The Spectrum Project

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Abstract:
Our aim is to develop a web application for Alabama Micro Nano Science and Technology Center (AMNSTC). We will introduce the users to AMNSTC, its history, current status, research projects and important personnel. The primary functionality of this website is to provide the research scientists a user-friendly interface to view and record experimental data to the organization database. Scientists can plot charts to view experiment specific data.

In this project, we create animated web tutorials used to train the undergraduate teacher education students. Our first step was to create the paper prototypes of the scenarios and based on these prototypes the animated tutorials are created. This project aims at creating Educational Teacher Training through Animated Case Studies. With Teacher training we have many teachers in colleges of education that teach classes on an individual basis how to address and react to class challenges. While creating the animated web tutorials our main aim is to present a scenario   which is simple, clear and easily understandable to the teachers in training challenges with the classroom management.

The animated web tutorials are created by using Macromedia Adobe Flash and Adobe Photoshop. Flash is mainly used in creating web pages, animation, for creating advertisements, integration of videos into web pages and recently for rich internet applications.

Introduction:
Spectrum Educational Tool, developed by Prism Educational Consulting group, assists in training novice teachers towards classroom management and management of various types of students in class. Why PRISM you might ask. A prism is an object made up of a transparent material like glass or plastic that has at least two flat surfaces that form an acute angle (less than 90 degrees). White light is comprised of all the colors of the rainbow. When white light is passed through a prism, the colors of the rainbow emerge from the prism. Education is like the white light. It is an enlightening experience. White light, which is made up of all colors, is refracted differently, each bends at difference angels resulting in a fanning out or separation into colors of the spectrum. Education is much like the white light. It passes through the PRISM and breaks up into a palette of general knowledge, developing powers of reasoning and judgment, and generally preparing oneself and others intellectually for mature life. The reason I was personally

interested in this project is because of the system that is being developed in regard to getting aspiring teachers more class room experience through a mobile platform before they actually set foot in the classroom. This project is revolutionary because more institutions will lean toward this method of teaching their students in the near future. The problem which I ran into with this project was how could I provide ample content while keeping the interface very user friendly. This is a common problem when trying to develop a web platform for a new project such as Spectrum. I researched various methods of integrating teaching consulting tactics and implementing them into an easy to understand online platform. While doing research I generated an efficient solution to the problem that I was experiencing. That solution was to implement a webpage that had access to all of the information that a student might need in order to use Spectrum as fluently as possible. I implemented access to case studies needed to get started on how to handle different scenarios in the class room setting, a services tab was added so that the user with access to our client that we were working with, and the teams tab which showed the user all of the professors and clients that had a part in the Spectrum project.

Literature:

In 2020, mobile and wireless traffic volume is expected to increase thousand-fold over 2010 figures. Moreover, an increase in the number of wirelessly-connected devices to counts in the tens of billions will have a profound impact on society. Massive machine communication, forming the basis for the Internet of Things, will make our everyday life more efficient, comfortable and safer, through a wide range of applications including traffic safety and medical services. The variety of applications and data traffic types will be significantly larger than today, and will result in more diverse requirements on services, devices and networks

"Here's how the Internet of Things will explode by 2020"- The Internet of Things (IoT) has been labeled as "the next Industrial Revolution" because of the way it will change the way people live, work, entertain, and travel, as well as how governments and businesses interact with the world. In total, it is forecasted that there will be 34 billion devices connected to the internet by 2020, up from 10 billion in 2015. IoT devices will account for 24 billion, while traditional computing devices (e.g. smartphones, tablets, smartwatches, etc.) will comprise 10 billion. Nearly $6 trillion will be spent on IoT solutions over the next five years.

This relates to the Spectrum Project because of the mobile application we were continuously trying to develop in conjunction with the code I was preparing for the additional content that was to be added on. IoT will start to increase the different ways this content will be used in the near future. The Spectrum project will be featured in many other platforms such as in classroom tips and scenarios. Colligate textbook partnerships would also be a sought-after feature. This could open doors for case studies to be featured in what are now being called "eBooks," which are being more commonly used now due to the mobile and tablet platforms sky rocketing.

Design:

Spectrum Educational Consultancy   EMail: [_____]   Pswrd: [_____]   [Sign In]

Teams	Services	Tools	Contact

Slide Show of images

What We Do/ About Us

Our Mission

Spectrum Educational Consultancy   email: [   ]   pswrd: [   ]   Sign In
Create Account

| Teams | Services | Tools | Contact |

Teams

Dr. Seals

Dr.Tripp

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These are the two main parts in which I was given full creative control to make these aspects of the website very user friendly and very eye catching. These wire frames would be among the first two webpages that a person will see among entry to the site. It is also linked to the Auburn University template that is being used for the actual case studies, live scenarios, and teachers notes.

Method and Development:

HTML5, CSS3, JavaScript, and bootstrapping were all used in collaboration for the HTML side of the Spectrum Project. They are all collectively intertwined together to produce the most user friendly and easily navigate able website possible. I was charged with developing an easy way of

linking the existing work of the project to the new work I had done with the webpages that I designed. The development stages of this project were very strenuous because I had to do a lot of preliminary research in regard to the previous knowledge and execution of the Spectrum Project. Some of the methods I had to implement while creating the webpages was turning png file to jpeg before rendering them into the code I was making for the site. I also had to develop adequate images and background information for the "Teams" page of the website, which consisted of all of the professors that had major contributions to this project. Before I had arrived to take on this project the Teams page was a mere template when I first received it. After careful coding I transformed the page into an informational page with functional drop-down buttons to display text and the text was also compatible with mobile formats in conjunction with the app that was developed previously by the head of the project.

References

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