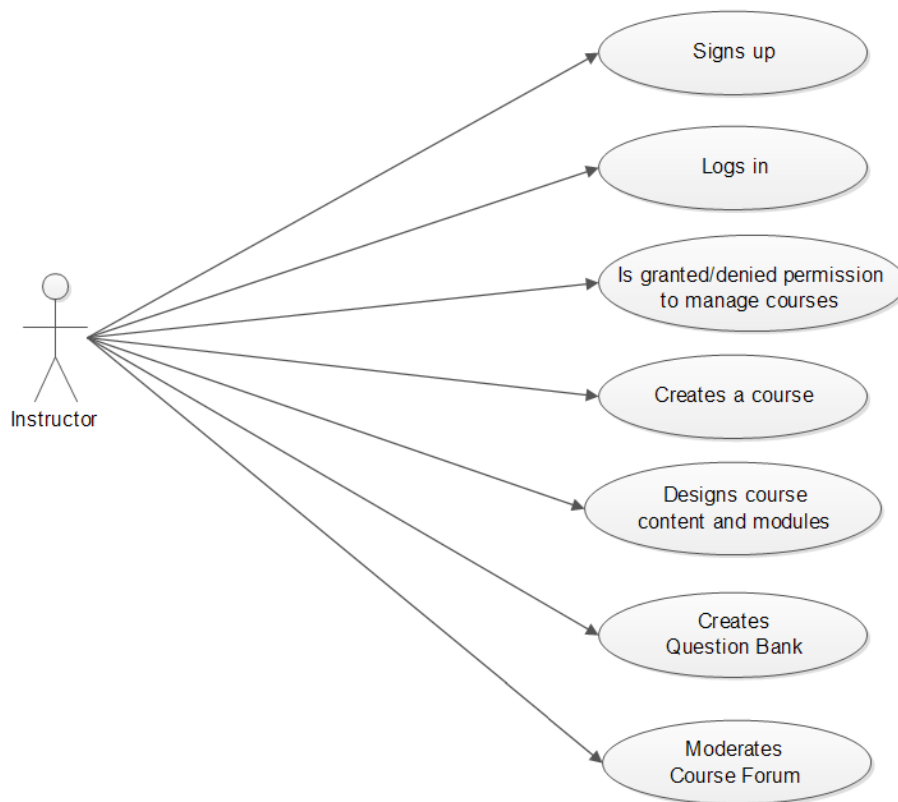
Figure 6: Instructor Use Case
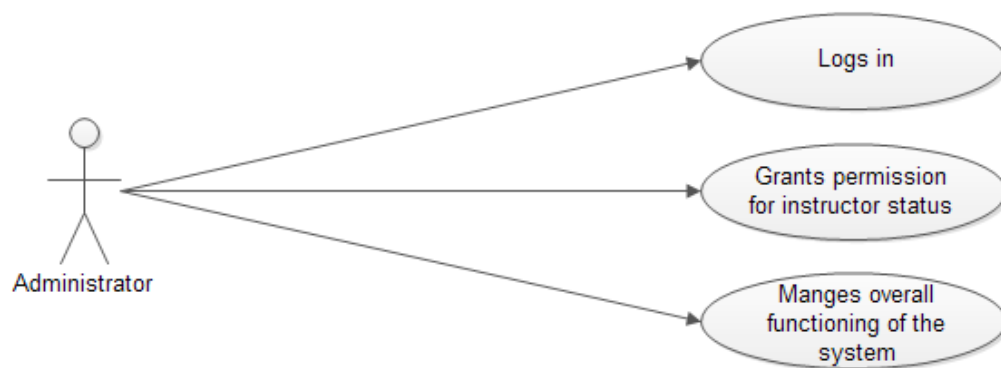
Figure 7: Administrator Use Case

6.5 Data Flow Diagram
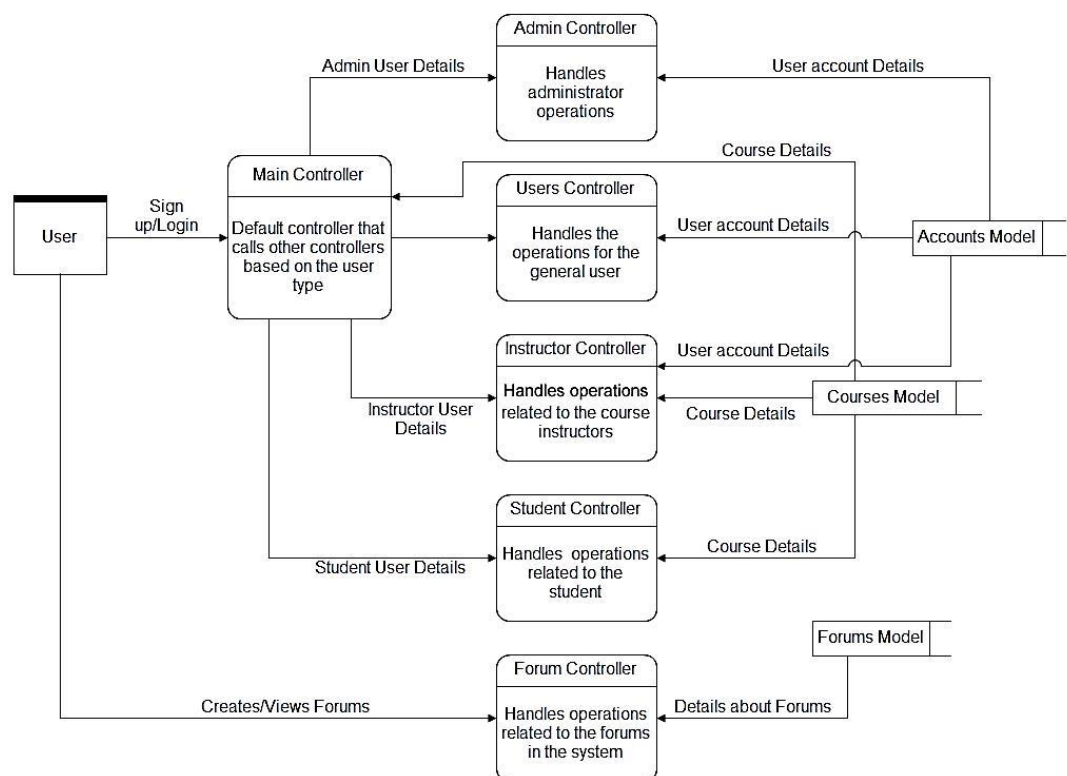
Figure 8: DFD of the system

6.6 Class Diagrams
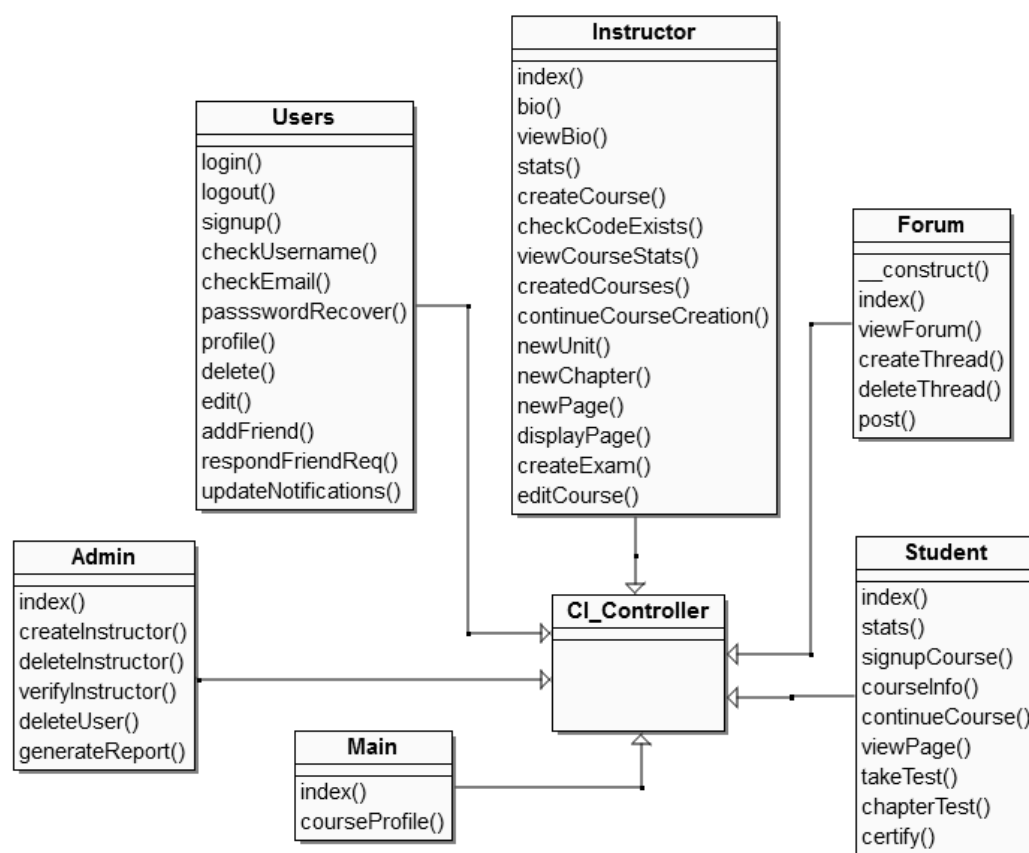
Figure 9: Controller class diagram

Accounts

login()
signup()
checkUserID()
checkEmailUname()
getDetails()
updateUsers()
getInstructorBio()
storeBio()
checkInstructorStatus()
FetchIntructorsForVerification()
validateInstructor()
getFriends()
checkFriendStatus()
addFriend()
awaitingFriendReq()
respondFriendReq()
getUserID()
getNotifications()
getInstructorNotifications()
updateNotifications()

Forums

fetchThreads()
createThread()
fetchPosts()
newPost()

CI_Model

Courses

fetchSubjects()
fetchStreams()
fetchCourses()
updatePopularity()
getCourseInfo()
checkCourseCode()
create()
fetchUnits()
fetchChapters()
fetchPages()
countUnits()
createUnit()
countChapters()
createChapter()
countPages()
createPage()
fetchPageElements()
signupCourse()
getProgress()
updateLastPage()
pageNav()
checkOwner()
studyingCourses()
instructingCourses()
vistedPage()
fetchVisitedPages()
addQuestion()
completed()
getQuestions()
checkAnswer()
checkCourseCompleteion()
checkCourseCertification()
certify()

Figure 10: Model class diagram

6.7 Database EER Diagram
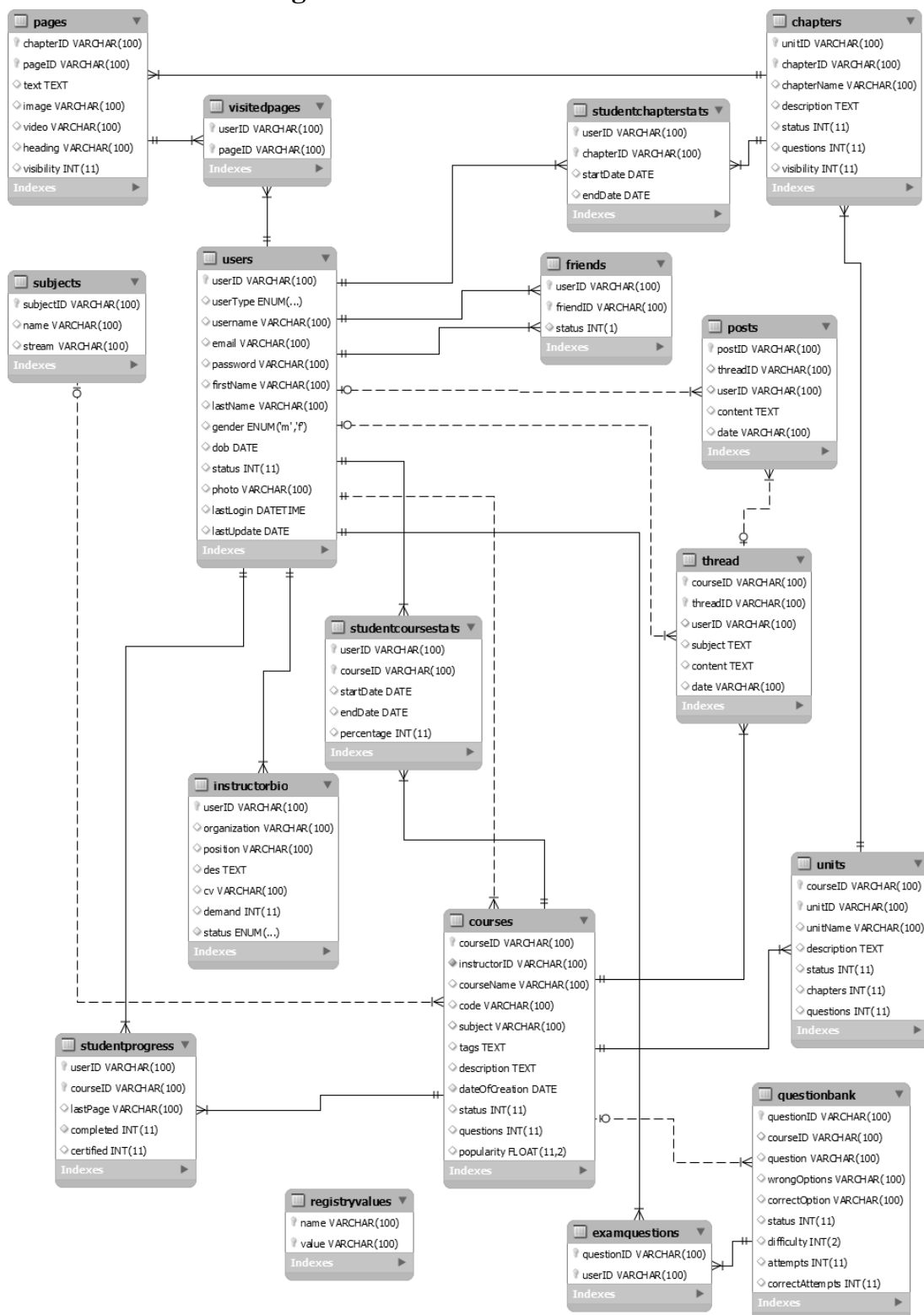
Figure 11: EER Diagram

7   System Specifications

For the system to work properly, there are some minimum requirements on both the server system and the client systems.

7.1 Hardware Specifications

7.1.1   Server

Processor	Intel Core i3 Dual Core CPU with Hyper-Threading, 3.1 GHz, 3 MB cache or equivalent
RAM	4 GB DDR-3 RAM
Secondary memory	160 GB storage with RAID-1 mirroring
Additional requirements	USB 2.0 Port

7.1.2   Client

Processor	Intel Pentium 4
RAM	1 GB DDR RAM
Network	256 kbps internet connection

7.2 Software Specifications

7.2.1   Server

HTTP Server	Apache HTTP server version 2.2
Database Server	MySql Community Server version 5.0.8
PHP	PHP Version 5.3.8

7.2.2   Client

Operating System	Windows XP, MAC OS X, Linux
Browser	Browsers with .mp4 playback support

8   System Implementation

The software has been implemented using:

- PHP as the server side scripting language
- MySql for the back-end database
- HTML5/CSS3 for the front-end design of the software
- Javascript as the client-side scripting language

Frameworks and libraries used:

- Codeigniter 2.1.3
- Bootstrap 3
- jQuery 1.9.1

8.1 MVC Architecture

The design of EduSoc is based on the MVC design paradigm. To implement it, we have used the Codeigniter framework.
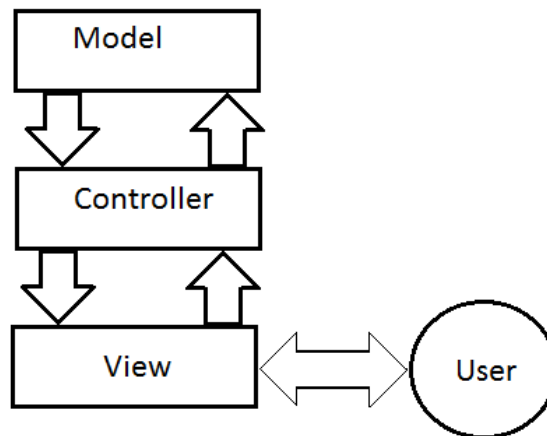
Figure 12: MVC Architecture

MVC stands for Model-View-Controller. MVC is a software approach that separates application logic from presentation. In practice, it permits web pages to contain minimal scripting since the presentation is separate from the server-side scripting.

The **Model** represents your data structures. Typically model classes contain functions that help to retrieve, insert, and update information in a database.

The **View** is the information that is being presented to a user. A View will normally be a web page, but it can also be a page fragment like a header or footer. It can also be an RSS page, or any other type of page.

The **Controller** serves as an intermediary between the Model, the View, and any other resources needed to process the HTTP request and generate a web page.

8.2 System Security

The protection of data present in the databases is a prime requirement. A software system should not have any loopholes that would enable attackers to cause damage to users of the software.

All sensitive data in EduSoc's databases are encrypted using the *SHA-1* algorithm.

 EduSoc's users are protected from *Cross-site request forgery (CSRF)* attacks. The software has capabilities to prevent such attacks.

Cross-site request forgery is a type of malicious exploit of a website whereby unauthorized commands are transmitted from a user that the website trusts. Unlike cross-site scripting (XSS), which exploits the trust a user has for a particular site, CSRF exploits the trust that a site has in a user's browser.

8.3 Controller Description

The URL that is entered into the browser is mapped onto one of the controller classes. The mapping is done according to the routing configuration. The following are descriptions of the controller classes which interact with the models and the views.

8.3.1   Users Controller

login()	Accepts username and password and creates a session after authentication.
logout()	End current session.
signup()	Registers a new user.
checkUsername()	Check for availability of username.
checkEmail()	Checks if email id is already registered.
passwordRecover()	Recovers user password.
profile()	Display user profiles.
delete()	Remove user from the system.
edit()	Change details of user profiles.
addFriend()	Connect to another user.
respondFriendReq()	Accept or decline a friend request sent by another user.
updateNotifications()	Get the latest notifications related to the user logged in.

8.3.2   Instructor Controller

bio()	Updates the instructor's bio data.
viewBio()	Views the instructor's bio data.
stats()	Displays the instructor's course statistics.
createCourse()	Create a course.
checkCodeExists()	Checks if course code already exists.
viewCourseStats()	Displays a course's statistics.
createdCourses()	Display the courses created by the instructor logged in.
continueCourseCreation( )	Continue the course creation process for a course.
newUnit()	Create a new unit in a course.
newChapter()	Create a new chapter in a unit.
newPage()	Create a new page in a chapter.
displayPage()	Displays contents of a page of a course.
createExam()	Create course certification exam.

8.3.3 Forum controller

__construct()	Loads the model Forums.
index()	Display the default forum page.
viewForum()	View all threads in the forum for a course.
createThread()	Create a thread under a forum for a course.
deleteThread()	Delete a thread under a forum for a course.
post()	Add a new post in a thread.

8.3.4 Student Controller

signupCourse()	Signs up for a course.
courseInfo()	Fetches the details of a course.
continueCourse()	Continue with a course.
viewPage()	Displays a course's page.
takeTest()	Test for the course certification.
certify()	Certifies a user on successful completion of course test.

8.3.5 Main Controller

index()	Loads the home page of a user.
courseProfile()	Displays the profile view of a course.

8.3.6 Admin Controller

verifyInstructor()	Grants/denies instructor status to a user.
deleteUser()	Deletes a user from the system.

8.4 User Interface

A minimalist approach has been adopted in the design process of the user interface. This has been done intentionally to prevent the 'learner' from being overwhelmed by too many options and to help him/her concentrate solely on the courses.

The colour scheme of the entire software is based on human psychology and the response to different colours.

