

# Materials and Prototyping DSL 732

Source: <https://hub.packtpub.com/fab-lab-worldwide-labs-digital-fabrication-0/>

CNC ROUTERS

HAND TOOLS

COMPUTER & SOFTWARE

VINYL CUTTER

LASER CUTTER

3D SCANNER

3D PRINTERS

ELECTRONICS WORKBENCH

Topic 2

Website development

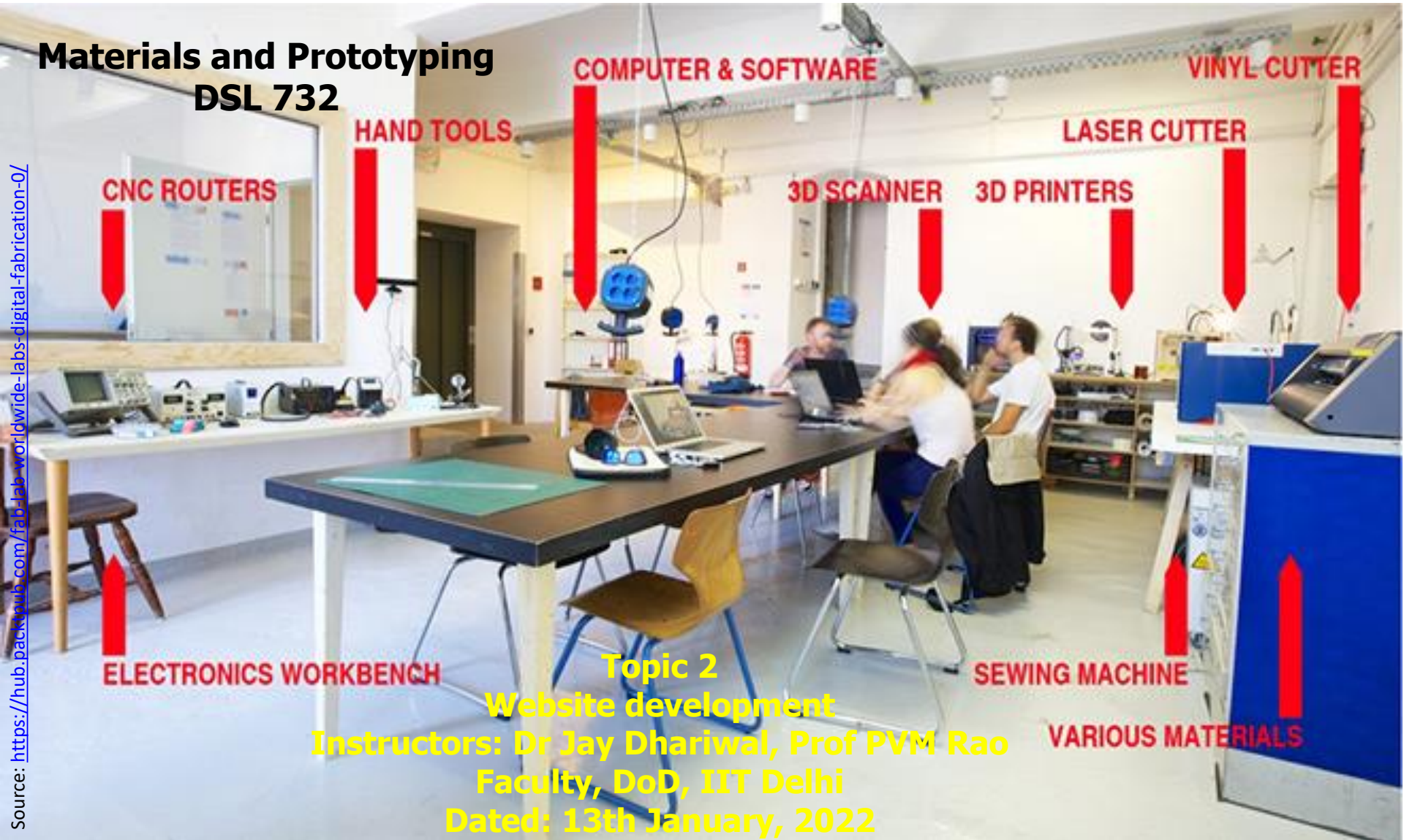
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Dated: 13th January, 2022

SEWING MACHINE

VARIOUS MATERIALS



# Website Design for Course Mgmt

- Portfolio, digital repository for others
- [html](#)
- [html, css template provided by us Smart Fan](#)
- [html, css template of your choice Self stabilizing box](#)
- Anything else (Javascript, Markdown, PHP)
- Image compression, Video editing.
- Project Management, Spiral Development



