**Project Name:** Online Learning Platform

**Team Members:**

**Md. Rifat Hasan - 1712162642**

**Syed Md Zishan Ali – 1712587642**

**Md. Oahiduzzaman Mondol Zihad - 1711855642**

**Software Requirements Specification**

**Document**

**Date: 28/10/2019**

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# **1. Introduction**

This document lays out a project plan for the development of an Online Learning Platform system. The intended readers of this document are current and future developers working on this project and the sponsors of the project. It includes the project overview and the software requirement

## Overview

E-learning is an education via the Internet, network, or standalone computer. E-learning is basically the network-enabled convey of skills and knowledge. E-learning refers to using electronic applications and processes to learn. E-learning includes all forms of electronically supported learning and teaching. Our project is based on this concept. It is an education platform where students can learn and teachers can create contents. For this project the user group of interests are users from Bangladesh.

## Purpose:

This project is chosen for building a platform for both students and teachers. Many students face trouble on understanding important concepts in the class properly. Besides, there are lots of students who are eager to learn but can’t get enough resources or accessibility. But most people now have access to the internet and smart devices. So, with this project we want to make things accessible to people who wants to learn and teach. This project is based on the following principles:

• To provide useful contents and resources to high school and university students.

• To create a platform for tutors to upload contents and sell them.

• This E-learning Website Can be Also Provide Information About Questions.

## 1.3 Scenario:

E-learning is getting popular in most of the developed countries. Web sites like Coursera, Khan Academy, EDX, Byjus are some of the leading e-learning platforms. We want to develop such platform in Bangladesh to provide a skill-based learning system for the users.

## Intended Use:

There are 3 types of service in this system:

1.Services for students: Students will be able to register, enroll in courses, have questions and answer session with course provider, ask questions, reply to questions, publish blogs, save progresses etc.

2.Services for teachers: Teachers can create and update courses. Can sell them in the marketplace or publish for free.

3.Mentorship Program: People can sign up for mentor. Chat system for student and mentor. Write blogs, answer to questions.

# 2. Overall Description

## 2.1 Users:

The system is developed for everyone. Anyone can use this application ranging from a child to and old-age person. The focused users are the peoples who want to learn and teach.

## 2.2 Goals & Scope:

Main goal of all projects is the satisfaction of the users. Without the usability and reliability, a project has no value. So, for the project to be successful the software has to be well designed, responsive and should contain uniqueness. Beside this it has to have good contents, and the course designers and providers also have to be very skillful. The system should help its user to learn and gain skills. It will help them to get employed and building connection by showcasing their skills in their profile.

## 2.3 Stakeholders

The project stakeholder includes both the client and the customers. It includes:

• Founder of the company

• Company that will run the business

• The development teams

• Testers

• Sponsors

• Students

• Teachers

• Content providers

• Parents of the students

# 3. Requirements Elicitation

## 3.1 Feasibility Study:

The Project focuses on a large group of users. It includes students, teachers, contributors and even the online users. Since this is a platform for mass users so, the development and maintenance cost will be very high. It is also necessary to know if the users are eager to use such system. Without the need it is completely worthless to build such a system. So, we have done some study based of demographic region of several areas in Bangladesh, accessibility to the internet and smart devices and collected opinions from people of different age group

## 3.2 Requirements Collection:

It is very important to know the demand of the market to decide if it is worthy of building an education platform. To analyze the market demand for such platform and to know about people’s reactions requirement collection is very necessary. We used brainstorming technique from generating ideas for the project. We have done small survey on group of people and collected their user stories for the project.

# 4. System Features and Requirements

## 4.1 Functional Requirements:

* The application should have responsive interface
* Users should be able to register for an account
* Users will be able to enroll in a course
* Users can review a course
* Teachers should be able to build and add contents to a course
* There should be secure payment gateway for users to buy a course
* There should be Content Management System (CMS) for content providers

## 4.2 Non-Functional Requirements

* The application shall be easy to use by all
* Users will be able to login with Google and Facebook
* User should be logged in for viewing a course
* Different interfaces for student and teachers

## 4.3 Technical Process

Following are the languages that would be used to develop the application:

Front-end development: HTML, CSS, JavaScript.

Back-end development: Python, PostgreSQL.

Framework: We will use Bootstrap as front-end framework and Django in the Backend and for building APIs.

