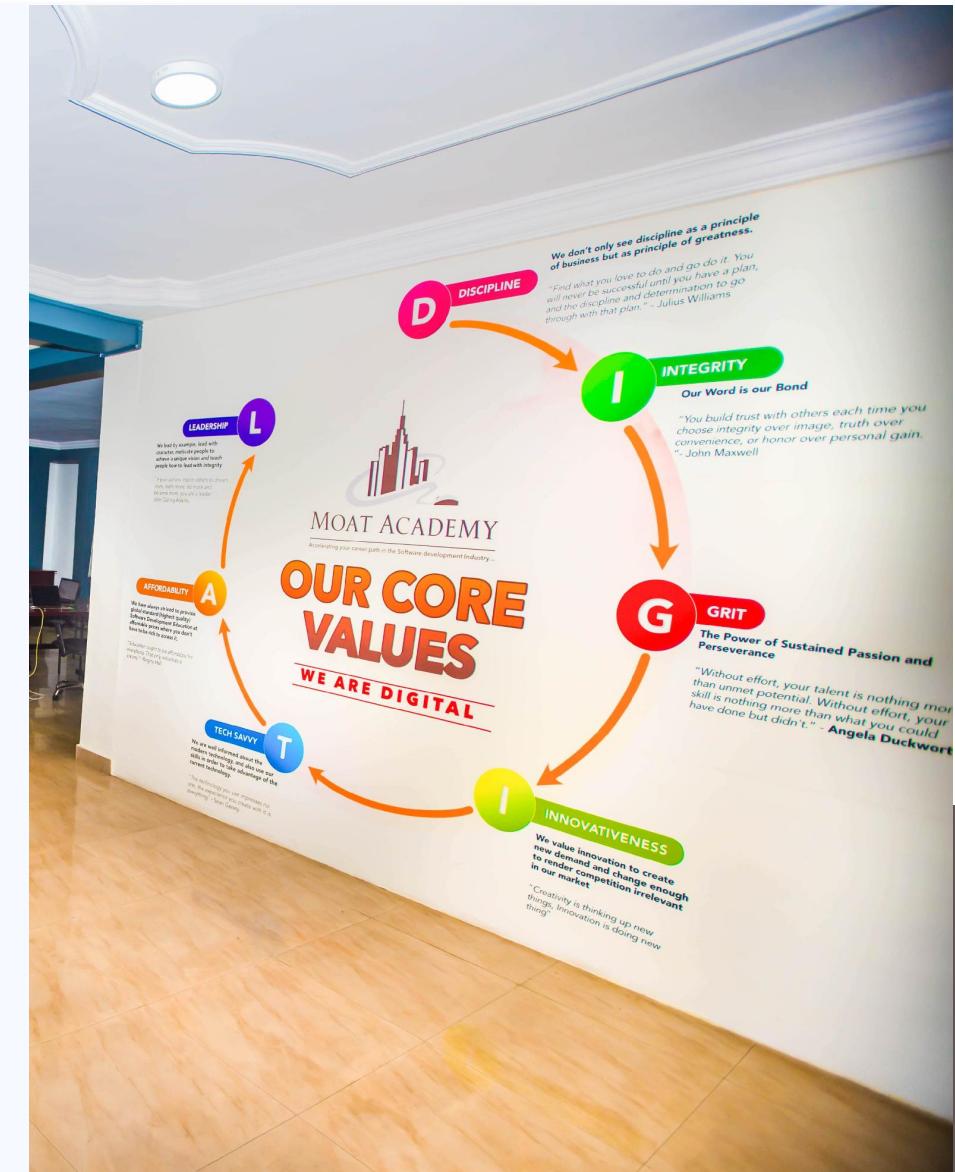


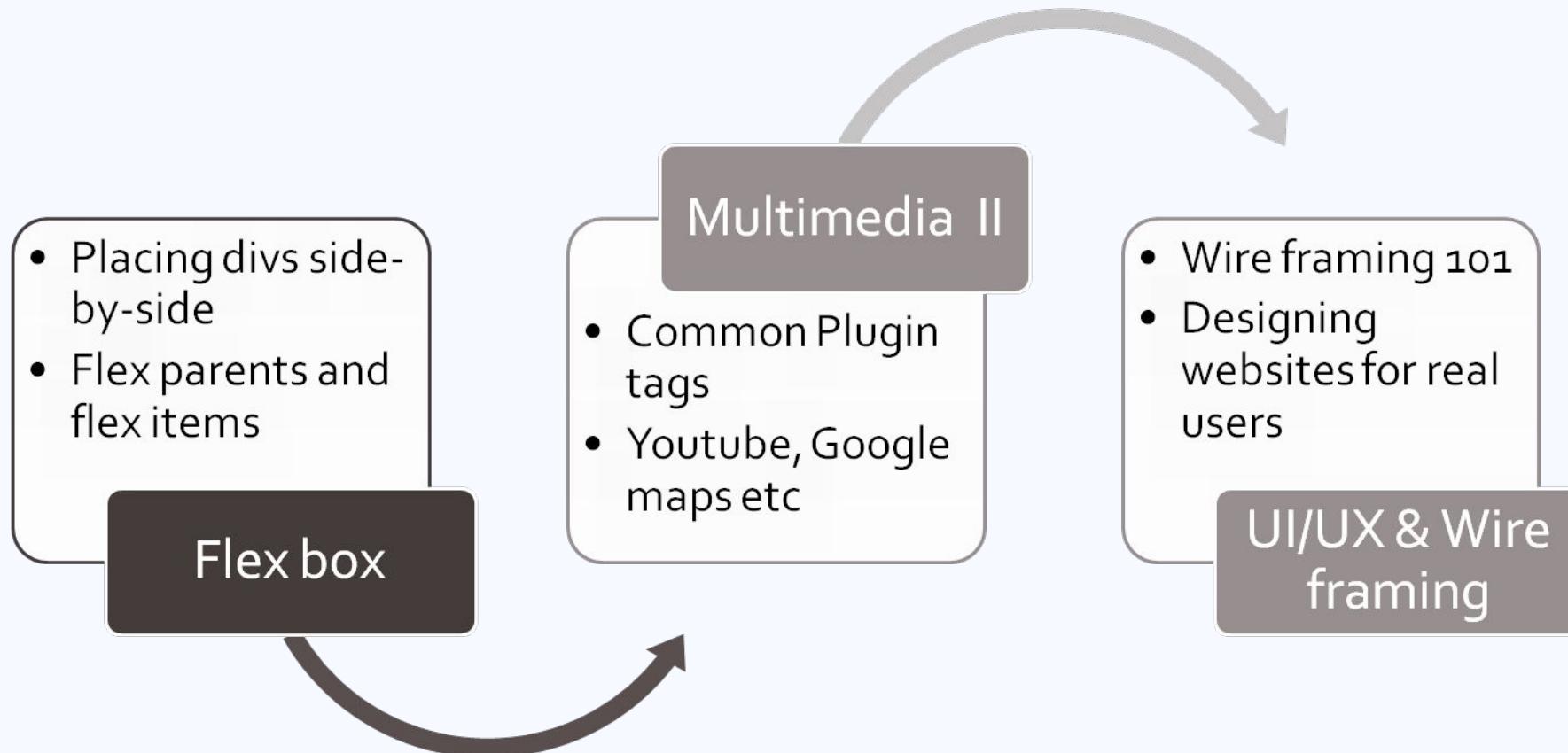
# MOAT ACADEMY FOR DEVELOPERS WEB APPLICATION DEVELOPMENT TRAINING

MULTIMEDIA PART 2, HTML WEB LAYOUT, STYLE  
ATTRIBUTE, UX

HTML DAY 5



# OUTLINE



# PLACING DIV SIDE BY SIDE

The screenshot displays a website for 'SHAPEN' with a dark header featuring a yellow navigation bar. The main content area is organized into three vertical columns:

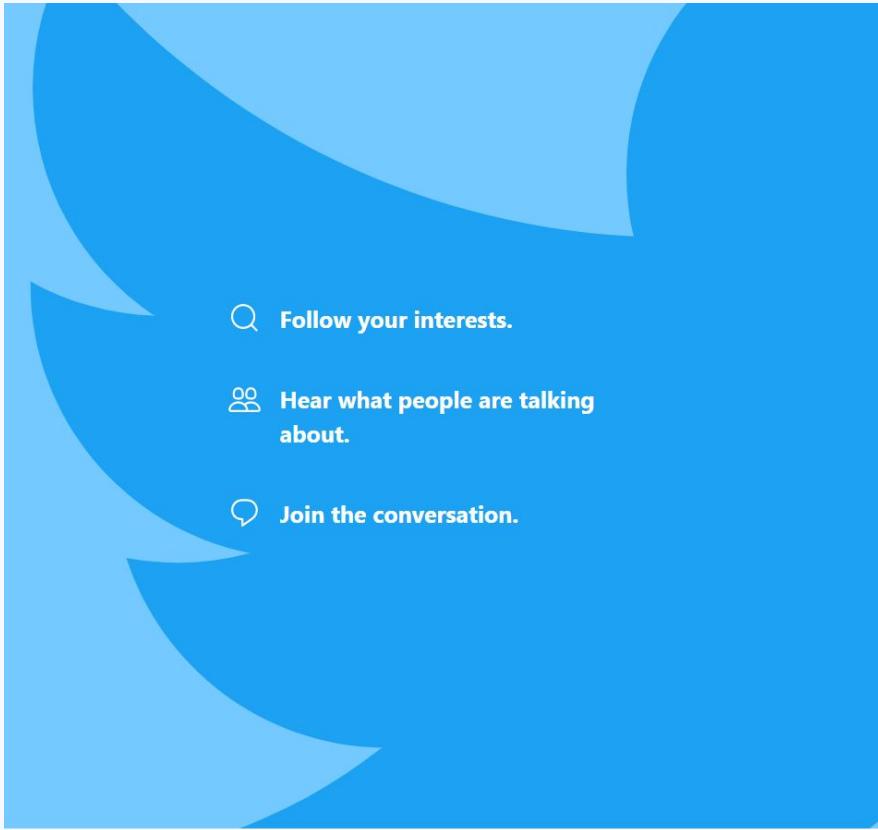
- Top Column:** A large image of a construction worker wearing a hard hat, with the text 'FROM CONCEPT TO CREATI' overlaid.
- Middle Column:** A yellow-bordered image of a modern building's interior, followed by a section with '25 YEARS OF EXPERIENCE' and the text 'Improving quality of life with an integrated unified approach'. It includes a signature and a 'VIEW PROJECTS' button.
- Bottom Column:** A black background section with the quote 'We are all constructed out of our self dialogue.' and three smaller images of construction scenes.

At the bottom, there's a light-colored footer section with a video thumbnail, the text 'We will provide you the best work which you dreamt for!', a signature, and a 'OUR PROJECTS' button.

## PLACING DIVS SIDE BY SIDE

- Recall that the DIV tag is a block level element.
- DIVs are important in grouping the different parts of our website as we saw earlier
- Most website design go beyond just placing divs over another
- What if we wish to place this blocks side by side? Let's try to reduce the width and see if they will stand side by side...
- The **display:flex** property can be used to achieve placing block level elements like the DIV side by side
- See Sample websites on the next page

# TWITTER



**See what's happening in  
the world right now**

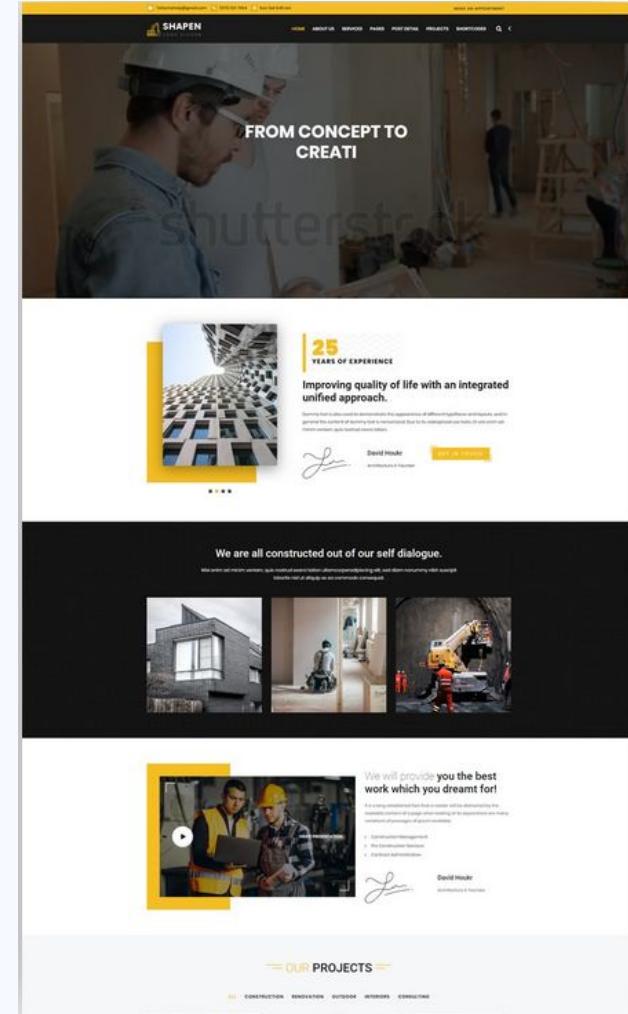
Join Twitter today.

[Sign up](#)

[Log in](#)

# SAMPLE

How many divs are placed on top of each other?



