Website development for Course Management of an

Academic Institution

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Abstract

This report will elaborate extensively the process that was undertaken while developing this course management website. It enlists the creation, design and development of the website from scratch. The whole website was coded in HTML5. The data implementation and incorporation has also been written about pervasively. The tools and applications that have been used to make this website like Adobe Photoshop and Website builder have also been composed about. Images(screenshots) have been added wherever it was required.

1. Introduction

Today's young generation spends most of their time online, visiting websites like Facebook, YouTube and searching for their every query on Google. Even when it comes to academics we tend to refer to the internet for study material and documents rather than browsing through aisles of heavily binded textbooks. How convenient it would be to have all your course related documents at one place. No more of running the hallways looking for notices or borrowing of notes. What if professors could update us about their course online itself, cancelling out the need to visit them personally. At most universities such kind of luxury is still not at dispose.

So therefore the idea to create a website for Course management that would serve both, the students and the professors was developed. This would help them use their time most efficiently. The website that has been developed has all the study materials from faculties stored online, available to download for the students. This website is not just about the study materials, but also about the notices from faculties and clubs related to the particular course.

2. Website Development

This website would fall under the educational category. To be precise, this website would be for course management for an academic institution.

2.1 Creation of a website

The website development process involves the below mentioned steps:[1]

2.1.1 Defining the Concept

We are living in a modern world where the importance of internet is increasing day by day, these days internet has become a necessity in every field. All kinds of people are using internet to connect to their friends over social networking sites, using internet to shop online, and students are using Google to search for every question that pops in their mind.

And this is what led to the development of the idea. What if there was a website which focused solely on the academic courses of students and their study material. Students would be spending their time on the internet as well as keeping a check on their academic courses. And this opportunity led to the development of such a website.

The purpose of the website was clear, to make the students and professors interact at the same place. So, all the professors were approached and were asked for their materials which eventually would be put up on the website. The audience of the website would be the students of the university.

The idea was to help students, and as a student its not always easy to run to various notice boards which are located at different places in the campus. So as the idea developed, the notices from the faculties were also decided to be put on the website making it easier for students to keep a check on their examinations schedule. On the website, the information about the clubs which are related to the course was also going to be put up, so that students can participate in extra-curricular activities related to their academics.

2.1.2 Designing a template

After defining the concept we need to design the template for the website. This website was made on the html5 website builder. There are few predefined templates available on html5 website builder, but for any website the template is edited by designing different pages, creating the website logo and creating the interface for the users. The interface is what the user sees and interacts with on the website.

When the home page was designed for this website, little information regarding website was added and the notice board was put up, which made it easier for the students who would visit the website for the notices from faculty. Then the pages for the study material was designed

where, there were different pages for four years of the course, and the courses for the same year were kept on the same page. And in the end, the pages for the computer science clubs were designed along with the contact us page.

2.1.3 Defining Interaction

The implementation of the template which is designed is the next thing to do in website development. The interaction of the users and the template is really important. The animations using code and hyperlinking the designed pages are an integral part of defining the interaction.[2]

As this website is for the students of the university, the browsing of the website had to be kept as direct as it could be. In this website, the navigation menu was created with the following options:

1. Home
2. Faculty material
3. Faculty details
4. Computer science clubs
5. Contact

2.1.4 Implementing the behavior

After defining the navigations a user can perform on the website, the behavior of the page is implemented by writing code. The pages with the study materials from the professors of the university was created with the icon buttons of the respective files on which students could just click and that particular file will be automatically downloaded.

2.1.5 Incorporating the data

For the data of the website, all the professors had to be approached and were asked for their study materials.

Then the study material had to be arranged according to the year in which that respective course is available. All of this data was uploaded on the hosting account and was put up on the website with the use of the HTML codes.[5]

3. Design Tools and Languages

3.1 HTML

HTML is a core technology markup language of the

Internet used for structuring and presenting content for the World Wide Web. As of October 2014 this is the final and complete fifth revision of the HTML standard of the World Wide Web Consortium. The previous version, HTML 4, was standardized in 1997.[3]

Developing the website requires the knowledge of hypertext markup language (HTML). There are predefined tags for the respective actions.[4]

For example:

i.	<a>	Defines a hyperlink
ii.	<article>	Defines an article
iii.	<audio>	Defines sound content
iv.	<body>	Defines the document`s body
v.	<button>	Defines a clickable button
vi.	<footer>	Defines footer for document
vii.	<h1>to<h6>	Defines HTML headings
viii.	<header>	Defines header for document
ix.	<iframe>	Defines an inline frame
x.	<img>	Defines an image
xi.	<input>	Defines an input control
xii.	<main>	Defines main content
xiii.		Defines the directory list

And there were many others tags which were used while creating this particular website.[5]

3.2 HTML5 Website builder

There are many websites which provide the service of website builders on the internet. The website builder chosen for the development of this website had its own app market.

