

CMPS 350 Web Development Fundamentals

Lab 4 – CSS Layout

Objective

Practice using CSS grid, flexbox and media queries to develop responsive page layouts.

At the end of the Lab, complete the testing document then sync your repo to push your work to GitHub.

Part A - Page Layout using Grid and Flexbox

1. Get the **Lab4-CSS** repo from <https://github.com/cmeps350s22/Lab> repo and copy it to your private repository.
2. Complete the following four exercises to practice page layout using grid and flexbox.

Exercise 1 – Page Layout using CSS Grid

- First review the Grid basic concepts using the lecture slides. Summary of grid properties is available at <http://grid.malven.co>
Then visit this https://www.w3schools.com/css/css_grid.asp and go through the tutorials to understand how the grid works.
- Create the following layout shown in Figure 1 using a grid and media queries. You should use the **world-cup-2022.html** file provided in the lab folder.



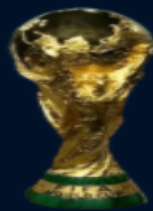
Figure 1: Layout Design using CSS Grid

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World Cup Qatar 2022

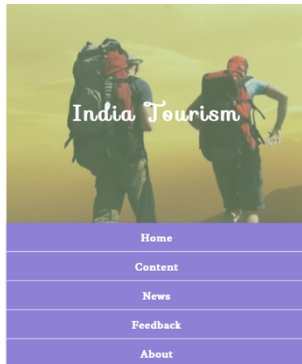
Where dreams become reality



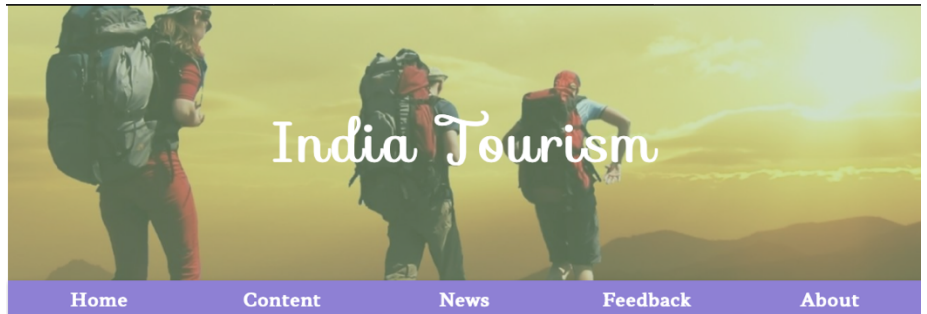
Buy Ticket

Exercise 2 - Navigation menu using Flexbox

Style the navigation layout using flexbox and make it responsive. Open **nav-layout.html** and style the menu as shown in Figure. Start with mobile first vertical layout. When the screen width is more than 60rem, make the layout of the menu horizontal.



Smaller Screen



Larger screen

Figure 2: Responsive menu

Exercise 3 – Form Layout using a Grid

Style **contact.html** form using a grid to deliver a responsible form as shown in Figure 3 (notice the input labels placed above the inputs for a small screen).

First Name <input type="text"/>	First Name <input type="text"/>
Last Name <input type="text"/>	Last Name <input type="text"/>
Job <input type="text"/>	Job <input type="text"/>
Age <input type="text"/>	Age <input type="text"/>
Email <input type="text"/>	Email <input type="text"/>
<input type="submit" value="Submit"/>	<input type="submit" value="Submit"/>

Figure 3: Responsive form

Exercise 4 - RAM (Repeat, Auto, Minmax)

Style the `products.html` page using flexbox (to style the product **card**) and grid & RAM pattern to create a responsive layout with auto-created grid columns and automatically placed children (as shown in Figure 4).