# INTRODUCTION TO FLEXIBLE BOX LAYOUT – FLEX PARENT

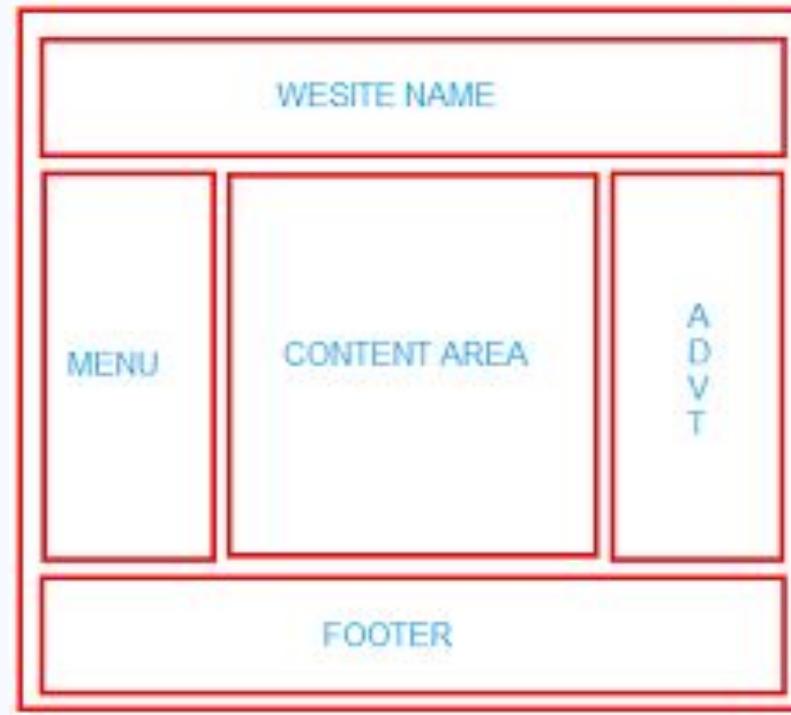
- The flex layout allows elements within a container to be automatically arranged .
- Flex boxes can adjust in size to avoid unnecessarily monopolizing space, or increasing to make room for contents to be constrained within its boundaries.
- You need a flex container (parent) and the flex items
- The container will have a property **display:flex**, **flex-direction: row|column**
  - **flex-wrap: wrap|no-wrap** if the items will wrap or not
- **justify-content: center | flex-start | flex-end | space-around | space-between** for the horizontal alignment of the elements
- **align-items: center| flex-start | flex-end | stretch** for vertical alignment

## INTRODUCTION TO FLEXIBLE BOX LAYOUT – FLEX ITEMS

- **align-self:** flex-start| center| flex-end specifies the alignment for the selected item inside the flexible container. This takes more priority over the container's align-items
- **flex-grow:** the default is 0, it helps you specify the ability of the flex item to grow more than the specified width if need be, it takes a number (without px!) an element that has value 2 will grow twice as much as that with value 1

## CLASS EXERCISE

- Achieve the layout shown :
- This layout is also known as the **wireframe** for your website and it usually comes first in your website creation.
- Next is to add relevant contents to the various sections:





## HTML PLUGINS

## HTML Multimedia – HTML PLUGINS

- Certain contents we may wish to include on our webpage do not have defined tags for placing them. Example is a pdf file, there is no such tag as <pdf>
- Other times, we may wish to include contents from other sources within our page and we need containers for doing that.

The purpose of a plug-in is to extend the functionality of a web browser. Plug-ins can be used for many purposes: display maps etc

- HTML tags used in placing plugins include:
  - The <embed> tag
  - The <iframe></iframe> tag
  - The <object></object> tag

## THE <embed> ELEMENT

The <embed> element is supported in all major browsers. It has width, height and src attributes

```
<embed src="jingle.swf" width="300" height="200">
```

It can also be used to include web pages

```
<embed src="page.html" width="300" height="200">
```

It can also be used to include external web pages

```
<embed src="https://paystack.com/card.html" width="300" height="200">
```

Or images!

```
<embed src="images/flower.png" width="300" height="200">
```

# THE <object> ELEMENT

- The <object> element is supported by all browsers. It has data attribute for specifying the content. Just like its other counterparts, it can also be used to embed plug-ins (like Java applets, PDF readers, Flash Players) in web pages.

```
<object data="jingle.swf" width="300" height="200"></object>
```

It can also be used to include web pages

```
<object data="page.html" width="300" height="200"></object>
```

It can also be used to include external web pages

```
<object data="https://paystack.com/card.html" width="300" height="200"></object>
```

Or images!

```
<object data="images/flower.png" width="300" height="200"></object>
```

## HTML iframe

- An iframe is used to display any external content within a given web page
- Syntax is : <iframe src="*URL*"></iframe>
- It can also have width and height attributes
- Example usage is in Youtube described in the next slide

# As seen on Washington Post

The Washington Post  
*Democracy Dies in Darkness*

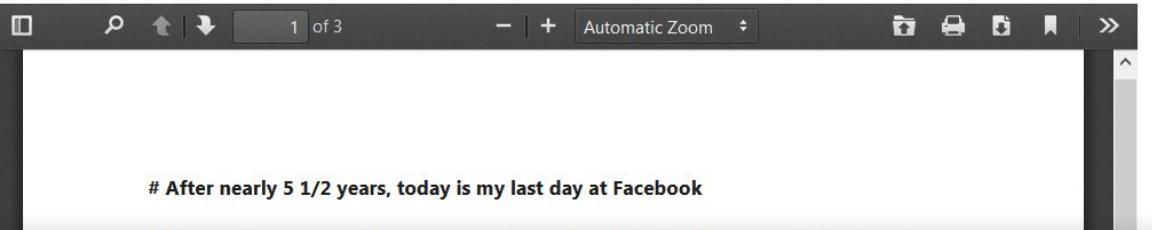
Technology • Context

## Resignation letter from Facebook engineer

Updated Sep 8, 2020 at 3:52 PM

Facebook software engineer Ashok Chandwaney posted this letter on the company's internal message board.

[Click here to download](#) if the document isn't visible or legible.