Pure grey is the only colour that has no direct psychological properties. It is for this reason that we have chosen this colour to be the background shade. We believe this will calm our users and help in their knowledge gathering.

The colour green is universally associated with positivity. This is why we have used this colour where ever our users might be faced with doubt and need a little go-ahead (for example, when taking an exam or signing up for a new course).

Blue is the colour of communication and stimulates clear thoughts. It is a very soothing colour and calms the mind. Blue has been used in the course forums for precisely this reason. It is to encourage our learner community to provide comprehensible answers and lend meaningful ideas in the discussions.

Yellow is the strongest colour, psychologically. It is the colour of confidence and optimism. To encourage users to participate in the discussions, we have used yellow to mark user posts.

The markup language in our software is HTML5. A highly customised version of Bootstrap has been used as a base framework. Jquery is our javascript library of choice. The plugins used in the software are also modified version of existing bootstrap plugins. The Bootstrap framework has been customised extensively to meet our requirements. Advanced features provided by the combination of HTML5/CSS3, Jquery and the Bootstrap framework have been used to create a most engaging experience for our learners.

8.4.1   Screen Shots
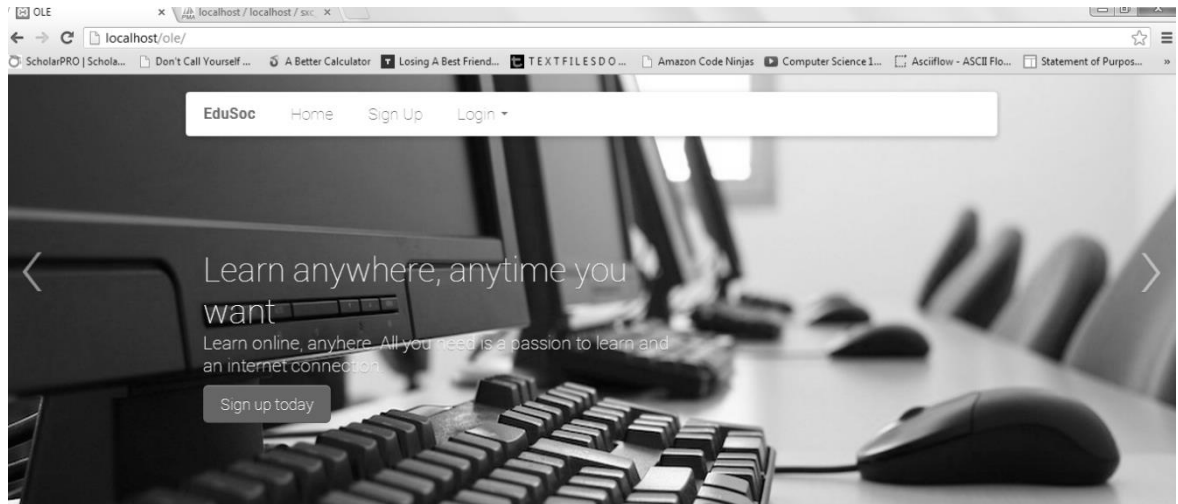
Figure 13: The home Screen
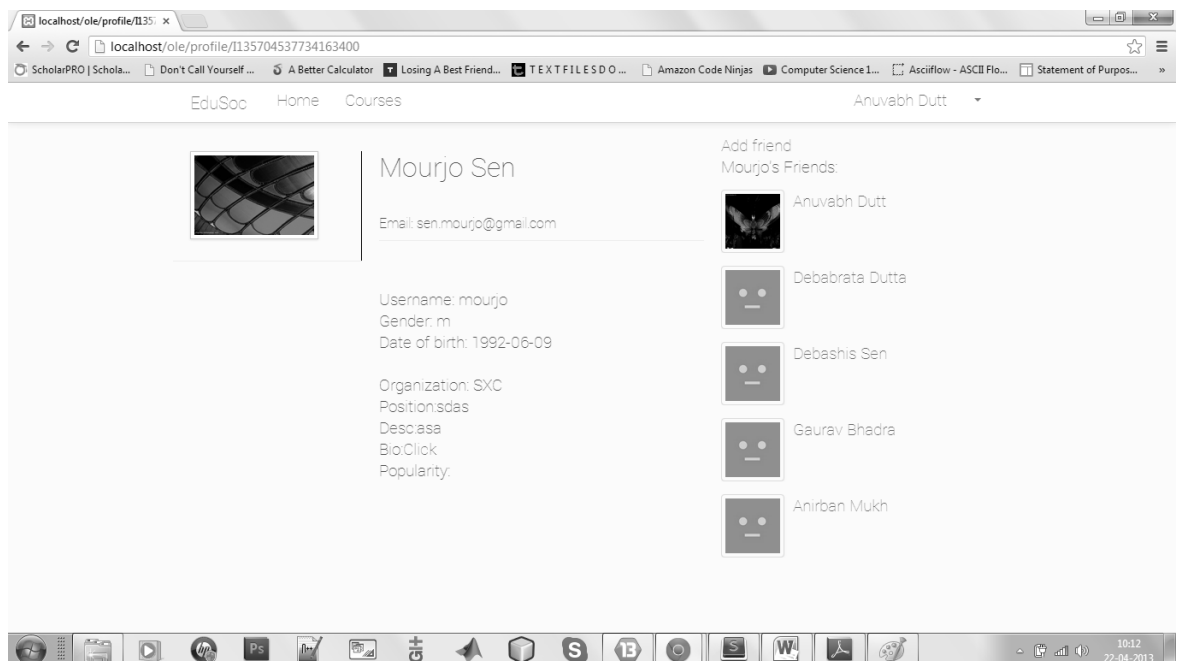
Figure 14: User's profile page
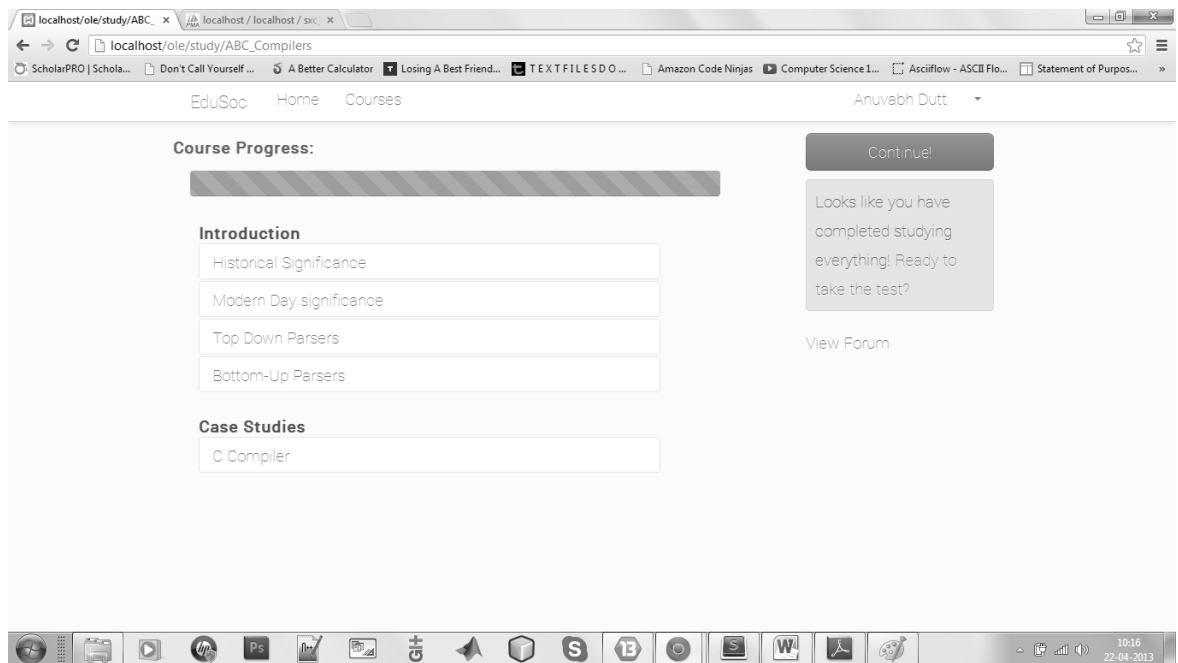
Figure 15: Course home page
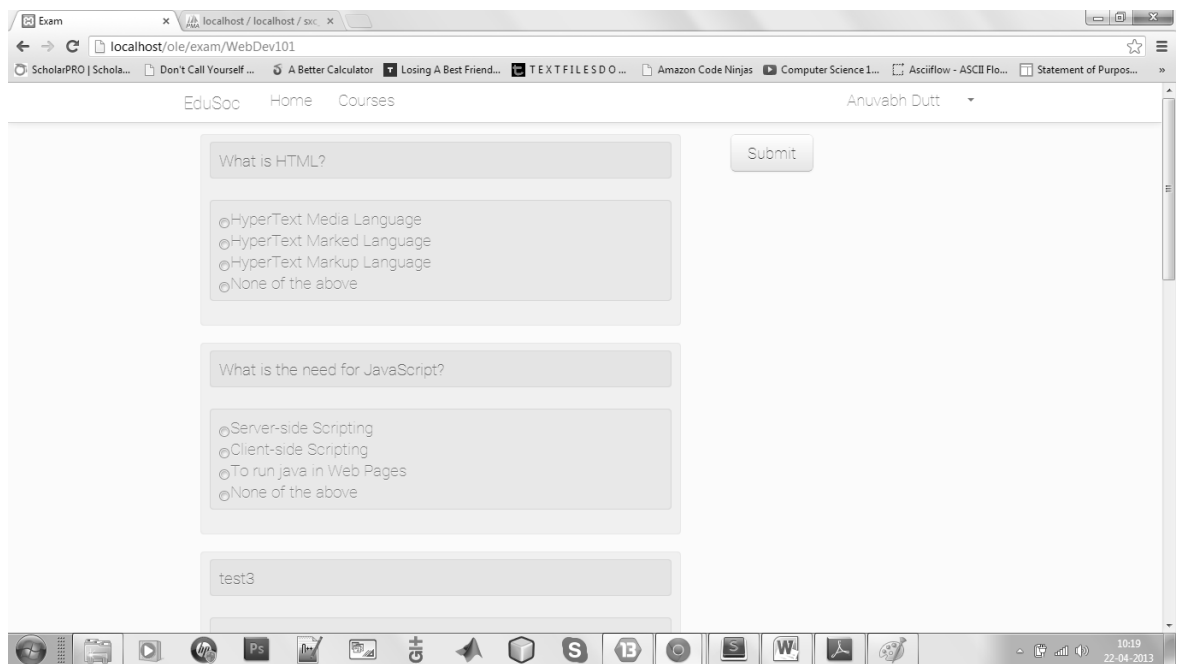
Figure 16: Examination page
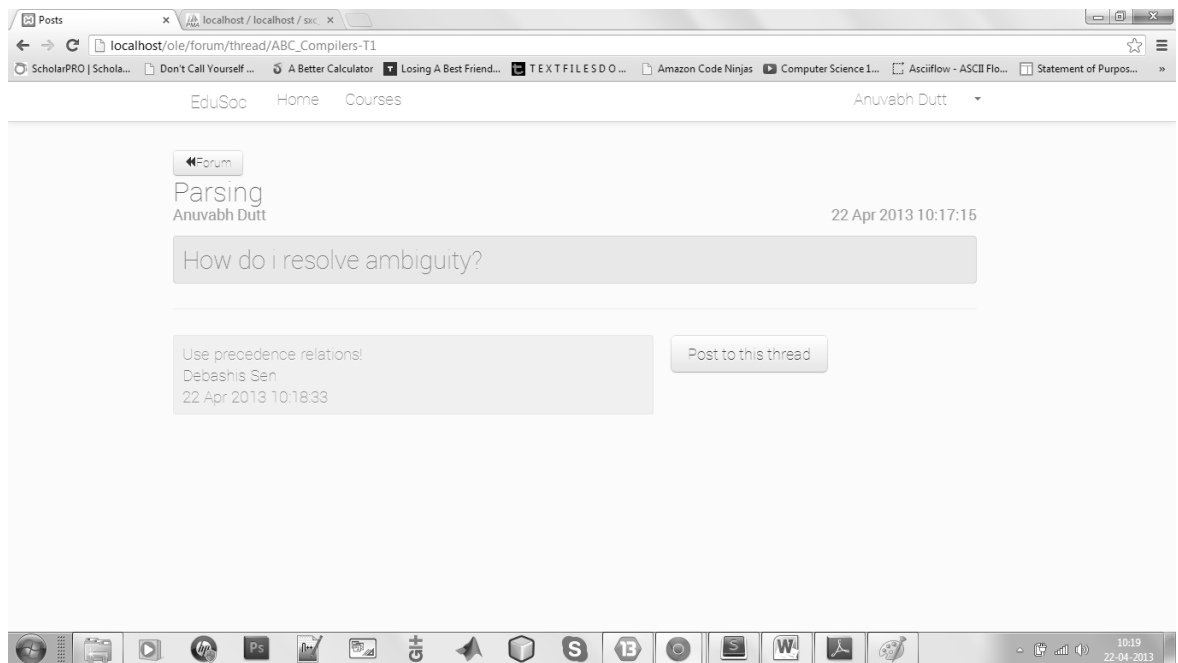
Figure 17: Forum

8.5 System performance: Average Page Load Time
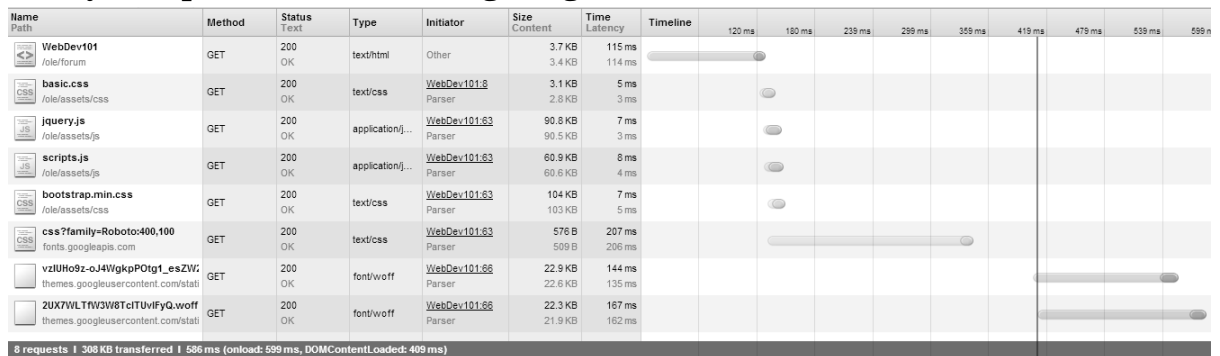
Figure 18: Loading time of page elements

The figure above shows the average time taken to load a web page of EduSoc. The elements are loaded in 180ms, which is a fairly short time for a page to load. The additional delay is due to external resources like Google Fonts. Overall the average page load time is quick.

9 Source Code

9.1 Controller

9.1.1 Main

```
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');
class Main extends CI_Controller {
    public function index()
    {
        if($this->session->userdata('userID'))
        {
            $userType = $this->session->userdata('userType');
            $this->load->model('courses');
            $this->load->model('accounts');
```

```php
                switch ($userType){
                    case "student":
                        $data['studying'] = $this->courses-
>studyingCourses($this->session->userdata('userID'));
                        $awaitingFriendReq = $this->accounts-
>awaitingFriendReq();
                        if(isset($awaitingFriendReq)
&& !empty($awaitingFriendReq))
                            $data['awaitingFriendReq'] = $awaitingFriendReq;
                        $data['notifications']['student'] = $this->accounts-
>getNotifications();
                        $data['notifications']['instructor'] = $this->accounts-
>getInstructorNotifications();
                        $this->load->view('student/home',$data);

                        break;
                    case "instructor":
                        $data['instructorStatus'] = $this->accounts-
>checkInstructorStatus($this->session->userdata('userID'));
                        $this->session->set_userdata($data);
                        $awaitingFriendReq = $this->accounts-
>awaitingFriendReq();
                        if(isset($awaitingFriendReq)
&& !empty($awaitingFriendReq))
                            $data['awaitingFriendReq'] = $awaitingFriendReq;

                        $data['instructing'] = $this->courses-
>instructingCourses($this->session->userdata('userID'));
                        $data['notifications']['student'] = $this->accounts-
>getNotifications();
                        $data['notifications']['instructor'] = $this->accounts-
>getInstructorNotifications();
                        $this->load->view('instructor/home',$data);
                        break;
                    case "admin":
                        $this->load->view('admin/home');
                        break;
                }
            }
            else
            {
                $this->load->helper('form');
                $this->load->view('main_view');
            }
        }
    public function courseProfile($code)
    {
        $this->load->model('courses');
        if($this->courses->checkCourseCode($code))
        {
            echo $code;
            show_404 ();
            return;
        }
        $user = $this->session->userdata('userID');

        $this->load->model('courses');
        $units = $this->courses->fetchUnits($code);
        $chapters = array();
        $pages = array();

        for($i = 0; $i < count($units); $i++)
        {
            $chapters[$i] = $this->courses-
>fetchChapters($units[$i]['unitID']);

            for($j = 0; $j < count($chapters[$i]); $j++)
            {
```

```php
                    $pages[$i][$j] = $this->courses-
>fetchPages($chapters[$i][$j]['chapterID']);


            }
        }

        $data = array('units' => $units,
                    'chapters' => $chapters,
                    'pages' => $pages,
                    'courseID' => $code,

                    );

        $this->load->view('course/course_profile',$data);
    }
}
```

