



BLACKBUCK  
ENGINEERS

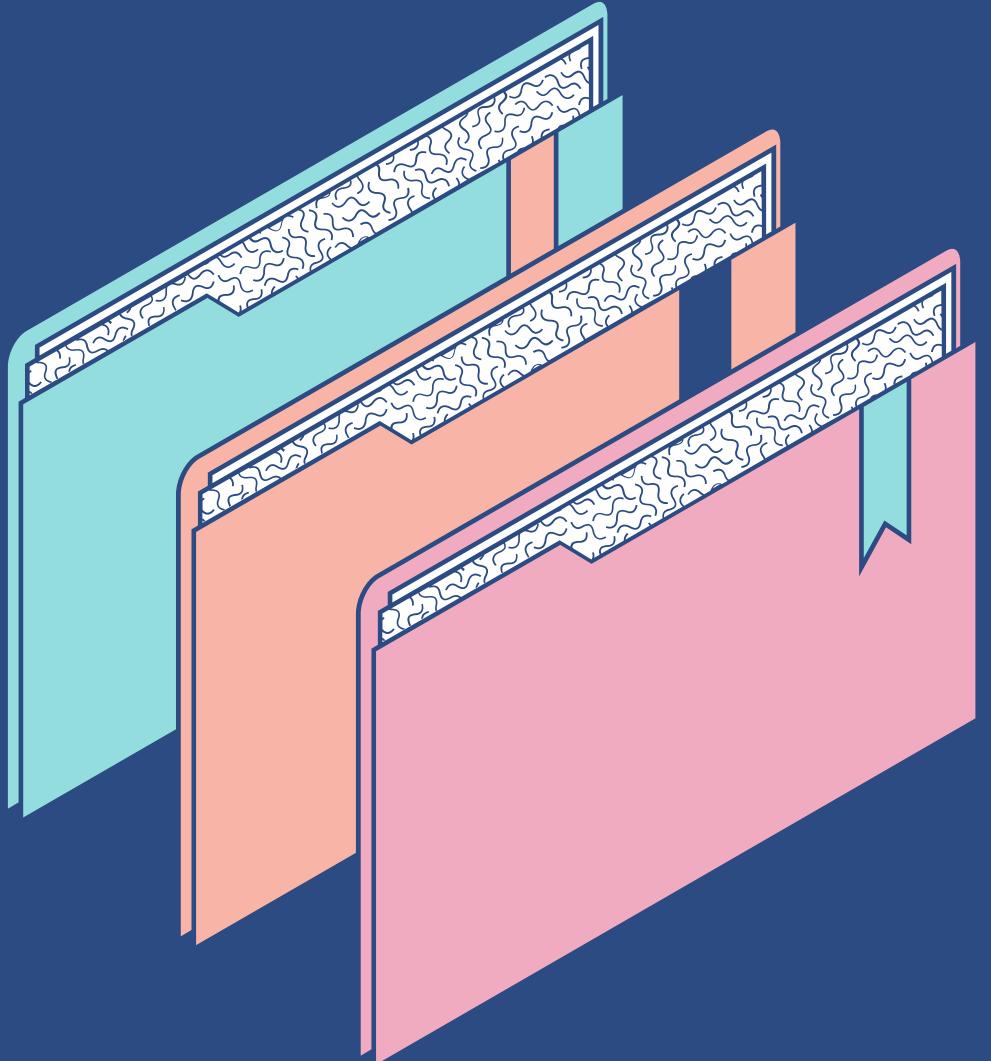


# The MERN Development Lab

Session 1 - Full Stack Fundamentals

BY AQUIB AJANI

# Session Agenda



## FULL STACK FUNDAMENTALS

- Meet the Mentor
- Think It Through
- Dictionary of Development
- Components of a Website
- The Journey of a Website
- Tools We Need for Development
- Setting Expectations

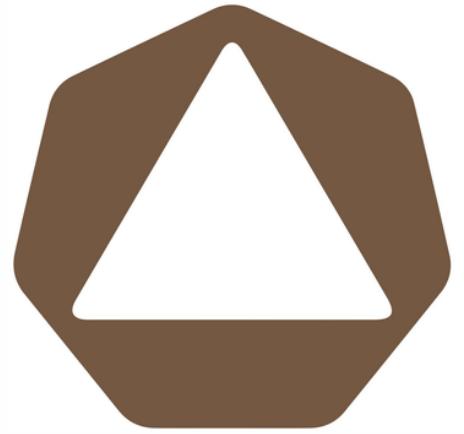


# Who am I?

I completed my **M.Tech in Software Engineering from Vellore Institute of Technology (VIT University), Vellore** in 2019 with a 9-point CGPA.

In addition to programming, I have a knack for teaching. I have **mentored 3,00,000+ students in various Programming Languages and Web Development frameworks** so far with leading EdTech brands including UpGrad, Coding Invaders, Hero Vired and MyCaptain. **I have also taken several on-ground bootcamps in universities like Emirates Institute of Finance - Dubai, IIT Jammu and SCSVMV University - Kanchipuram and delivered corporate training sessions for employees of Ola, Innovacer, etc.**

An entrepreneur by passion, you can find me reading a crime thriller or catching up on some brilliant cinema when I am not working!