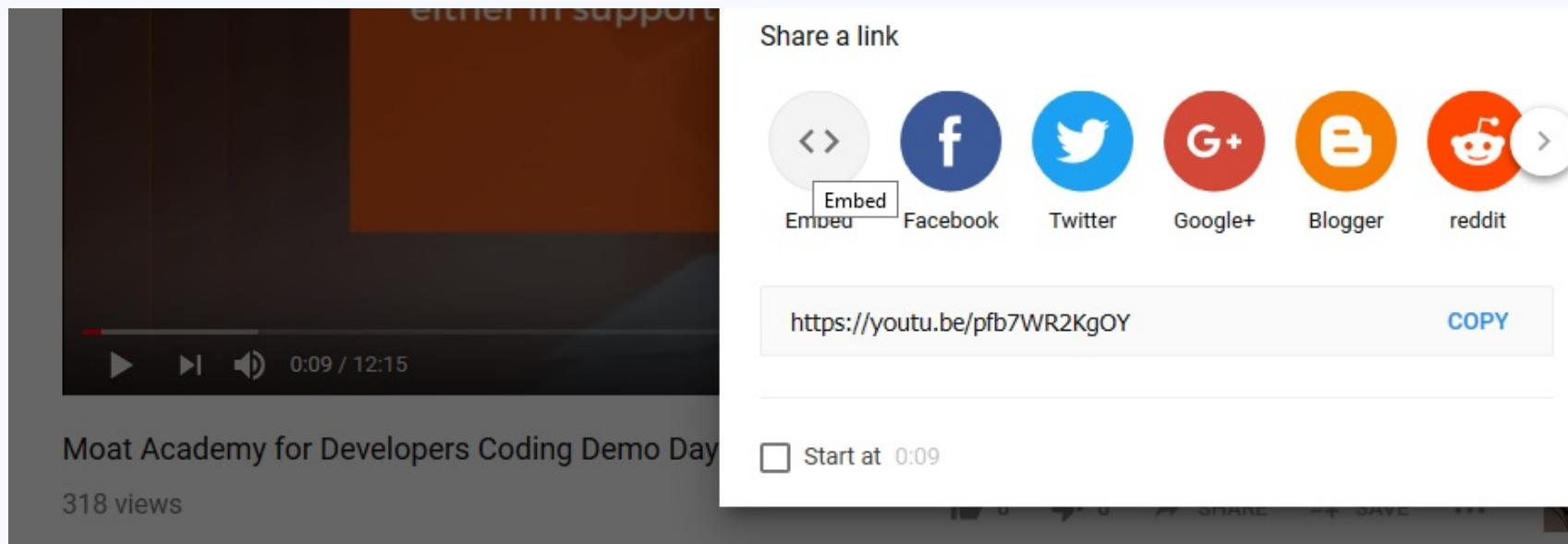


# After nearly 5 1/2 years, today is my last day at Facebook

\*\*\* The cutting because I can no longer stomach contributing to an organization that is

# HTML YouTube Video

- The easiest way to play videos in HTML, is to use YouTube.
- Locate the video of interest and click on the *share* button underneath
- Copy the code that pops up when you click embed



# Google Map

Go to <https://maps.google.com>, enter the location of interest and click on the share button as shown:

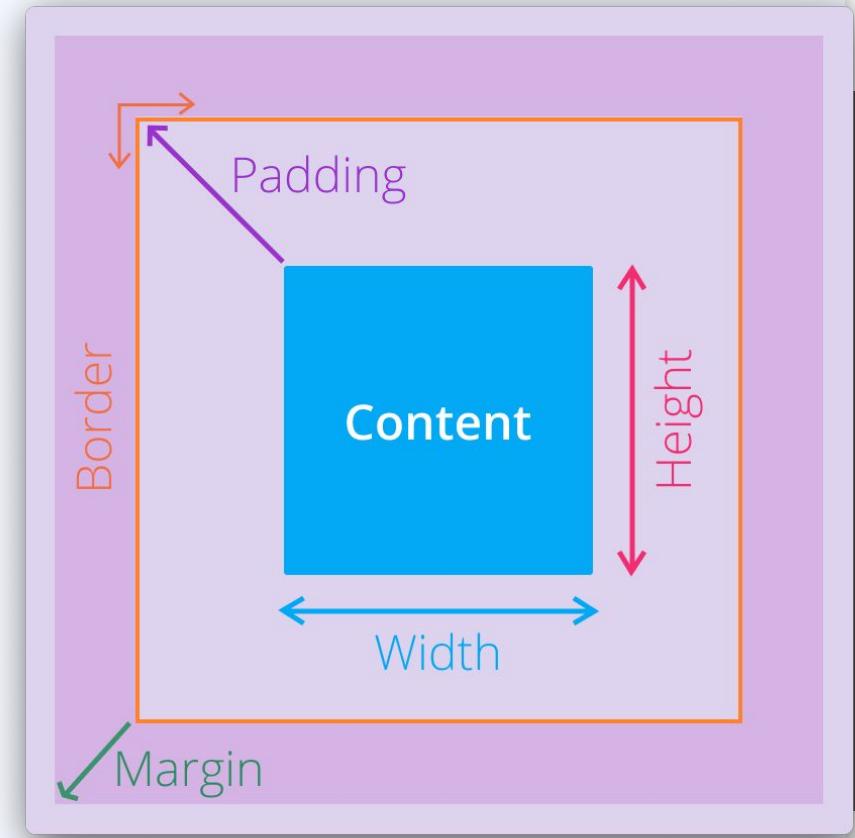


# LEARNING OTHER STYLE PROPERTIES USING THE **BOX MODEL**

The model describes the space of the content taken by an element. An element is represented by a box and each box has four edges

# THE BOX MODEL

- All HTML elements can be considered as boxes.
- The **content area** is the area containing the real content of the element. It often has a background, a color or an image
- The *box* consists of **margins**, **borders**, **padding**, and the actual **content**. (width and height)



## The Cottage Garden

The *cottage garden* is a distinct style of garden that uses an informal design, dense plantings, and a mixture of ornamental and edible plants.

The Cottage Garden originated in [England](#) and its history can be traced back for centuries, although they were re-invented in 1870's England, when stylized versions were formed as a reaction to the more structured and rigorously maintained [English estate gardens](#).

The earliest cottage gardens were more practical than their modern descendants, with an emphasis on vegetables and herbs, along with some fruit trees.

## WIDTH AND HEIGHT

- The content of the box is where text, images and other elements appear
- The size of the box can be described with the width and height properties
- The width is the amount of space an element takes from left to right while the height is the amount of space it takes from top to bottom.
- We can control the width of a block-level element only using the CSS width property
- The default unit is px (other units will be discussed later)

## BORDER

- The following are the properties used in affecting your border in CSS
- In defining the border, example specification might be: border: 1px solid red which defines the width (thickness) of the border, its appearance and the color for all the 4 sides of the box
- All elements have some imaginary border ; specifying the border style allows you to make the imaginary border “Real” hence the most important property is the style. If you omit it, colors , width etc wont work – you would be trying to color an invisible border!

## PADDING

- Padding is the space between your content and border; the area around the content so that you can have your border at a distant place from your main element. it is usually transparent
- Padding plays important roles in the visual design of elements. They make content easily understandable to the users.
- The shorthand padding CSS properties is simply: **padding:3px**
- We can apply different amounts of padding on different sides by using **padding-left**, **padding-top**, **padding-right**, **padding-bottom**.

# MARGIN

- Margin is the reserved space outside of an element's border; the space between different elements. That is, if you have a certain space declared as a margin of your element, no other element can sit in that space.
- Margin is very important in terms of creating a page layout, positioning elements and creating whitespace between elements
- The shorthand margin property is simply: **margin:5px**
- We can also apply a different amount of margin on different sides using the **margin-left**, **margin-top**, **margin-right**, **margin-bottom** properties.
- **margin: auto** horizontally centers the element within its container.