9.1.2 Users

```php
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');

class Users extends CI_Controller {

    public function login()
    {
        if($this->session->userdata('userID'))
        {
            redirect(site_url(), 'location');
            return;
        }
        $this->load->helper('form');
        $posted = $this->input->post(NULL, TRUE);//XSS Filtering

        if(strlen($posted['username']) * strlen($posted['password']) == 0)
        {
            $data['message'] = "Fill all fields";
            $this->load->view('main_view', $data);
            return;
        }
        $this->load->model('accounts');
        $result = $this->accounts->login($posted['username'],
$posted['password']);
        if(is_null($result))
        {
            $data['message'] = "Incorrect Username/Password";
            $this->load->view('main_view', $data);
            return;
        }
        else
        {
            $data = array(
                    'userID' => $result['userID'],
                    'userType' => $result['userType'],
                    'firstName' => $result['firstName'],
                    'lastName' => $result['lastName'],
                    'instructorStatus' => 'notInstructor'
                    );

            if($result['userType'] == 'instructor')
                $data['instructorStatus'] = $this->accounts-
>checkInstructorStatus($result['userID']);

            $this->session->set_userdata($data);
            redirect(site_url(), 'location');
        }
    }
    public function logout()
    {
```

```php
        $this->session->sess_destroy();
        redirect(site_url(), 'location');
    }
    public function signup()
    {
        if($this->session->userdata('userID'))
        {
            redirect(site_url(), 'location');
            return;
        }
        $this->load->helper('form');
        $posted = $this->input->post(NULL, TRUE);//XSS Filtering

        if(empty($posted) )
        {
            $this->load->view('signup');
            return;
        }

        $length = 1;
        foreach($posted as $element)//check for empty fields
            $length *= strlen($element);

        $err = "";

        if($length != 0)
        {
            if(!filter_var( $posted['email'], FILTER_VALIDATE_EMAIL ))
                $err = "Invalid Email<br>";
            if ($posted['password'] != $posted['pwdCon'])
                $err .= "Passwords have to match<br>";
            elseif (strlen($posted['password']) < 6)
                $err .= "Passwords have to be of at least 6 characters<br>";
            if(!empty($err))
            {
                $data['message'] = $err;
                $this->load->view('signup', $data);
                return;
            }

            $t = time().substr(microtime(),2,8);
            $posted['userID'] = $posted['userType'] == 'student' ? 'S'.$t :
'I'.$t;

            $this->load->model('accounts');
            $result = $this->accounts->signup($posted);

            if(is_null($result))
            {
                $data['message']="Email already exists!";
                $this->load->view('signup', $data);
                return;
            }
            else
            {
                $data = array(
                        'userID' => $result['userID'],
                        'userType' => $result['userType'],
                        'firstName' => $result['firstName'],
                        'lastName' => $result['lastName'],
                        'photo' => $result['photo']
                        );
                $this->session->set_userdata($data);
                redirect(site_url(), 'location');
                return;
            }
        }
        else
```

```
            {
                $data['message'] = "Fill all fields<br>";
                $this->load->view('signup', $data);
                return;
            }
    }
    public function checkUsername($email, $username) //using disallowed
character @ through GET
    {

        /*if($this->input->is_ajax_request())
        {*/
        $this->load->model('accounts');
        $result = $this->accounts->checkEmailUname($email,$username);

        if ($result != '0')
            echo 'Username Exists';
        else
            echo 'OK!';
       /* }
        else
            show_404();*/
    }
    public function checkEmail($email='') //AJAX - using disallowed
character @ through GET
    {

        /*if($this->input->is_ajax_request())
        {*/
        $this->load->model('accounts');
        $result = $this->accounts->checkEmailUname($email);

        if ($result != '0')
            echo 'Email Exists';
        else
            echo 'OK!';
       /* }
        else
            show_404();*/
    }
    public function passswordRecover()
    {

    }
    public function profile($userID='')
    {
        if(!$this->session->userdata('userID') )
        {
            redirect(site_url(), 'location');
            return;
        }

        $this->load->model('accounts');

        $urlUserID = $userID;

        if($userID != '')
        $userID = $this->accounts->getUserID($userID);

        $userID = $userID == '' ? $this->session->userdata('userID') :
$userID;

        $friends = $this->accounts->getFriends($userID);

        $friendStatus = '0';

        if($userID != $this->session->userdata('userID'))
        {
```

```
            $friendStatus = $this->accounts->checkFriendStatus($this-
>session->userdata('userID'),$userID);

        }
        else
        {
            unset($friendStatus);
            $awaitingFriendReq = $this->accounts->awaitingFriendReq();
            //print_r($awaitingFriendReq);
        }

        $result = $this->accounts->getDetails($userID);

        if(is_null($result))
        {
            show_404();
            return;
        }
        if($result['userType'] == 'instructor')
        {
            $bio = $this->accounts->getInstructorBio($result['userID']);
            if(is_null($bio))
            {
                if ($this->session->userdata('userType') != "admin")
                    show_404();
                else
                {
                    $data['basic'] = $result;
                    $this->load->view('profile', $data);
                    return;
                }
                return;
            }
            $bio['filename'] = $userID;
            $data['instructor'] = $bio;
        }
        $data['basic'] = $result;
        if(isset($awaitingFriendReq) && !empty($awaitingFriendReq))
            $data['awaitingFriendReq'] = $awaitingFriendReq;
        if(isset($friends) && !empty($friends))
            $data['friends'] = $friends;
        if(isset($friendStatus))
            $data['friendStatus'] = $friendStatus;
        $this->load->view('profile', $data);
    }
    public function delete(){}
    public function edit()
    {
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType') == 'admin')
        {
            redirect(site_url(), 'location');
            return;
        }
        $userID = $this->session->userdata('userID');

        //process POST data
        $posted = $this->input->post();
        $length = 1;
        $validPost = array();
        if(!empty($posted))
        {
            foreach($posted as $id => $element)//check for empty fields
            {
                $length += strlen($element);
                if(!empty($element))
                {
                    $validPost[$id] = $element;
```

```php
                }
            }

            $config['upload_path'] = './images/profile';
            $config['allowed_types'] = 'jpg|png';
            $config['file_name'] = $this->session->userdata('userID');
            $config['overwrite'] = TRUE;

            $this->load->library('upload', $config);

            if ( ! $this->upload->do_upload('photo'))
            {
                //$data = array('message' => $this->upload-
>display_errors());
                $str = $this->upload->display_errors();
                if (preg_match("/The filetype you are attempting to upload
is not allowed./", $str))
                {//file uploaded but filetype not allowed
                    $data['error'] = "File format not supported";
                    $data['basic'] = $result;
                    $this->load->helper('form');
                    $this->load->view('editProfile', $data);
                    return;
                }
            }
            else
            {
                $fileDet = $this->upload->data();
                $validPost['photo'] = $fileDet['file_name'];
            }
            if($length != 0 || isset($validPost['photo']))
            {
                $this->load->model('accounts');
                $this->accounts->updateUsers($validPost, $userID);
                $data['message'] = "Success";
                header("Refresh:2; URL=".site_url()."profile");
                $this->load->view('prompt', $data);
                return;
            }
        }


        $this->load->model('accounts');
        $result = $this->accounts->getDetails($userID);
        if(is_null($result))
        {
            show_404();//invalid user
            return;
        }
        if($result['userType'] == 'instructor')
        {
            $bio = $this->accounts->getInstructorBio($userID);
            if(is_null($bio))//instructor not approved
            {
                show_404();
                return;
            }
            $bio['filename'] = $userID;
            $data['instructor'] = $bio;
        }

        $data['basic'] = $result;
        $this->load->helper('form');
        $this->load->view('editProfile',$data);
    }
    function addFriend($friendID)
    {
        if(!$this->session->userdata('userID'))
```

```php
        {
            redirect(site_url(), 'location');
            return;
        }
        $this->load->model('accounts');
        $this->accounts->addFriend($this->session-
>userdata('userID'),$friendID);
        redirect(site_url()."profile/".$friendID, 'location');
    }
    function respondFriendReq($userID,$p)
    {

        if(!$this->session->userdata('userID'))
        {
            redirect(site_url(), 'location');
            return;
        }
        $this->load->model('accounts');
        $this->accounts->respondFriendReq($userID,$p);

        redirect(site_url(), 'location');
    }
    function updateNotifications() //ajax
    {
        $this->load->model('accounts');
        $this->accounts->updateNotifications();
    }
}
```

9.1.3   Instructor

```php
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');
class Instructor extends CI_Controller {
    public function index()
    {

    }
    public function bio()
    {
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType')!='instructor')
        {
            redirect(site_url(),'Location');
            return;
        }

        $this->load->helper(array('form'));
        $posted = $this->input->post(NULL,true);

        if(empty($posted) )
        {
            $this->load->view('instructor/bio');
            return;
        }

        $length = 1;
        foreach($posted as $element)//check for empty fields
            $length *= strlen($element);

        $data['message'] = '';

        if($length != 0)
        {
            $config['upload_path'] = './data/instructor/cv';
            $config['allowed_types'] = 'pdf';
            $config['file_name'] = $this->session->userdata('userID');
            $config['overwrite'] = TRUE;
```

```php
            $this->load->library('upload', $config);

            if ( ! $this->upload->do_upload('cv'))
            {
                $data = array('message' => $this->upload->display_errors());
                $this->load->view('instructor/bio', $data);
            }
            else
            {
                $fileDet = $this->upload->data();
                $this->load->model('accounts');
                $posted['file_name'] = $fileDet['file_name'];

                $result = $this->accounts->storeBio($posted);
                $data['message'] = "Success";
                if($result == 0)
                    $data['message'] = "Not Allowed!";

                header("Refresh:2; URL=".site_url());
                $this->load->view('prompt', $data);
                return;
            }
        }
        else
            $this->load->view('instructor/bio',$data);
    }
    public function viewBio($userID='')
    {
        $this->load->model('accounts');
        $u = $this->accounts->checkUserID($userID);
        if($userID == '' || $u == '0')
        {
            show_404();
            return;
        }
        $data['filename'] = $u.".pdf";
        $this->load->view('instructor/displayBio', $data);
    }
    public function stats(){}
    public function createCourse()
    {
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType') != 'instructor' || $this->session-
>userdata('instructorStatus') != 'approved')
        {
            redirect(site_url(), 'location');
            return;
        }
        $this->load->helper('form');
        $this->load->model('courses');

        $data['subjects'] = $this->courses->fetchSubjects();
        $data['streams'] = $this->courses->fetchStreams();

        $posted = $this->input->post();

        if(!empty($posted) )
        {
            $length = 1;
            foreach($posted as $element)//check for empty fields
                $length *= strlen($element);

            $err = "";
            if($length != 0)
            {
                $this->load->model('courses');
```

```php
            $posted['code'] = str_replace(' ', '',
$posted['code']);//removing spaces
                $result = $this->courses->checkCourseCode($posted['code']);
                if($result == false)
                {
                    $err .= 'Code exists<br>';
                }

                else
                {
                    $this->courses->create($posted);
                    redirect(site_url().'course/continue/'.$posted['code'],
'location');
                    return;
                }
            }
            else
            {
                $err .= "Fill all fields";
            }
            if($err != "")
            {
                $data['message'] = $err;
                $this->load->view('instructor/createCourse', $data);
                return;
            }
        }
        $this->load->view('instructor/createCourse', $data);
    }
    public function checkCodeExists($code) // AJAX
    {
        $this->load->model('courses');
        if($this->courses->checkCourseCode($code) == true)
            echo "Code Available!";
        else
            echo "Code Unavailable. Please try another code.";
    }
    public function viewCourseStats(){}
    public function createdCourses(){}
    /**
     * Fetch units, chapters and pages of course.
     * Load view with options to create new units,
     * chapters, pages or edit them.
     */
    public function continueCourseCreation($code)
    {
        $this->load->model('courses');
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType')!='instructor' || $this->courses-
>checkCourseCode($code))
        {
            redirect(site_url(),'Location');
            return;
        }

        $result = $this->courses->checkOwner($code);
        if ($result == $this->session->userdata('userID'))
        {
            $units = $this->courses->fetchUnits($code);
            $chapters = array();
            $pages = array();
            for($i = 0; $i < count($units); $i++)
            {
                $chapters[$i] = $this->courses-
>fetchChapters($units[$i]['unitID']);

                for($j = 0; $j < count($chapters[$i]); $j++)
```

```php
                        $pages[$i][$j] = $this->courses-
>fetchPages($chapters[$i][$j]['chapterID']);
                }
                $data = array('units' => $units,
                            'chapters' => $chapters,
                            'pages' => $pages,
                            'courseID' => $code);
                $this->load->helper('form');
                $this->load->view('course/continue', $data);
        }
        else
        {
                redirect(site_url(), 'location');
        }
    }
    /**
    * create unit based on course code $c
    */
    public function newUnit($c) //AJAX
    {
        if($this->input->post('unitName') && $this->input-
>post('description'))
        {
                $this->load->model('courses');
                $this->courses->createUnit($c,$this->input->post('unitName'),
$this->input->post('description'));
                redirect(site_url().'course/continue/'.$c, 'location');
        }
        else
        {
                $this->load->helper('form');
                $data = array('courseID' => $c, 'unitError' => 1);
                $this->load->view('course/newUnit', $data);
        }
    }
    /**
    *create chapter of unit $u
    */
    public function newChapter($u)
    {
        if($this->input->post('chapterName') && $this->input-
>post('description'))
        {
                $this->load->model('courses');//insert into db and load continue
page
                $this->courses->createChapter($u,$this->input-
>post('chapterName'), $this->input->post('description'));
                redirect(site_url().'course/continue/'.substr($u,0,strpos($u,'-
',0)), 'location');
        }
        else
        {
                $this->load->helper('form');
                $data = array('u' => $u);
                $this->load->view('course/newChapter', $data);
        }
    }

    public function newPage($c)
    {
        $this->load->model('courses');
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType')!='instructor' || $this->courses-
>checkCourseCode(substr($c,0,strpos($c,'-',0))))
        {
                redirect(site_url(),'Location');
                return;
        }
```

```php
        $result = $this->courses->checkOwner(substr($c,0,strpos($c,'-',0)));
        if ($result == $this->session->userdata('userID'))
        {
            $posted = $this->input->post();

            if(!empty($posted))
            {
                $data = array();

                $video = $_FILES['video']['tmp_name'] == NULL ? 0 : 1;
                $image = $_FILES['image']['tmp_name'] == NULL ? 0 : 1;

                $this->load->library('upload');
                $id = $this->courses->createPage($c, $posted['heading'],
$posted['text'], $video, $image);
                if($video == 1)//upload start for video
                {
                    $config['upload_path'] = './images/course/video';
                    $config['allowed_types'] = 'mp4';
                    $config['file_name'] = $id;
                    $config['max_size'] = 0;
                    $config['overwrite'] = TRUE;

                    $this->load->library('upload', $config);
                    $this->upload->initialize($config);

                    if ( ! $this->upload->do_upload('video'))
                    {
                        $str = $this->upload->display_errors();
                        if (preg_match("/The filetype you are attempting to
upload is not allowed./", $str))
                            echo "File format not supported";
                            //$data['error'] = "File format not supported";
                    }
                    else
                        $fileDet = $this->upload->data();
                    unset($config);
                }//upload end for video
                if($image == 1)//upload start for image
                {
                    $config['upload_path'] = './images/course/image';
                    $config['allowed_types'] = 'jpg|png';
                    $config['file_name'] = $id;
                    $config['overwrite'] = TRUE;

                    $this->upload->initialize($config);

                    if ( ! $this->upload->do_upload('image'))
                    {
                        $str = $this->upload->display_errors();
                        if (preg_match("/The filetype you are attempting to
upload is not allowed./", $str))
                            $data['error'] = "File format not supported";
                    }
                    else
                        $fileDet = $this->upload->data();
                }//upload end for image


redirect(site_url()."course/continue/".substr($c,0,strpos($c,'-',0)),
'location');
            }
            else
            {
                $data['chapterID'] = $c;
                $this->load->helper('form');
```

```php
                $this->load->view('course/newPage', $data);
            }
        }
        else
        {
            redirect(site_url(),'Location');
        }
    }
    public function displayPage($code)
    {
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType')!='instructor')
        {
            redirect(site_url(),'Location');
            return;
        }
        $this->load->model('courses');
        $data = $this->courses->fetchPageElements($code);
        $pageNav = $this->courses->pageNav($code);
        for($i = 0; $i< count($pageNav);$i++)
        {
            if($code == $pageNav[$i]['pageID'])
            {
                if($i == 0)
                    $prev = site_url
()."course/continue/".substr($code,0,strpos($code,'-',0));
                else
                    $prev = site_url ()."course/view/".$pageNav[$i-
1]['pageID'];
                if($i == count($pageNav) - 1)
                    $next = site_url
()."course/continue/".substr($code,0,strpos($code,'-',0));
                else
                    $next = site_url
()."course/view/".$pageNav[$i+1]['pageID'];
            }
        }
        $data['prev'] = $prev;
        $data['next'] = $next;
        $data['coursecode'] = substr($code,0,strpos($code,'-',0));
        $this->load->view('course/page',$data);
    }
    public function createExam($code='')
    {
        $this->load->model('courses');
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType')!='instructor' || ($code != '' && ($this->courses-
>checkCourseCode($code) || $this->courses->checkOwner($code) != $this-
>session->userdata('userID'))))
        {
            redirect(site_url(),'Location');
            return;
        }
        $posted = $this->input->post();
        if(!empty($posted))
        {
            $this->courses->addQuestion($posted);
            redirect(site_url().'course/exam/'.$code,'Location');
            return;
        }
        else
        {
            $data['course'] = $code;
            $data['instructing'] = $this->courses->instructingCourses($this-
>session->userdata('userID'));
            $this->load->view('course/createExam', $data);
        }
    }
```

```
        public function editCourse(){}

}
```

9.1.4 Student

```php
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');
class Student extends CI_Controller {
    public function index()
    {

    }
    public function stats() //AJAX
    {
        echo strrev($this->input->post('test'));
    }
    public function signupCourse($code='')
    {
        if(!$this->session->userdata('userID'))
        {
            redirect(site_url(), 'location');
            return;
        }
        if ($code == '')
        {
            $this->load->model('courses');
            $data['course'] = $this->courses->fetchCourses();
            $this->load->view('student/home', $data);
        }
        else
        {
            $this->load->model('courses');
            $user = $this->session->userdata('userID');
            $this->courses->signupCourse($user, $code);
            $this->continueCourse($code);
        }
    }
    public function courseInfo()// ajax called
    {
        $this->load->model('courses');
        $info = $this->courses->getCourseInfo($this->input->post('code'));

        if(!is_null($info))
        {
            echo $info[0]['description'];
        }
    }
    public function continueCourse($code)
    {
        if(!$this->session->userdata('userID'))
        {
            redirect(site_url(), 'location');
            return;
        }
        $this->load->model('courses');
        if($this->courses->checkCourseCode($code))
        {
            echo $code;
            show_404 ();
            return;
        }
        $user = $this->session->userdata('userID');
        $progress = $this->courses->getProgress($code,$user);
        $this->load->model('courses');
        $units = $this->courses->fetchUnits($code);
        $chapters = array();
        $pages = array();
        $p_c = 0;
```

```php
        for($i = 0; $i < count($units); $i++)
        {
                $chapters[$i] = $this->courses-
>fetchChapters($units[$i]['unitID']);

                for($j = 0; $j < count($chapters[$i]); $j++)
                {
                        $pages[$i][$j] = $this->courses-
>fetchPages($chapters[$i][$j]['chapterID']);
                        $p_c += count($pages[$i][$j]);
                }
        }
        $visitedPages = $this->courses->fetchVisitedPages($code);
        $v = array();
        if(isset($visitedPages))
        {
                for($i = 0; $i < count($visitedPages);$i++)
                        $v[$i] = $visitedPages[$i]['pageID'];
        }

        if($p_c !=0 && $p_c == count($v))
                $this->courses->completed($code, $user);

        $data = array('units' => $units,
                        'chapters' => $chapters,
                        'pages' => $pages,
                        'courseID' => $code,
                        'progress' => $progress,
                        'visitedPages' => $v
                        );

        $this->load->view('course/s_continue',$data);
    }
    public function viewPage($code)
    {
        $this->load->model('courses');
        if(!$this->session->userdata('userID') || $this->courses-
>checkCourseCode(substr($code,0,strpos($code,'-',0))))
        {
                redirect(site_url(), 'location');
                return;
        }

        $data = $this->courses->fetchPageElements($code);
        if(is_null($data))
        {
                show_404 ();
                return;
        }
        $this->courses->vistedPage($code);
        $this->courses->updateLastPage($this->session->userdata('userID'),
$code);
        $pageNav = $this->courses->pageNav($code);
        for($i = 0; $i< count($pageNav);$i++)
        {
                if($code == $pageNav[$i]['pageID'])
                {
                        if($i == 0)
                                $prev = site_url
()."study/".substr($code,0,strpos($code,'-',0));
                        else
                                $prev = site_url ()."study/page/".$pageNav[$i-
1]['pageID'];
                        if($i == count($pageNav) - 1)
                                $next = site_url
()."study/".substr($code,0,strpos($code,'-',0));
                        else
```

```php
                                $next = site_url
()."study/page/".$pageNav[$i+1]['pageID'];
                }
        }
        $data['prev'] = $prev;
        $data['next'] = $next;
        $data['coursecode'] = substr($code,0,strpos($code,'-',0));
        $this->load->view('course/page',$data);
    }
    public function takeTest($code)
    {
        $this->load->model('courses');
        $user = $this->session->userdata('userID');
        if(!$this->session->userdata('userID') || $this->session-
>userdata('userType')!='student' || $this->courses->checkCourseCode($code)
|| !$this->courses->checkCourseCompleteion($user, $code) || $this->courses-
>checkCourseCertification($user, $code))

        {
            redirect(site_url(),'Location');
            return;
        }
        $posted = $this->input->post();

        $score = 0;
        $total = 0;
        if(!empty($posted))
        {
            for($i = 0; $i < 10; $i++) //there can be a maximum of ten
questions in a test
            {
                $q = "question".$i;
                $a = "answer".$i;
                if(isset($posted[$q]))
                {
                    $total += 1;
                    $qid = $posted[$q];
                    if(isset($posted[$a]))
                    {
                        $score = $score + $this->courses->checkAnswer($qid,
$posted[$a]);
                    }
                }
            }

            $per = round(($score/$total)*100);
            if($per > 60)
            {
                $this->courses->certify($user, $code, $per);
                $data['message'] = "Congratulations! You have passed the
exam!";
                header("Refresh:2; URL=".site_url());
                $this->load->view('prompt',$data);
                return;
            }
            else
            {
                $data['message'] = "Sorry! You didn't pass the test. Maybe
you need to go through the chapters again.";
                header("Refresh:2; URL=".site_url());
                $this->load->view('prompt',$data);
                return;
            }
        }
        else
        {
            $questions = $this->courses->getQuestions($code);
            $data = array();
```

```php
                    for($i = 0; $i < count($questions); $i++)
                    {
                        $questions[$i]['options'] = explode(',',
$questions[$i]['wrongOptions']);
                        $questions[$i]['options'][3] =
$questions[$i]['correctOption'];
                        shuffle($questions[$i]['options']);
                        $data['questionbank'][$i]['question'] =
$questions[$i]['question'];
                        $data['questionbank'][$i]['questionID'] =
$questions[$i]['questionID'];
                        $data['questionbank'][$i]['options'] =
$questions[$i]['options'];
                    }


                    $this->load->view('course/s_examView',$data);
            }
        }
    public function chapterTest(){}
    public function certify(){}
}
```

