

Summer Internship 2013

MOOC Prototype Course

Week-03- Report 01 – 04/06/2013

Dhruva Bhaswar

Till now we have implemented several features meant for MOOC platform. All the features that we have developed makes extensive use of Django (Python Web Framework) apart from the usual web technologies like HTML5, Bootstrap (Twitter's open source CSS library), Javascript, AJAX, XML etc. So we went through Django, Bootstrap and other tools that we were not familiar with.

Some of the functionalities that I developed includes:

1. Self note taking functionality:

The feature basically allows the students to take notes while watching the video. The note gets associated with the video within the stipulated time interval for later reference. It usually happens that notes written in one's own words help a lot for getting the essence of the lecture when referring to a particular topic later on. This is how when a user refers to the video some later time he can easily recall the stuffs using his notes.

The functionality has been implemented entirely in Django – A python web framework and makes the use of Youtube API for integrating the videos. The users are given a form to enter the time period and the corresponding note. The form gets loaded with the current starting time dynamically when the user resets the form using the button provided. He can even hide the form if he wishes to. Once he/she submits the form the data gets saved in the database and the very next time when he watches the video he sees the corresponding note popping up during the stipulated interval. Since, this functionality is user specific thus I also implemented a full fledged user authorization in Django including user registration and session management for login and logout.

2. Search Functionality

I have also implemented a prototype search functionality which can be integrated in the main MOOC application for searching the courses according to certain filters. The search application has been developed using Haystack- a search module for Django. We used “Simple Search Engine” that comes default with the Haystack module but actually it can be customized to use more sophisticated search engines like Solr, Elastic-Search, Whoosh etc.

3. Integration of functionalities

As asked by our mentor I integrated all the functionalities implemented till now by all our team members using the templates that we are still working on. This integrated website brings all the functionalities together requiring proper Django configuration for serving all the static and media files so that the web pages gets rendered as we intend them to.

<https://github.com/elektron0405/MOOC1.git>

4. Edx

As our final product must be developed using Edx we have started studying the edx features and have developed an app using XBlock for video integration. XBlock is a component architecture by edX.org for building courseware.

With the release of the actual Edx Platform last saturday we have started the installation of the platform for setting up the edx runtimes (LMS and Studio).