# Tips for calculating heights and widths

## Important:

When you set the width and height properties of an element with CSS, you just set the width and height of the **content area**.

To calculate the full size of an element, you must also add padding, borders and margins.

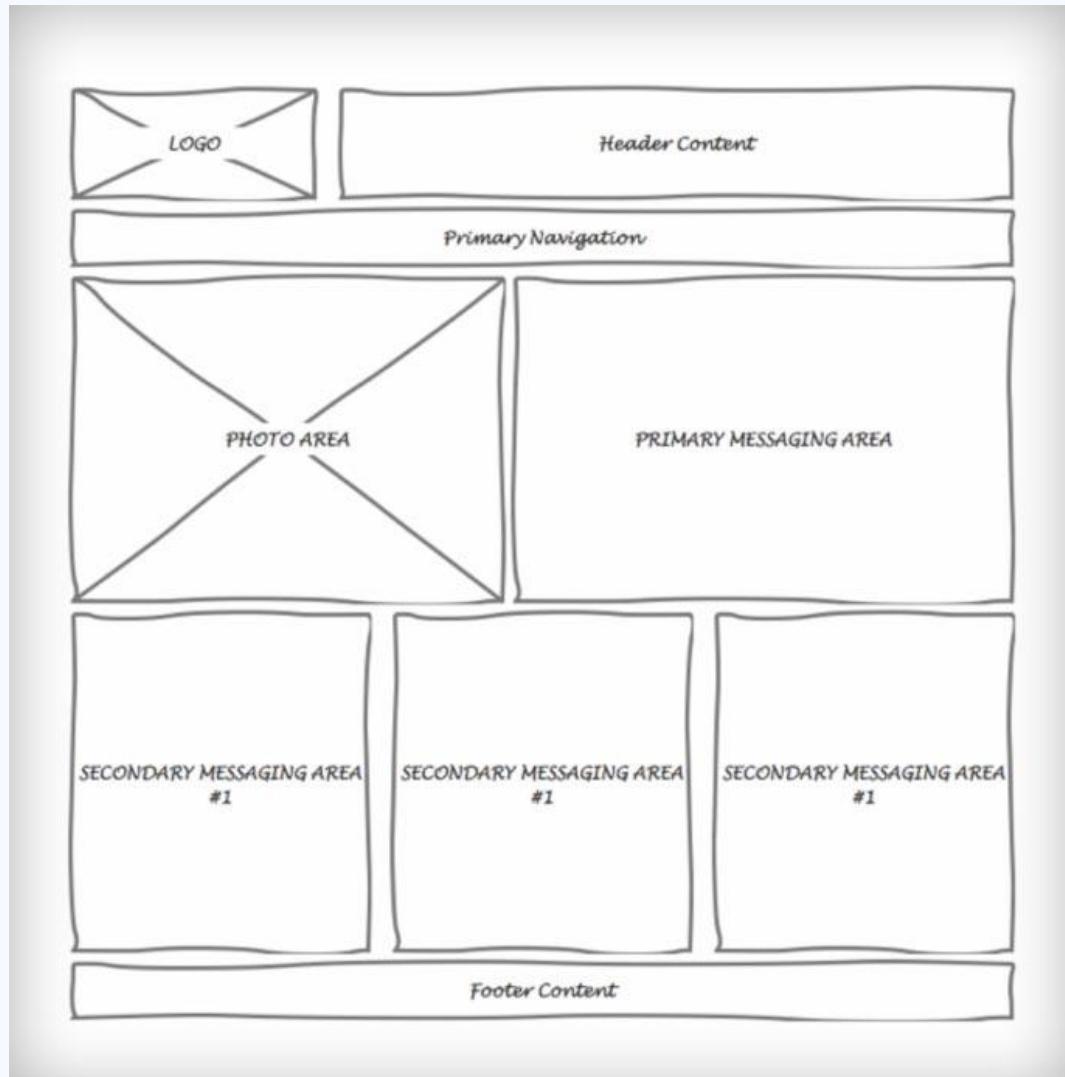
The total width of an element should be calculated like this:

**Total element width** = width + left padding + right padding + left border + right border + left margin + right margin

Assume we want to style a <div> element to have a total width of 350px:

Here is the calculation: 320px (width) + 20px (left + right padding) + 10px (left + right border) + 0px (left + right margin) = **350px**