# EIF

مَعْدَةُ الْإِمَارَاتِ الْعَالَمِيَّةِ  
Emirates Institute of Finance



विद्याधनं सर्वधनं प्रधानम्

## IIT JAMMU



Coding  
Invaders  
by MENTORSPRO



skill  
academy  
by testbook



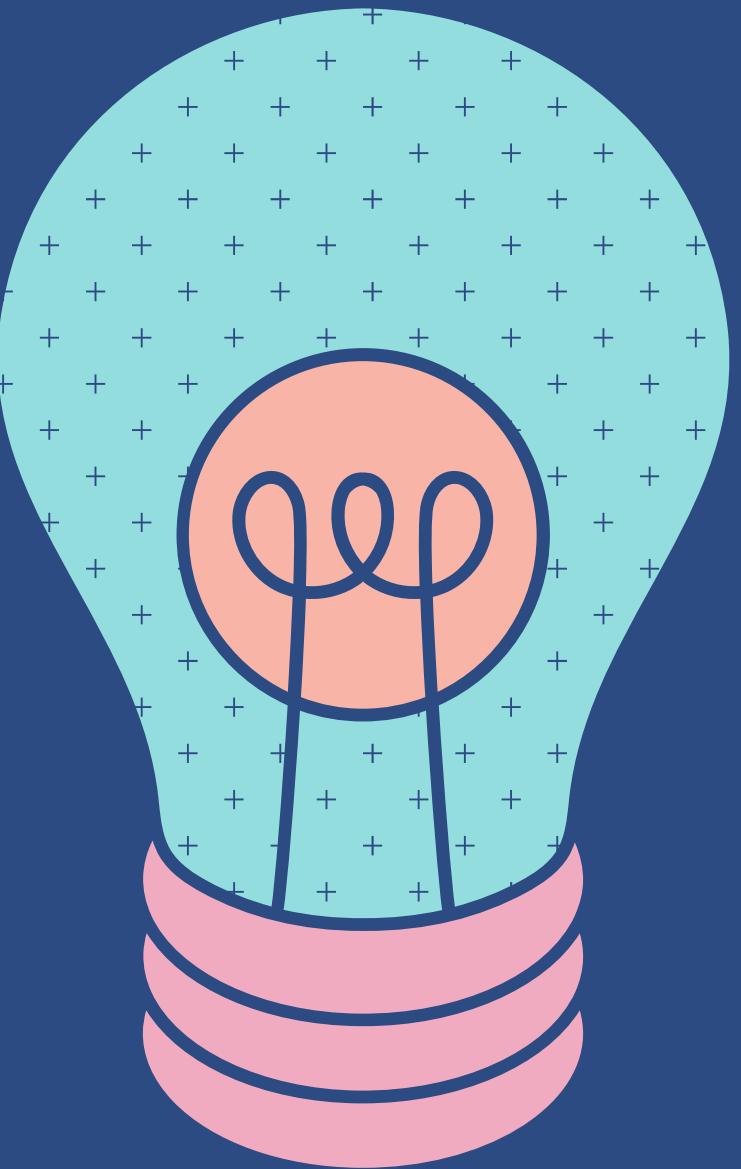
knowledgehut  
upGrad



CHALK STREET

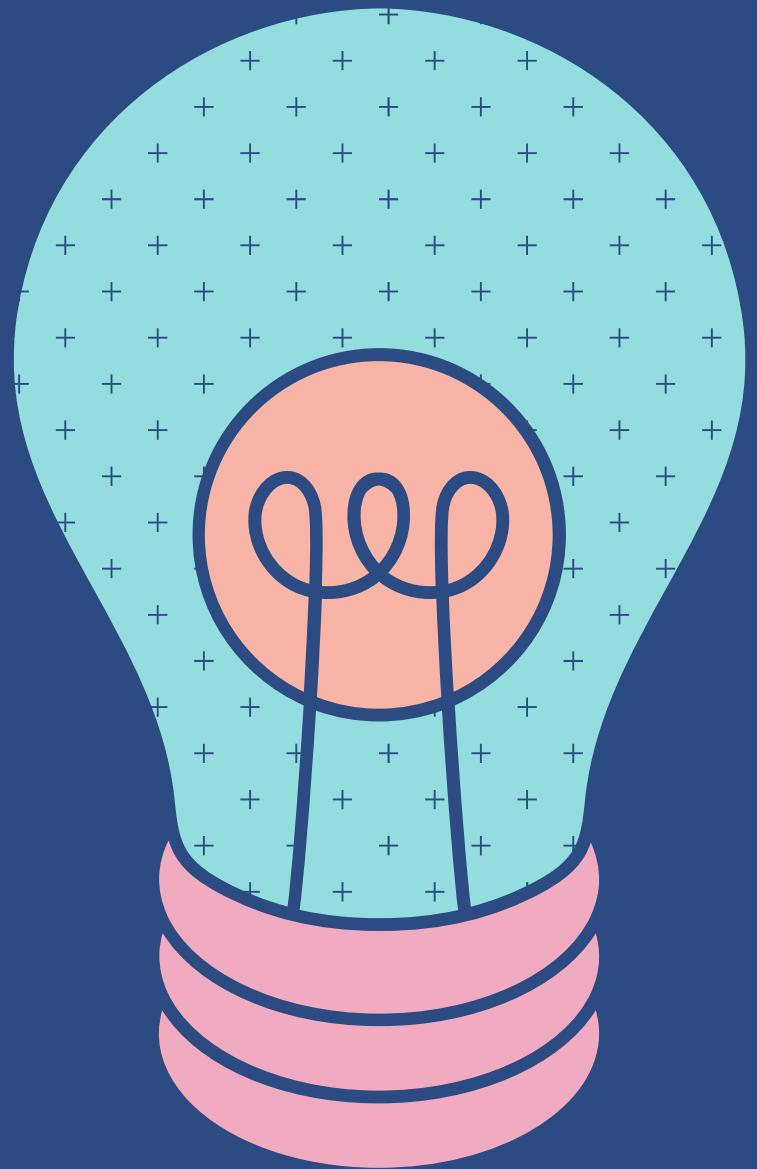
**“I speak without a mouth and  
hear without ears. I have no  
body, but I come alive with the  
wind. What am I?”**

