# 

# Project Initiation Document

**Basic Details:**

|  |  |
| --- | --- |
| Student name: | Kapil Kamar |
| Draft project title: | Course E-library System |
| Course: | BSC (Hons.) Computing |
| Class Code: | PRJ40E |
| Client organization: | Janapriya Multiple Campus |
| Project supervisor: | Lim Jet Wee |

Table of Contents

[Project Initiation Document 1](#_Toc428826773)

[1. Outline of the Project Environment: 3](#_Toc428826774)

[2. Project aim and objectives: 4](#_Toc428826775)

[3. Project Deliverables: 5](#_Toc428826776)

[4. Functional and Non-functional Requirements: 5](#_Toc428826777)

[5. Project Approach: 6](#_Toc428826778)

[a. Primary Approach: 6](#_Toc428826779)

[b. Secondary Approach: 6](#_Toc428826780)

[6. Resources and Constraints: 7](#_Toc428826781)

[Constraints: 7](#_Toc428826782)

[7. Starting point for research: 8](#_Toc428826783)

[8. Log of Risks: 9](#_Toc428826784)

[a. Risk of Data Loss: 9](#_Toc428826785)

[b. Risk of Computer viruses: 9](#_Toc428826786)

[c. Time Frame limitation: 9](#_Toc428826787)

[d. Disapproval of final system: 9](#_Toc428826788)

[9. Breakdown of tasks: 10](#_Toc428826789)

[10. Project Plan: 11](#_Toc428826790)

[11. References 12](#_Toc428826791)

[12. Legal, ethical, professional and social issues: 13](#_Toc428826792)

[13. Ethical examination checklist 13](#_Toc428826793)

# Outline of the Project Environment:

The present world is heavily reliant on the use of internet. Everything we use is in one way or the other related to the use of internet. Our lifestyle has been totally changed by the internet. The days have passed when people had to go to a library or a bookshop to get books and other study materials. Publishing houses had to literally work a lot of hours on producing books and making them available to the public in the past days. The publishing, marketing and distribution of the books are very tedious and time consuming processes. In addition to this, it is inconvenient for a student to carry every book including the study materials to every class or place the student visits.

With the introduction of internet, it has helped the colleges immensely to impart education to the students with the e-learning coming in practice. The virtual classrooms have been made available to the students and that has been possible only because of the internet. The virtual classrooms being run by colleges in the UK can be attended by a person living in Nepal. So, books that are available in the UK may not be available in the other part of the world where the students may be residing.

To resolve this problem of students not getting proper books and study materials for their course, an course e-library system for a campus would be an ideal solution. The course e-library system would allow the registered users of the system to join a course available in the site and access the materials published for the course. (Online Course Portal ). The users (mainly the students) can search for their course and start using the books and study materials posted by other users (the Faculty). The faculty members can post any books, study materials or links of the related books in the course. The book materials will have to be uploaded in the zip file format. A discussion forum/board will be present for each course so that there is effective communication between fellow students and faculty members.

**Scope of the project:**

The scope of the project has been briefly enlisted below:

1. Registration of users. (Users will be Administrator, faculty members and Students)
2. Upload of documents by the Faculty members
3. Students can download the documents as per their wish.
4. Module discussion forum where students can interact with their teacher and fellow students.
5. However there will be no live chat rooms and live lectures to attend to.
6. Also, there will be no librarian to update the E-library. It will be done solely by the facilitator for a particular course.
7. Administrator will have the privilege of approving the addition of users.

# Project aim and objectives:

This project has been chosen with a major objective of the development of an course e-library system for a campus which will reach out to the students and faculty members and provide them with a sharing platform where they can share books and related study materials. This will minimize the students’ tedious work of search for the correct course book and study materials required to excel his studies (Sharma, 2009).

In addition to this major objective, the following objectives are also to be met:

1. To understand the importance and benefits of an course e-library system/ system, both to the users and the college.
2. Research and analyze the type of course portal needed by the students to end their search of related books and study materials.
3. Collect, organize, identify and analyze the requirements for the web portal.
4. To choose the tools, software technologies and the skills I need to develop the system.
5. To choose a suitable System development methodology for developing the system.
6. To develop a working prototype which can later be used as a model of the system
7. To implement the prototype and refine it as it goes through certain tests and development processes to finally develop a system fulfilling all the requirements.
8. To further evaluated the system by creating a demonstration of the system which showcases all the features of the system in the real environment.
9. To prepare a complete and well documented project report and deliver a functional system.