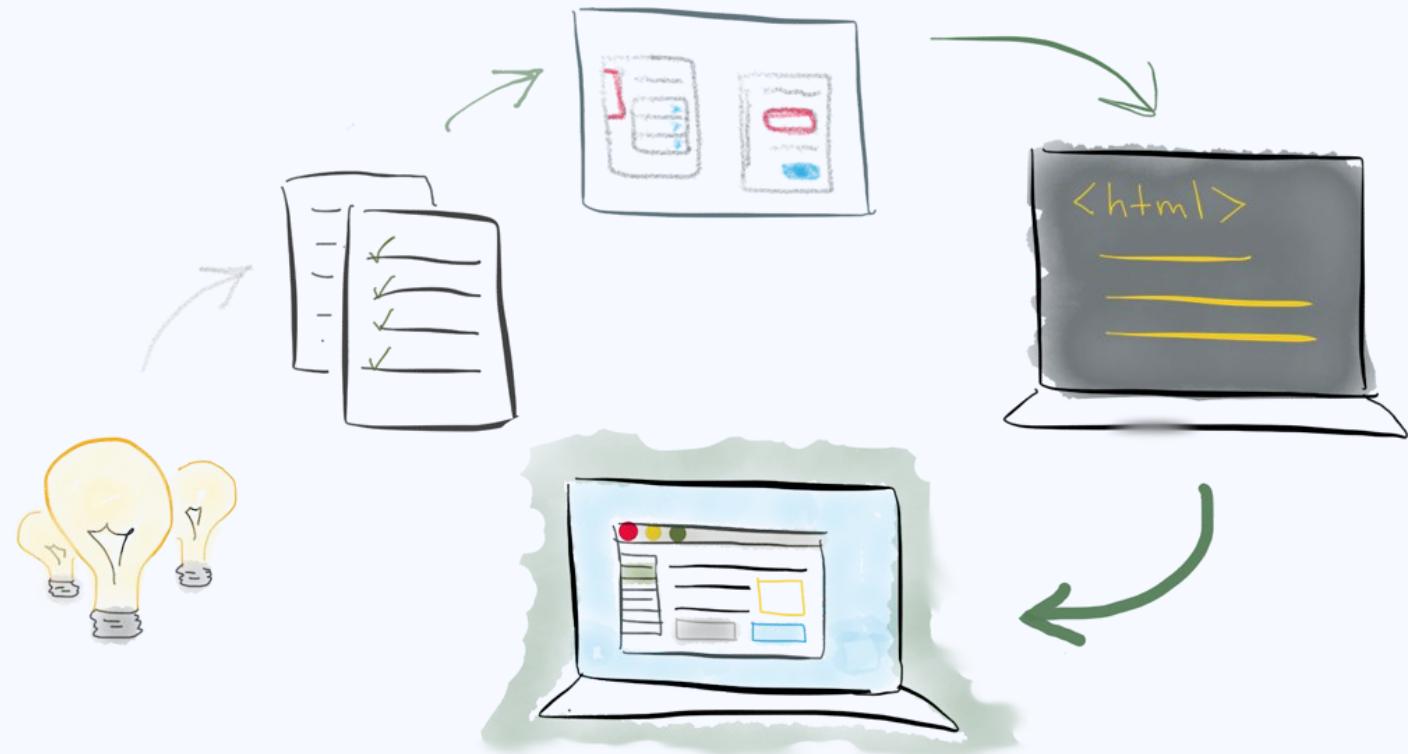
# Webpage Layout: Exercise



# WIREFRAMING

# WIREFRAMING

- You have an idea/ identified a problem
- Itemize what you want to achieve/ your solutions
- Sketch out the layout on a paper
- Achieve the layout and components with the appropriate HTML tags (Don't think of color at this stage)
- Polish your designs using suitable colors



(Coleman, 2019)

# WIREFRAMING : THE OBJECTIVES

- Identify a problem
- Identify the solution(s)- how is your app going to solve the problem? what are the objectives of the proposed app?
- Define the general goals
- Break each of the goals down to more specific goal
  - **Test of granularity:**

*Based on general goal X, we need to do Y in order to implement it*

Start building!

# WIREFRAMING : LINKING OBJECTIVES AND INTERFACE DESIGN

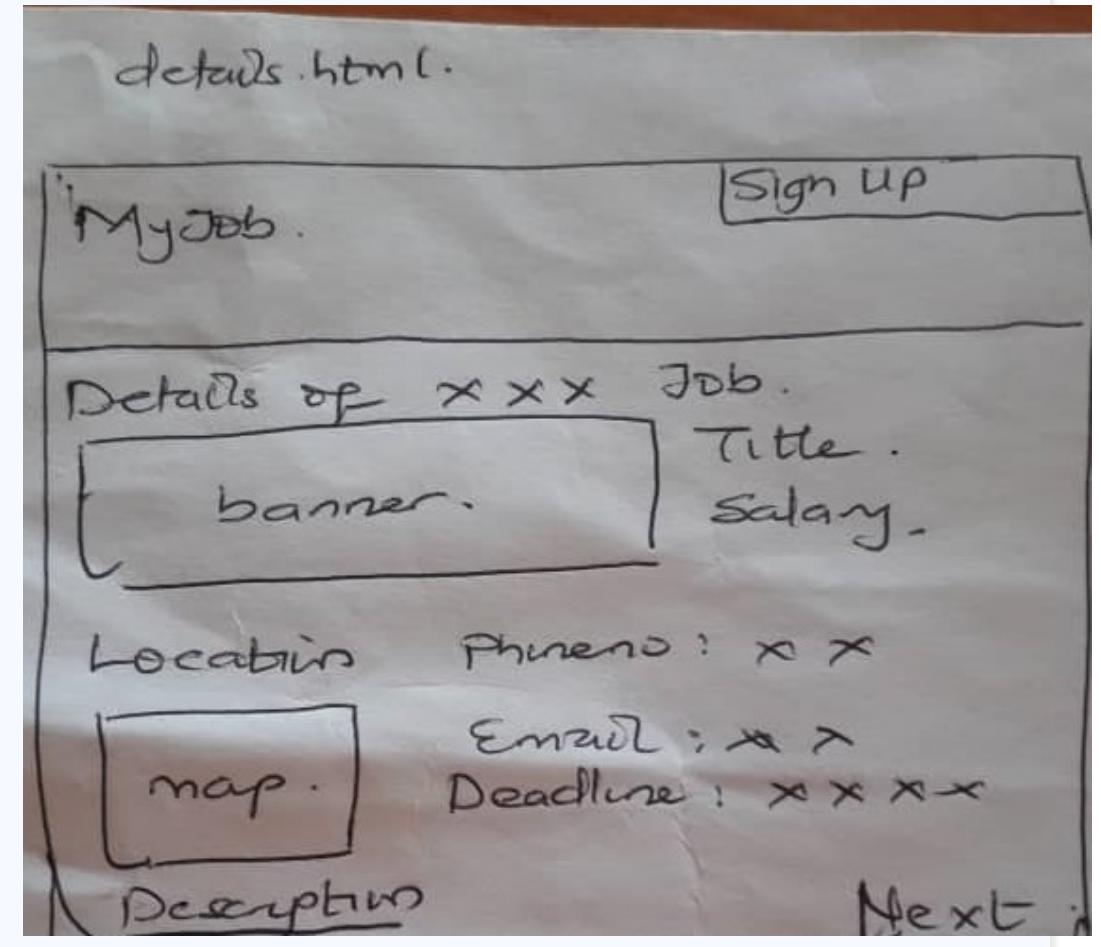
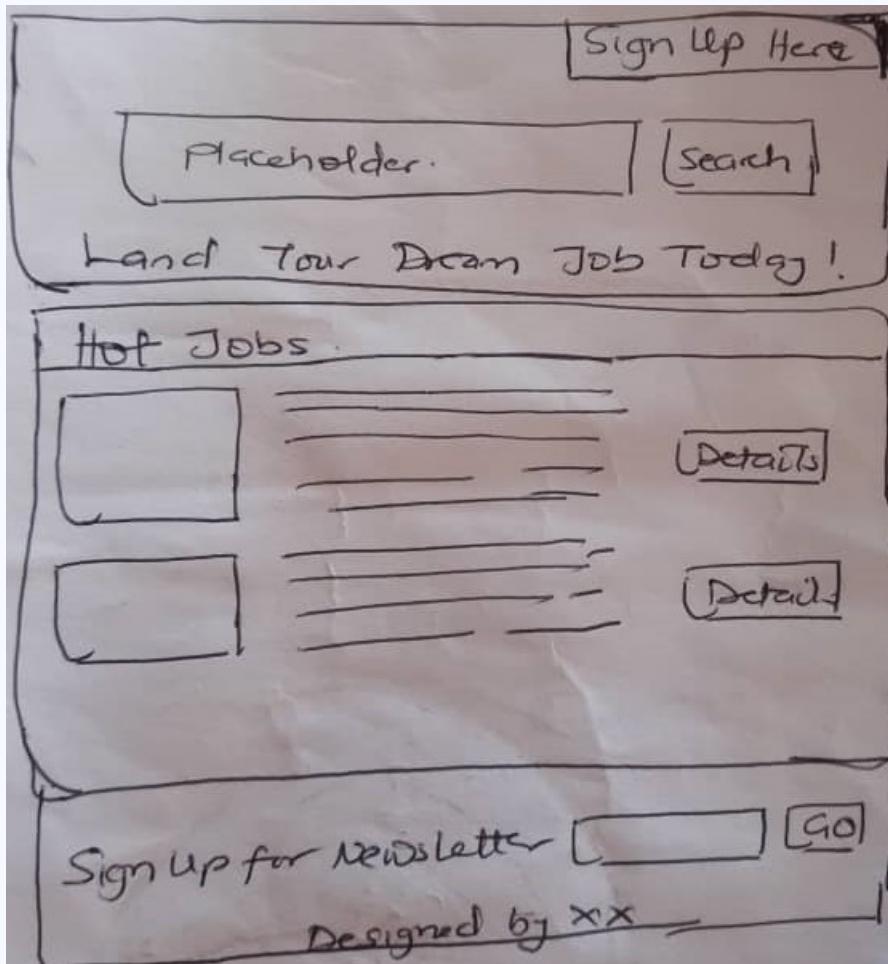
- Example : We want to solve the problem of applicants missing available job openings
- Idea: Design a web application that allows employers to list vacancies and applicants to see details of the job
- Objectives:
  - Home page with job listings (home.html)
  - Ability to select (click) each job and view more details about the job (details.html)
  - Addendum: avenue for applicants to sign up, avenue to submit their application (**sign up button, apply button** on each job)
- Sample sketches... carry out many drafts and decide on one

