



**R
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2 Week

Technical Workshop
“Back-End Development”



Organized
By
MCA Department

Week-1st
08/04/2024 --13/04/2024

Week-2nd
22/04/2024 -- 27/04/2024

OBJECTIVE

BILL GATES APTLY STATED, "TECHNOLOGY IS JUST A TOOL. IN TERMS OF GETTING THE KIDS WORKING TOGETHER AND MOTIVATING THEM, THE TEACHER IS THE MOST IMPORTANT."

In today's rapidly evolving technological landscape, the need for IT workshops has become paramount. These interactive and hands-on learning experiences equip individuals with the skills and knowledge necessary to navigate the ever-changing digital realm. IT workshops are essential in fostering a tech-savvy workforce and empowering individuals to thrive in a digitally driven society. As technology continues to permeate every aspect of our lives, staying up-to-date with the latest advancements and best practices has become a necessity. As Steve Jobs famously said, "Technology is nothing. What's important is that you have a faith in people, that they're basically good and smart, and if you give them tools, they'll do wonderful things with them."

IT workshops provide invaluable opportunities for individuals to gain practical experience and hands-on training in various technological domains. Whether it's learning to code, mastering data analysis tools, or understanding cybersecurity protocols, these workshops offer a structured and immersive learning environment.

This intensive technical workshop focuses on Node.js and MongoDB, two powerful technologies that have gained widespread adoption in the web development industry. By attending this workshop, participants will not only gain a comprehensive understanding of these technologies but also develop the ability to build scalable and efficient web applications.



GOVT. COLLEGE UNA (H.P.)



MCA Department

*Organizing
a*



2 Weeks Technical Workshop

ON

"BACK-END DEVELOPMENT"



mongoDB

(Node.js and Mongo DB)

Week-1

08/04/2024 --13/04/2024

Venue: MCA LAB

Week-2

22/04/2024 -- 27/04/2024

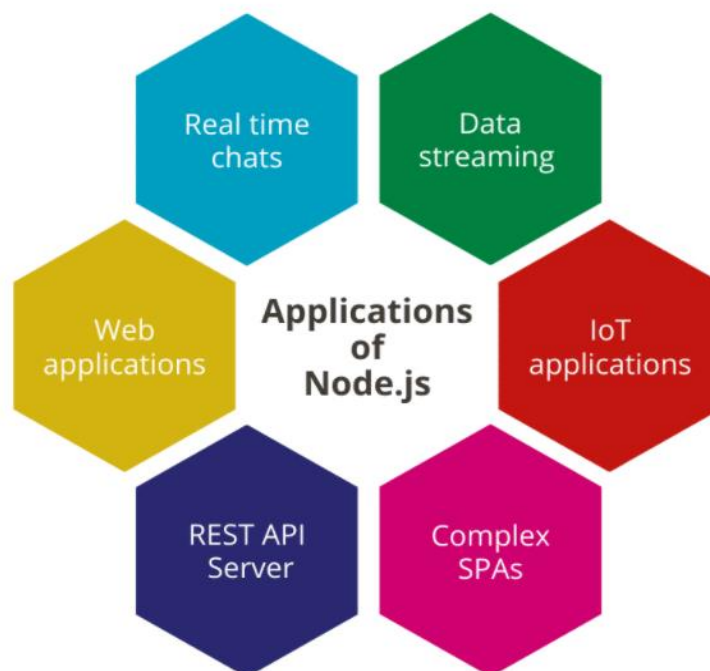
DAY-1

(08.APRIL.2024)

MCA Department of Government College Una organized a 15-day technical workshop in collaboration with **Wise Techno**, which was inaugurated by Principal-cum-Director **Dr. Meeta Sharma**. On this day, the program started with a lamp lighting ceremony & unavailing of a workshop banner by **Dr. Meeta Sharma** Principal-cum-Director accompanied by **Prof. Puneet Prem Kanwar**, Coordinator of MCA.