9.1.5   Admin

```php
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');
class Admin extends CI_Controller {
    public function index()
    {

    }
    public function createInstructor(){}
    public function deleteInstructor(){}
    public function verifyInstructor($userID='', $permission='')
    {
        if($this->session->userdata('userType') != 'admin')
            return;
        $this->load->model('accounts');
        if($userID == '')
        {
            $inst = $this->accounts->FetchIntructorsForVerification();
            $data = array('inst' => $inst);
            $this->load->view('admin/verifyInstructor', $data);
        }
        else
        {
            if($permission == '')
                return;

            if ($permission == '1')
                $this->accounts->validateInstructor($userID,true);
            else
                $this->accounts->validateInstructor($userID,false);
            redirect(site_url().'admin/verifyInstructor', 'location');
        }
    }
    public function deleteUser(){}
    public function generateReport(){}
}
```

9.1.6   Forum

```php
<?php if ( ! defined('BASEPATH')) exit('No direct script access allowed');
class Forum extends CI_Controller {
      public function __construct()
      {
            parent::__construct();
            $this->load->model('forums');
```

```php
        }
    public function index()
    {

    }
    public function viewForum($courseID='')
    {
            if(!$this->session->userdata('userID') || $courseID == '')
            {
                    redirect(site_url(), 'location');
                    return;
            }
            $threads = $this->forums->fetchThreads($courseID);
            $data['threads'] = $threads;
            $data['courseID'] = $courseID;
            $this->load->view('forum/courseThread', $data);

    }
    public function createThread($courseID='')
    {
        if(!$this->session->userdata('userID') || $courseID == '')
            {
                    redirect(site_url(), 'location');
                    return;
            }
            $posted = $this->input->post();
            $posted['userID'] = $this->session->userdata('userID');
            $posted['date'] = date('d M Y H:i:s');
            $posted['courseID'] = $courseID;

            $threadID = $this->forums->createThread($posted);
            unset($_POST);
            $this->post($threadID);

    }
    public function deleteThread($threadID){}
    public function post($threadID='')
    {
        if(!$this->session->userdata('userID') || $threadID == '')
            {
                    redirect(site_url(), 'location');
                    return;
            }
            $posted = $this->input->post();
            if(!empty($posted))
            {
                    $posted['threadID'] = $threadID;
                    $posted['userID'] = $this->session->userdata('userID');
                    $posted['date'] = date('d M Y H:i:s');
                    $this->forums->newPost($posted);
            }
            $threads = $this->forums->fetchThreads(substr($threadID, 0,
strpos($threadID, '-')), $threadID);
            if(!empty($threads))
                    $data['threads'] = $threads[0];
            $data['posts'] = $this->forums->fetchPosts($threadID);

            $this->load->view('forum/posts', $data);
    }
}
```

9.2 Model

9.2.1   Accounts

```php
<?php
class Accounts  extends CI_Model{
    function login($u, $p)
```

```php
    {
        $p = $this->encrypt->sha1($p);
        if(filter_var( $u, FILTER_VALIDATE_EMAIL ))
            $q = "email=".$this->db->escape($u);
        else
            $q = "username=".$this->db->escape($u);

        $this->load->helper('date');
        $sql = "SELECT * FROM users WHERE ".$q;
        $query = $this->db->query($sql);
        $result = $query->result_array();

        if(!empty($result))
        {
            if($p == $result[0]['password'] && $result[0]['status'] == 1)
            {
                //echo unix_to_human(time(), TRUE, 'us');
                //return;
                $sql = "UPDATE users SET lastLogin=".$this->db-
>escape(date('Y-m-d H:i:s', time()))." WHERE ".$q;//$this->db-
>escape(date('Y-m-d H:i:s', time()))
                //display the local time to user not GMT as in db ;)

                $query = $this->db->query($sql);
                return $result[0];
            }
            else
                return NULL;
        }
        else
            return NULL;
    }
    function signup($data)
    {
        $check = $this->checkEmailUname($data['email']);

        if($check != '0')
            return NULL;

        $p = $this->db->escape($data['userID']).','.$this->db-
>escape($data['userType']).','.$this->db->escape($data['email']).','.$this-
>db->escape($this->encrypt->sha1($data['password'])).','.$this->db-
>escape($data['firstName']).','.$this->db->escape($data['lastName']).',
'.$this->db->escape(date('Y-m-d'));

        $sql = "INSERT INTO users
(userID,userType,email,password,firstName,lastName,lastUpdate,photo,status)
values (".$p.",'default.jpg',1)";
        echo $sql;
        $this->db->query($sql);

        return $this->login($data['email'], $data['password']);
    }
    function checkUserID($u='')
    {
        $sql = "SELECT userID FROM users WHERE userID=".$this->db-
>escape($u)." OR username=".$this->db->escape($u);

        $query = $this->db->query($sql);

        if($query->num_rows() == 0)
            return '0';
        else
            return $query->row()->userID;
    }
    function checkEmailUname($e, $u = '')
    {
        $u = $u != '' ? ' AND username='.$this->db->escape($u) : '';
```

```php
        $sql = "SELECT userID FROM users WHERE email=".$this->db-
>escape($e).$u;

        $query = $this->db->query($sql);

        if($query->num_rows() == 0)
            return '0';
        else
            return $query->row()->userID;
    }
    function getDetails($userID)
    {
        $sql = "SELECT username, userID, userType, email, firstName,
lastName, gender, dob, status, photo, lastLogin from users WHERE
UserID=".$this->db->escape($userID). " OR username=".$this->db-
>escape($userID);
        $query = $this->db->query($sql);
        if($query->num_rows() == 0 || $query->row()->status == 0)
            return NULL;
        else
        {
            $result = $query->result_array();
            return $result[0];
        }


    }
    function updateUsers($data, $uid)
    {
        $str = "";
        foreach ($data as $id => $elem)
        {
            $str .= $id." = ".$this->db->escape($elem).",";
        }
        $str = rtrim($str,",");
        $sql = "UPDATE users SET ".$str." WHERE userID=".$this->db-
>escape($uid);
        $this->db->query($sql);
    }
    function getInstructorBio($userID)
    {
        $sql = "SELECT organization, position, des, cv, demand, status FROM
instructorbio WHERE userID=".$this->db->escape($userID);
        $query = $this->db->query($sql);
        if($query->num_rows() == 0 || $query->row()->status != 'approved')
            return NULL;
        else
        {
            $result = $query->result_array();
            return $result[0];
        }
    }
    function storeBio($data)
    {
        $u = $this->db->escape($this->session->userdata('userID'));
        $sql = "SELECT status FROM instructorbio WHERE userID = ".$u;

        $query = $this->db->query($sql);
        if($query->num_rows() == 0)
        {
            $p = $this->db->escape($data['organization']).','.$this->db-
>escape($data['position']).','.$this->db->escape($data['desc']).','.$this-
>db->escape('submitted').','.$this->db->escape($data['file_name']);
            $sql = "INSERT INTO instructorbio(userID, organization, position,
des, status, cv) VALUES (".$u.",".$p.")";

            $this->db->query($sql);
            return 1;
        }
```

```php
            else
            {

                switch ($query->row()->status)
                {
                    case 'approved': $s = 'approved'; break;
                    case 'submitted':
                    case 'rejected': $s = 'submitted';break;
                    default: return 0;
                }

                $sql = "UPDATE instructorbio SET organization = ".$this->db-
>escape($data['organization'])."",
                        position = ".$this->db->escape($data['position']).
                        ",des = ".$this->db->escape($data['desc']).
                        ",cv = ".$this->db->escape($data['file_name']).
                        ",status = ".$this->db->escape($s).
                        " WHERE userID=".$u;
                $this->db->query($sql);
                return 1;
            }
    }
    function checkInstructorStatus($u)
    {
        $sql = 'SELECT status FROM instructorbio WHERE userID='.$this->db-
>escape($u);

        $result = $this->db->query($sql);

        if($result->num_rows()>0)
        {
            $r = $result->row();
            return $r->status;
        }
        else
            return NULL;
    }
    function FetchIntructorsForVerification()
    {
        $sql = "SELECT users.userID,firstName, lastName, organization,
position FROM users, instructorbio WHERE users.userID=instructorbio.userID
AND instructorbio.status = 'submitted'";
        $result = $this->db->query($sql);
        $result = $result->result_array();
        return $result;
    }
    function validateInstructor($userID,$perm)
    {
        if ($perm == true)
            $sql = "UPDATE instructorbio SET status='approved' WHERE
userID=".$this->db->escape($userID);
        else
             $sql = "UPDATE instructorbio SET status='rejected' WHERE
userID=".$this->db->escape($userID);
        $this->db->query($sql);

    }
    function getFriends($userID)
    {
        $sql = "SELECT firstName, lastName, photo, userID from users WHERE
userID in (SELECT friendID FROM friends WHERE status='1' AND userID=".$this-
>db->escape($userID).")";
        $result = $this->db->query($sql);
        $result = $result->result_array();
        return $result;
    }
    function checkFriendStatus($userID,$friendID)
    {
```

```php
        $sql = "SELECT status FROM friends WHERE userID=".$this->db-
>escape($userID)." AND friendID=".$this->db->escape($friendID);
        $result = $this->db->query($sql);
        if($result->num_rows() > 0)
            return $result->row()->status;
        else
            return 0;
    }
    function addFriend($userID,$friendID)
    {
        $sql = "INSERT INTO friends values(".$this->db->escape($userID).",
".$this->db->escape($friendID).", '2')";
        $this->db->query($sql);
    }
    function awaitingFriendReq()
    {
        $userID = $this->session->userdata('userID');
        $sql = "SELECT firstName, lastName, photo, userID from users WHERE
userID in (SELECT userID from friends WHERE status='2' AND friendID=".$this-
>db->escape($userID).")";

        $result = $this->db->query($sql);
        $result = $result->result_array();
        return $result;
    }
    function respondFriendReq($requesterID,$p)
    {
        if($p!='1')
            $p = '-1'; // deny

        $sql = "UPDATE friends SET status = ".$this->db->escape($p)." WHERE
friendID= ".$this->db->escape($this->session->userdata('userID'))." AND
userID=".$this->db->escape($requesterID);
        $this->db->query($sql);

        if ( $p != '-1' )
        {
            $sql = "INSERT INTO friends values(".$this->db->escape($this-
>session->userdata('userID'))." ".$this->db->escape($requesterID).", '1')";
            $this->db->query($sql);
        }
    }
    function getUserID($userID)
    {
        $sql = "SELECT userID from users WHERE username=".$this->db-
>escape($userID)." OR userID=".$this->db->escape($userID);

        $u = $this->db->query($sql);
        $u = $u->result_array();
        return $u[0]['userID'];


    }
    function getNotifications()
    {
        $u = $this->session->userdata('userID');
        $dt = $this->db->escape(date('Y-m-d'));
        $sql = "SELECT firstName, lastName, courseName, userID, courseID,
startDate, endDate, percentage FROM courses natural join studentCourseStats
natural join users WHERE userID in (SELECT friendID from friends WHERE
userID=".$this->db->escape($u)." AND friendID LIKE 'S%') AND
((startDate>=".$dt." AND endDate IS NULL) OR (startDate>=".$dt." OR
endDate>=".$dt."))";

        $result = $this->db->query($sql);
        $result = $result->result_array();
        //print_r($result);
        return $result;
```

```
    }
    function getInstructorNotifications()
    {
        $u = $this->session->userdata('userID');
        $dt = $this->db->escape(date('Y-m-d'));
        $sql = "SELECT firstName, lastName, courseName, userID, courseID,
dateOfCreation FROM courses inner join users ON courses.instructorID =
users.userID WHERE userID in (SELECT friendID from friends WHERE
userID=".$this->db->escape($u)." AND friendID LIKE 'I%') AND
(dateofCreation>=".$dt.")";

        //select count(*) from courses inner join users on
courses.instructorID = users.userID

        $result = $this->db->query($sql);
        $result = $result->result_array();
        //print_r($result);
        return $result;

    }
    function updateNotifications()
    {
        $u = $this->session->userdata('userID');
        $dt = $this->db->escape(date('Y-m-d'));
        $sql = "UPDATE users SET lastUpdate=".$dt." WHERE userID=".$this-
>db->escape($this->session->userdata('userID'));
        $this->db->query($sql);

    }
}
```

9.2.2 Courses

```php
<?php
class Courses extends CI_Model{
    function fetchSubjects()
    {
        $sql = "SELECT name, subjectID, stream FROM subjects";
        $sub = $this->db->query($sql);

        return $sub->result_array();
    }
    function fetchStreams()
    {
        $sql = "SELECT DISTINCT stream FROM subjects";
        $stream = $this->db->query($sql);
        $r = $stream->result_array();
        $i = 0;
        foreach ($r as $e)
        {
            $x[$i] = $e['stream'];
            $i = $i+1;
        }
        return $x;
    }
    function fetchCourses()
    {
        $sql = "SELECT courses.courseID, courseName, popularity, firstName,
lastName, userID, username, subjects.name".
                " FROM courses INNER JOIN users INNER JOIN subjects".
                " WHERE courses.status=1 AND
courses.subject=subjects.subjectID AND instructorID=userID";
        $result = $this->db->query($sql);


        $courses = $result->result_array();
```

```php
        $sql = "SELECT courseID FROM studentcoursestats WHERE
userID=".$this->db->escape($this->session->userdata('userID'));
        $result = $this->db->query($sql);
        $result = $result->result_array();
        $r = array();
        for($i = 0; $i < count($result); $i++)
        {
            $r[$i] = $result[$i]['courseID'];
        }

        for ($i=0; $i < count($courses); $i++)
        {
            if (in_array($courses[$i]['courseID'], $r))
                    $courses[$i]['signup'] = 1;
            else
                $courses[$i]['signup'] = 0;
        }
        $this->updatePopularity();
        return $courses;
    }
    function updatePopularity()
    {
        //total no of students:
        $sql = "SELECT count(userID) as total FROM users WHERE
userType='student'";
        $total = $this->db->query($sql);
        $total = $total->result_array();

        $sql = "select courseID, count(*) as num from studentcoursestats
group by courseID";
        $num = $this->db->query($sql);
        $num = $num->result_array();

        $sql = "UPDATE courses "
                ."SET popularity = CASE";

        for($i = 0; $i < count($num); $i++)
            $sql .= " WHEN courseID = ".$this->db-
>escape($num[$i]['courseID'])." THEN ".$this->db->escape(10
*$num[$i]['num']/($total[0]['total']));


        $this->db->query($sql." END");

    }
    function getCourseInfo($c)
    {
        $sql = "SELECT description, courseName FROM courses WHERE
courseID=".$this->db->escape($c);
        $result = $this->db->query($sql);
        //add fetch instrcutor info
        if($result->num_rows() > 0)
        {
            return $result->result_array();}
        else return NULL;
    }
    function checkCourseCode($c)
    {
        $sql = "SELECT code FROM courses WHERE code=".$this->db->escape($c);
        $result = $this->db->query($sql);
        if($result->num_rows() == 0)
            return true;
        else
            return false;
    }
    function create($data)
    {
        $id = $this->db->escape($data['code']);
```

```php
        $x = $this->db->escape($this->session->userdata('userID')).',
'.$this->db->escape($data['courseName']).', '.$this->db-
>escape($data['code']).', '.$this->db->escape($data['subject']).', '.$this-
>db->escape($data['tags']).', '.$this->db->escape($data['description']).',
'.$this->db->escape('1');
        $sql = "INSERT into
courses(courseID,instructorID,courseName,code,subject,tags,description,statu
s,dateOfCreation) values(".$id.', '.$x.", ".$this->db->escape(date('Y-m-
d')).")";
        $this->db->query($sql);

        /*
        $x = $id.', '.$this->db->escape($this->session->userdata('userID'));
        $sql = "INSERT into instructor(courseID, userID) values(".$x.")";
        $this->db->query($sql);
         */
    }
    function fetchUnits($code)
    {
        $sql = "SELECT unitID, unitName FROM units WHERE status='1' AND
courseID=".$this->db->escape($code);
        $query = $this->db->query($sql);
        if($query->num_rows() > 0)
            return $query->result_array();
        else
            return NULL;
    }
    function fetchChapters($unit)
    {
        $sql = "SELECT chapterID, chapterName FROM chapters WHERE status='1'
AND unitID=".$this->db->escape($unit);
        $query = $this->db->query($sql);
        if($query->num_rows() > 0)
            return $query->result_array();
        else
            return NULL;
    }
    function fetchPages($chapters)
    {
        $sql = "SELECT heading, pageID FROM pages WHERE chapterID=".$this-
>db->escape($chapters)." ORDER BY pageID";
        $query = $this->db->query($sql);
        if($query->num_rows() > 0)
            return $query->result_array();
        else
            return NULL;
    }
    function countUnits($c)
    {
        $sql = "SELECT count(unitID) as num FROM units WHERE
courseID=".$this->db->escape($c);
        $query = $this->db->query($sql);
        $n = $query->result_array();
        return $n[0]['num'];
    }
    function createUnit($code,$name,$desc)
    {
        $numUnits = $this->countUnits($code);

        $id = $code."-U".($numUnits+1);
        $t = $this->db->escape($code).','.$this->db->escape($id).','.$this-
>db->escape($name).','.$this->db->escape($desc).','.$this->db->escape('1');
        $sql = "INSERT INTO
units(courseID,unitID,unitName,description,status) VALUES (".$t.")";
        $this->db->query($sql);
    }
    function countChapters($u)
    {
```

```php
        $sql = "SELECT count(chapterID) as num FROM chapters WHERE
unitID=".$this->db->escape($u);
        $query = $this->db->query($sql);
        $n = $query->result_array();
        return $n[0]['num'];
    }
    function createChapter($unit,$name,$desc)
    {
        $numChap = $this->countChapters($unit);

        $id = $unit."-C".($numChap+1);
        $t = $this->db->escape($unit).','.$this->db->escape($id).','.$this-
>db->escape($name).','.$this->db->escape($desc).','.$this->db->escape('1');
        $sql = "INSERT INTO chapters
(unitID,chapterID,chapterName,description,status) VALUES (".$t.")";


        $this->db->query($sql);
    }
    function countPages($u)
    {
        $sql = "SELECT count(pageID) as num FROM pages WHERE
chapterID=".$this->db->escape($u);
        $query = $this->db->query($sql);
        $n = $query->result_array();
        return $n[0]['num'];
    }
    function createPage($chap,$head,$text, $v, $i)
    {
        $numChap = $this->countPages($chap);

        $id = $chap."-P".($numChap+1);
        $v = $v == 1 ? $this->db->escape($id.".mp4") : 'NULL';
        $i = $i == 1 ? $this->db->escape($id.".jpg") : 'NULL';
        $t = $this->db->escape($chap).','.$this->db->escape($id).','.$this-
>db->escape($head).','.$this->db->escape($text).','.$this->db-
>escape('1').','.$v.','.$i;
        $sql = "INSERT INTO pages (chapterID,pageID,heading,text,visibility,
video, image) VALUES (".$t.")";

        $this->db->query($sql);
        return $id;
    }
    function fetchPageElements($p)
    {
        $sql = "SELECT * FROM pages WHERE pageID=".$this->db->escape($p);
        $result = $this->db->query($sql);
        $r = $result->result_array();
        if($result->num_rows() == 0)
            return NULL;
        else return $r[0];
    }
    function signupCourse($user, $code)
    {
        $sql = "INSERT INTO studentcoursestats (userID, courseID, startDate)
values(".$this->db->escape($user).",".$this->db->escape($code).",".$this-
>db->escape(date('Y-m-d')).") ";
        $this->db->query($sql);
        $sql = "INSERT INTO studentprogress (userID, courseID,
lastPage,certified) values(".$this->db->escape($user).",".$this->db-
>escape($code).",'0','0'".")";
        $this->db->query($sql);
    }
    function getProgress($code, $user)
    {
        $sql = "SELECT * FROM studentprogress NATURAL JOIN
studentcoursestats WHERE userID=".$this->db->escape($user)." AND
courseID=".$this->db->escape($code);
```

```php
        $query = $this->db->query($sql);
        $result = $query->result_array();
        return $result[0];
    }
    function updateLastPage($u, $p)
    {
        $c = substr($p,0,strpos($p,'-',0));
        $sql = "UPDATE studentprogress SET lastPage = ".$this->db-
>escape($p)." WHERE userID = ".$this->db->escape($u)." AND courseID=".$this-
>db->escape($c);
        $this->db->query($sql);
    }
    function pageNav($p)
    {
        $sql = "SELECT pageID "
                ."FROM chapters "
                ."INNER JOIN pages INNER JOIN units "
                ."WHERE pages.chapterID = chapters.chapterID AND
units.unitID = chapters.unitID AND courseID=".$this->db-
>escape(substr($p,0,strpos($p,'-',0)))." order by units.unitID,
chapters.chapterID, pageID";
        $result = $this->db->query($sql);
        return $result->result_array();
    }
    function checkOwner($c)
    {
        $sql = "SELECT instructorID from courses WHERE courseID = ".$this-
>db->escape($c);
        $result = $this->db->query($sql);
        $result = $result->result_array();
        return $result[0]['instructorID'];
    }
    function studyingCourses($userID)
    {
        $sql = "SELECT courseID, courseName FROM studentcoursestats natural
join courses WHERE userID=".$this->db->escape($userID);
        $result = $this->db->query($sql);
        return $result->result_array();
    }
    function instructingCourses($userID)
    {
        $sql = "SELECT courseID, courseName FROM courses WHERE
instructorID=".$this->db->escape($userID);
        $result = $this->db->query($sql);
        return $result->result_array();
    }
    function vistedPage($p)
    {
        $sql = "SELECT userID FROM visitedpages WHERE userID=".$this->db-
>escape($this->session->userdata('userID'))." AND pageID=".$this->db-
>escape($p);
        $result = $this->db->query($sql);

        if($result->num_rows == 0 )
        {
            $sql = "INSERT INTO visitedpages values(".$this->db-
>escape($this->session->userdata('userID'))." , ".$this->db->escape($p).")";
            $this->db->query($sql);
        }
    }
    function fetchVisitedPages($c)
    {
        $sql = "SELECT pageID from visitedPages WHERE userID=".$this->db-
>escape($this->session->userdata('userID'))." AND pageID LIKE ".$this->db-
>escape($c."%");

        $result = $this->db->query($sql);
        $result = $result->result_array();
```

```php
            return $result;
    }
    function addQuestion($post)
    {
        $sql = "SELECT count(questionID) as num FROM questionbank WHERE
courseID=".$this->db->escape($post['course']);
        $result = $this->db->query($sql);
        $result = $result->result_array();
        $qid = $post['course'].'-Q'.($result[0]['num']+1);
        $t = $this->db->escape($qid).", ".$this->db-
>escape($post['course']).", ".$this->db->escape($post['question']).",
".$this->db-
>escape($post['wOption1'].','.$post['wOption2'].','.$post['wOption3']).",
".$this->db->escape($post['cOption']).', '.$this->db->escape('1').',
'.$this->db->escape($post['difficulty']).', '.$this->db->escape('0').',
'.$this->db->escape('0');
        $sql = "INSERT INTO questionbank values (".$t.")";
        $this->db->query($sql);
    }
    function completed($c, $u)
    {
        $sql = "UPDATE studentprogress SET completed='1' WHERE
userID=".$this->db->escape($u)."AND courseID=".$this->db->escape($c);
        $this->db->query($sql);
    }
    function getQuestions($c)
    {
        $sql = "SELECT questionID, question, correctOption, wrongOptions
FROM questionbank WHERE status = '1' AND courseID = ".$this->db-
>escape($c)." ORDER BY RAND() LIMIT 0, 10";
        $result = $this->db->query($sql);
        $result = $result->result_array();
        return $result;
    }
    function checkAnswer($questionID, $ans)
    {
        $sql = "SELECT correctOption FROM questionbank WHERE correctOption =
".$this->db->escape($ans)." AND questionID=".$this->db->escape($questionID);
        $result = $this->db->query($sql);
        $r = $result->num_rows();
        $sql = "UPDATE questionbank SET attempts=attempts + 1,
correctAttempts=correctAttempts + ".$r." WHERE questionID=".$this->db-
>escape($questionID);
        $this->db->query($sql);
        return $r;
    }
    function checkCourseCompleteion($u, $c)
    {
        $sql = "SELECT completed FROM studentprogress WHERE userID=".$this-
>db->escape($u)." AND courseID=".$this->db->escape($c);
        $result = $this->db->query($sql);
        $result = $result->result_array();
        if($result[0]['completed'] == 0)
            return false;
        else
            return true;
    }
    function checkCourseCertification($u, $c)
    {
        $sql = "SELECT certified FROM studentprogress WHERE userID=".$this-
>db->escape($u)." AND courseID=".$this->db->escape($c);
        $result = $this->db->query($sql);
        $result = $result->result_array();
        if($result[0]['certified'] == 0)
            return false;
        else
            return true;
    }
```

```php
      function certify($user, $course, $percent)
      {
            $sql = "UPDATE studentprogress SET certified = 1 WHERE
userID=".$this->db->escape($user)." AND courseID=".$this->db-
>escape($course);
            $this->db->query($sql);
            $sql = "UPDATE studentcoursestats SET endDate = ".$this->db-
>escape(date('Y-m-d H:i:s', time())).", percentage = ".$this->db-
>escape($percent)." WHERE userID=".$this->db->escape($user)." AND
courseID=".$this->db->escape($course);
            $this->db->query($sql);
      }
}
```

9.2.3   Forums

```php
<?php
class Forums extends CI_Model{
      function fetchThreads($c, $t='')
      {
            $sql = "SELECT courseID, threadID, subject, content, date,
firstName, lastName, userID FROM thread NATURAL JOIN users WHERE
courseID=".$this->db->escape($c).($t == '' ? '' : " AND threadID=".$this-
>db->escape($t));
            $result = $this->db->query($sql);
            return $result->result_array();
      }

      function createThread($data)
      {
            $sql = "SELECT count(*) as num FROM thread WHERE
courseID=".$this->db->escape($data['courseID']);
            $result = $this->db->query($sql);
            $threadID = $data['courseID'].'-T'.(intval($result->row()->num)
+ 1);

            $sql = $this->db->escape($data['courseID'])." ".$this->db-
>escape($threadID)." ".$this->db->escape($data['userID'])." ".$this->db-
>escape($data['subject'])." ".$this->db->escape($data['content']).",
".$this->db->escape($data['date']);
            $sql = "INSERT INTO
thread(courseID,threadID,userID,subject,content,date) VALUES (".$sql.")";
            $this->db->query($sql);
            return $threadID;

      }
      function fetchPosts($t)
      {
            $sql = "SELECT threadID, userID, firstName, lastName, photo,
content, date FROM users NATURAL JOIN posts WHERE threadID=".$this->db-
>escape($t);
            $result = $this->db->query($sql);
            return $result->result_array();
      }
      function newPost($data)
      {
            $sql = "SELECT count(*) as num FROM posts WHERE
threadID=".$this->db->escape($data['threadID']);
            $result = $this->db->query($sql);
            $postID = $data['threadID'].'-P'.(intval($result->row()->num) +
1);

            $sql = $this->db->escape($postID)." ".$this->db-
>escape($data['threadID'])." ".$this->db->escape($data['userID']).",
".$this->db->escape($data['content'])." ".$this->db->escape($data['date']);
            $sql = "INSERT INTO posts(postID, threadID, userID, content,
date) VALUES (".$sql.")";
            $this->db->query($sql);
```

```
        }

}
```

9.3 View

9.3.1 General Views

9.3.1.1 Main_view.php

```php
<!doctype HTML>
<html lang="en">
    <head>
        <title>OLE</title>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
        <style>
            .navbar-wrapper {
            position: absolute;
            top: 0;
            left: 0;
            right: 0;
            z-index: 10;
            margin-top: 20px;
            margin-bottom: -90px; /* Negative margin to pull up carousel.
90px is roughly margins and height of navbar. */
            }
            .navbar-wrapper .navbar {

            }
            .navbar .navbar-inner {
            border: 0;
            -webkit-box-shadow: 0 2px 10px rgba(0,0,0,.25);
                -moz-box-shadow: 0 2px 10px rgba(0,0,0,.25);
                    box-shadow: 0 2px 10px rgba(0,0,0,.25);
            }

            .navbar .brand {
            padding: 14px 20px 16px; /* Increase vertical padding to match
navbar links */
            font-size: 16px;
            font-weight: bold;
            text-shadow: 0 -1px 0 rgba(0,0,0,.5);
            }
            .navbar .nav > li > a {
            padding: 15px 20px;
            }
            .navbar .btn-navbar {
            margin-top: 10px;
            }

            .carousel {
      margin-bottom: 60px;
    }

    .carousel .container {
      position: relative;
      z-index: 9;
    }

    .carousel-control {
      height: 80px;
      margin-top: 0;
```

```css
  font-size: 120px;
  text-shadow: 0 1px 1px rgba(0,0,0,.4);
  background-color: transparent;
  border: 0;
  z-index: 10;
}

.carousel .item {
  height: 500px;
}
.carousel img {
  position: absolute;
  top: 0;
  left: 0;
  min-width: 100%;
  height: 500px;
}

.carousel-caption {
  background-color: transparent;
  position: static;
  max-width: 550px;
  padding: 0 20px;
  margin-top: 200px;
}
.carousel-caption h1,
.carousel-caption .lead {
  margin: 0;
  line-height: 1.25;
  color: #fff;
  text-shadow: 0 1px 1px rgba(0,0,0,.4);
}
.carousel-caption .btn {
  margin-top: 10px;
}
        @media (max-width: 979px) {

        .container.navbar-wrapper {
            margin-bottom: 0;
            width: auto;
        }
        .navbar-inner {
            border-radius: 0;
            margin: -20px 0;
        }

        .carousel .item {
            height: 500px;
        }
        .carousel img {
            width: auto;
            height: 500px;
        }
        }
        .dropdown-menu>li>a:hover{
            background: #fff;
        }
    </style>
</head>
<body style="padding-top:0px;">

    <div class="navbar-wrapper">

        <div class="container">

            <div class="navbar">
            <div class="navbar-inner">
```

```
                    <a class="brand" href="#">EduSoc</a>
                    <!-- Responsive Navbar Part 2: Place all navbar contents
you want collapsed withing .navbar-collapse.collapse. -->
                    <div class="nav-collapse collapse">
                    <ul class="nav">
                        <li><a href="#">Home</a></li>
                        <li><a href="<?php echo site_url();?>signup">Sign
Up</a></li>
                        <li class="dropdown">
                            <a href="#" class="dropdown-toggle" data-
toggle="dropdown">Login <b class="caret"></b></a>
                            <ul class="dropdown-menu">
                                <?php
                                if(isset($message))
                                echo "<li><a class='alert alert-
error'>".$message."</a></li>";
                                ?>
                                <li><?php echo form_open("login");?></li>
                                <li><a><input type="text" name="username"
id="sername" placeholder="Username" required/></a></li>
                                <li><a><input type="password"
name="password" id="password" placeholder="Password" required/></a></li>
                                <li><a><input type="submit" class="btn btn-
success" value="Start Learning"/></a></li>
                            </ul>
                        </li>
                    </ul>
                    </div><!--/.nav-collapse -->
                </div><!-- /.navbar-inner -->
                </div><!-- /.navbar -->

        </div> <!-- /.container -->
    </div>


    <div id="myCarousel" class="carousel slide">
        <div class="carousel-inner">
            <div class="item active">
                <img src="<?php echo site_url();?>images/carousel/1.jpg"
alt="">
                <div class="container">
                    <div class="carousel-caption">
                        <h1>Learn anywhere, anytime you want</h1>
                        <p class="lead">Learn online, anhere. All you
need is a passion to learn and an internet connection.</p>
                        <a class="btn btn-large btn-primary" href="<?php
echo site_url();?>signup">Sign up today</a>
                    </div>
                </div>
            </div>
            <div class="item">
                <img src="<?php echo site_url();?>images/carousel/2.gif"
alt="">
                <div class="container">
                    <div class="carousel-caption">
                        <h1>Another example headline.</h1>
                        <p class="lead">Cras justo odio, dapibus ac
facilisis in, egestas eget quam. Donec id elit non mi porta gravida at eget
metus. Nullam id dolor id nibh ultricies vehicula ut id elit.</p>
                        <a class="btn btn-large btn-primary"
href="#">Learn more</a>
                    </div>
                </div>
            </div>
            <div class="item">
                <img src="<?php echo site_url();?>images/carousel/3.jpg"
alt="">
                <div class="container">
```

```html
                        <div class="carousel-caption">
                            <h1>One more for good measure.</h1>
                            <p class="lead">Cras justo odio, dapibus ac
facilisis in, egestas eget quam. Donec id elit non mi porta gravida at eget
metus. Nullam id dolor id nibh ultricies vehicula ut id elit.</p>
                            <a class="btn btn-large btn-primary"
href="#">Browse gallery</a>
                        </div>
                    </div>
                </div>
            </div>
            <a class="left carousel-control" href="#myCarousel" data-
slide="prev">&lsaquo;</a>
            <a class="right carousel-control" href="#myCarousel" data-
slide="next">&rsaquo;</a>
        </div>
        <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
        <script type="text/javascript">
            <?php
            if(isset($message))
                echo "$('.dropdown-toggle').dropdown('toggle');";
            ?>
            $('.dropdown-menu
input').click(function(e){e.stopPropagation();});
            $('.carousel').carousel({interval :3000})
        </script>
        <script src="<?php echo site_url();?>assets/js/holder.js"></script>
    </body>
</html>
```

9.3.1.2 Signup.php

```php
<!doctype html>
<html>
    <head>
        <title>OLE</title>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
        <script>

            window.onload=function()
            {
                document.getElementById("submitButton").style.display='none';

document.getElementById("JSsubmitButton").style.display='block';
            }
            function checkEmail(str)
            {

                document.getElementById('loader').style.display='block';
                var re =
/^(([^<>()[\]\\.,;:\s@\"]+(\.[^<>()[\]\\.,;:\s@\"]+)*)|(\".+\"))@((\[[0-
9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\])|(([a-zA-Z\-0-9]+\.)+[a-zA-
Z]{2,}))$/;
                if(!re.test(str))
                {
                    document.getElementById('loader').style.display='none';
                    document.getElementById("txtHint").innerHTML="Email ID
not correct";

                    if (str.length==0)
                    {
                        document.getElementById("txtHint").innerHTML="";
```

```
                        }
                    }
                    else
                    {
                        if (str.length==0)
                        {
                            document.getElementById("txtHint").innerHTML="";
document.getElementById('loader').style.display='none';
                            return;
                        }
                        if (window.XMLHttpRequest)
                        {// code for IE7+, Firefox, Chrome, Opera, Safari
                            xmlhttp=new XMLHttpRequest();
                        }
                        else
                        {// code for IE6, IE5
                            xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
                        }
                        xmlhttp.onreadystatechange=function()
                        {
                            if (xmlhttp.readyState==4 && xmlhttp.status==200)
                            {
document.getElementById('loader').style.display='none';

document.getElementById("txtHint").innerHTML=xmlhttp.responseText;
                            }
                        }
                        xmlhttp.open("GET","<?php echo
site_url(); ?>users/checkEmail/"+str,true);
                        xmlhttp.send();
                    }
                }
                function submitForm()
                {

                    str = document.getElementById('email').value;
                    var re =
/^(([^<>()[\]\\.,;:\s@\"]+(\.[^<>()[\]\\.,;:\s@\"]+)*)|(\".+\"))@((\[[0-
9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\])|(([a-zA-Z\-0-9]+\.)+[a-zA-
Z]{2,}))$/;
                    if(!re.test(str)){
                        //Check For Spaces
                        document.getElementById("message").style="display:
block";
                        document.getElementById("message").innerHTML="Check your
email id";
                        return;
                    }
                    else
                    {
                        var str = document.getElementById('email').value.length;
                        var str1 =
document.getElementById('firstName').value.length;
                        var str2 =
document.getElementById('lastName').value.length;
                        var str3 =
document.getElementById('password').value.length;
                        var str4 =
document.getElementById('pwdCon').value.length;
                        var ch = str*str1*str2*str3*str4;
                            //alert(ch)

                        if (ch==0)
                        {
                            document.getElementById("message").style="display:
block";
```

```
                                        document.getElementById("message").innerHTML="Please
fill all fields!";
                                        return;
                                }
                                else if (document.getElementById('pwdCon').value !=
document.getElementById('password').value)
                                {
                                        document.getElementById("message").style="display:
block";
                                        document.getElementById('message').innerHTML =
"Passwords do not match";
                                        return;
                                }
                                else if (document.getElementById('pwdCon').value.length
< 6)
                                {
                                        document.getElementById("message").style="display:
block";
                                        document.getElementById('message').innerHTML =
"Password has to be of atleast 6 characters";
                                        return;
                                }
                                else
                                    document.forms['myform'].submit();
                        }

                }
            </script>
        </head>
        <body>
            <div class="container">

                <div class="row well" align="center">
                    <span id="message" class="alert" style="display: none;">
                    <?php
                    if(isset($message))
                        echo $message;
                    echo "</span>";
                    $attributes = array('id' => 'myform');
                    echo form_open('',$attributes);
                    ?>
                    <h1>Enter Details To Create Account</h1>
                            <select name="userType">
                                <option value="student">Student</option>
                                <option value="instructor">Instructor</option>
                            </select><br>
                    <input placeholder="First Name" type="text" name="firstName"
id="firstName" value="<?php echo set_value('firstName'); ?>"><br/>
                    <input placeholder="Last Name" type="text" name="lastName"
id="lastName" value="<?php echo set_value('lastName'); ?>"><br/>
                    <input placeholder="Email" type="text" name="email"
id="email" value="<?php echo set_value('email'); ?>"
onchange="checkEmail(this.value)" ><span id="txtHint"></span><img
id="loader" style="display: none; height: 20px; width: 20px;" src="<?php
echo site_url();?>images/loading.gif"><br/>
                    <input placeholder="Password" type="password"
name="password" id="password"><br/>
                    <input placeholder="Confirm Password" type="password"
name="pwdCon" id="pwdCon"><br/>
                    <input type='button' value='Create Account'
id="JSsubmitButton" onClick="submitForm();" style="display:none" class='btn
btn-large btn-success'>
                    <input type="submit" value="Create Account"
id="submitButton" class="btn btn-large btn-success">
                    </form>
                </div>
                <div class="row" align="left">
                    <a href="<?php echo site_url();?>">Home</a>
```

```
        </div>
      </div>
      <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
      <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
  </body>
</html>
```