# HTML



# CSS



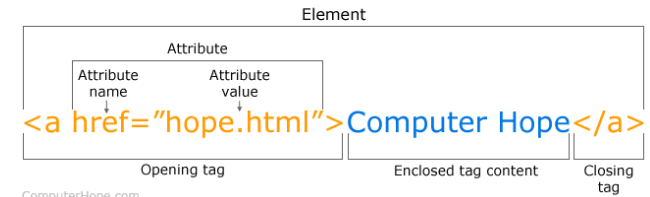
# JS



# Website building (HTML)

- [HTML](#)
- Download a text editor:  
<https://www.sublimetext.com/3>
- <https://www.w3schools.com/> [Fab Tutorial](#)
- Let's make our own hello\_world.html, accessing files/images a folder up or down.
- <https://wordhtml.com/>
- [HTML template](#) Let's do this!
- [Example](#) for the template
- Download MAMP, WinSCP
- [IITD user web page advice](#)
- Those who already know this, please refer to [Fab Academy Project Mgmt Video](#)

## Breakdown of an HTML Tag



# Website using our HTML CSS template

- Download [HTML CSS template.zip](#)
- Move HTML\_CSS\_template folder to MAMP/htdocs
- Please open "Template Document.docx"
- Understanding the template files
- Editing the template
- Revising the tags



# Editing the HTML CSS files

## index.html

- This is the home page
- Open index.html in sublime text editor
- Change prefix from designer, add name, change images (optional)

## about.html

- Add picture in images folder, edit src attribute of img tag
- Bookmarking

## assignment.html

- Create a new file from assignment\_template.html, say assignment1.html
- Bookmark table of contents and add content.
- assignments\_nav.html, project\_proposal.html, project\_final.html

# Uploading Files on Server

## Testing files on local server

- Open MAMP, click Apache Server
- localhost/filename.html in browser
- Once satisfied, upload to WinSCP

## IITD vs Epizy

- Epizy size limit per file of 10 MB (not bad)
- With Epizy, website is publicly available
- IITD website on IITD Wi-Fi only (B. Tech. and Masters)

## Epizy account creation

- <https://infinityfree.net/>, Client area, register
- Click on Control Panel and approve.

# *Understanding CSS*

## CSS examples

- Style tag
- CSS Syntax
- CSS Selectors
- CSS Colors
- CSS Backgrounds
- CSS Margins
- CSS 2D Transforms

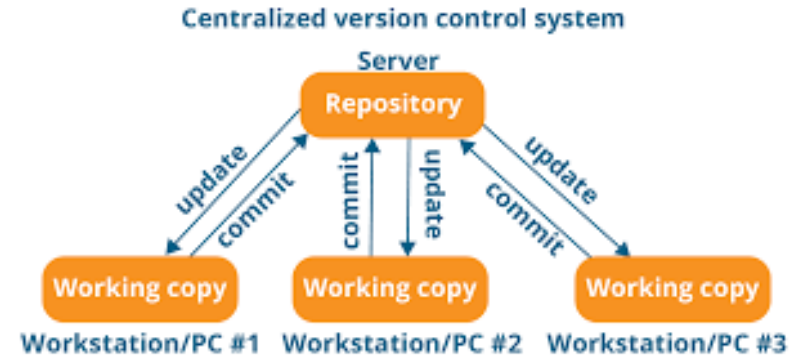
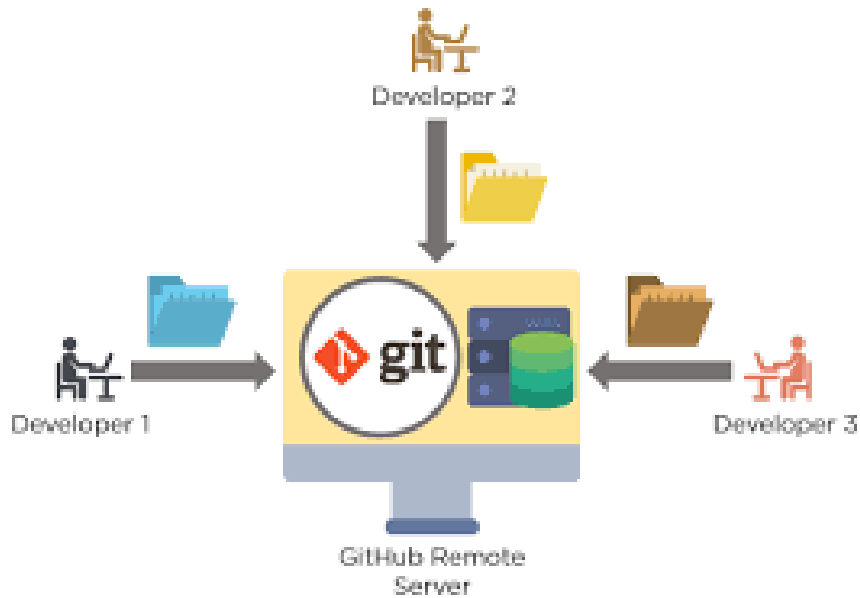
## Relating to HTML+CSS website template