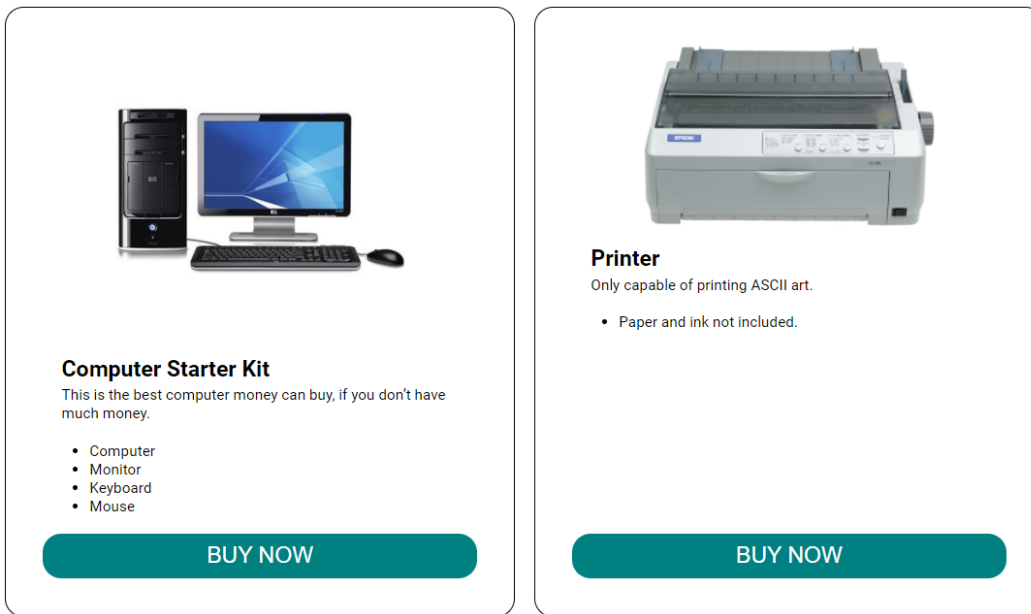
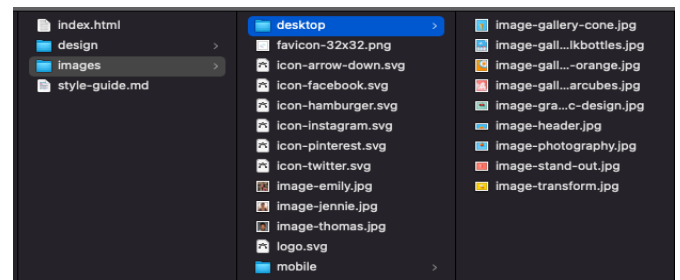
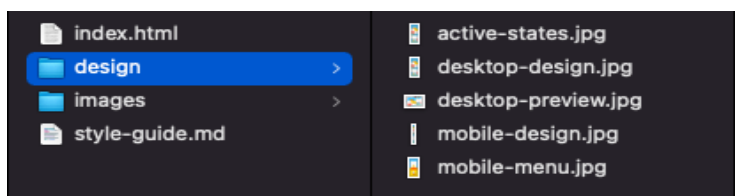
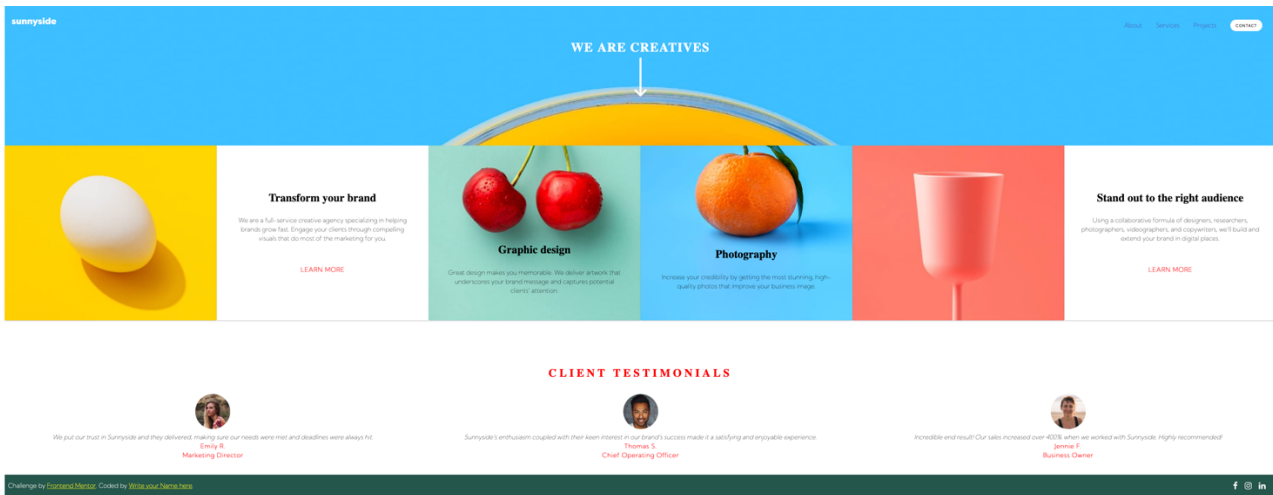