9.3.1.3 Profile.php

```html
<!doctype HTML>
<html>
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?= site_url()?>assets/css/basic.css" />
</head>

    <body>
    <div class="navbar navbar-fixed-top">
        <div class="navbar-inner">
            <div class="container">
                <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                <ul class="nav">
                    <li><a href="<?php echo site_url();?>">Home</a></li>
                    <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                </ul>
                <ul class="nav pull-right">
                    <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                        <ul class="dropdown-menu">
                            <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                            <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                            <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                        </ul>
                    </li>
                </ul>
            </div>
        </div>
    </div>
    <div class="container">

        <div class="row">
            <div class="span3 page-header text-center" style="border-
right:1px solid black;">
                <h3><img src="<?php if (isset($basic['photo'])) echo
site_url ()."images/profile/".$basic['photo'];?>" class="img-polaroid
span2"><br><br><br><br></h3>
                <!--Last seen: <?php if (isset($basic['lastLogin'])) echo
$basic['lastLogin'];?><!--
.'<br>converted:'.human_to_unix($basic['lastLogin']).'<br>current
time:'.unix_to_human(human_to_unix($basic['lastLogin']));?> <br>-->
            </div>
            <div class="span5">
                <div class="page-header">
                    <h2>
                    <?php
                    $this->load->helper('date');
                    echo $basic['firstName']." ".$basic['lastName'];
                    ?>
```

```php
					</h2>
					<br>
					<small>Email: <?php echo $basic['email']?></small>
				</div>

				<br>
				Username: <?php if (isset($basic['username'])) echo
$basic['username'];?> <br>
				Gender: <?php if (isset($basic['gender'])) echo
$basic['gender'];?> <br>
				Date of birth: <?php if (isset($basic['dob'])) echo
$basic['dob'];?> <br>

				<br>
				<?php
				//print_r($instructor);
				if(isset($instructor))
				{
				?>
					Organization: <?php if
(isset($instructor['organization'])) echo $instructor['organization'];?>
<br>
					Position:<?php if (isset($instructor['position'])) echo
$instructor['position'];?> <br>
					Desc:<?php if (isset($instructor['des'])) echo
$instructor['des'];?> <br>
					Bio:<a href="<?php echo
site_url()."instructor/viewBio/".$instructor['filename'];?>"
target="_BLANK">Click</a><br>

					Popularity:<?php if (isset($instructor['demand'])) echo
$instructor['demand'];?> <br>
				<?php
				}
				?>
			</div>
			<div class='span4'>
				<?php
				if(isset($friendStatus))
				{
					if ($friendStatus == '1')
						echo "<i class='icon-ok'></i> Friends";
					if ($friendStatus == '-1')
						echo "Not Friends";
					if ($friendStatus == '2')
						echo "Friend Request Sent";
					if ($friendStatus == '0')
						echo "<a
href='".site_url()."add/friend/".$basic['userID']."'>Add friend</a>";

				}
				if(isset($friends))
				{
					echo "<br>".$basic['firstName']."'s Friends:<br>";
					for($i = 0; $i < count($friends); $i++)
					{

						echo '<div class="media">';
						echo '<a class="pull-left thumbnail">';
							echo "<img style='height:64px;
width:64px;'src='".site_url()."images/profile/".$friends[$i]['photo']."'>";
						echo "</a>";
						echo '<div class="media-body">';
							echo "<a
href='".site_url()."profile/".$friends[$i]['userID']."'>".$friends[$i]['firs
tName']." ".$friends[$i]['lastName']."</a><br>";
						echo '</div></div>';
					}
```

```
                    }

                /*
                if(isset($awaitingFriendReq))
                {
                    echo '<br>Friend Requests:';
                    // print_r($awaitingFriendReq);
                    for($i = 0; $i < count($awaitingFriendReq); $i++)
                    {
                        echo "<a
href='".site_url()."profile/".$awaitingFriendReq[$i]['userID']."'>".$awaitin
gFriendReq[$i]['firstName']." ".$awaitingFriendReq[$i]['lastName']."  </a> -
- <a
href='".site_url()."respondFriendReq/".$awaitingFriendReq[$i]['userID']."/1'
>"."Accept</a> or <a
href='".site_url()."respondFriendReq/".$awaitingFriendReq[$i]['userID']."/2'
>"."Decline</a> <br>";
                    }
                }
                * */
            ?>
            </div>
        </div>
    </div>
    <script src="<?= site_url();?>assets/js/jquery.js"></script>
    <script src="<?= site_url();?>assets/js/scripts.js"></script>
    </body>
</html>
```

9.3.1.4 editProfile.php

```
<!doctype html>
<html lang="en">
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
        <script>
            function check(str)
            {
                document.getElementById('loader').style.visibility='visible';
                if (str.length==0)
                {
                    document.getElementById("txtHint").innerHTML="";

document.getElementById('loader').style.visibility='hidden';
                    return;
                }
                if (window.XMLHttpRequest)
                {// code for IE7+, Firefox, Chrome, Opera, Safari
                    xmlhttp=new XMLHttpRequest();
                }
                else
                {// code for IE6, IE5
                    xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
                }
                xmlhttp.onreadystatechange=function()
                {
                    if (xmlhttp.readyState==4 && xmlhttp.status==200)
                    {

document.getElementById('loader').style.visibility='hidden';

document.getElementById("txtHint").innerHTML=xmlhttp.responseText;
                    }
```

```
                }
                xmlhttp.open("GET","<?php echo
site_url(); ?>users/checkUsername/"+"<?php echo
$basic['email'];?>/"+str,true);
                xmlhttp.send();
            }
        </script>
    </head>

    <body>
        <div class="navbar navbar-fixed-top">
            <div class="navbar-inner">
                <div class="container">
                    <a href="<?php echo site_url();?>"
class="brand">EduSoc</a>
                    <ul class="nav">
                        <li><a href="<?php echo site_url();?>">Home</a></li>
                        <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                    </ul>
                    <ul class="nav pull-right">
                        <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                        <li class="dropdown">
                            <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                            <ul class="dropdown-menu">
                                <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                            </ul>
                        </li>
                    </ul>
                </div>
            </div>
        </div>
        <div class="container">
            <?php
            $this->load->helper('date');
            echo form_open_multipart('users/edit');
            ?>
            First Name: <input type="text" name="firstName" value="<?php
set_value('firstName', $basic['firstName']);?>"> <br>
            Last Name: <input type="text" name="lastName" value="<?php
set_value('lastName', $basic['lastName']);?>"> <br>
            Email: <?php echo $basic['email'];?> <br>
            Username: <input type ="text" name="username" value="<?php
set_value('username',$basic['username']);?>" onchange="check(this.value)"
><span id="txtHint"></span><img id="loader" style="visibility:hidden; height:
20px; width: 20px;" src="<?php echo site_url();?>images/loading.gif"><br/>
            Gender: <select name="gender">
                        <option value="m" <?php if (isset($basic['gender'])
&& $basic['gender']=='m') echo "selected='selected'"; ?>>Male</option><br>
                        <option value="f" <?php if (isset($basic['gender'])
&& $basic['gender']=='f') echo "selected='selected'"; ?>>Female</option>
                    </select><br/>
            Date of birth: <input type ="text" name="dob" value="<?php
set_value('username',$basic['username']);?>"> <br>

            Last seen: <?php if (isset($basic['lastLogin'])) echo
$basic['lastLogin'];?><br>
            Upload Photo:<input type="file" name="photo"/><br>
            <?php if($this->session->userdata('userType') ==
'instructor'){ ?>
```

```php
            <a href="<?php echo site_url();?>instructor/bio">Update
bio</a><br><?php }?>
            Photo: <img width ="80px" src='<?php echo
site_url();?>images/profile/<?php echo $basic['photo'];?>'>
            <?php if(isset($error)) echo $error;?>
            <br>

            <input type="submit">
            </form>
        </div>
        <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
    </body>
</html>
```

9.3.1.5 prompt.php

```php
<!doctype HTML>
<html>
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?= site_url()?>assets/css/basic.css" />
</head>
<body>
      <div class="navbar navbar-fixed-top">
        <div class="navbar-inner">
            <div class="container">
                <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                <ul class="nav">
                    <li><a href="<?php echo site_url();?>">Home</a></li>
                    <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                </ul>
                <ul class="nav pull-right">
                    <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                        <ul class="dropdown-menu">
                            <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                            <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                            <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                        </ul>
                    </li>
                </ul>
            </div>
        </div>
    </div>
      <div class='container'>
            <div class='hero-unit'>
            <?php
                    echo "<h3 class='text-error'>".$message."</h3>";
            ?>
            </div>
      </div>
      <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
      <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
</body>
</html>
```

9.3.2 Administrator Views

9.3.2.1 *home.php*

```
<!doctype HTML>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?= site_url()?>assets/css/basic.css" />
</head>
<body>
     <div class="navbar navbar-fixed-top">
       <div class="navbar-inner">
          <div class="container">
              <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
              <ul class="nav">
                  <li><a href="<?php echo site_url();?>">Home</a></li>
                  <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
              </ul>
              <ul class="nav pull-right">
                  <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                  <li class="dropdown">
                     <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                      <ul class="dropdown-menu">
                          <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                          <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                          <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                      </ul>
                  </li>
              </ul>
          </div>
       </div>
    </div>
    <div class="container">
       <a href="<?php echo site_url();?>admin/verifyInstructor">Instructor
Permissions</a>
    </div>
    <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
      <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
</body>
</html>
```

9.3.2.2 *verifyInstructor.php*

```
<!doctype HTML>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?= site_url()?>assets/css/basic.css" />
</head>
<body>
    <div class="navbar navbar-fixed-top">
       <div class="navbar-inner">
          <div class="container">
              <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
              <ul class="nav">
                  <li><a href="<?php echo site_url();?>">Home</a></li>
```

```php
                                <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                    </ul>
                    <ul class="nav pull-right">
                        <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                        <li class="dropdown">
                            <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                            <ul class="dropdown-menu">
                                <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                            </ul>
                        </li>
                    </ul>
                </div>
            </div>
        </div>
        <div class="container">
            <?php
            $n = count($inst);
            if ($n == 0)
                echo "No Pending Permissions.<br><a
href='".site_url()."'>Home</a>";
            else
            for($i = 0; $i < $n; $i++)
            {
                echo "<table class='table table-condensed table-bordered'>";
                echo
"<thead><th>Name</th><th>Position</th><th>Organization</th><th>Actions</th><
/thead>";
                echo "<tr><td><a
href='".site_url()."profile/".$inst[$i]['userID']."'>
".$inst[$i]['firstName']."
".$inst[$i]['lastName']."</a></td><td>".$inst[$i]['position']."</td><td>".$i
nst[$i]['organization'].
                        " </td><td><a
href='".site_url()."instructor/viewBio/".$inst[$i]['userID']."' class='btn
btn-info' target='_blank'>View CV</a></td>
                    <td><a
href='".site_url()."admin/verifyInstructor/".$inst[$i]['userID']."/1'
class='btn btn-success'>Allow</a></td>
                    <td><a
href='".site_url()."admin/verifyInstructor/".$inst[$i]['userID']."/0'
class='btn btn-danger'>Deny Permission</a></td></tr>";
                echo "</table>";
            }
            ?>
        </div>
        <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
</body>
</head>
```

9.3.3   Course Views

9.3.3.1 Continue.php

```html
<!doctype HTML>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```php
    <link rel="stylesheet" href="<?= site_url()?>assets/css/basic.css" />
</head>
<body>
    <div class="navbar navbar-fixed-top">
        <div class="navbar-inner">
            <div class="container">
                <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                <ul class="nav">
                    <li><a href="<?php echo site_url();?>">Home</a></li>
                    <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                </ul>
                <ul class="nav pull-right">
                    <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                        <ul class="dropdown-menu">
                            <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                            <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                            <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                        </ul>
                    </li>
                </ul>
            </div>
        </div>
    </div>
   <div class="container">

       <a href="#unit-modal" role="button" class="btn" data-
toggle="modal">New Unit</a>
        <ul>
        <?php
            for($i = 0; $i < count($units); $i++)
            {
                $u = $units[$i];
                echo "<li>".$u['unitName']." <button class='btn btn-mini
btn-success' onclick='getForm(\"".$u['unitID']."\")'>New
Chapter</button>"."</li>";
                echo "<ul>";
                for($j = 0; $j < count($chapters[$i]); $j++)
                {
                    echo "<li>".$chapters[$i][$j]['chapterName']." <a
href='".site_url()."course/new/page/".$chapters[$i][$j]['chapterID']."'
class='btn btn-mini btn-warning'>New Page</a>"."</li>";
                    echo "<ul>";
                    for($k = 0; $k < count($pages[$i][$j]); $k++)
                    {
                        echo "<li><a
href='".site_url()."course/view/".$pages[$i][$j][$k]['pageID']."'>".$pages[$
i][$j][$k]['heading']."</a></li>";
                    }
                    echo "</ul>";
                }
                echo "</ul>";
            }
        ?>
        </ul>

    </div>
    <!--new unit form-->
```

```html
    <div id="unit-modal" class="modal hide fade" tabindex="-1"
role="dialog">
        <div class="modal-header">
            <button type="button" class="close" data-dismiss="modal" aria-
hidden="true">×</button>
            <h3>New Unit</h3>
        </div>
        <div class="modal-body">
            <?php
            $path = site_url()."course/new/unit/".$courseID;
            echo form_open($path);
            ?>
            Name: <input type="text" name="unitName" id="unitName"
required="required"/><br/>
            Description: <textarea name="description" id="description"
required="required"></textarea>
        </div>
        <div class="modal-footer">
            <input type="submit" value="Create Unit" class="btn btn-
primary"/>
            </form>
            <button class="btn" data-dismiss="modal" aria-
hidden="true">Close</button>
        </div>
    </div>

    <!--new chapter form-->
    <div id="chapter-modal" class="modal hide fade" tabindex="-1"
role="dialog">
        <div class="modal-header">
            <button type="button" class="close" data-dismiss="modal" aria-
hidden="true">×</button>
            <h3>New Chapter</h3>
        </div>
        <div class="modal-body">

            <?php
            $path = site_url()."course/new/chapter/";
            $atr = array('id' => 'chapter-form');
            echo form_open($path, $atr);
            ?>

            Name: <input type="text" name="chapterName" id="chapterName"
required="required"/><br/>
            Description: <textarea name="description" id="description"
required="required"></textarea>
        </div>
        <div class="modal-footer">
            <input type="submit" value="Create Chapter" class="btn btn-
primary"/>
            </form>
            <button class="btn" data-dismiss="modal" aria-
hidden="true">Close</button>
        </div>
    </div>

    <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
    <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
    <script>
        <?php
            $path = site_url()."course/new/chapter/";
            echo "var base=\"".$path."\";";
        ?>

        function getForm( id )
        {
            $('#chapter-form').attr('action', base + id);
            $('#chapter-modal').modal('show');
```

```
        }
    </script>
</body>
</html>
```

9.3.3.2 Course_profile.php

```
<!doctype HTML>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?= site_url()?>assets/css/basic.css" />
</head>
<body>
    <div class="navbar navbar-fixed-top">
        <div class="navbar-inner">
            <div class="container">
                <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                <ul class="nav">
                    <li><a href="<?php echo site_url();?>">Home</a></li>
                    <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                </ul>
                <ul class="nav pull-right">
                    <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                        <ul class="dropdown-menu">
                            <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                            <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                            <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                        </ul>
                    </li>
                </ul>
            </div>
        </div>
    </div>
    <div class="container">
        <?php
        for($i = 0; $i < count($units); $i++)
        {
            $u = $units[$i];

            echo "<li>".$u['unitName']."</li>";
            echo "<ul>";
            for($j = 0; $j < count($chapters[$i]); $j++)
            {
                echo "<li>".$chapters[$i][$j]['chapterName']."</li>";
                echo "<ul>";
                $n = count($pages[$i][$j]);

                for($k = 0; $k < $n; $k++)
                {
                    echo "<li>".$pages[$i][$j][$k]['heading']."</li>";
                }
                echo "</ul>";
            }
            echo "</ul>";
        }
        ?>
```

```
        </div>
    <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
    <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
</body>
</html>
```

9.3.3.3 *createExam.php*

```
<!doctype HTML>
<html lang="en">
<head>
    <title>Exam</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
</head>

<body>
    <div class="container">
        <form method="POST" id="create">
            Course:
            <select id="course" name="course">
                <?php
                    for($i = 0; $i < count($instructing);$i++)
                        echo "<option
value='".$instructing[$i]['courseID']."'>".$instructing[$i]['courseName']."<
/option>"
                ?>
            </select><br>
            Question:<textarea name="question"
required="required"></textarea><br>
            Correct Option<input type="text" name="cOption"
required="required"><br>
            Wrong Option<input type="text" name="wOption1"
required="required"><br>
            Wrong Option<input type="text" name="wOption2"
required="required"><br>
            Wrong Option<input type="text" name="wOption3"
required="required"><br>
            DIfficulty:<input type="text" name="difficulty"
required="required"><br>
            <input type="submit" class="btn" value="Create
Question">  
            <a href="<?php echo site_url(); ?>" class="btn btn-info"><i
class="icon-ok"></i>   Done</a>
        </form>
    </div>
    <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
    <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
    <script>
        <?php
        echo "var p = \"".site_url()."\";";
        if(isset($course))
            echo "var c = \"".$course."\";";
        ?>
        if(c != "")
        {
            $('#course').val(c);
        }
        $('#course').change(function(){
            $('#create').attr('action', p + 'course/exam/' +
$('#course').val());
        });
    </script>
</body>
</html>
```

9.3.3.4 newPage.php

```php
<!doctype html>
<html lang="en">
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?= site_url()?>assets/css/basic.css"
/>
        <script type="text/javascript">
            var hash = {
            '.mp4'  : 1,
            '.jpg' : 2
            };

            function check_extension(filename,submitId,type) {
                var i = filename.lastIndexOf('.');
                var ext = '';
                if (i != -1) {
                    ext = filename.substr(i);
                }
                var submitEl = document.getElementById(submitId);
                if (hash[ext] == type) {
                    submitEl.disabled = false;
                    return true;
                } else {
                    alert("Invalid filename, please select another file");
                    submitEl.disabled = true;
                    return false;
                }
            }
        </script>
    </head>
    <body>
        <div class="navbar navbar-fixed-top">
            <div class="navbar-inner">
                <div class="container">
                    <a href="<?php echo site_url();?>" class="brand">OLE</a>
                    <ul class="nav">
                        <li><a href="<?php echo site_url();?>">Home</a></li>
                        <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                    </ul>
                    <ul class="nav pull-right">
                        <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                        <li class="dropdown">
                            <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                            <ul class="dropdown-menu">
                                <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                            </ul>
                        </li>
                    </ul>
                </div>
            </div>
        </div>
        <div class="container">
            <div class="row">
                <div class="span12 well" align="center">
```

```
                                <p class="lead">

                                <?php
                                $path = site_url()."course/new/page/".$chapterID;
                                echo form_open_multipart($path);
                                ?>

                                <input type="text" class="span6" name="heading"
id="heading" placeholder="Page Heading" required><br>
                                </p>
                        </div>
                    </div>
                    <div class="row">
                        <div class="span6 well" id="video-container">
                                Upload Video: <input type="file" name="video" id="video"
onchange="check_extension(this.value,'upload',1)"><br>
                        </div>
                        <div class="span4" id="image-container">
                                Upload Image: <input type="file" name="image"
id="image"><br>
                        </div>
                    </div>
                    <div class="row">
                        <div class="row span12 well" align="center">
                                Text:<br><textarea name="text" id="text" class="span10"
rows="5" required></textarea><br>
                                <input type="submit" id="upload"/>
                                </form>
                        </div>
                    </div>
                </div>
        <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
        </body>

</html>
```