**#ThinkItThrough**



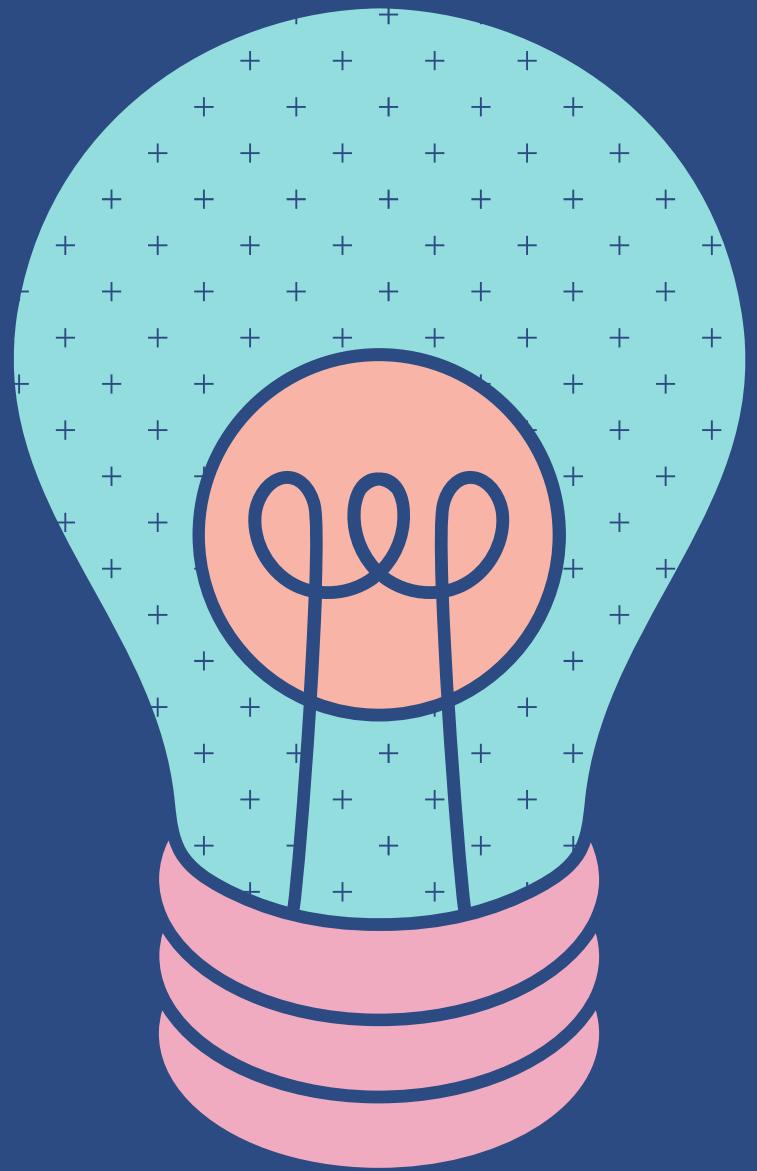
**“I'm light as a feather, yet the  
strongest person can't hold me  
for much longer than a minute.  
What am I?”**

**#ThinkItThrough**



**“You see a boat filled with people. It has not sunk, but when you look again, you don't see a single person on the boat. Why?”**