# 5. User Story:

|  |  |  |  |
| --- | --- | --- | --- |
| **Product Backlog Online Learning Site** | | | |
| **Task ID** | **Story** | **Estimate**  **(Days)** | **Priority** |
| 4 | As a user, I want to view page contents, features and go through the whole site. | 10 | 1 |
| 2 | As a user, I want to able to register and log in to my account. | 4 | 2 |
| 3 | As an admin, I want to take control and view users activity. | 4 | 3 |
| 1 | As a content developer, want a system for easily design and upload contents | 7 | 4 |
| 6 | As a user of the site, it must have high security and easy payment gateway. | 6 | 5 |
| 10 | As a student, will be able to save my progress | 3 | 6 |
| 8 | As a student, will be able show my skill sets and completed courses to others in my profile | 5 | 7 |
| 7 | As a user, I want to be able to ask questions to the forum. | 9 | 8 |
| 9 | As a user, I want to write blogs and share resources. | 7 | 9 |
| 5 | As a student, I want to be able to chat we the course creator or a mentor | 14 | 10 |

5.1: User Story Confirmation

**Task ID 4:** As a user, I want to view page contents, features and go through the whole site.

**\*Confirmation:**   
1. Home Page Access-  
 - Application should have responsive interface.  
 - Must have a domain name.  
 - Accessible and easygoing user interface.   
 - Good template design with good contents and features.   
 - Website hosting.

2. Error 404-  
 - Incorrect domain name.   
 - Not in service.  
 - Website under construction.

**Task ID 2:** As a user, I want to able to register and log in to my account.

**\*Confirmation:**   
1.(a) Success to registration-  
 - Must have an Email Address.  
 - Valid user name and password.  
 - Ticked “Agree” to the terms and conditions.

(b) Registration Failed-  
 - Invalid Email address.  
 - Password must contain uppercase letter and special character.  
 - Unticked “Agree” to the terms and conditions.

2.(a) Success to Login-  
 -Ticked “remember me” to store cookie.  
 - Unticked “remember me” to direct access the homepage by the registered Email ID and password.  
 (b) Login Failed-  
 - Invalid Email ID.  
 - Wrong password.

**Task ID 3:** As an admin, I want to take control and view users activity.

**\*Confirmation:**   
1. Admins can-   
 - Log into any user’s account.  
 - Run reports to monitor account activity.  
 - Place all users in a group to manage their access permission.  
 - Controlling feature and data access.  
 - Specify user’s storage allocation.

**Task ID 1:** As a content developer, want a system for easily design and upload contents

**\*Confirmation:**   
1. Front-End-Development-  
 - HTML, CSS, Javascript for design.  
 - Using Atom or Sublime Text Editor tools.   
 - Framework -> Bootstrap

2. Back-End-Development-  
 - Python, PostgreSQL/MySQL  
 - Using Atom or Sublime Text Editor tools.  
 - Framework -> Django.

**Task ID 6:** As a user of the site, it must have high security and easy payment gateway.

**\*Confirmation:**   
1. Successful Payment Gateway-   
 - User must be logged in.  
 - Add Credit or Debit Card.  
 - Card Number  
 - Expiry Date  
 - Security Code  
 - Add Paypal Account.  
 - Add Payoneer Account.

2. Payment Unsuccessful-   
 - Invalid Card Number.  
 - Invalid Paypal/Payoneer Account.  
 - Insufficient balance.

**Task ID 10:** As a student, will be able to save my progress.

**\*Confirmation:**   
1. To save data-   
 - Students have to enroll at least one course.   
 - Save partial result or update saved result.   
 - Allow users to save their progress.   
 - Save the data end user’s local browser cache.   
 - Upload any file.

2. Student cannot save data-   
 - Don’t have any enrolled courses.

**Task ID 8:** As a student, will be able show my skill sets and completed courses to others in my profile.

**\*Confirmation:**   
1. Each student can show other students profile activity-   
 - Every student must logged into their account.   
 - Only show their activity who is completed at least one course.   
 - Showing skill sets by 5 star rating.

2. No activity have been showed-  
 - who cannot complete at least one course.

**Task ID 7:** As a user, I want to be able to ask questions to the forum.

**\*Confirmation:**   
1. Asking questions to the forum-  
 - Users should be registered.   
 - Users must be logged into their account.   
 - Student or Mentor can ask questions.

2. No Forum option-  
 - Who is not registered.   
 - Who is not in logged in.

**Task ID 9:** As a user, I want to write blogs and share resources.

**\*Confirmation:**   
1. Write blogs and share resources-  
 - Users must be logged in.  
 - Users can write something into their account page.  
 - Every user can read the blog.   
 - Share resources by uploading files.

2. Error Occurred:   
 - Unregistered User.  
 - Files exceed the maximum size. (Max: 50MB)

**Task ID 5:** As a student, I want to be able to chat we the course creator or a mentor.

**\*Confirmation:**   
1. Chat between student and mentor-

- Different interfaces for student and teacher.  
 - Student must enroll a course.  
 - Student and teacher can chat while both of them are in online.

2. No chat option-  
 - If student doesn’t enroll any courses.  
 - After completion the course, they cannot chat with each other.