- [Link HTML and CSS](#)
- format.css
- [href attribute](#) for bookmarking
- index2.html, about.html, assignments\_nav.html
- [HTML + CSS template example](#) View source for this assignment

## Any HTML+CSS website template

- [Free CSS templates](#)
- Page 7, Aqueous
- header, footer – change in every document
- [Fab on HTML+CSS](#) [Other templates](#)
- [Bootstrap](#)





## Version control

- For version control, you can use [www.github.com](https://www.github.com)
- [My git website](#), [Github code](#)
- [Git tutorial](#), [Gitbash](#), IITD proxy?

# *HTML + Javascript*

## Javascript examples

- Change HTML content, HTML attribute, CSS style  
Let's try!
- Javascript in head, body, external file, external folder
- Script tag, Javascript function, comments, variables, Javascript dates (Display a clock)

## Games in Javascript

- [Zodiac sign Finder](#)
- [Reflex tester](#)
- [Other games](#) Let's get our feet wet.

## Other free Javascripts

- [Text effects](#), Neon lights text, [Falling Text](#)
- Mouse Cursor Effects
- [Background effects](#)
- Mix codes.
- Learnt a bit of Javascript.
- View source code in different browsers
- Learnt about free code on internet, Stand on shoulders of giants, Give credit.

# HTML



# CSS



# JS





## Website Design for Course Mgmt

- [HTML](#)
- [HTML + CSS template provided by us Smart Fan](#)
- [HTML + CSS template of your choice Self stabilizing box](#)
- [HTML + Javascript](#)
- Image and video compression
- Video editing.

# Compressing images for the web

- Resize them in Paint, ImageJ, GIMP
- [Web.whatsapp.com](http://Web.whatsapp.com) for compressing images
- <https://compressjpeg.com/> to batch compress them
- Download [imagemagick](http://imagemagick)
- Steps:
  - 1) Create a folder, say compress\_images (Do it in a folder where permissions to write there: C:/Users/jay)
  - 2) On command prompt: cd compress\_images
  - 3) Place images to be compressed in this folder.
- Commands to compress images one by one:  
magick -quality 20 home\_web.jpg home\_web\_cmp.jpg  
magick home\_web.jpg -resize 20% home\_web\_resized.jpg  
FOR %a in (\*.jpg) DO magick -quality 20 %a small\_%a  
Image compression of 10 times of more can be achieved.  
Important for web.



# Creating and uploading videos

- ffmpeg (downloaded with imagemagick)  
[Advice1](#) [Advice2](#)
- `ffmpeg -i input_file.extension -b:v 1024k output_file.extension`
- Create a youtube account – uploading videos, embed videos in website template



# Video editing

- Important for project presentations
- [Storyboard](#), script, voiceover.
- Download Kdenlive video editor
- [Example](#)
- [Powerpoint for animation](#) (Thanks to Gouri)
- [Video in video](#)
- [Inshot](#)



Adobe Premiere Pro CC

TITLE: EASY LICENSING by SONGIFY

FRAME 01



ACTION

POLICE CAR SPEEDS TOWARD  
CAMERA

Time Duration

VOICEOVER

EVER WANTED TO USE YOUR  
FAVORITE SONG AS A SOUNDTRACK?

FRAME 02



ACTION

POLICE ARRIVES AT YOUR HOUSE.

VOICEOVER

COP: YOU'RE COMING WITH ME  
BUSTER.  
HERO: WAIT, WHAT?

FRAME 03



ACTION

COP SPEAKING

VOICEOVER

YOU SHOULD HAVE USED  
SONGIFY!

# Summary

- Website design and development (Sublime text)
- Local testing of the website (MAMP)
- Uploading files on a web server (WinScp, epizy)
- Worked with HTML or HTML-CSS template for the class
- Compressing images and videos (imagemagick)
- Video editing (Kdenlive)
- Advanced learning (Fab Academy [Notes](#) [Video](#))

I just need  
the main ideas





# Assignment 2



- [Assignment](#)
- Suggest to document as you work.
- Spiral development – html to “html-css our template” to “html-css your template” to “html-css-javascript”