**#ThinkItThrough**





# Dictionary of Development



# What is a Website?

# What is Web Development?

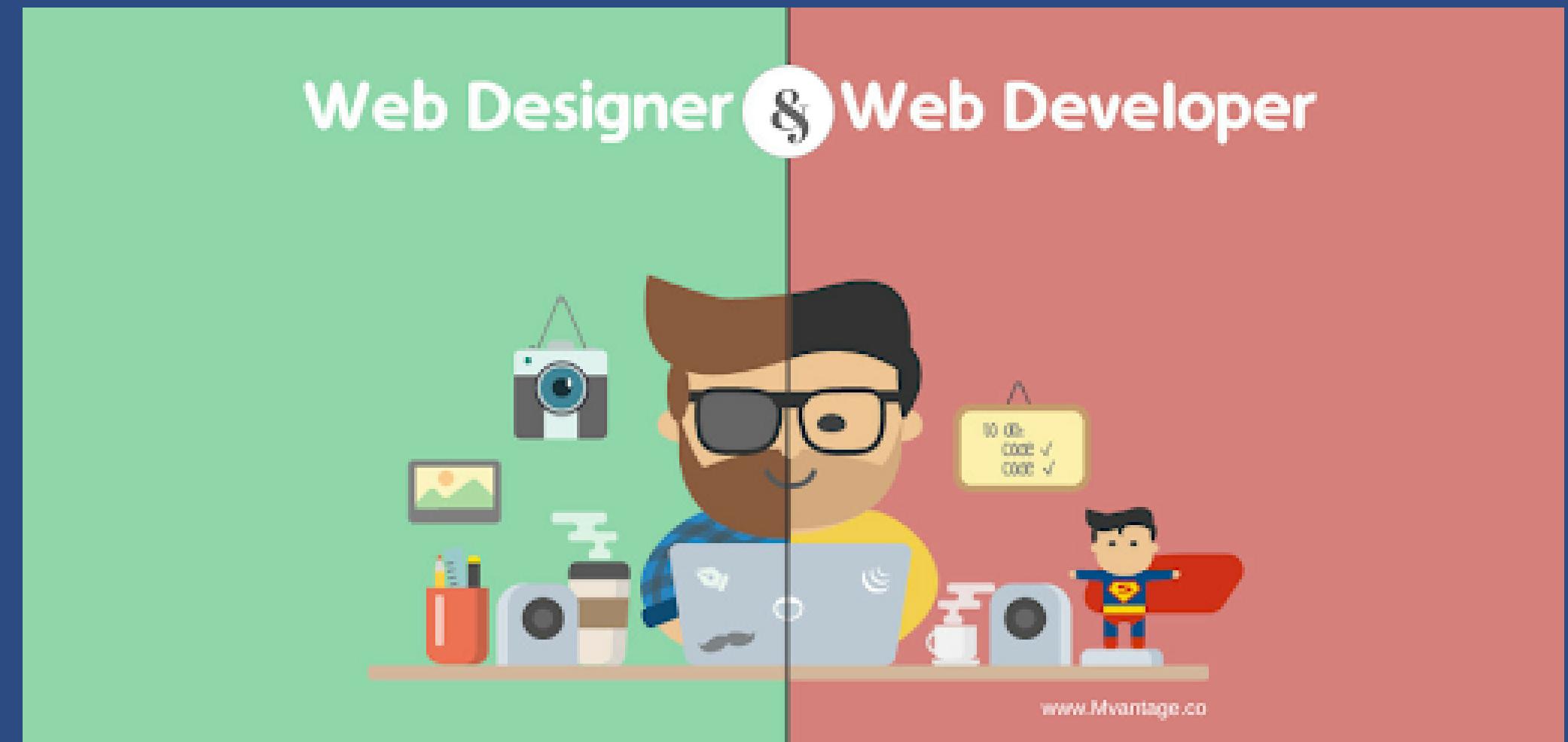




**WEB DESIGN?**

**THERE'S SPIDERS IN THE BACK  
YARD YOU CAN EXAMINE**

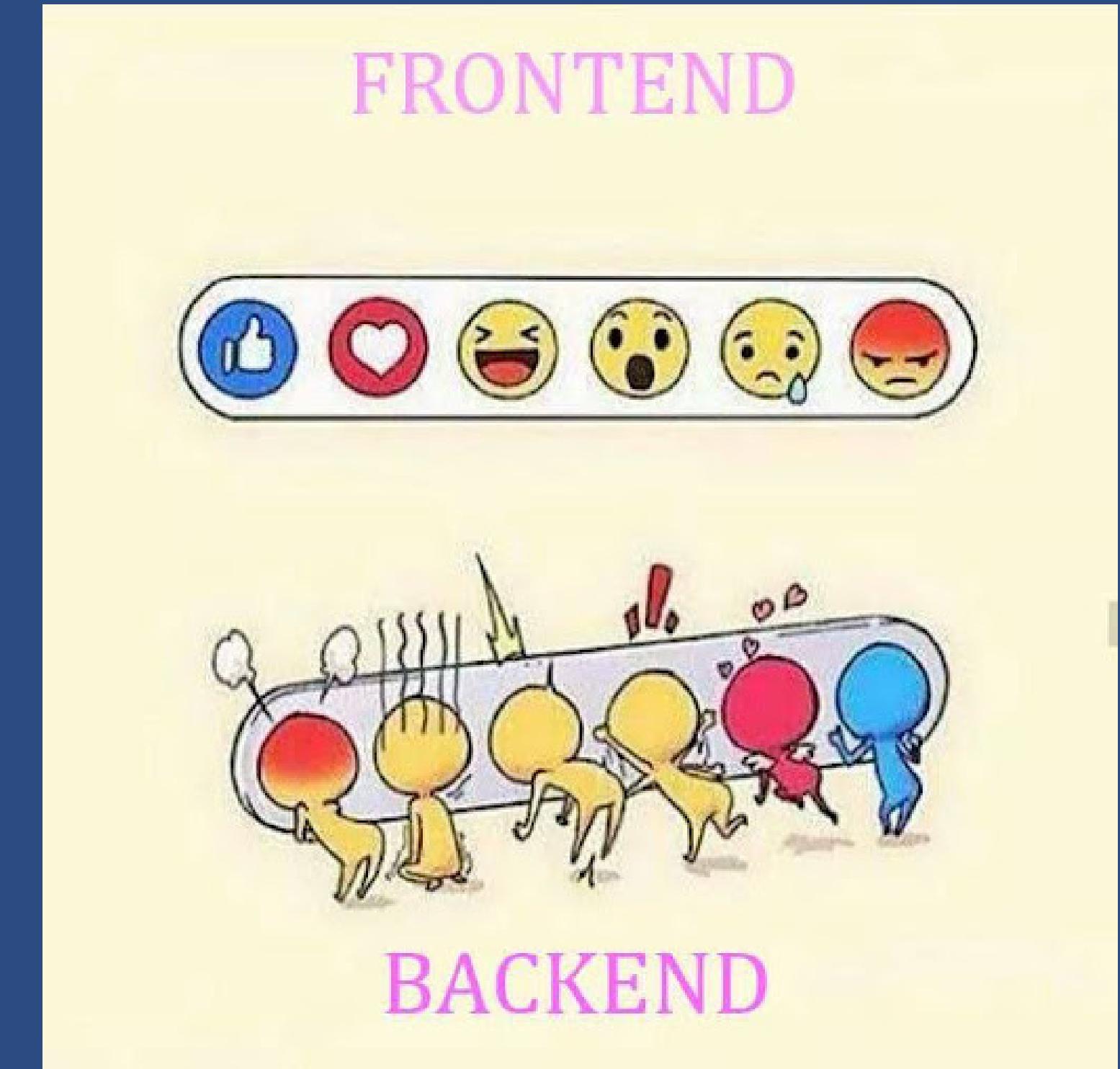
**What is Web Design?**



**A web designer is a graphic artist who is responsible for designing the layout, usability, and visual appearance of a website.**

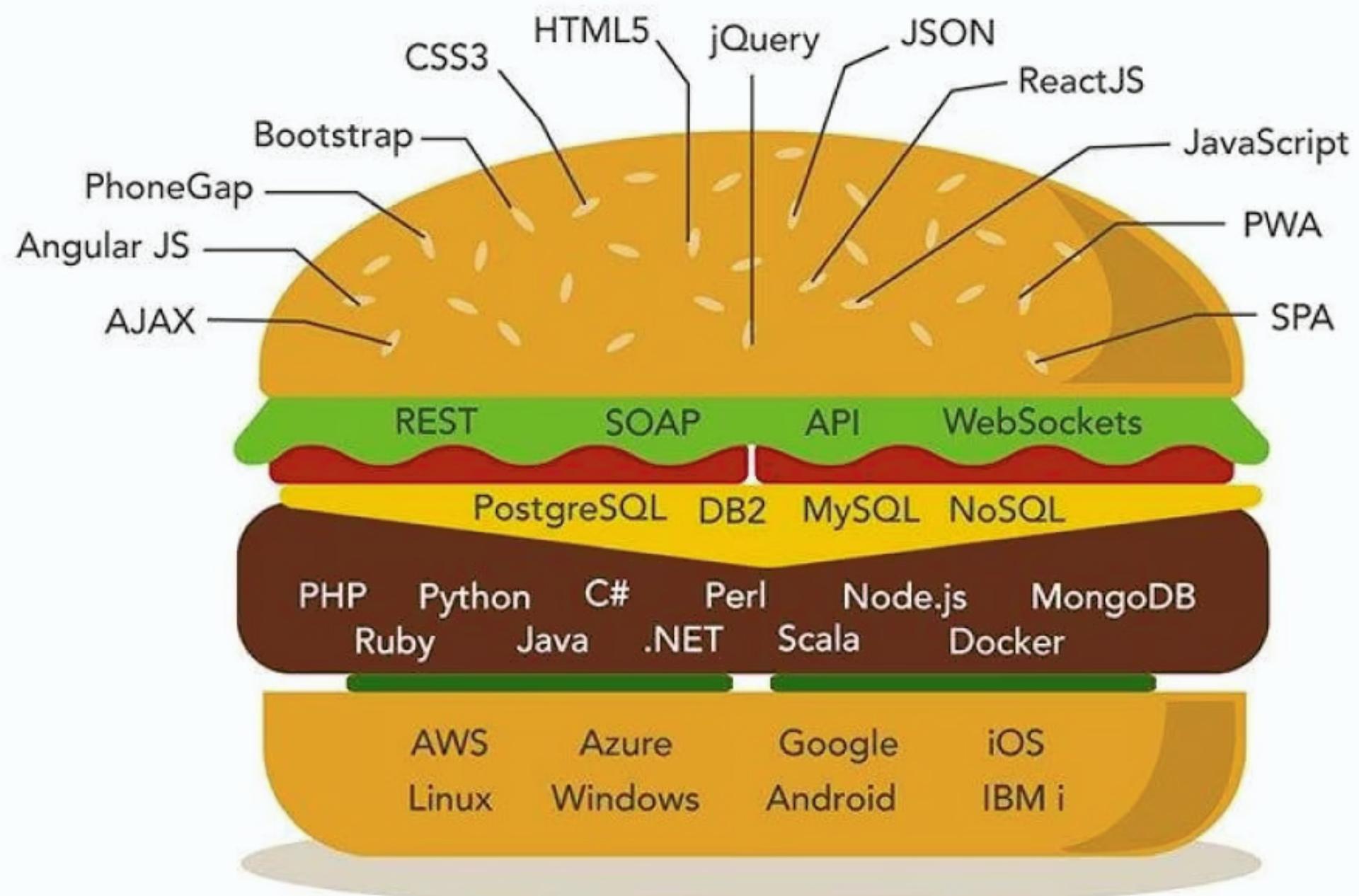
**A web developer is someone who is responsible for converting the web design into a functional website, using coding languages such as HTML, JavaScript, PHP, etc.**

# FrontEnd v/s Backend

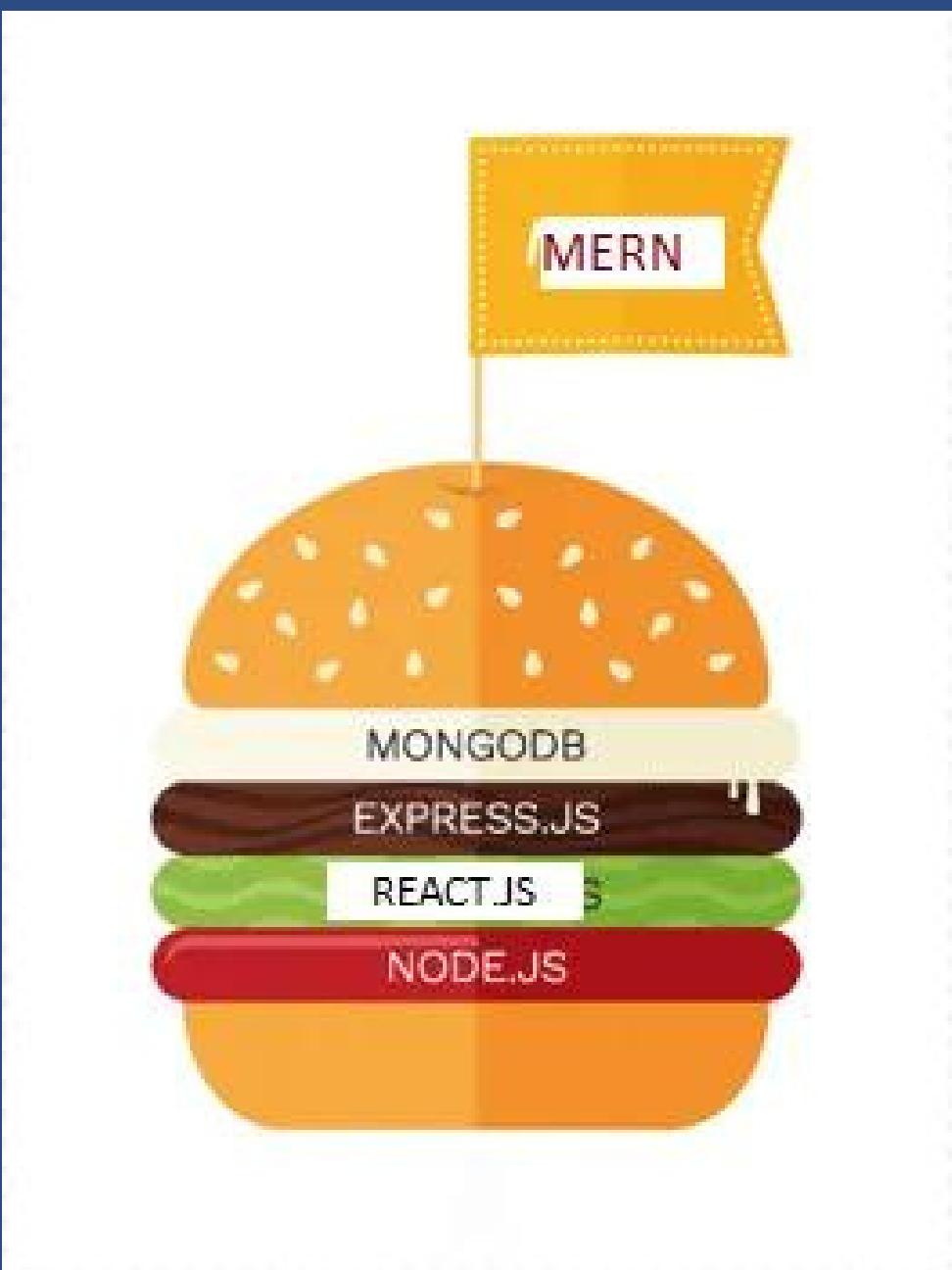


# What is a Stack?

## "The Full-Stack"



# The MERN Stack



# Components of a Website



# Header

The screenshot shows a course thumbnail for "Unboxing Creative Writing | Kickstart Your...". The thumbnail features a woman sitting in a chair, smiling, with the text "Are You A Thought Machine?" overlaid. Below the thumbnail, there's a large image of a book titled "Unboxing Creative Writing". To the right of the book, the title "Unboxing Creative Writing" and a subtitle "Your Guide To Becoming A Successful Writer." are displayed. Two buttons are present: "Download the brochure" and "Explore the course". The top navigation bar includes links for "Courses", "About Us", and "Cart". The bottom navigation bar includes links for "My Account", "My Cart", and "0 items".

The screenshot shows a product thumbnail for a pink powder in a jar with a wooden spoon. The main heading "Glamming Beauty" is prominently displayed, followed by the subtext "Beauty, Cosmetics and Personal Care Products". A button labeled "BROWSE PRODUCTS" is visible. The top navigation bar includes links for "Home", "Shop", "About", and "Contact". The bottom navigation bar includes links for "My Account", "My Cart", and "0 items". A WhatsApp icon is located at the bottom center.

The screenshot shows a section for "Website and App Development Services". It features a large image of a smartphone displaying a mobile application interface. To the right, the text "Website and App Development Services" is displayed, along with a subtext "Get your first product out there, fast!" and a button "BROWSE OUR PORTFOLIO". The top navigation bar includes links for "Services", "Portfolio", "Blog", and "Contact Us". The bottom navigation bar includes links for "Why Us?", "Features", "Mentors", "Resources", and "Get in touch".

The screenshot shows a classroom scene with students and a teacher. The teacher is standing at the front, writing on a chalkboard that has the text "If Someone in Your Family Has Cancer". The students are seated at their desks, looking towards the teacher. The top navigation bar includes links for "Why Us?", "Features", "Mentors", "Resources", and "Get in touch". The bottom navigation bar includes links for "Why Us?", "Features", "Mentors", "Resources", and "Get in touch". A large text overlay on the right side reads "World's most popular online marketplace for teacher collaboration and edupreneurship".

# Footer

## Join the community!

Register in one of our courses to become a part of a vibrant community of artists.

[All Courses](#)[Contact Us](#)

Unboxing Art offers thoughtfully structured art programs, connects you to the right mentors & provides an art community to call 'home'.

[Terms and Conditions](#)[Privacy Policy](#)

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## Get In Touch

Try to give us a small brief about the project you have in mind. Expect a reply in 3-7 business days! For a quicker response, send us a Hi on the chatbot!

 Name Email ID Phone What are we working on?[Send Message](#)

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Email : trainthetrainer8286@gmail.com

Copyright © Teach Our Teachers 2020

# Main Content

## Recent Work

You search for enhancing your technology skills here. Real time to know through our work and the day you manage!

Unboxing Art

The Game Shop

Day's Meal

MiddleAge India

Next Doctor Point

Teach our Teachers

Note Class

[VIEW ALL PROJECTS](#)

## What Clients Say

"Unboxed studies has been of extreme help throughout and through the MyCapstone journey. In a short duration, the developers have been instrumental to solve problems fast and have constantly encouraged with innovative solutions."

Rakesh Kapoor  
Chief Marketing Officer, The Unboxed MyCapstone

"Creating a website isn't that big a deal, understanding it is the real challenge, which is where Unboxed studies comes in and excels. They helped us in our initial phase of development, we started utilizing our Online Classes for Unboxing Storytelling and Creative writing with a solid foundation laid by Unboxed studies. The team is highly professional and an asset and undoubtedly definitely recommended!"

Sudhir Kulkarni  
Community Manager, Tech Meets People

## Our Best Selling Courses

Unboxing Creative Writing

Unboxing Poetry

Unboxing Storytelling

Explore your creative side. Learn a new artform. Follow your passion.

Unboxing Art offers thoughtfully structured programs, connects you to like-minded & provides an art community to call home!

[Join the community](#)

50+ Art Educators

3,000+ Registered artists

15,000+ Community Members

## Feedback from our Community

★★★★★

Unboxing Creative Writing has been a truly enriching experience for me. The mentors are a treasure trove of insights. It is also a great platform for gathering like-minded people. I not only learned but made many new friends too, many of whom connect with them. This community truly has the essence of art."

Chandan Kapoor  
Unboxing Creative Writing

★★★★★

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Swarnamitranan  
Unboxing Creative Writing

## Benefits of working with us

Become an Edupreneur

Teacher Resources

Mentorship Program

[Get in touch](#)

## Featured Resources

The Ultimate Guide to Right Angle Trigonometry

Hawking Guide to Innovative Coding

Newton's First Law of Motion in Depth

Teach Complex Trigonometry Problems Easly

Fundamentals of Value Education for kids

Launch your Online Teaching Career

# Do you have any questions?





# The Journey of a Website

**IF WE COULD STOP CHANGING  
REQUIREMENTS EVERY 5 MINUTES**

**THAT WOULD BE GREAT**

Memes & Funny Images | [FIREADE.COM](http://FIREADE.COM)