In the website builder there is pick and drop menu and this makes the coding a lot simpler than just writing the whole code using HTML on your own. With website builder, the template is selected and modified according to the need of the developer.

To start off the template was selected from the website builder and then modified to make the most use of the space available. Then the first step to build the website is to create the pages required. As shown in the screenshot below, the pages were created with the add page option and the details for those respective pages were filled. After creating the page, the settings for the page were modified for the visibility on the navigation menu and things like the links of the respective pages were made.[6]

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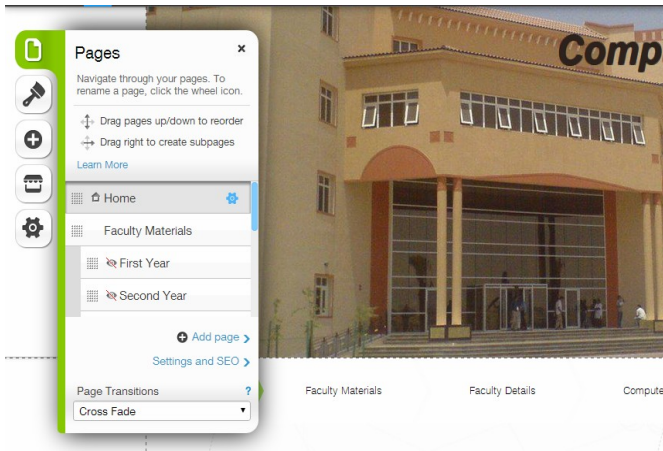www.IJCSI.org

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Fig 1. Creating new pages in website builder

After the required pages for website have been created the editing of those pages is the next step. For that, the textboxes were added everywhere to write on the pages. As shown in the screenshot below, the options like adding text and images are available. The option of text is selected and dropped on the page, wherever the text is to be written, and then the properties of those textboxes are set, like the colour, size and the font of the text.
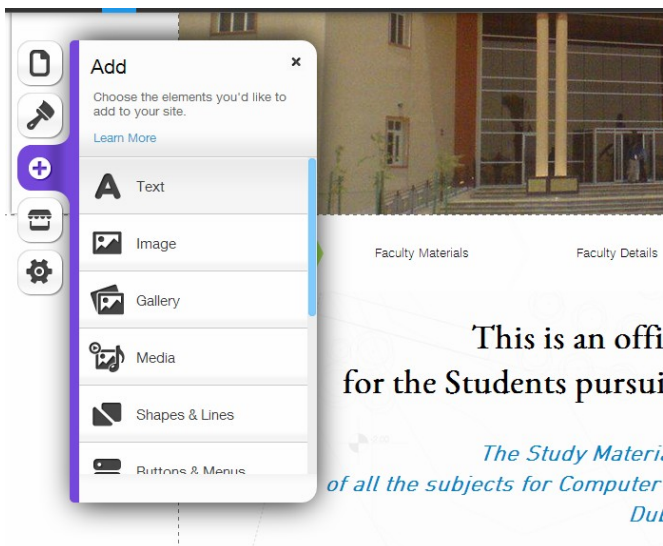
Fig 2. Adding textboxes to the web page

Once the textboxes are in place, the navigation bar was created. Navigation bar is the most important part of the website as it allows you to interact with the audience. In this case, the visitors of the website would be students so the navigation bar was placed right in the front making it easily accessible. Then other features, like proper alignment etc was taken care of. As shown below:
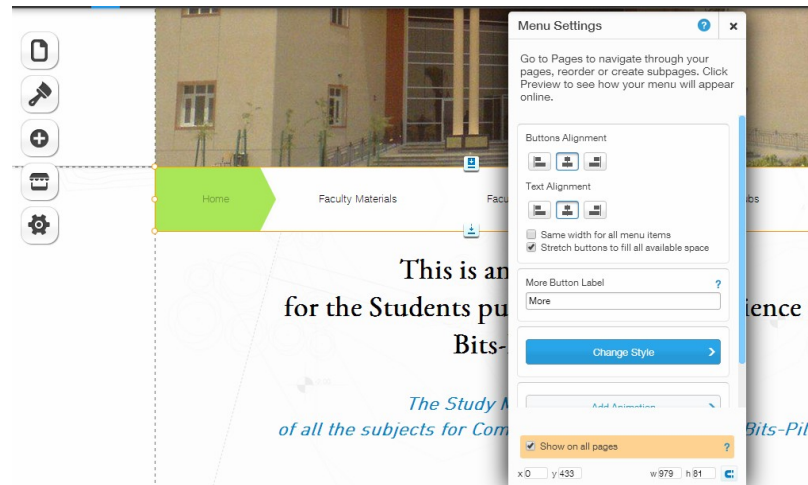

