

Expert lecture on exploring WebX

DATE: 18/03/24

## **Details of Resource Person:**

**Prof Martina Dsouza**,

Assistant professor

IT department, XIE

## **Description of Expert Lecture:**

The Department of Electronics and Telecommunication Engineering organized an Expert Lecture on exploring WebX on 18<sup>th</sup> March, 2024. The expert lecture started with a brief introduction of the speaker. The speaker started the event with the introduction of Programming Languages and Scripting Languages. The students were given a brief about the different types of Programming Languages such as C, C++, Java and Scripting Languages such as PHP, Python and HTML. The speaker explained how the Programs written using the Programming Languages are compiled and an executable file is generated but in case of Scripting Languages the codes are interpreted such as the line colour background colour in HTML. Then the speaker gave a basic overview on the three main Scripting Languages that are used in Web Design, HTML, CSS and JavaScript and then explained the DOM model.

The speaker then explained the concept of Servers and how Servers play a crucial role in hosting information over the Internet for the users to make use of. Adding to it the speaker also explained types of servers such as the Apache, Microsoft IIM, Jigsaw and the Sun Microsystems. Further explaining about the evolution of Web into distinct phases such as Web 1.0, characterized by static web pages and limited user interaction; Web 2.0, marked by dynamic, interactive platforms enabling user-generated content and social interactions; Web 3.0, envisioning a Semantic Web with enhanced data connectivity and machine understanding and the speculative concept of Web 4.0, anticipating a future where the internet integrates seamlessly with physical objects through technologies like IoT and AR/VR.

Next was the topic of Web Applications where the speaker explained software applications that are accessed through a web browser over the internet. And that they utilize web technologies such as HTML, CSS, and JavaScript to provide interactive and dynamic user experiences. Unlike traditional desktop applications, web apps do not require installation on a user's device and can be accessed from any device with a web browser and internet connection.

**Event Coordinator(s)** 

1. Prof Tejal Deshpande

Time & Place:

12:00 pm to 1:00 pm

LH 9, Xavier Institute of Engineering

**Department:** 

EXTC

No of Participants: 37

Also stating that Web applications can range from simple websites with static content to complex, feature-rich platforms offering functionalities such as user authentication, data storage, real-time updates, and collaboration tools. To create such Web Apps the speaker explained two full JavaScript technology stacks for building modern web applications, allowing developers to use a single programming language (JavaScript) throughout the entire development process, from backend to frontend – The MERN stack and the MEAN stack.

The MEAN stack, comprising MongoDB, Express.js, AngularJS (or Angular), and Node.js, offers developers a unified JavaScript environment for full-stack web development. MongoDB provides flexible NoSQL data storage, Express.js facilitates server-side development, AngularJS (or Angular) enables dynamic front-end interfaces, and Node.js runs JavaScript on the server. On the other hand, the MERN stack replaces AngularJS with React.js, maintaining MongoDB, Express.js, and Node.js. React.js, known for its component-based architecture and efficient rendering, enhances MERN's ability to build highly interactive and responsive user interfaces, making it well-suited for modern web applications requiring fast, dynamic experiences and further gave insights on how each of these technologies hep in developing an efficient Web Application and can be used for a faster development. Also how these skills can provide an edge over others and can help land a good package in the IT Sector.

Finally the speaker was open to questions and answered the doubts asked by the students for their projects. The expert lecture concluded by thanking the speaker.

## **Conclusion:**

The students got to know about the structure of the Web architecture as the speaker delved deep into the concepts and provided a clear understanding of the frameworks and the entire system, thus enlightening a spark of curiosity and an understanding of the various advancements in the Web domain, how to develop Web Applications and the kinds of job opportunities available and the list of skills that one must have to land a dream job with a competitive payout.

## Pre Quiz:













