**Directions**

D2: Proposal with three ideas (7 points)

Each team should submit three idea proposals for the three web application that your company

would like to develop. Each proposed web application idea should be complex enough to

incorporate HTML forms, server-side interaction with PHP, interaction with database, client-side

interactions/animations with JavaScript and Ajax. The instructor will select the one the team

should work on after assessing the ideas.

What to submit

Here are more details on the content of the proposal document:

**Each project idea**

• should take up about 3⁄4 to 1 single-spaced page.

• should have a paragraph describing the need for the proposed application and especially

should comment on the innovation and creativity aspects of the proposed idea

• should comment on how the project will incorporate the technologies that we will study in

class, namely HTML, CSS, JavaScript, PHP, MySQL, Ajax

• should contain four/five use-cases of the application (number of use cases depends

on the team size, you need one use case per team member): A use case is

representative of a unique/different way in which the application will be used by users.

Eventually, each team member will take ownership of the complete code development of

one use case each.

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When writing the proposal document, **for each use case, write in terms of:**

(1) what is the input you need from the user through a form

(2) what will your system do with that input (this must include some interaction with database). Both (1) and (2) together will constitute a use case.

**Grading**:

Each idea will be evaluated based on the following criteria and the professor will select one that

the team must then work on:

• Subjective assessment of innovation and creativity

• Demonstrated Need for the proposed web application

• How the project incorporates all technologies that we study in class, namely, HTML, CSS,

JavaScript, PHP, MySQL, Ajax

• Completeness of use cases presented

**Project Goal:** Develop and design an innovative web application that effectively addresses a progressively stirring societal issue.

**The team brainstormed ideas in accordance to the unified project goal. Ideas are described in greater detail in the following section “Project Ideas/Intended Goals”. Below, is a high level list of the ideas discussed:**

1. Educational Social Media
2. “Learn how to code” application
3. Music Streaming

Project Ideas and Intended Goals:

The following section lists ideas and their desired outcome/need, their innovative aspects, their incorporation of class technologies such as, HTML, CSS, JavaScript, PHP, MySQL, Ajax, and respective use cases.

*Idea 1: Greater Education Social Media*

This website would be a tool for students to communicate with one another in an informal capacity. Users would be able to contact, communicate, and reach out to other students at their respective universities, as well as other universities.This social media is geared toward students in college. It would provide online discussions on various subjects, a forum for students to communicate with one another about school, and ways for extracurricular groups to reach out to students. This website will include MySQL, HTML, CSS, PHP, and JavaScript.

1. Use Cases

* One use case would be to create the login page. This would include designing the login page, creating an SQL table, and using HTML to create the text boxes and the submit button. Also, there would be a include a “New user” option as well.
* User would input their University, student information and classes. The website will add their input to a database via SQL that contains all the given information. With it there will be chatrooms created for each of the student’s classes
* Another use case would be to create a news feed moderated by teachers. This will prevent social topics from deviating onto inappropriate content, hate speech, and cyberbullying. The teachers would have a moderator account setup through a separate database via SQL that allows them to lock or remove mischievous accounts.
* Use case that allows users to enter specific group chat. This will create protected conversations to prevent students from viewing other student material and possibly plagiarizing. When creating a groupchat, a student admin will be chosen, and he/she will add usernames into a specified group chat by accepting or declining requests, and sending requests.

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| --- | --- | --- | --- | --- | --- |
| **Use Case Name:** View/Edit Pricing Table | | **ID:** UC-1 | | | **Importance Level:** High |
| **Actor:** Employees of Kashmir Distributions | | | | | |
| **Description:** The customer pricing table displays the unique product pricing for each individual customer to users of the system. It allows administrative users to alter the pricing if needed. | | | | | |
| **Trigger:** User needs pricing information for a certain customer(s). | | | | | |
| **Inputs:** External | | | | | |
| **System-Input Interaction**  1 Inputs/Sources of Input/Outputs | | | | | |
|  | | |  | |  |
|  | | | | | |
| **Inputs** | **Sources** | | | **Outputs** | **Destinations** |
| Search criteria  Customers  Pricing Table | Employee  Customer Database  Product Database | | | Modified prices | Product Database |
|  |  |  |  |  |  |