Next

# DESIGNING FOR REAL USERS : UNDERSTANDING THE USER BEHAVIOR

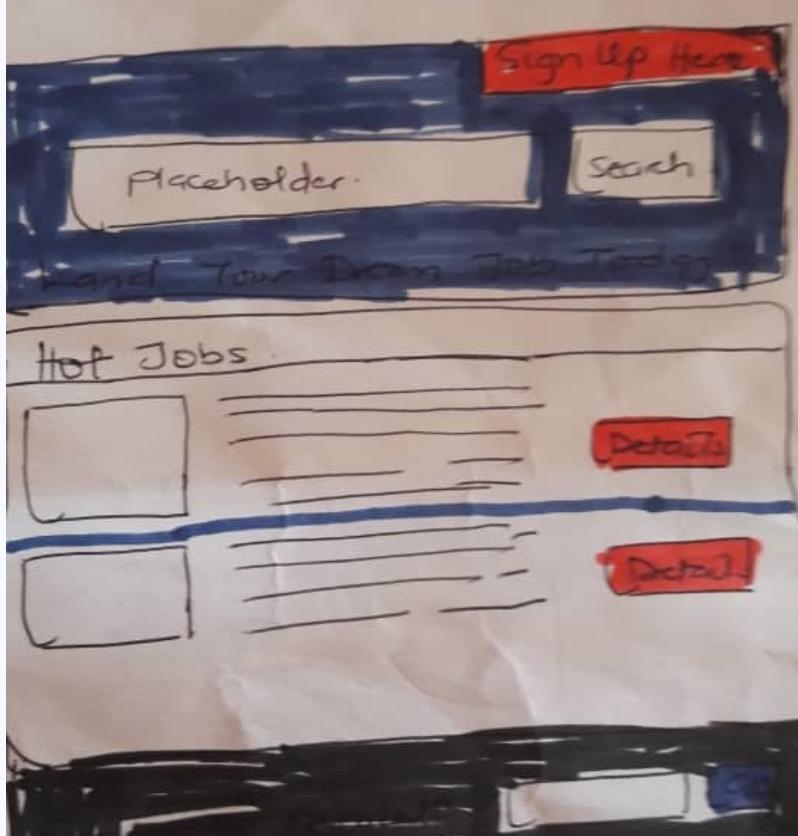
- **Design your application to match the users, meet your users:**
  - Most Users don't like reading: use pictures where necessary
  - When they do, they don't often give their 100% attention: use pictures where necessary
  - They don't want to learn how to use your app - when was the last time you read an instruction manual?: let it be intuitive
  - They don't care if they are doing it wrong: provide a straight forward way of accomplishing tasks.
  - Use Normal everyday language: it helps accessibility
  - Limit instructions: let it be intuitive instead

# Wireframing : Linking objectives and Interface Design



Analysis: 3 tables placed On top of each other: Table 1: 3 rows, 2 columns....

## Touch up: applying colors and other styles



After laying out the structure and adding the contents, touch up the design by applying suitable stylings

# Transforming wireframes to website: Applying stylings

The diagram illustrates the process of transforming a wireframe into a final website design. On the left, a wireframe for a 'Web Page' at <http://www.yournewwebsite.co.uk> is shown. The wireframe includes a header with a phone number (T01366 321654), a navigation bar with links to Home, Products, Design & Systems, Gallery, Case Studies, and Contact Us. Below the header is a 'Service Title' box with placeholder text. The main content area contains a 'Page Title' with placeholder text, three 'Product Title' boxes, and an 'Accreditations' section. Annotations on the wireframe point to specific areas: 'Standard HTML format content' points to the main text blocks; 'Dynamic banner with editable content' points to the 'Service Title' box; and 'Area for industry accreditation logo (all pages)' points to the 'Accreditations' section. On the right, the final website design for 'Solar Vision Limited' is displayed. The header features the company name and a phone number (T01366 377730). The main content area includes a dynamic banner with a photo of a modern building, a testimonial, and a section titled 'Rooflights And Sloped Glazing By Solar Vision Limited'. Below this are three product sections labeled A74, A98, and VRS S90, each with a photo and a brief description. The footer contains links to Home, Rooflight Design & Systems, Flat Rooflights, Rooflight Gallery, Case Studies, Contact Solar Vision, and a copyright notice for ©2014 Solar Vision Limited.

# MINI PROJECT



# WEEK ONE MINI PROJECT

Design a website for either :

- A Non-Government Organization (NGO) OR Any school
- Please do not use a real school or organisation's name rather use a fictitious organisation
- You may use a single-paged website or achieve a website with a home page plus any other 3 pages
- You can get images free of copyright restrictions here:
  - <https://pixabay.com>, <https://www.pexels.com>, <https://unsplash.com>, <https://pixabay.com>,  
<https://www.pexels.com> , <https://unsplash.com>/<https://pixabay.com>, <https://www.pexels.com> ,  
<https://unsplash.com/> , <https://www.freeimages.com>/<https://pixabay.com>, <https://www.pexels.com> ,  
<https://unsplash.com/> , <https://www.freeimages.com/> , <https://stocksnap.io><https://pixabay.com>,  
<https://www.pexels.com> , <https://unsplash.com/> , <https://www.freeimages.com/> , <https://stocksnap.io> ,  
<https://www.canva.com>

# Previous Project 1

 SKYBOUND  
Academy  
*right foundation guaranteed future.....*

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**Home**

**Welcome**

**Dear Parents & Visitors,**  
I invite you to view our informative school website. Thank you for the interest you have shown in our school. This website will serve as an introduction to the life work of Skybound Academy in all its various aspects. We strive to provide a quality education. There are high expectations, excellent teaching and a secure, stimulating environment. A positive attitude to learning is developed, so that we lay firm foundations for learning and we strive to create a culture of achievement for all. We are committed to the making of opportunities that will enable all children to succeed. We do this by generating feelings of self-worth and mutual respect, and by establishing the school at the heart of the local community.