# Project Deliverables:

An online course web portal will be the final deliverable of this project. However, with the application of a software development methodology, a deliverable will be received at the end of each stage. The deliverable maybe produced in the form of documentation, prototype or a fully working system depending on the different stages of the Software Development Lifecycle.

# Functional and Non-functional Requirements:

The functional requirements of this course e-library system are:

1. Students can choose courses.
2. A student can register for multiple courses.
3. Faculties can upload books, study materials, assignments and also upload lectures in various formats.
4. Students can download the books, and other materials uploaded by the faculties.
5. Faculties and students can collaborate and talk to each other in real time by using the discussion boards available in the system
6. Sharing of books, documents and media library which can assist in the active learning of a student.
7. Users must have a valid User ID and Password provided by the college to login which creates their individual profiles in the system.

The non-functional requirements of the system are:

1. The course portal must be available 24 x 7.
2. The website must be supported by major browsers which include Google Chrome, Mozilla Firefox, Internet Explorer, Safari, Opera, etc
3. The design component of the website must be better for the better performance.
4. The web design must be interactive and be responsive which will help it to work equally good on PCs, tablets and smart phones.
5. The database should be redundancy-free so that extra-memory space is not occupied.
6. The website must be OS independent. It means that it should open in any Operating System. Any kind of security issues must be considered to restrict the possible risks of virus, malwares and hackers.

# Project Approach:

We can approach the project in two ways namely Primary approach and Secondary approach. Both these approaches help in enhancing the quality of the project. The primary approach of research is the base for the secondary approach. The secondary approach of research then feeds on the primary research and the main project is constructed. The explanation of how both of these research has been conducted have described below:

## Primary Approach:

This is the initial phase of research for the project. In this phase, requirement gathering is conducted through different resources. The resources may include online journals, reports and also similar existing websites on the web. Surveys are conducted by preparing questionnaires which are then provided to possible users. Also a campus is visited where students and the faculty members are asked what they would like to see on a web portal. The data collected on these tasks become the base for second phase of the research.

## Secondary Approach:

The secondary approach is the second phase of the research. In this phase, the data collected are analyzed and development of the working project is started. I have decided to use the “Evolutionary Prototype” software methodology for the development of my project. I have used this so that the final project is error free and thoroughly tested for bugs. Also features will have to be constantly added; therefore it’s easier and more practical that this methodology is used. For the designing phase of the project, I will use HTML5, CSS3 and JavaScript while PHP will be used for the front end with MySQL as the back end of the web portal. Debugging after project development will be conducted so that the final deliverable is bug-free.

# Resources and Constraints:

With the advancement in internet technology, any research seems to be incomplete without its use. So, internet will be the major resource I will be using during the development of this project. The different websites, online journals, resources and eBooks available in the internet will be used as the resources for this project. Some of the tools and technologies that I will be using in this project are:

1. HTML5 and CSS3
2. PHP and MySQL
3. XAMPP
4. Sublime Text
5. JavaScript

## Constraints:

Each and every project has some constraints which limits the proper development of the project. These constraints can be applied to my project as well. The major constraint that will affect my system will be the time frame for its development. The initial primary and secondary research at the start of the project need to be done to obtain the requirements of the project which will affect the amount of time that could be spent on developing the web application. Having to go through a software methodology, there are some time-consuming steps where the system must be refined until it fulfills the initial requirements. There are different deliverables and documentation that need to be done as a part of the project. These deliverables and documentation need to be meet the deadlines of the respective modules they have to be submitted in.

Another constraint which will affect the project will be a lack of experience. I, as an academic student, do not have the experience needed to develop the best web application. Counting my inexperience in the development of the project, there may be many errors. Also there may be differences in the output I am hoping to get and the real output I will get after the development gets started. The real output may have lesser features than I initially expected.

Lack of budget also could be another constraint. Since I don’t have any organization investing in the development of the web application, I myself am unable to invest funds on the software to build this web application. However, if there were investors, then I would definitely have to budget to purchase extra software to develop enhanced features and finally integrate them into the web application.

# Starting point for research:

As said at the start of this draft project, internet will be by main tool for the development of the web application. My project will start with the following points on mind:

* Requirement for the web application is collected by doing some research of similar existing web application. These similar existing web portals will act as a reference material for further development of the web application.
* Study important journals and reports which will further help in requirement collection.
* Since course e-library system is a PHP project, I will increase my knowledge and skills on PHP project development by going through the book called “PHP and MySQL development-4th edition” published by Luke Welling and Laura Thompson. There are also different websites like [www.w3schools.com](http://www.w3schools.com) which provide an excellent knowledge of HTML, PHP, CSS and JavaScript. Going through these sites will also help my development of the project.
* Regular interaction and discussion with my facilitator from IGC will furthermore give me ideas on how to get the project started.