9.3.3.5 page.php

```
<!doctype html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
</head>
<body>

    <div class="navbar navbar-fixed-top">
        <div class="navbar-inner">
            <div class="container">
                <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                <ul class="nav">
                    <li><a href="<?php echo site_url();?>">Home</a></li>
                    <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                </ul>
                <ul class="nav pull-right">
                    <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                            <ul class="dropdown-menu">
```

```php
                                    <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                    <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                    <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                            </ul>
                        </li>
                    </ul>
                </div>
            </div>
        </div>

        <div class="container">
            <div class="row">
                <div class="span12 well" align="center">
                    <a class='btn pull-left' href='<?=
site_url()."course/continue/".$coursecode;?>'><i class='icon-
backward'></i>Course Home Page</a>
                    <br>
                    <ul class="pager">
                        <li class="previous">
                          <?php echo "<a href='".$prev."'>Previous</a>";?>
                        </li>
                        <li class="next">
                            <?php echo "<a href='".$next."'>Next</a>";?>
                        </li>
                    </ul>
                    <hr>
                    <p class="lead text-left">
                    <?php
                    echo $heading;
                    ?>
                    </p>
                </div>
            </div>
            <div class="row">
                <div class="span7 well" id="video-container">
                    <?php
                    if(isset($video))
                    {?>
                    <video width="500px" controls>
                        <source src="<?php echo site_url
().'coursedata/video/'.$video;?>" type="video/mp4">
                        Your browser does not support HTML5 Video.
                    </video>
                    <?php }?>
                </div>
                <div class="span4" id="image-container">
                    <?php
                    if (isset($image))
                        echo "<img src = '".site_url
().'coursedata/image/'.$image."'/>";
                    ?>
                </div>
            </div>
            <div class="row">
                <div class="row span12 well">
                <?php echo "<p class='lead text-left'>".$text."</p>";?>
                </div>
            </div>
        </div>
    <script src="<?= site_url();?>assets/js/jquery.js"></script>
    <script src="<?= site_url();?>assets/js/scripts.js"></script>
</body>
</html>
```

9.3.3.6 s_continue.php

```
<!doctype HTML>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?= site_url();?>assets/css/basic.css" />
    <style>
    td{padding: 3px;}
    </style>
</head>
<body>
    <div class="navbar navbar-fixed-top">
        <div class="navbar-inner">
            <div class="container">
                <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                <ul class="nav">
                    <li><a href="<?php echo site_url();?>">Home</a></li>
                    <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                </ul>
                <ul class="nav pull-right">
                    <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                        <ul class="dropdown-menu">
                            <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                            <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                            <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                        </ul>
                    </li>
                </ul>
            </div>
        </div>
    </div>
    <div class="container">

        <div class="row">
            <div class="span8">
                <div class="row">
                    <p class="unit-name">Course Progress: </p>
                    <div class="span8 progress progress-info progress-
striped active" style="height: 30px;">
                        <div class="bar" style="width: 0%; height:
100%"></div>
                    </div>
                </div>
                <div class="row">
                    <div class="span8">
                    <?php
                    $totalPages = 0;
                        for($i = 0; $i < count($units); $i++)
                        {
                            $u = $units[$i];
                            echo "<div class='row'><div class='span7 unit-
container'>";
                            echo "<span class='unit-
name'>".$u['unitName']."</span>";

                            for($j = 0; $j < count($chapters[$i]); $j++)
```

```php
					{
						echo "<div class='accordion-group'>";
							//accordion heading
							echo '<div class="accordion-heading">';
								echo '<a class="accordion-toggle"
data-toggle="collapse" data-parent="#accordion2"
href="#'.$chapters[$i][$j]['chapterName'].'">';
									echo
$chapters[$i][$j]['chapterName'];
								echo '</a>';
							echo '</div>';
							//heading end
							$n = count($pages[$i][$j]);
							$totalPages = $totalPages + $n;
							echo '<div
id="'.$chapters[$i][$j]['chapterName'].'" class="accordion-body collapse">';
								echo '<div class="accordion-
inner"><table>';

								for($k = 0; $k < $n; $k++)
								{
									echo
"<tr><td>".(in_array($pages[$i][$j][$k]['pageID'], $visitedPages)?"<i
class='icon-ok'></i>":" ")."</td><td>".($i+1)."-".($j+1)."-".($k+1).":
</td><td><a
href='".site_url()."study/page/".$pages[$i][$j][$k]['pageID']."'>".$pages[$i
][$j][$k]['heading']."</a></td></tr>";
								}
								echo '</table></div>';
							echo '</div>';
						echo "</div>";//accordion-group end
					}
					echo "</div></div>";
				}
			?>
			</div>
		</div>
	</div>
	<div class="span3 offset1">
		<?php
		if ($progress['lastPage'] == '0')
		{
			$page = $courseID.'-U1-C1-P1';
			echo '<a href="'.site_url().'study/page/'.$page.'"
class="btn btn-large btn-success" style="width: 180px;">Start!</a>';
		}
		else
			echo '<a
href="'.site_url().'study/page/'.$progress['lastPage'].'" class="btn btn-
large btn-success" style="width: 180px;">Continue!</a>';

		if($progress['certified'] == '1' )
			echo "<p style='margin-top:10px;' class='alert alert-
success'>You have been certified with a percentage of
<strong>".$progress['percentage']."</strong></p>";
		else if($totalPages == count($visitedPages) &&
$totalPages != 0)
			echo "<p style='margin-top:10px;' class='alert alert-
success'>Looks like you have completed studying everything! <a
href='".site_url()."exam/".$courseID."'>Ready to take the test?</a></p>";
		?>
		<p><a href="<?php echo site_url()."forum/".$courseID?>">View
Forum</a></p>
	</div>
	</div>

	</div>
	<script src="<?= site_url();?>assets/js/jquery.js"></script>
	<script src="<?= site_url();?>assets/js/scripts.js"></script>
```

```
        <script>
        <?php
            if($totalPages != 0)
                echo "var p='".count($visitedPages)*100/$totalPages."';";
            else
                echo "var p='0';";
        ?>
            var w = parseInt(p) * 620 / 100;
            var progress = setInterval(function() {
                var $bar = $('.bar');

                if ($bar.width() >= w || $bar.width()+62 >= w) {
                    $bar.width(w);
                    clearInterval(progress);
                    $('.progress').removeClass('active');
                }
                else{
                    $bar.width($bar.width()+62);
                }
                //$bar.text(parseInt($bar.width()*100/620) + "%");
            }, 1);
        </script>
</body>
</html>
```

9.3.3.7 s_examView.php

```
<!doctype HTML>
<html lang="en">
<head>
    <title>Exam</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
</head>

<body>
        <div class="navbar navbar-fixed-top">
          <div class="navbar-inner">
              <div class="container">
                    <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                    <ul class="nav">
                        <li><a href="<?php echo site_url();?>">Home</a></li>
                        <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                    </ul>
                    <ul class="nav pull-right">
                        <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                        <li class="dropdown">
                            <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                            <ul class="dropdown-menu">
                                <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                            </ul>
                        </li>
                    </ul>
              </div>
          </div>
        </div>
```

```php
    <div class="container">
        <div class='row'>
            <div class='span8'>
                <form name = 'exam' method="post" >
                    <?php
                    for($i = 0; $i < count($questionbank); $i++)
                    {
                        ?>
                        <div class='row span7 alert'>
                        <?php
                        echo "<div class='alert alert-success'
style='margin-bottom:0px'>".$questionbank[$i]['question']."</div><br>";
                        echo "<input type='hidden'
name='question".$i."' value='".$questionbank[$i]['questionID']."'/>\n";
                        //echo "<select name='answer".$i."'>\n";
                        echo "<div class='alert alert-info'
style='margin-top:0px;'>";
                        echo "<input type='radio'
name='answer".$i."'
value='".$questionbank[$i]['options'][0]."'>".$questionbank[$i]['options'][0
]."<br>\n";
                        echo "<input type='radio'
name='answer".$i."'
value='".$questionbank[$i]['options'][1]."'>".$questionbank[$i]['options'][1
]."<br>\n";
                        echo "<input type='radio'
name='answer".$i."'
value='".$questionbank[$i]['options'][2]."'>".$questionbank[$i]['options'][2
]."<br>\n";
                        echo "<input type='radio'
name='answer".$i."'
value='".$questionbank[$i]['options'][3]."'>".$questionbank[$i]['options'][3
]."\n\n";
                        echo "</div>"
                    ?>
                        </div>
                    <?php
                    }
                    ?>
                    <input type='submit' value='Done' class="btn
btn"/>
                </form>
            </div>
            <div class='span4'>
                <a href='#' class='btn btn-large'
onclick='javascript:document.exam.submit();'>Submit</a>
            </div>
        </div>
    </div>
    <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
    <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
</body>
</html>
```

9.3.4   Forum Views

9.3.4.1 courseThread.php

```php
<!doctype HTML>
<html lang="en">
    <head>
            <title>Forum</title>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
```

```php
        </head>
        <body>

                <div class="navbar navbar-fixed-top">
                  <div class="navbar-inner">
                        <div class="container">
                            <a href="<?php echo site_url();?>"
class="brand">EduSoc</a>
                            <ul class="nav">
                                <li><a href="<?php echo
site_url();?>">Home</a></li>
                                <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                            </ul>
                            <ul class="nav pull-right">
                                <li><a href="<?php echo
site_url();?>profile"><?echo $this->session->userdata('firstName')."
".$this->session->userdata('lastName');?></a></li>
                                <li class="dropdown">
                                    <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                                    <ul class="dropdown-menu">
                                        <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                        <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                        <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                                    </ul>
                                </li>
                            </ul>
                        </div>
                    </div>
        </div>
                <div class="container">
                        <div class='row'>
                            <div class='span7'>
                                    <a href="#thread" role="button" class="btn"
data-toggle="modal">Start a New Discussion</a><br><br>
                                    <?php

                                    if(isset($threads))
                                    {
                                        foreach ($threads as $value) {
                                            echo "<div class='alert
alert-info'><a class='text-error'
href='".site_url()."forum/thread/".$value['threadID']."'>".$value['subject']
."</a></div>";
                                        }
                                    }
                                    ?>
                            </div>
                            <div class='span4 offset1'>
                                    <a href='<?=
site_url()."study/".$courseID; ?>'>Back to studies!</a>
                            </div>
                        </div>
                </div>

                <!--thread modal-->
                <div id="thread" class="modal hide fade" tabindex="-1"
role="dialog">
                    <div class="modal-header">
                        <button type="button" class="close" data-dismiss="modal"
aria-hidden="true">×</button>
                        <h3>New Discussion</h3>
                    </div>
                    <div class="modal-body">
```

```
                        <form action='<?php echo
site_url()."forum/new/thread/".$courseID; ?>' method='post'>
                                <input type='text' name='subject' id='subject'
placeholder='Topic' required><br>
                                <textarea name='content' placeholder='What you
want to discuss' required></textarea>
                  </div>
                  <div class="modal-footer">
                        <input type="submit" value="Start Discussion" class="btn
btn-primary"/>
                        </form>
                        <button class="btn" data-dismiss="modal" aria-
hidden="true">Close</button>
                  </div>
               </div>
               <script src="<?php echo
site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
        </body>
</html>
```

9.3.4.2 posts.php

```
<!doctype HTML>
<html lang="en">
        <head>
                <title>Posts</title>
          <meta charset="utf-8">
          <meta name="viewport" content="width=device-width, initial-
scale=1.0">

          <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
        </head>
        <body>
               <div class="navbar navbar-fixed-top">
                 <div class="navbar-inner">
                       <div class="container">
                             <a href="<?php echo site_url();?>"
class="brand">EduSoc</a>
                             <ul class="nav">
                                  <li><a href="<?php echo
site_url();?>">Home</a></li>
                                  <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                             </ul>
                             <ul class="nav pull-right">
                                  <li><a href="<?php echo
site_url();?>profile"><?echo $this->session->userdata('firstName')."
".$this->session->userdata('lastName');?></a></li>
                                  <li class="dropdown">
                                       <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                                         <ul class="dropdown-menu">
                                             <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                             <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                             <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                                         </ul>
                                  </li>
                             </ul>
                       </div>
                 </div>
        </div>

               <div class="container">
```

```
                        <div class="row">
                            <div class="span12 page-header">
                            <a class='btn' href='<?=
site_url()."forum/".substr($threads['threadID'], 0,
strpos($threads['threadID'], '-'));?>'><i class='icon-
backward'></i>Forum</a>
                            <?php

                                if(isset($threads) && !empty($threads))
                                {
                                        echo
"<h2>".$threads['subject']."<br><small><span class='pull-
left'>".$threads['firstName']." ".$threads['lastName']."</span><span
class='pull-right'>".$threads['date']."</span></small></h2><br>";
                                        echo "<div class='alert alert-info'
style='font-size: 1.5em'>".$threads['content']."</div>";
                                }

                            echo "</div>";
                            echo "<div class='row'>";
                                if(isset($posts) && !empty($posts))
                                {
                            ?>

                                <?php
                                foreach ($posts as $value) {

                                        echo '<div class="span7 alert">';
                                        echo $value['content']."<br>";
                                        echo "<a
href='".site_url()."profile/".$value['userID']."'>".$value['firstName']."
".$value['lastName']."</a><br>";
                                        echo $value['date']."<br>";
                                        echo '</div>';
                                }
                                ?>


                            <?php
                                }
                                else echo "No Posts Yet!";

                            ?>
                            <div class='span4'>
                                <a href="#post-modal" role="button"
class="btn btn-large" data-toggle="modal">Post to this thread</a>
                            </div>
                            </div>
                        </div>
                </div>

                <!--post modal-->
                <div id="post-modal" class="modal hide fade" tabindex="-1"
role="dialog">
                    <div class="modal-header">
                        <button type="button" class="close" data-dismiss="modal"
aria-hidden="true">×</button>
                        <h3>New Post</h3>
                    </div>
                    <div class="modal-body">
                        <form action='<?php echo
site_url()."forum/thread/".$threads['threadID']; ?>' method='post'>

                            <textarea name='content' placeholder='What you
want to say' required></textarea>
                    </div>
                    <div class="modal-footer">
```

```
                    <input type="submit" value="Post" class="btn btn-
primary"/>
                    </form>
                    <button class="btn" data-dismiss="modal" aria-
hidden="true">Close</button>
                </div>
                </div>


            <script src="<?php echo
site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
        </body>
</html>
```

9.3.5   Instructor Views

9.3.5.1 Bio.php

```
<!doctype HTML>
<html lang="en">
      <head>
            <title>Posts</title>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
      </head>
      <body>
            <div class="navbar navbar-fixed-top">
              <div class="navbar-inner">
                  <div class="container">
                      <a href="<?php echo site_url();?>"
class="brand">EduSoc</a>
                      <ul class="nav">
                        <li><a href="<?php echo
site_url();?>">Home</a></li>
                        <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                      </ul>
                      <ul class="nav pull-right">
                        <li><a href="<?php echo
site_url();?>profile"><?echo $this->session->userdata('firstName')."
".$this->session->userdata('lastName');?></a></li>
                        <li class="dropdown">
                            <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                            <ul class="dropdown-menu">
                                <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                            </ul>
                        </li>
                      </ul>
                  </div>
              </div>
      </div>

            <div class="container">
                  <div class="row">
                      <div class="span12 page-header">
                      <a class='btn' href='<?=
site_url()."forum/".substr($threads['threadID'], 0,
```

```php
strpos($threads['threadID'], '-'));?>'><i class='icon-
backward'></i>Forum</a>
                              <?php

                                   if(isset($threads) && !empty($threads))
                                   {
                                        echo
"<h2>".$threads['subject']."<br><small><span class='pull-
left'>".$threads['firstName']." ".$threads['lastName']."</span><span
class='pull-right'>".$threads['date']."</span></small></h2><br>";
                                        echo "<div class='alert alert-info'
style='font-size: 1.5em'>".$threads['content']."</div>";
                                   }

                              echo "</div>";
                              echo "<div class='row'>";
                                   if(isset($posts) && !empty($posts))
                                   {
                              ?>

                                   <?php
                                   foreach ($posts as $value) {

                                        echo '<div class="span7 alert">';
                                        echo $value['content']."<br>";
                                        echo "<a
href='".site_url()."profile/".$value['userID']."'>".$value['firstName']."
".$value['lastName']."</a><br>";
                                        echo $value['date']."<br>";
                                        echo '</div>';
                                   }
                                   ?>


                              <?php
                                   }
                                   else echo "No Posts Yet!";

                              ?>
                              <div class='span4'>
                                   <a href="#post-modal" role="button"
class="btn btn-large" data-toggle="modal">Post to this thread</a>
                              </div>
                              </div>
                         </div>
              </div>

              <!--post modal-->
              <div id="post-modal" class="modal hide fade" tabindex="-1"
role="dialog">
                   <div class="modal-header">
                        <button type="button" class="close" data-dismiss="modal"
aria-hidden="true">×</button>
                        <h3>New Post</h3>
                   </div>
                   <div class="modal-body">
                        <form action='<?php echo
site_url()."forum/thread/".$threads['threadID']; ?>' method='post'>

                             <textarea name='content' placeholder='What you
want to say' required></textarea>
                   </div>
                   <div class="modal-footer">
                        <input type="submit" value="Post" class="btn btn-
primary"/>
                        </form>
                        <button class="btn" data-dismiss="modal" aria-
hidden="true">Close</button>
```

```
            </div>
          </div>

          <script src="<?php echo
site_url();?>assets/js/jquery.js"></script>
      <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
    </body>
</html>
```