**Step 1. Requirements  
Engineering**

## Step 2. Wireframing



Wireframe



Mockup



Final Product



## Step 3. Development

## Step 4. Testing

I heard you want to be a web developer



Here are a few devices to test your site



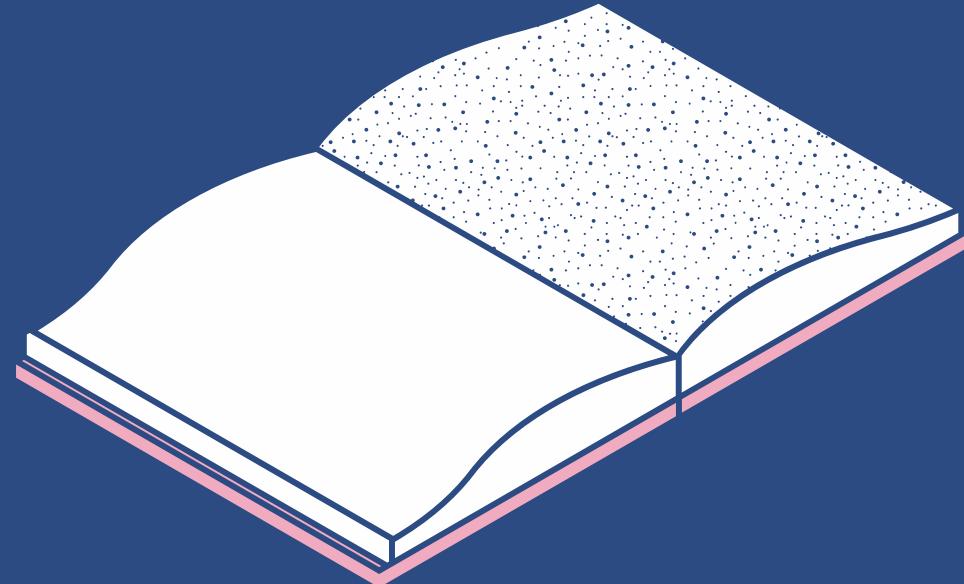
**TO DEPLOY**

**DELIVER YOU MUST**

## Step 5. Deployment

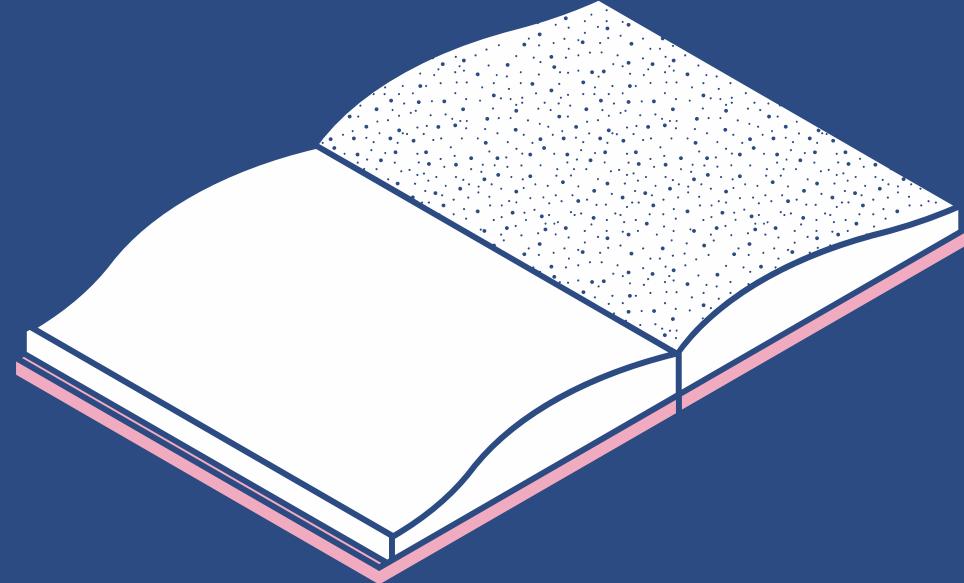
## Step 6. Maintenance





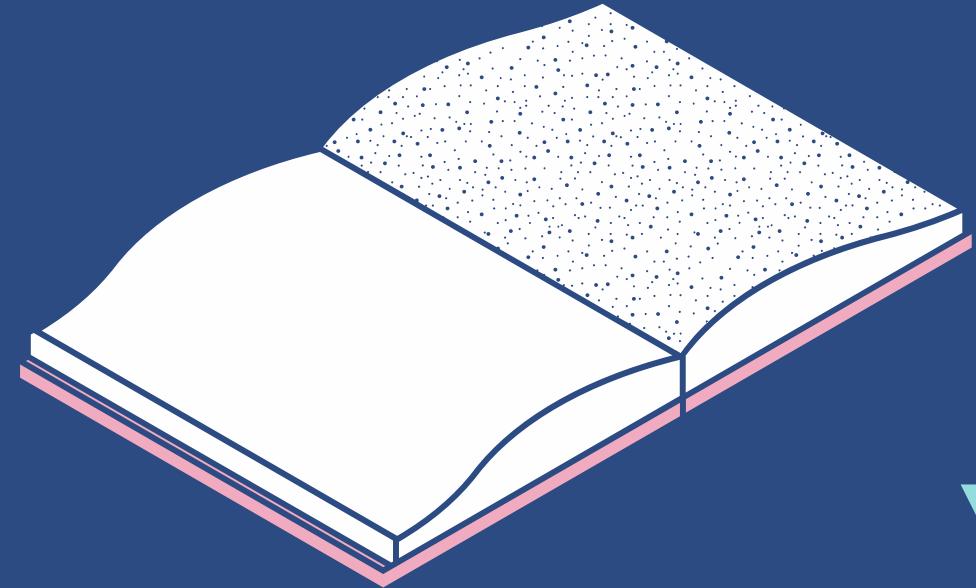
You have been hired by a client and you need to start working on the project. What will be your first step?

1. Planning
2. Design
3. Coding
4. Testing



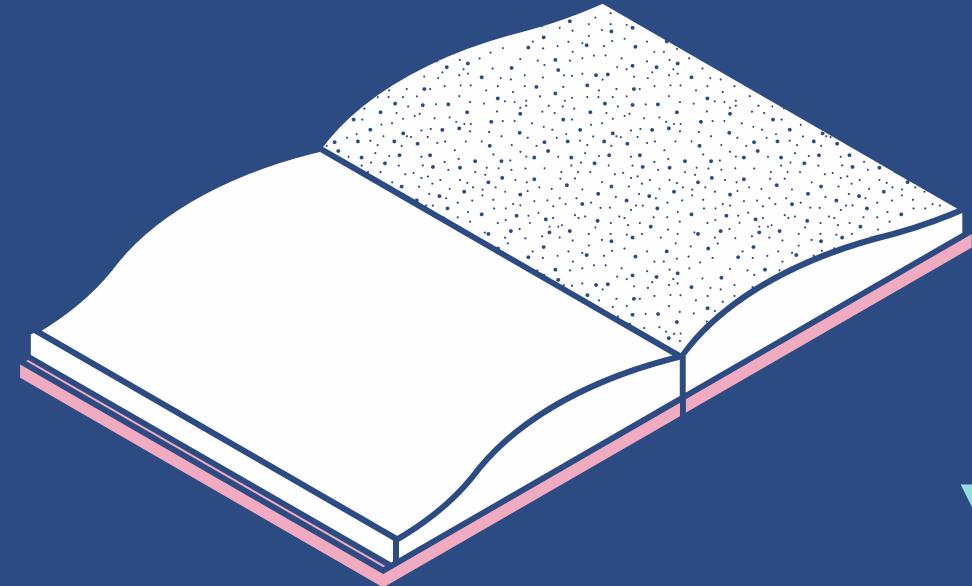
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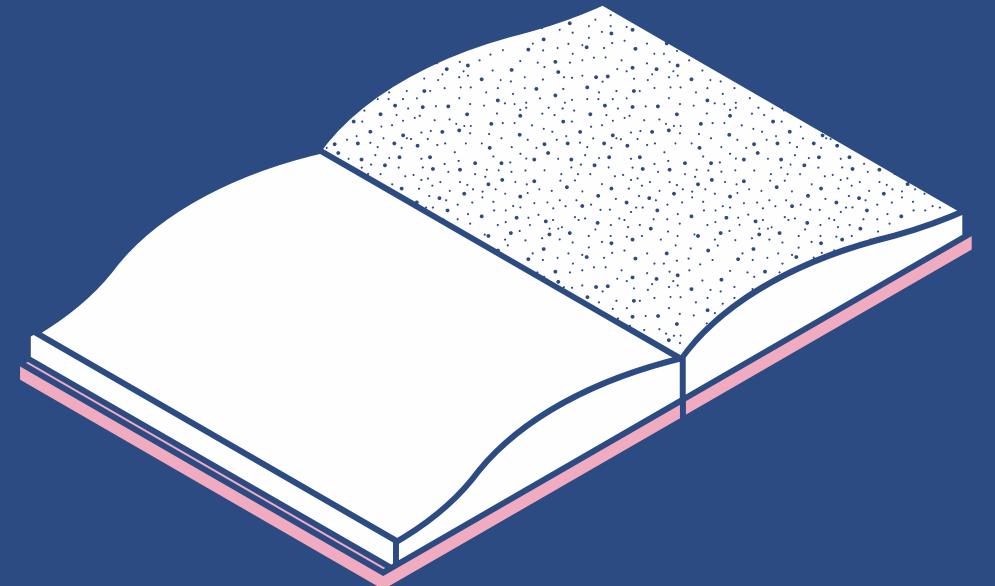
You have been asked to make sure the form data entered by the user is as per the required format. Which of the following tasks are you performing?