Fig 3. Navigation menu properties

Once the navigation menu of the website is done, the editing of the faculty details page was started, where the addition of list was needed.
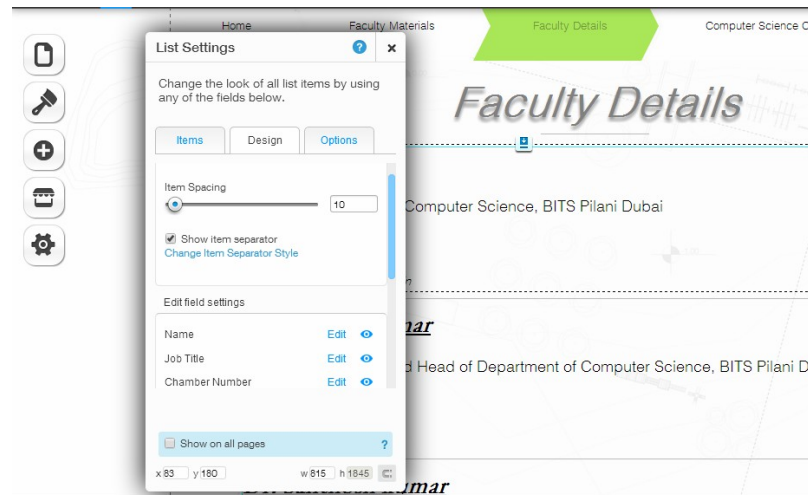

Fig 4. List properties in website builder

The faculty details page of the website had the list, where the details of the professors was entered, which had information like, their chamber numbers, their email addresses and most importantly the courses they are in-charge of. Once the information of the professors was put on the website, then the crucial part of the website was taken care of where the documents would put up, which were available to download for the students. The first step is to upload the documents on the website`s storage.
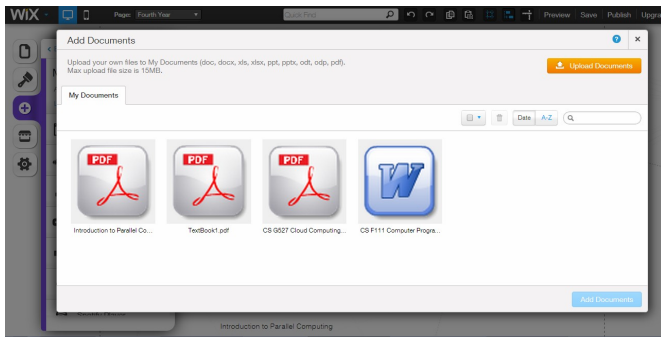
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Fig 5. Document storage in website builder
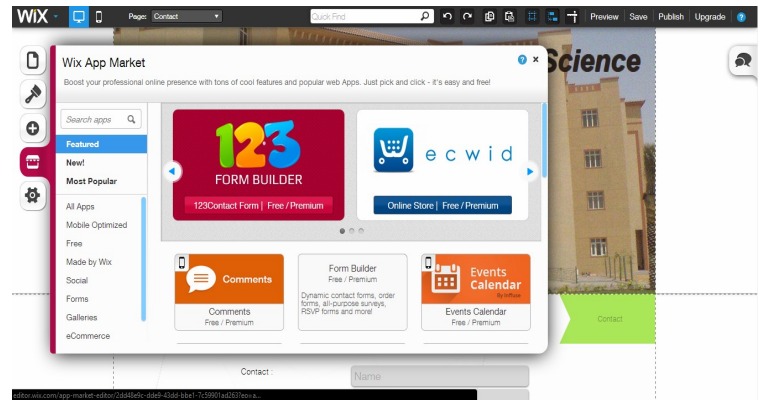
After uploading the documents on the storage of website, they had to be organized under their respective year and course categories. Then, the icons for the documents and the document titles were added.

Fig 6. Document properties

Finally, for the contact page, the contact form was found on the available app market. Down below a quick sneak peak is available:

Fig 7. App market

After this, the website was published.

3.3 Photoshop CS6

Adobe Photoshop is a raster graphics editor developed and published by Adobe Systems for windows and OS X.

The pictures used in this website are edited in the Adobe Photoshop itself.[7]

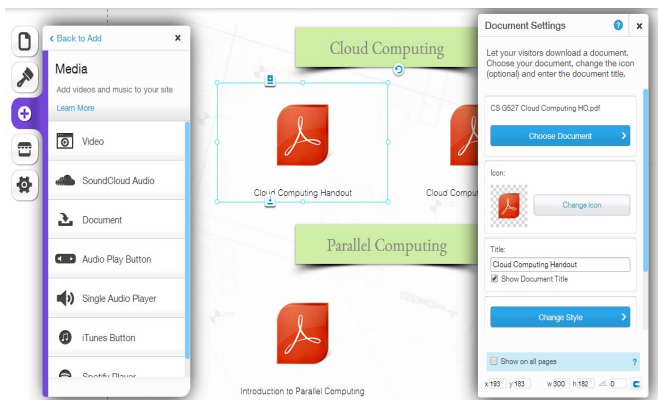## 4. Conclusions

To conclude it can be said that creating this website will prove to be quite useful to students as well as professors. It will help them study more efficiently and also introduce the concept of virtual communication between professors and students.

Acknowledgments

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