9.3.5.2 *createCourse.php*

```
<!doctype html>
<html>
    <head>
        <title>Create Course</title>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
        <script>
            window.onload=function()
            {
                document.getElementById("submitButton").style.display='none';

document.getElementById("JSsubmitButton").style.display='block';
            }
            function checkCode(str)
            {
                str = str.replace(/\s+/g,' ').replace(/^\s+|\s+$/,'');
                document.getElementById('code').value = str;
                document.getElementById('loader').style.visibility='visible';

             // Check for white space
             if (str.indexOf(' ') >= 0)
                {
                    //Check For Spaces
                    document.getElementById("txtHint").innerHTML="No white
space allowed";

document.getElementById('loader').style.visibility='hidden';
                    return;
                }
                else
                {
                    if (str.length==0)
                    {
                        document.getElementById("txtHint").innerHTML="";

document.getElementById('loader').style.visibility='hidden';
                        return;
                    }
                    if (window.XMLHttpRequest)
                    {// code for IE7+, Firefox, Chrome, Opera, Safari
                        xmlhttp=new XMLHttpRequest();
                    }
                    else
                    {// code for IE6, IE5
                        xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
                    }
                    xmlhttp.onreadystatechange=function()
                    {
                        if (xmlhttp.readyState==4 && xmlhttp.status==200)
                        {

document.getElementById('loader').style.visibility='hidden';
```

```
document.getElementById("txtHint").innerHTML=xmlhttp.responseText;
                        }
                }
                xmlhttp.open("GET","<?php echo
site_url(); ?>instructor/checkCodeExists/"+str,true);
                xmlhttp.send();
            }
        }
        function showMessage()
        {
            document.getElementById('message').style.display = 'block';
        }
        function submitForm()
        {
            str = document.getElementById('code').value;/*check for
allowed characters*/
            if (str.indexOf(' ') >= 0)
            {
                //Check For Spaces
                showMessage();
                document.getElementById("message").innerHTML="Check your
data";
                return;
            }
            else
            {
                if (str.length==0)
                {
                    showMessage();
                    document.getElementById("message").innerHTML="Please
fill all fields";
                    return;
                }
                else
                    document.forms['createCourse'].submit();
            }

        }
    </script>
  </head>
  <body>
      <div class="navbar navbar-fixed-top">
          <div class="navbar-inner">
              <div class="container">
              <a href="<?php echo site_url();?>"
class="brand">EduSoc</a>
                  <ul class="nav">
                      <li><a href="<?php echo site_url();?>">Home</a></li>
                      <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                  </ul>
                  <ul class="nav pull-right">
                      <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                      <li class="dropdown">
                          <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                          <ul class="dropdown-menu">
                              <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                              <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                              <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                          </ul>
                      </li>
```

```
                        </ul>
                    </div>
                </div>
            </div>
            <div class="container">
                <!--form-->
                <div class="alert alert-error" id="message"
style="display:none;">
                    <?php
                        if (isset($message))
                            echo "<h3>".$message."</h3>";
                        echo "</div>";

                        $attributes = array('id' => 'createCourse');
                        echo form_open('',$attributes);
                    ?>
                    Course Name: <input type='text' name='courseName'
id='courseName' value="<?php echo set_value('courseName'); ?>"><br>
                    Course Code: <input type='text' name='code' id='code'
onchange="checkCode(this.value)" value="<?php echo
set_value('code'); ?>"><span id="txtHint"></span><img id="loader"
style="visibility:hidden; height: 20px; width: 20px;" src="<?php echo
site_url();?>images/loading.gif"><br/><br>
                    Description: <textarea name='description' id='desc'><?php echo
set_value('description'); ?></textarea><br>
                    Tags: <textarea name='tags' id='tags'><?php echo
set_value('tags'); ?></textarea><br>

                    Stream: <select name="stream" id="stream">
                            <?php
                                for($i = 0; $i < count($streams);$i++)
                                    echo "<option>".$streams[$i]."</option>";
                            ?>
                            </select><br>
                    Subject: <select name="subject" id="subject">
                            <?php
                                for($i = 0; $i < count($subjects);$i++)
                                    echo "<option
value='".$subjects[$i]['subjectID']."'>".$subjects[$i]['name']."</option>";
                            ?>
                            </select><br>
                    <input type='button' value='Create Course1' id="JSsubmitButton"
onClick="submitForm()" style="display:none" class='btn'>
                    <input type="submit" value="Create Course" id="submitButton"
class="btn">
                    </form>
                </div>
        <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
        </body>
</html>
```

9.3.5.3 displayBio.php

```php
<?php
header('Content-type: application/pdf');
header('Content-Disposition: inline; filename="'.$filename.'"');
readfile('data/instructor/cv/'.$filename);
?>
```

9.3.5.4 home.php

```html
<!doctype html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
    <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
</head>
<body>
    <div class="navbar navbar-fixed-top">
        <div class="navbar-inner">
            <div class="container">
                <a href="<?php echo site_url();?>" class="brand">EduSoc</a>
                <ul class="nav">
                    <li><a href="<?php echo site_url();?>">Home</a></li>
                    <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                </ul>
                <ul class="nav pull-right">
                    <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                    <li class="dropdown">
                        <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                        <ul class="dropdown-menu">
                            <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                            <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                            <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                        </ul>
                    </li>
                </ul>
            </div>
        </div>
    </div>
    <div class="container">
        <div class="row">
            <div class="span8">
                <a href="<?php echo site_url();?>instructor/bio">Update
Bio</a><br>
                <a id="create" href="<?php echo site_url();?>course/create"
class="btn">Create Course</a><br>
                <a href="<?php echo site_url();?>course/exam">Create
Exam</a>
            </div>
            <div class="span4">
            <?php
                if(isset($instructing))
                {
                    echo '<ul class="nav nav-list"><li class="nav-header">My
Courses</li><li class="divider"></li>';
                    for ($i = 0; $i < count($instructing); $i++)
                        echo "<li><a
href='".site_url()."course/continue/".$instructing[$i]['courseID']."'>".$ins
tructing[$i]['courseName']."</a></li>";
                    echo "</ul>";
                }
            ?>
            </div>
        </div>
    </div>
    <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
    <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
    <?php
    if($this->session->userdata('instructorStatus') != 'approved')
    {?>
    <script>
        var e = document.getElementById('create');
        e.className = e.className + ' disabled';
        e.href = null;
```

```
    </script>

    <?php } ?>
</body>
</html>
```

9.3.6   Student Views

9.3.6.1 Home.php

```
<!doctype html>
<html lang="en">
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-
scale=1.0">

        <link rel="stylesheet" href="<?php echo
site_url();?>assets/css/basic.css" />
    </head>
    <body>
        <div class="navbar navbar-fixed-top">
            <div class="navbar-inner">
                <div class="container">
                    <a href="<?php echo site_url();?>"
class="brand">EduSoc</a>
                    <ul class="nav">
                        <li><a href="<?php echo site_url();?>">Home</a></li>
                        <li><a href="<?php echo
site_url()."course/catalog"?>">Courses</a></li>
                    </ul>
                    <ul class="nav pull-right">
                        <li><a href="<?php echo site_url();?>profile"><?echo
$this->session->userdata('firstName')." ".$this->session-
>userdata('lastName');?></a></li>
                        <li class="dropdown">
                            <a href="#" class="dropdown-toggle" data-
toggle="dropdown"><b class="caret"></b></a>
                            <ul class="dropdown-menu">
                                <li><a href="<?php echo
site_url()."edit";?>">Edit Profile</a></li>
                                <li><a href="<?php echo
site_url()."password/change";?>">Change Password</a></li>
                                <li><a href="<?php echo
site_url()."logout";?>">Logout</a></li>
                            </ul>
                        </li>
                    </ul>
                </div>
            </div>
        </div>

        <div class="container ">

            <?php
            if(isset($notifications))
                echo '<a href="#notif-modal" onclick="lastUpdate()"
role="button" class="btn" data-
toggle="modal">Notifications('.(count($notifications['student']) +
count($notifications['instructor'])).')</a><br>';
            if(isset($studying))
            {?>
            <div class="row">
                <div class="span8">
                    <?php
                    if(isset($notifications)){
                        echo "<div style='line-height: 1.5;'>";
```

```php
                        for($i = 0; $i < count($notifications['instructor']);
$i++)
                        {
                            $dt = date("d-m-Y",
strtotime($notifications['instructor'][$i]['dateOfCreation']));
                            echo "<a
href='".site_url()."profile/".$notifications['instructor'][$i]['userID']."'
target='_blank'>".$notifications['instructor'][$i]['firstName']."
".$notifications['instructor'][$i]['lastName']."</a> created a course <a
href='".site_url()."course/profile/".$notifications['instructor'][$i]['cours
eID']."'
target='_blank'>".$notifications['instructor'][$i]['courseName']."</a> on
".$dt."<br>";
                        }

                        for($i = 0; $i < count($notifications['student']);
$i++)
                        {

                            $startDate = date("d-m-Y",
strtotime($notifications['student'][$i]['startDate']));
                            $endDate =
isset($notifications['student'][$i]['endDate'])?date("d-m-Y",
strtotime($notifications['student'][$i]['endDate'])):"";

                            if($endDate != "")
                                echo "<a
href=".site_url()."profile/".$notifications['student'][$i]['userID']."
target='_blank'>".$notifications['student'][$i]['firstName']."
".$notifications['student'][$i]['lastName']."</a> has completed <a
href='".site_url()."course/profile/".$notifications['student'][$i]['courseID
']."' target='_blank'>".$notifications['student'][$i]['courseName']."</a> on
".$endDate." with ".$notifications['student'][$i]['percentage']."%<br>";
                            else
                                echo "<a
href=".site_url()."profile/".$notifications['student'][$i]['userID']."
target='_blank'>".$notifications['student'][$i]['firstName']."
".$notifications['student'][$i]['lastName']."</a> has signed up for <a
href='".site_url()."course/profile/".$notifications['student'][$i]['courseID
']."' target='_blank'>".$notifications['student'][$i]['courseName']."</a> on
".$startDate."<br>";
                        }
                        echo "</div>";
                    }
                    else
                        echo "<h2>Add friends, and see what they are busy
studying!</h2>";
                    ?>
                </div>
                <div class="span4">
                    <?php
                    //enrolled courses
                    if(isset($studying))
                    {
                        if(count($studying) == 0)
                            echo "<h3 style='text-align:center'>Check out
our exciting courses, and learn awesome stuff!</h3>";
                        else
                        {
                            echo '<ul class="nav nav-list"><li class="nav-
header">My Courses</li><li class="divider"></li>';
                            for ($i = 0; $i < count($studying); $i++)
                                echo "<li><a
href='".site_url()."study/".$studying[$i]['courseID']."'>".$studying[$i]['co
urseName']."</a></li>";
                            echo "</ul>";
                        }
                    }
```

```php
                ?>
            </div>
        </div>
        <?php }


        if(!isset($course) && isset($awaitingFriendReq))
            {
                echo '<br>Friend Requests:';
                // print_r($awaitingFriendReq);
                for($i = 0; $i < count($awaitingFriendReq); $i++)
                {
                    echo "<a
href='".site_url()."profile/".$awaitingFriendReq[$i]['userID']."'>".$awaitin
gFriendReq[$i]['firstName']." ".$awaitingFriendReq[$i]['lastName']."  </a> -
- <a
href='".site_url()."respondFriendReq/".$awaitingFriendReq[$i]['userID']."/1'
>"."Accept</a> or <a
href='".site_url()."respondFriendReq/".$awaitingFriendReq[$i]['userID']."/2'
>"."Decline</a> <br>";
                }
            }
                echo "<br><br>";



        //course catalog view
        if(isset($course))
        {
            echo "<table class='table table-bordered table-hover'>";
            echo "<thead><tr><th>Course
Name</th><th>Subject</th><th>Popularity</th><th>Instructor</th></tr></thead>
";
            for($i = 0; $i < count($course);$i++)
            {
                echo "<tr><td><input type='button' class='btn'
value='".$course[$i]['courseName']."' data-
course='".$course[$i]['courseID']."' data-
signup='".$course[$i]['signup']."'></td>";

                echo "<td>".$course[$i]['name']."</td>";
                echo
"<td>".(isset($course[$i]['popularity'])?$course[$i]['popularity']:'-
')."</td>";
                echo "<td><a
href='".site_url().'profile/'.(isset($course[$i]['username'])?$course[$i]['u
sername']:$course[$i]['userID'])."'>".$course[$i]['firstName']."
".$course[$i]['lastName']."</a></td></tr>";
            }
            echo "</table>";
        }

    echo "</div>";

    //course catalog view
    if(isset($course))
    {?>
    <!--course modal-->
    <div id="course-modal" class="modal hide fade" tabindex="-1"
role="dialog">
        <img id="loader" style="display:none; height: 100px; width:
100px;" src="<?php echo site_url();?>images/loading.gif">
        <div class="modal-header">
            <button type="button" class="close" data-dismiss="modal"
aria-hidden="true">×</button>
            <div id="modal-header-content"></div>
        </div>
```

```
                <div class="modal-body" id="course-desc"></div>
                <div class="modal-footer">
                    <a href="" class="btn btn-success" id="study-btn">Sign
Up</a>
                    <button class="btn" data-dismiss="modal" aria-
hidden="true">Close</button>
                </div>
            </div>
            <?php } ?>


        <div id="notif-modal" class="modal hide fade" tabindex="-1"
role="dialog">
        <div class="modal-header">
            <button type="button" class="close" data-dismiss="modal" aria-
hidden="true">×</button>
            <h3>Notifications</h3>
        </div>
        <div class="modal-body">
            <?php

            for($i = 0; $i < count($notifications['instructor']); $i++)
            {
                $dt = date("d-m-Y",
strtotime($notifications['instructor'][$i]['dateOfCreation']));
                echo "<a
href='".site_url()."profile/".$notifications['instructor'][$i]['userID']."'
target='_blank'>".$notifications['instructor'][$i]['firstName']."
".$notifications['instructor'][$i]['lastName']."</a> created a course <a
href='".site_url()."course/profile/".$notifications['instructor'][$i]['cours
eID']."'
target='_blank'>".$notifications['instructor'][$i]['courseName']."</a> on
".$dt."<br>";
            }

            for($i = 0; $i < count($notifications['student']); $i++)
            {

                $startDate = date("d-m-Y",
strtotime($notifications['student'][$i]['startDate']));
                $endDate =
isset($notifications['student'][$i]['endDate'])?date("d-m-Y",
strtotime($notifications['student'][$i]['endDate'])):"";

                if($endDate != "")
                    echo "<a
href=".site_url()."profile/".$notifications['student'][$i]['userID']."
target='_blank'>".$notifications['student'][$i]['firstName']."
".$notifications['student'][$i]['lastName']."</a> has completed <a
href='".site_url()."course/profile/".$notifications['student'][$i]['courseID
']."' target='_blank'>".$notifications['student'][$i]['courseName']."</a> on
".$endDate." with ".$notifications['student'][$i]['percentage']."%<br>";
                else
                    echo "<a
href=".site_url()."profile/".$notifications['student'][$i]['userID']."
target='_blank'>".$notifications['student'][$i]['firstName']."
".$notifications['student'][$i]['lastName']."</a> has signed up for <a
href='".site_url()."course/profile/".$notifications['student'][$i]['courseID
']."' target='_blank'>".$notifications['student'][$i]['courseName']."</a> on
".$startDate."<br>";
            }


            ?>
        </div>
        <div class="modal-footer">
```

```
                <button class="btn" data-dismiss="modal" aria-
hidden="true">Close</button>
        </div>
    </div>


        <script src="<?php echo site_url();?>assets/js/jquery.js"></script>
        <script src="<?php echo site_url();?>assets/js/scripts.js"></script>
        <?php
        //course catalog view
        if(isset($course))
        {?>
        <script>
            <?php echo "var path =\"".site_url()."\";";?>
            $("input[type=button]").click(function(){
                var cId = $(this).data("course");
                if($(this).data('signup') == 1)
                {
                    window.location = path+"study/"+cId;
                }
                else
                {
                    $('#course-modal').modal('show');
                    $('#loader').css('display','block');
                    $('#modal-header-
content').html('<h3>'+$(this).val()+'</h3>');

                    $.post(path + 'student/courseInfo',{code:
cId},function(e){
                        $('#course-desc').html(e);
                        $('#loader').css('display','none');
                    });
                    $('#study-btn').attr('href', path+"course/study/" + cId);
                }
            });
                <?php

        ?>

        function lastUpdate()
        {
        alert("sda");
        if (window.XMLHttpRequest)
        {// code for IE7+, Firefox, Chrome, Opera, Safari
        xmlhttp=new XMLHttpRequest();
        }
        else
        {// code for IE6, IE5
        xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
        }

        xmlhttp.open("GET","<?php echo
site_url();?>users/updateNotifications",true);
        xmlhttp.send();
        }

    <?php
    ?>
        </script>
        <?php } ?>
    </body>
</html>
```

9.4 CSS

9.4.1 Basic.css

```
@import url('bootstrap.min.css');
@import url(http://fonts.googleapis.com/css?family=Roboto:400,100);
body{
background: #fbfbfb;
color: #555;
font: normal 19px "Roboto",arial,sans-serif;
font-weight: 300;
padding-top: 60px;
}
p{
  color: #666;
  line-height: 1.8em;
  margin: 0 0 10px;
}
a{
  color: #009cdc;
}
h2{
  /*font-size: 3.5em;*/
}
h1, h2, h3, h4, h5, h6 {
font-style: normal;
font-weight: 100;
line-height: 1.17em;
margin: 0 0 .3em 0;
}
.navbar-inner {
  min-height: 40px;
  padding-right: 20px;
  padding-left: 20px;
  background-color: #ffffff;
  background-image: none;
  color: #009cdc;
}
.navbar .brand {
  font-weight: 200;
  color: #009cdc;
  text-shadow: 0 1px 0 #ffffff;
  -webkit-transition: color .3s;
}

.navbar .brand:hover,
.navbar .brand:focus {
  text-decoration: none;
  color: #3333ff;
}
.navbar-link {
  color: #009cdc;
}

.navbar-link:hover,
.navbar-link:focus {
  color: #009cdc;
}
.navbar .nav li>a{
    color: #009cdc;
}
.navbar .nav li>a:hover{
    color: #777777;
}
.dropdown-menu>li>a:hover{
   background: #009cdc;
   color: #fff;
```

```css
}
.dropdown-menu{
    border-radius: 0px;
    -webkit-box-shadow: 0 2px 10px rgba(0, 0, 0, 0.2);
       -moz-box-shadow: 0 2px 10px rgba(0, 0, 0, 0.2);
            box-shadow: 0 2px 10px rgba(0, 0, 0, 0.2);
}

.dropdown-menu > li > a:hover,
.dropdown-menu > li > a:focus,
.dropdown-submenu:hover > a,
.dropdown-submenu:focus > a {
  color: #ffffff;
  text-decoration: none;
  background-color: #fff;
  background-image: none;
  text-decoration: none;
  background-color: #e5e5e5;
  -webkit-box-shadow: inset 0 3px 8px rgba(0, 0, 0, 0.125);
     -moz-box-shadow: inset 0 3px 8px rgba(0, 0, 0, 0.125);
          box-shadow: inset 0 3px 8px rgba(0, 0, 0, 0.125);
}
.modal {
position: fixed;
top: 10%;
left: 50%;
z-index: 1050;
width: 560px;
margin-left: -280px;
background-color: #fff;
border: 1px solid #999;
border: 1px solid rgba(0,0,0,0.3);
-webkit-border-radius: 0px;
-moz-border-radius: 0px;
border-radius: 0px;
outline: 0;
-webkit-box-shadow: 0 3px 10px rgba(0, 0, 0, 0.2);
-moz-box-shadow: 0 3px 10px rgba(0,0,0,0.2);
box-shadow: 0 5px 10px rgba(0,0,0,0.2);
}
.modal-backdrop{
    background-color: rgba(190, 190, 190, 0.5);
}
.modal.fade {
  top: 20%;
  -webkit-transition: opacity 0.3s linear;
     -moz-transition: opacity 0.3s linear;
       -o-transition: opacity 0.3s linear;
          transition: opacity 0.3s linear;
}

.modal.fade.in {
  top: 20%;
}
.accordion-heading{
    height: 40px;
    background: #fff;
}
.accordion-inner a{
    color: #000;
}
.accordion-inner a{
    color: #000;
}
.unit-container{
    padding: 10px;
    margin-bottom: 5px;
}
```

```
.unit-name{
    font-weight: bold;
}
.alert{
    padding: 8px 10px 8px 10px;
}
```

10 Conclusion and Future Work

The main reason for using a social network in the background is to promote education by including social interaction. Therefore, in conclusion we would like to state that the EduSoc is firstly a model on which a class of educational software can be built. The social network that works as the medium of education in this system can be further extended to stronger social interaction by including more functionality like support for other languages. EduSoc will then overcome language barriers as well. We believe this will be beneficial to users not fluent in English, like those hailing from rural areas. We hope to reach the vast numbers in villages across India who are eager to learn. With a stronger social network in the backing and better functionality, EduSoc can be implemented as a stronghold in educational machinery.

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