# Log of Risks:

Different types of risks may arise while developing a project. Some of these risks have been described below:

## Risk of Data Loss:

There are different kinds of data loss. Situations where only a portion of the data of the project is lost may not be as harmful as the total data loss of the project. This is dangerous risk as it affects the completion of the project. To avoid this risk, backing up of files is strongly recommended. Backing up of files ensures that if the files get deleted from the computer, we can restore our files from the back up. Back up of files can be kept in storage devices as well as the cloud storage such as Google Drive, or Drop box.

## Risk of Computer viruses:

There may be situations where computer viruses may affect our project. Viruses affect the computer and its program to respond slowly. In the worst case scenario, viruses may affect our files and make it corrupt. To avoid the risk of computer viruses in the computer, installation of genuine antivirus and antimalware software could be done

## Time Frame limitation:

There are different deadlines for every module of the project which I have to meet. And as an inexperienced student, it may be difficult for me to complete the project in the limited time frame. With the time frame limitation, there is a very high risk of not getting the project completed. To avoid this risk, I will have to strictly follow the project plan and the time schedule that will be assigned to every stage of the project. This will ensure that every stage of the project is finished on time and as a result, the whole project will be finished on time.

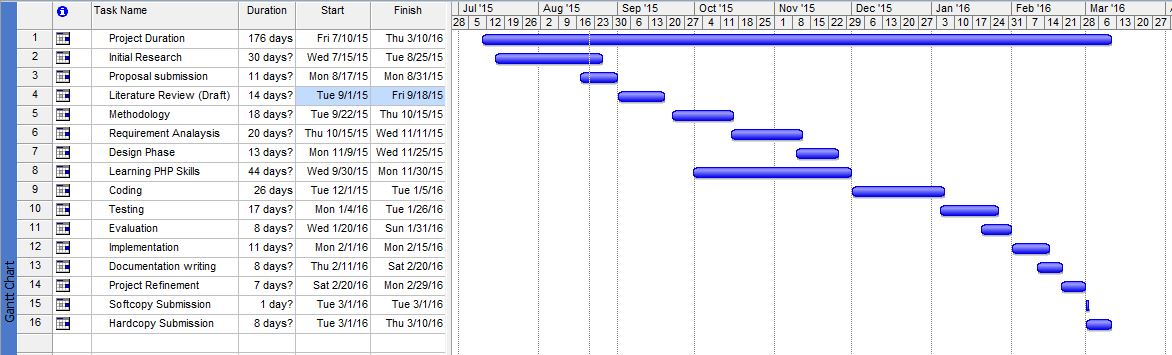
## Disapproval of final system:

There are times when the final project does not meet the requirements of the project. Because of this, it may be rejected by the facilitator. The time and effort applied to the development of this project will all be useless. To avoid this type of risk, there is no other solution than to have regular and direct contact with the supervisor himself. We should show him the deliverable at the end of each stage of development to keep make certain that we are following the correct way.

# Breakdown of tasks:

* Create a Proposal Document
* Brainstorm for ideas and choose a topic
* Brief research on some parts of the topic
* Requirements Gathering
* Visit similar existing sites.
* Study online journals and reports
* Visit a campus and conduct surveys with potential users (Students and Teachers)
* Requirements Analysis
* Analyze the requirements in depth
* Analyze success factors
* Analyze risk factors
* Choose a Software Development Methodology
* Design
* System Design
* Object Design
* Interface Design
* Database Design
* Coding
* HTML5
* PHP
* CSS3
* JavaScript
* Testing and Evaluation
* White Box testing (Implementing Test Plan)
* Evaluation of the systems functions and requirements
* Implementation
* Implementation of system based on the Software Development Methodology
* Finish the documentation of the project
* Evaluation of the Project

