

Kshitij Summer Training 2016

Assignment2

Topic : Javascript & CSS3

You all have to develop a "MATHAPP". This would be an mathematical tool for few basic computations. Given below are the details of this webapp :

- You all have to take inputs from the user using form elements of HTML as two integers and then give the option to user whether to add,subtract,multiply,divide them as well as LCM & HCF options too.You'll use basic javascript functions in this part for computation. Then as the user submits form you have to dynamically put these values in a table below so that user keeps the track of his calculations. Then you've to give the user a feature to color code his calculations i.e he can give color red , yellow , green to any particular row of that table. This states that you have to give options in each row of the table to color the entire row by given color. for this you can make three buttons in rows named R(Red),Y(yellow),G(green).
- **Extra:** this part is an additional requirement not necessary for this assignment, In this feature you have to provide user a swapping feature also i.e. the user can swap the two rows of table and reorder his table according to his wish.
- In this next part (make a separate page), you'll give user the option to input the numbers again as in first part but here you'll have to give the volume of cube & sphere as the form submits. You'll compare these volumes and then pop up alert that which volume is greater, you also have to change the background color of the frame or box if the final result is palindrome (google it if you don't know) . For ex. if user entered 11 then volume of cube will be 1331 which is a palindrome and hence change the color & give a suitable message. In second part you won't be using basic functions for calculation part but instead you'll have to use modals/class and form objects for calculation(Object Oriented Programming way). You don't need to store the data in this part just calculate and give results.
- This is the last part of your assignment, In this part you have to use CSS3 skills extensively in this part you have to make a rotating cuboid and sphere. This cuboid and sphere should be made only of "divs" not any image.You have to rotate them along xaxis and yaxis simultaneously after a certain time interval say 5 sec each on both axes. Your cube or sphere should always be rotating, it should not stop.Remember that you make all faces of cube of different colors.

- **Extra :** If possible you should give user the power to set the time of rotation on each axis & also the length of side of cube(not for sphere).

→ **TIPS :**

- ◆ You all will use the console part of google chrome to fix your issues regarding javascript. It'll help you all to debug your code. Just copy whole error and google search it, you'll find the solution. Javascript debugging is very tough so always write a small part of code run it and if the outcome is proper then only proceed. Keep checking your code.
- ◆ For the first part, try to think algorithm first that how you'll proceed and then only start the coding part. Give the table rows different id's dynamically and keep a counter which will track total number of rows of table. You have to keep the track of each and every row of your table since user will use his color coding feature.
- ◆ This is a very long assignment try to break it in parts and subparts and then code it.
- ◆ You can use [JS Fiddle](https://jsfiddle.net/). It is an online compiler for javascript. If anyone wants to perfect his/her code use w3schools validators like that of HTML & Javascript.
http://www.w3schools.com/website/web_validate.asp

★ **NOTE :**

Start imagining yourself as a professional web developer. Present your assignment in a nice way. Give boost to your creativity , we've just given you the basic requirements of assignment 2 but you can alter / addon different style of presentation. Improve your designing(web) skills as much as you can. You'll be given extra credit for designing part , try to incorporate smooth transitions & animations while changing color in first part or anywhere you wish.