Figure 4: Responsive grid of product cards

PART B – Practice Responsive Web Design

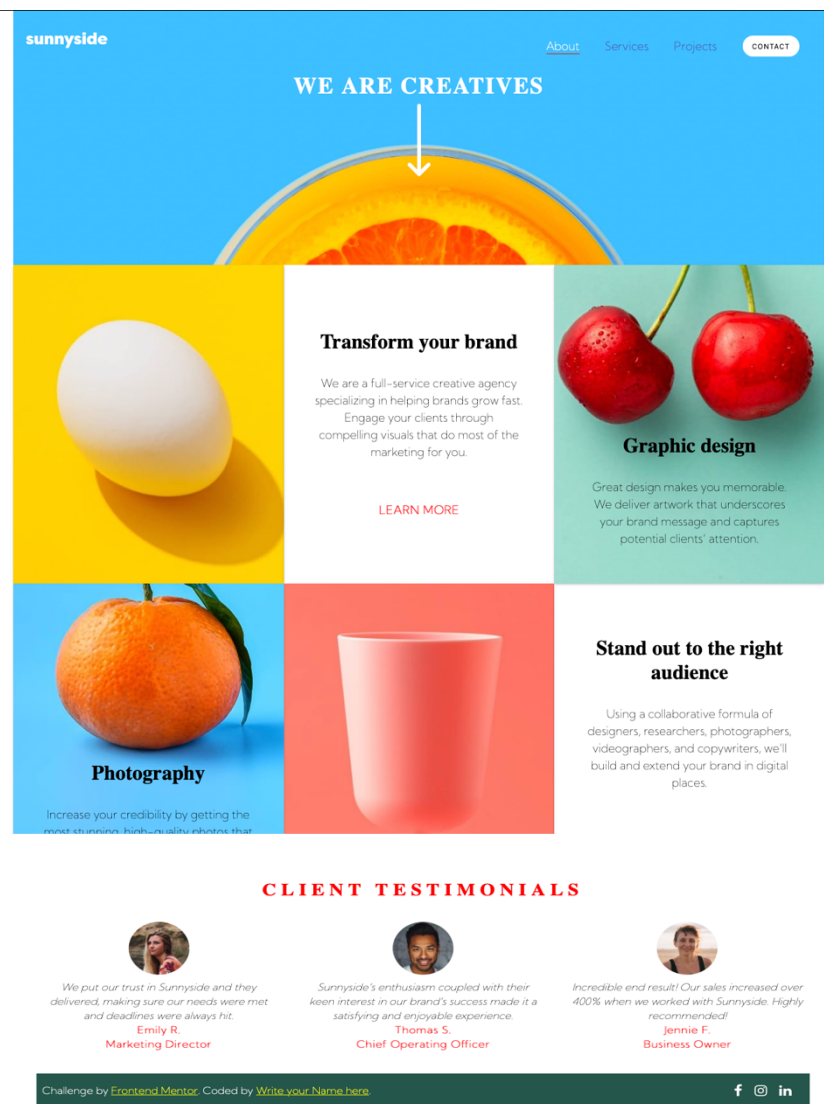
The below is a challenge from [frontend-mentor](https://frontendmentor.com) for you to practice. The user should be able to view the optimal layout for the site depending on their device's screen size. All the files needed for the exercise are provided to you in **Lab4-CSS** from the Lab repo, including the design files and a read me file that explains the type of fonts used and the colors.





Large Screen – Very wide

Desktop





On Smaller devices < 60rem