# Project Plan:

****

**Project Plan for the development of Course e-library system**

# References

1. Online Course Portal for Campus | ACADEMIC PROJECTS. 2015. Online Course Portal for Campus | ACADEMIC PROJECTS. [ONLINE] Available at: <http://ameerpet2america.blogspot.com/2012/03/online-course-portal-for-campus.html>. [Accessed 18 August 2015].
2. Work breakdown structure - Wikipedia, the free encyclopedia. 2015. Work breakdown structure - Wikipedia, the free encyclopedia. [ONLINE] Available at: <https://en.wikipedia.org/wiki/Work_breakdown_structure>. [Accessed 14 August 2015].
3. Project Scheduling | Project Management Basics. 2015. Project Scheduling | Project Management Basics. [ONLINE] Available at: <http://www.projectinsight.net/project-management-basics/project-management-schedule>. [Accessed 14 August 2015].
4. List of potential risks. 2015. List of potential risks. [ONLINE] Available at: <http://groups.engin.umd.umich.edu/CIS/course.des/cis375/projects/risktable/risks.htm>. [Accessed 21 August 2015].
5. Software Project Management. 2015. Software Project Management. [ONLINE] Available at: <http://www.tutorialspoint.com/software_engineering/software_project_management.htm>. [Accessed 21 August 2015].
6. Project Planning Software | Project Standard. 2015. Project Planning Software | Project Standard. [ONLINE] Available at: <https://products.office.com/en-us/project/project-standard-desktop-software>. [Accessed 22 August 2015].

# Legal, ethical, professional and social issues:

Legal issues contain the issuers of intellectual property and data protection. To eliminate this issue, I am going to use the copyrighted material only after the permission of the owner. I won’t try to sell the work of another person as my own. Privacy and data protection will be maintained by designing a secure system.

Professional issues relate to the professionalism of the developer. To eliminate these issues, adequate level of expertise and responsibility will be shown by the developer which is me. I will explain all the things and earn their trust and be as competent as I can be for the development of the project.

Ethical and social issues are related to each other. The moral values of developing the system are the ethical issues and the social issues are the result of the ethical issues. Explanation will be provided for the objectives and actions to reduce these issues.

# Ethical examination checklist

|  |  |
| --- | --- |
| 1. Are there any ethical, privacy or security issues that might arise during the collection of data?  **No, there won’t be any issues regarding the aspects listed above because data collection will be basic and simple.** | Yes  X  No |
| 2. Are you going to pay people to take part in any surveys?  Will it cost them money to take part in your surveys?  **No, I won’t be paying any money to people taking part in surveys. Paying money will only attract un-interested people. Also I won’t be charging money for taking part in my surveys** | Yes  No  X |
| 3. Are there any ethical, privacy or security issues that might arise as a result of the project being implemented?  **No there won’t be any of the serious issues arising as data protection is done very carefully. Any issues surely be handled before the implementation of the system**  List any potential issues: | Yes  X  No |
| 4. Will the human participants be exposed to any risks greater than those encountered in their normal lifestyle?  **No there won’t be any risk to human participants since they are only going to answer simple questions in a normal environment. In addition to this, their details will all be confidential.** | Yes  No  X |
| 5. Does the research or the final artefact involve human participants who are unable to give informed consent (for example: children under 18 etc.)?  **No under aged participants will be used since all users will be of consenting age.** | Yes  X  No |
| 6. Are you in a position of authority or influence over any humans you may interview?  **No, the interview won’t be done under any influence. Though I will be interviewing some students to know in depth what they really need.** | Yes  No  X |
| 7. After the study, will human participants be provided with feedback about their involvement and be able to ask any questions they may have about this involvement?  **Yes, feedback about their involvement will be provided to the participant since they have every right to know.** | Yes  No  X |
| 8. Will the human participants be informed of the true aims and objectives of the research you are doing?  **Yes. They will be informed of the true aims and objectives before their survey, to get as much accurate data as possible.** | Yes  X  No |
| 9. Will the data collected from the human participants be made available to others (where appropriate and only in relation to this research study), and be stored, in an anonymous form?  **Yes. The data collected from the human participants will be documented and can be made available to others (if necessary) in research study without disclosing personal information and also can be stored in an anonymous form** | Yes  No  X |
| 10. Will the data collected from human participants be sold to other companies for the objective of earning profit?  **No. selling of data will violate our legal policy. So collected data will be kept confidential and only be used in the development of this system.**  X | No  Yes |
| 11. Will the data collected from human participants be altered in any scenario or for the benefit of the company?  Comments:  **No. We strictly believe that integrity of data should be maintained. So, no alterations will be done to the collected data.** | Yes  X  No |
| 12. Will the research involve the investigator and/or any human participant, in activities that could be considered contentious, morally unacceptable, or illegal?  Comments:  **No. We have to abide by the law. So, the research won’t involve any activities that may be illegal or morally unacceptable** | Yes  No  X |
| 13. Does the client company believe that they own, or can restrict the use of, the artefact or report in any way?  Comments:  **No. The client company do not own or can restrict access the use of the report.** | Yes  X  No |