*Idea 2: “Learn how to Code” Application*

This website will provide an education source for children aged 5-12, by introducing them to computer science at a young age. We hope to outsource the website to curriculums across the country, and eventually increase the number of underrepresented groups in computing as a byproduct. With software’s prominence in the world today, we think it is important that the youth is computationally educated as they grow up, so a solid technological future is guaranteed. This application’s success potential and viability is high, due to its many innovative aspects. Firstly, there are not many known websites made for kids ages 5-12, that teach them how to code. Websites like W3schools, target older audiences, and are not elementary-middle school friendly. By creating coding education especially for this age group, we will be unique in the market. The application will include graphics, games, and quizzes designed in accordance to the interest of the specified age group.

In terms of the website’s relation to the class, it will use the following technologies: HTML, CSS, JavaScript, PHP, MySQL and Ajax. For the user interface, HTML, CSS, and JavaScript will be utilized. The website will consist of various modules ranging from links to coding concepts, to tabs of coding quizzes.User profiles will also be used. In terms of the backend, MySQL will be used to store the data that will be represented on the user interface and also user profile data. In order to connect the database to the user interface, PHP and Ajax will be utilized.

Use Cases:

* One use case would be to create the login page. This would include designing the login page, creating an SQL table, and using HTML to create the text boxes and the submit button. Also, there would be a include a “New user” option. There may also be a “Forgot Password?” option as well.
* Another use case would be to create a trivia game with questions that are focused on programming concepts. This would possibly require animations to attract kids at a young age. In order to implement animations, we would use javascript and ajax. The trivia game would have three modes: “easy”, “intermediate”, and “advanced”.
* In a form users must select the correct answers a certain number of times per game/page. Once the user has gotten a select number of answers correct they will get points added to their account that will be used to “unlock” the next lessons that follow a natural progression to properly learning to code. Rewarding animations may be used as well when the forms are filled out correctly.

*Idea 3:Music Streaming*

This website will be a hub for underground, lesser known local musicians to share their work, develop a following and make a name for themselves on the Internet. Additionally venues will be able to have a presence, to advertise their upcoming shows and also be on the lookout for new artists. Users will be able to browse venues to learn about shows they might be interested in as well as check out who is playing at those shows beforehand. There already exist many platforms (such as Bandcamp or Soundcloud) which allow anyone who is making music to share it online, which have been taken up by underground artists to make a name for themselves in recent years. And while doubtless many venues use these platforms to find local artists who would want to play shows for them, none of these platforms were built with that purpose specifically in mind. Thus we will provide a necessary link between small venues, artists, and enthusiasts of local and underground music. Such a service will doubtlessly incorporate HTML5 and CSS to create an audio streaming console that is also aesthetically appealing and engaging. We will also need to maintain a database of users of both types (musicians and venues) which will necessitate the use of MySQL to retrieve the information as well as PHP to link whatever song requested from our database to the console on the page. The audio console itself will likely require javascript to run and meet the standards people expect for audio streaming (i.e. to be able to skip songs, rewind and scan through them with a click of the mouse.)

1. Use Cases

* One use case would be to create the login page. This would include designing the login page, creating an SQL table, and using HTML to create the text boxes and the submit button. Additionally, there would include a “new user” option as well. There will also need to be an Admin option in order to manage the site.
* Another use case would be to implement a rating system for each musical composition. Like SoundCloud has “hearts”, and BandCamp has feedback, we will have a much more detailed rating system that evaluates aspects of the artist’s music such as their lyrics (if there is any), the instrumental, the mix, and the arrangement. It will be rated with a “thumbs up” for good, “thumbs sideways” for okay, and “thumbs down” for not good.
* While browsing an artist’s or venue’s page they could “follow” the artist or venue. If an artist is followed then the user will get updates as to when artists are going on tour and they’ll get updated with new music and ideas that they put out. If a venue is followed then the user gets updated with all the events going on at that venue that will include date, event description, attire (if any), cost, link to tickets (if necessary).
* Users can share their location with other users through a map module. By clicking on their location on a map, users will be categorized into various smaller groups.
* Users (either fans or venues) will be able to search for artists in the database based on artist name, genres they have tagged their music with, and/or the artist's proximity to a certain location. This gives users the flexibility to find new artists for whatever reason they find relevant.