1. Verification
2. Validation
3. Design
4. Development



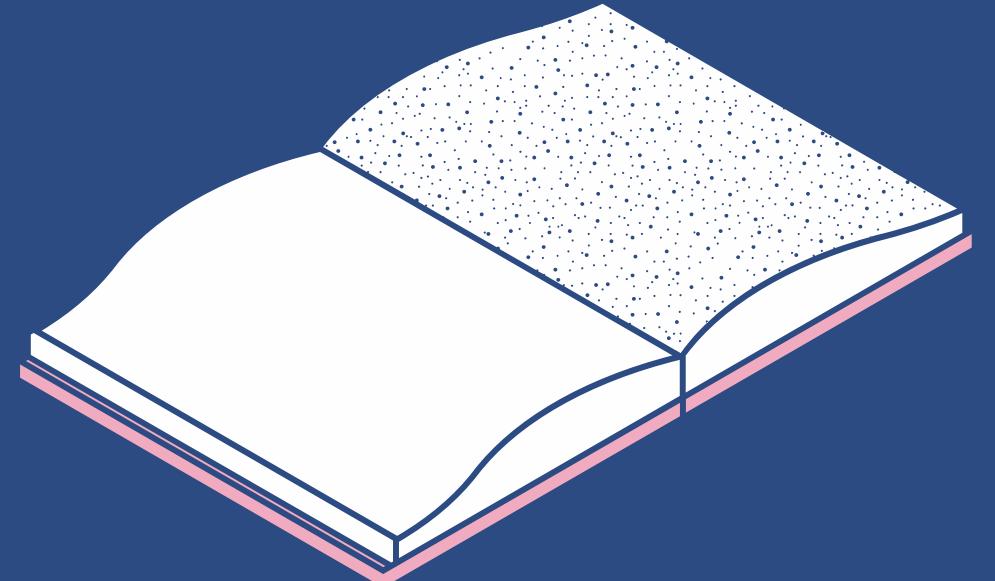
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1. Verification
2. Validation
3. Design
4. Development



To make your code more optimised, you decide to follow the practice of removing the comments and extra spaces from production code. Which of the following describes this practice?

1. Modularising
2. Testing
3. Designing
4. Minification

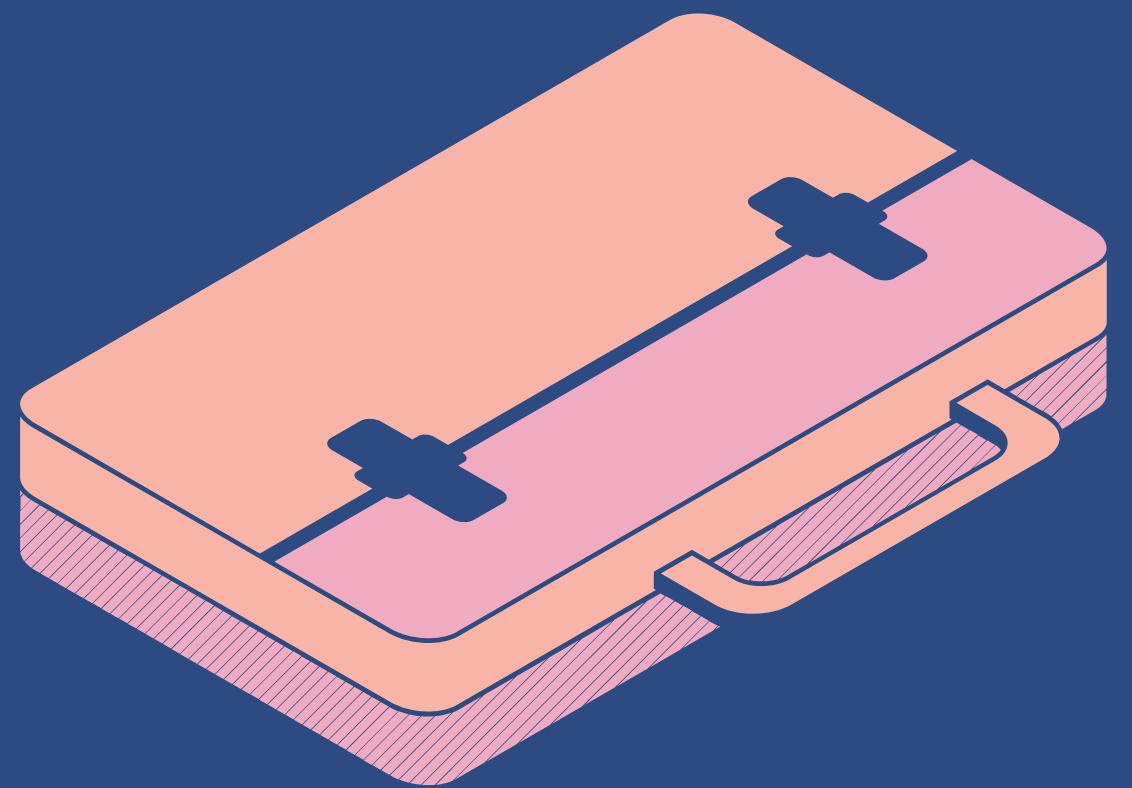


To make your code more optimised, you decide to follow the practice of removing the comments and extra spaces from production code. Which of the following describes this practice?

1. Modularising
2. Testing
3. Designing
4. Minification

# Do you have any questions?

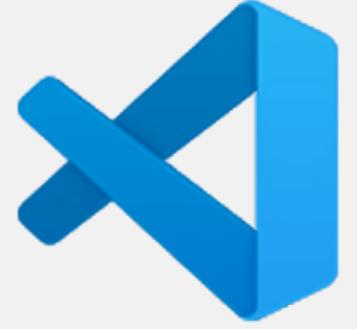




# Tools We Need For Development



Visual Studio Code



Visual Studio Code



chrome



Visual Studio Code





Visual Studio Code





Visual Studio Code





Visual Studio Code





# Setting Expectations

- Explore HTML, CSS and Javascript
- Designing FrontEnd with ReactJS
- Creating REST APIs with NodeJS and Express
- CRUD operations using MongoDB
- Building a MERN Stack Project

# Do you have any questions?