**Mrs. Folorunso Alakija**  
Principal.

**Brief History**

Skybound High School was established in 2005 as a Progression from the academically successful Skybound Nursery and Primary School which was established in 1995. The establishment of the Skybound High School was in response to the yearnings of the parents in the primary school and the need to bridge the gap in providing high quality Secondary School Education in the Country. We are aware of the problems of the today child. We take care to nurture the children academically, physically, emotionally and socially. Our experienced staffs are trained to cater to student's individual needs in order to facilitate their learning process and total development. It is our sincere hope that you will make the decision to join the Skybound Family and experience The Spirit of Achievement. We have over 15 years of nurturing and developing the whole child. With a deep respect for the home-school link, we partner with our parents and guardians to cater to each child in our care.

**Gallery**

Copyright © 2018 Skybound Academy

[Go Up](#)

# Previous Project 2

**Charity World**

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**Water is life**

Every Nigerian is entitled to clean and potable water.

We are out there to ensure that.

We are empowering our people. [View all news](#)

**News**

**Assessor WASH facilities in Daura Healthcare Center (14 Dec 2016)** Improving the safety and quality of healthcare requires access to safe, clean water, basic sanitation and improved hygiene services in healthcare facilities.

**World Water Day 2016 Nigeria's 70% sanitation crisis (11 Nov 2016)** Our new report, *Overwash Crisis*, shows Nigeria to be the worst country in Africa for urban sanitation access. Find out how we're calling for change.

**WHY DO WE PROVIDE CLEAN WATER FOR NIGERIANS?**

Clean and reliable water should be right for every Nigerian. Clean water helps children stay healthy, removes active in school and focus on learning, and protects communities from disease. Through the Water for Life program, your donation results in a family in poverty with:

- A simple gravity system that provides up to 1 million gallons of clean water.
- Training from a Compassion staff leader to ensure proper use of the system.
- For families who practice when needed.
- Education on personal hygiene and sanitation methods.

Your one-time donation is fully tax-deductible, and will enable a Compassion child and their family to have clean water for life. The Water for Life Fund is a great way to make a difference. "Giving is a gift to life; you live in gift back to life, which has given to you in abundance." -Aisha Dowdall, Charity World International

**Our contribution to the Nigerian women and children**

The Water for Life Fund developed by Charity International has helped children like Adaratu. In Nigeria (Africa), unsafe water is the only water option for most families. That water threatening the health of children like Adaratu. Before Water for Life, Adaratu was confined to her bed for weeks at a time. She suffered from severe diarrhea caused by contaminated water and would go weeks without attending her Compassion Child Development Center because she is healthy, learning, and attending school at her Compassion program regularly. Her water diary says she should already be in bed, a testament to the vital importance of clean water.

**Locate us**

Privacy Policy [Terms and Conditions](#) © 2016, Charity World. All rights reserved. Some features and functions may not be available in all areas.

**Water Changes Everything.**



# Previous Project 3

"Live is at its best when it is shared either in pain or gain. Give unto the needy and it shall be given unto you; Plant a seed at **Smile** by Helping the Helpless"

**Smile Foundation**

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**Vision**



To make sure that all disabled in the society enjoy all that is been enjoyed by the able [Read more](#)

**Aims & Objectives**



• To accelerate the integration of disable people into the society  
• To advocate for equal opportunities in acquiring education, finding jobs, lodging and the requisite for the disabled. [Read more](#)

**Mission**



To make sure that all disabled in the society enjoy all that is been enjoyed by the able.

**Our Gallery**



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Vision & Mission   Empowerment  
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**SOUNDMIND**  
COLLEGE IGANDO

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Students who read these pages often comment that they are too good to be true. We see so much spin in general communications these days that we automatically resort to their不相信. For this reason, we allow unprecedented access to the College university and allow visitors or new students. This way you can make up your own mind about whether this school is the right place for you or your children.  
**soundMIND College, Bob Stone**

### ABOUT SOUNDMIND

soundMind College, an independent secondary school of less than 200 students in Lagos's inner East, cannot easily be described as any one type of school. We do not aspire to the militant discipline of traditional schools or the informal English pubs where many students are seen as mere customers rather than as persons. In our view, soundMind College is a place where students are free to learn in a peaceful environment, where they can explore a variety of usual alternatives, progressive, holistic, caring, community open schools because we have high expectations of academic learning. To learn more about the academic offerings at soundMind College, visit the [Curriculum](#) section of the website.

### NEWS AND EVENTS

**International Women's Day 2019**  
Today is International Women's Day, a global day celebrating the social, economic, cultural and political achievements of women. The first International Women's Day was celebrated in 1911 at soundMind College this year, we marked International Women's Day by joining in the 2019 theme of #BalanceforBetter: collectively driving gender balance across the world... [Read more](#)

**Contact Us**  
We welcome your inquiries:  
soundMind College  
301 Ibiye Igando road  
Lagos Nigeria.  
[Email](#) [Facebook](#) [Twitter](#) [Instagram](#) [YouTube](#)

**Campus Location**

2019 created by spaweb

**Shelter4all**

[Who we are](#) [What we do](#) [News & Features](#) [Join Us](#) [Contact Us](#) [Donate Now](#)

**Building shelter for the homeless**

Together we can make a difference.

**Who we are**  
Shelter for all is a nonprofit organization created to help individuals and families experiencing homelessness. Our goal is to minimize homelessness by making data-driven decisions, collaborating with community stakeholders, and ensuring accountability.

[Learn More](#)

**You can make a difference**

[₦10,000](#) [₦5,000](#) [₦3,000](#) [₦2,000](#) [₦1,000](#)

[Donate Now](#)

**Join Our Movement for the Homeless People**

**Campaign With Us**  
Join Our Action Group To Help The Homeless

**Sign Up**  
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**Office Hours**  
Monday-Friday: 9:00am - 5:00pm  
Saturday: 10:00am - 4:00pm  
Sunday: Closed

**Office Address**  
Investment Building,  
2100 Besi Link Street,  
Victoria Island, Lagos.

**Sinovate High School**

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**Note** [Admission is currently ongoing now!](#)

**Welcome to Sinovate High college**

Dear Parents, friends and well-wishers of the great Iyka, I feel honoured to welcome you to the official website of Igboho College. Our website is designed to provide the necessary link between the college and other stakeholders i.e. parents, students, old boys, visiting students and their parents as well as the entire national and international community. This website will from time to time update you with vital and current information concerning all aspects of our college. Ramaia blessed!

**History of the school**  
The school was founded by Mr. Clinton Afolabi, Principal.

**Subscribe to Newsletter** [Enter email Address](#) [Submit](#)