

## WEEK 1 - HTML:

### Exercise 1.1:

1. When a user enters an URL in the browser, how does the browser fetch the desired result ? Explain this with the below in mind and Demonstrate this by drawing a diagram for the same. **(2-3 hours)**
  - a. What is the main functionality of the browser?
  - b. High Level Components of a browser.
  - c. Rendering engine and its use.
  - d. Parsers (HTML, CSS, etc)
  - e. Script Processors
  - f. Tree construction
  - g. Order of script processing
  - h. Layout and Painting

### Guidelines:

1. Submit this assignment on GIT - Answer should be in readme File (with images) on GIT.
2. Candidates should be able to explain how a browser works.
3. What are the high level components of a browser?
4. How each component works with each other. (For example: Networking component is the one which makes HTTP calls, Data storage component is a browser's persistence layer which saves data locally such as Cookies and Local Storage.
5. How Parsing works and its importance.
6. The order of execution of scripts.

### Outcome:

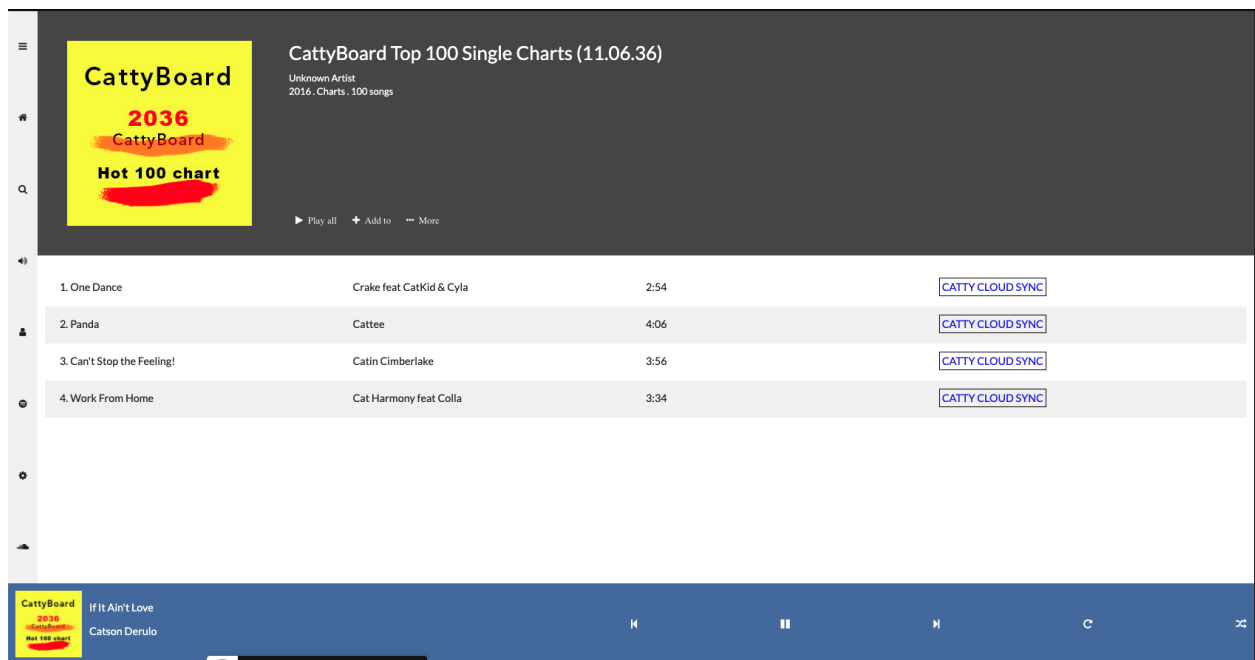
1. Under the hood understanding of how a browser works.
2. What are the features a browser provides?
3. What a browser is capable of doing.
4. How a web page is translated from a string in a URL to a webpage.

### Exercise 1.2: (2-3 hours)

- Use "Lato" font for entire text in UI
- Use line awesome Icon library for all icons
- Cattyboard album image URL: <https://vif1g.csb.app/src/assets/cattyboard.jpg>
- Icons used in assignment:
  - la-bars
  - la-home
  - la-search
  - la-volume-up
  - la-user
  - la-cog
  - la-spotify
  - la-soundcloud

la-play  
la-plus  
la-ellipsis-h  
la-step-backward  
la-step-forward  
la-undo-alt  
la-random

- Note: Feel free to use any other font library if you wish



### Guidelines:

1. There should be a separate branch created in GitHub for this exercise.
2. The UI should closely match with the screenshot given as sample. This includes the colors, fonts, icons, text etc.
3. Semantic tags should be used for laying out the UI.
4. There should be one or more Git commits with meaningful commit messages.