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Project: Quantum Calculator

 HTML pages that validate:

* Yes

 Cascading Style Sheets that validate:

* Yes

 JavaScript front end form verification

* Contact Us form: *contact.js* verifies correct format for Name, Email, and Comments upon hitting Submit.

 Dynamic HTML features:

* Homepage slideshow using Bootstrap JS and CSS
* Navigation button effect upon hovering and clicking

 PHP script to process form data

* Contact Us form: *contact.php* inserts Name, Email, and Comments into COMMENTS table in MySQL database upon hitting Submit.
* Login/Register form: *processLogin.php* and *processSignup.php* process Username and Password and read/append the passwd.txt on server side.
* Calculator page: *calc.php* uses the form to access James’ mysql database that provides the data needed to do all the calculations seen on the site

 MySQL database back end

* Contact Us form: Set up COMMENTS table in Quan’s database to save comments. The table has 3 columns: Name, Email, and Commentsi
* Calculator Page: Set up calc table in James’ database to store pertinent elemental data. Table has 4 columns: Atom, Number of electrons, Emperical Radius, Weight

 PHP interface to the MySQL database

* Contact Us form: *contact.php* inserts Name, Email, and Comments into COMMENTS table in MySQL database upon hitting Submit.
* Calculator page: *calc.php* uses php to get data back from James’ MySQL database, and then uses that data to calculate the quantities specified in the form.

 Maintain state in transactions

* User needs to log in or sign up successfully to use the calculator (session is started by *processLogin.php* and *processSignup.php*). Session is maintained until the user clicks the Logout tab button.

 Set and read cookies

* We could not find a meaningful way to do this.

 *Annotated* links to other related web sites

* Links in Background tab to UT Professors’ research page.

 Include AJAX application

* Login/Register tab: at New User Sign-Up, whenever the input for Username is changed, a javascript will call out the *check.php* script on the server to check from the passwd.txt file (also on server) whether the Username is already used. The javascript will then notify the user through a pop-up alert if this is true. (Try: “james”, “hieu” or “minh”)

 Include audio and / or video files (optional)