The coordinator of MCA welcomed the Principal-cum-Director & Technical Expert Mr. **Jaspreet Singh**. Then Prof. Puneet Prem Kanwar (Coordinator MCA) addressed the students that in today's fast-paced world, where technology is constantly evolving, staying updated with the latest trends and advancements is crucial. And that's exactly what this workshop aims to offer - an opportunity to delve into the depths of Nodejs and Mongoddb , explore its intricacies, and gain a deeper understanding of its applications.

Then Principal **Dr. Meeta Sharma** addressed the gathering and congratulated the students and faculty of the MCA department for organizing a workshop. She motivated the students to build live projects that will help them to get placed in reputed MNCs. After the inaugural session the technical session was started in the lab. The lecture was started with the introduction of Node.js . Node.js is an open-source and cross-platform JavaScript runtime environment. It is a powerful tool suitable for a wide range of projects .



DAY-2

(09.APRIL.2024)

On the second day, the technical expert started by reviewing basic operations in JavaScript such as addition, subtraction, multiplication, and division. He then moved on to reversing numbers, learning how to take a given number and reverse its digits programmatically. Next, the different types of variables in JavaScript - var, let, and const. We discussed their scopes, when to use each type, and best practices around variable declaration. The core topic of the day was Node Package Manager (npm). The students learned what npm is, its purpose, and how it facilitates sharing and reusing code. Some key points:

- npm is the default package manager for Node.js
- It consists of a command line tool and an online repository of packages/libraries.
- It allows developers to install, share, and manage dependencies.

Advantages of npm

- Large ecosystem of packages covering numerous use cases
- Easy installation and updates of packages
- Dependency management and semantic versioning
- Consistent environment across different machines

Disadvantages of npm

- Security concerns if packages have vulnerabilities
- Dependency hell with conflicting versions
- Overhead of unused dependencies increasing app size

We then did a live implementation, learning the basic npm commands:

- npm init - create a new package.json file
- npm install packageName - install a package locally
- npm install -g packageName - install a package globally
- npm uninstall packageName - uninstall a package

Overall, it was a productive day understanding operations, variables, and getting started with the important npm tooling for managing packages in Node.js projects.

DAY-3

(10. APRIL.2024)

Today's session started with the introduction of REPL, which stands for Read Evaluate Print Loop. REPL is an interactive shell that allows you to easily interact with the Node.js runtime.

Introduction: The REPL is an interactive tool that processes Node.js expressions. It reads user input, evaluates the input as valid JavaScript code, prints the result of the evaluation, and loops back to accept more input.

How to Run: To start the REPL, you need to open your command prompt or terminal and simply type 'node'. This will launch the Node.js REPL shell, which displays a prompt (e.g. '>') where you can enter JavaScript code.

Main Usage: The primary use case of REPL is for interactive prototyping. It provides a convenient way to experiment with JavaScript code snippets and test out language constructs, variables, functions, etc. without having to write a full program file.

- ❖ **Writing expressions:** You can enter any valid JavaScript expression in the REPL, and it will evaluate and print the result.
- ❖ **Multiline code:** The REPL supports multiline input, allowing you to write larger code snippets spanning multiple lines.
- ❖ **Accessing global objects:** You can access and manipulate global objects such as console, process, and global within the REPL.
- ❖ **Running scripts:** REPL also allows you to run entire script files by using the .load command.
- ❖ **Keyboard shortcuts:** There are various keyboard shortcuts available in the REPL, such as .exit to quit, .clear to clear the REPL session, and .save to save the current REPL session to a file.

The REPL is a powerful tool for quickly testing and experimenting with Node.js code. It can greatly enhance the development workflow by providing an interactive environment for prototyping and debugging.

DAY-4

(11.APRIL.2024)

The fourth day of the technical workshop focused on exploring the fundamentals of Node.js and its integration with MongoDB. The expert kick-started the session by introducing npm (Node Package Manager), which is the default package manager for Node.js.

- ❖ **NPM Packages:** The expert explained that npm packages are reusable code libraries that can be easily installed and integrated into Node.js applications. These packages provide ready-to-use functionalities, saving developers valuable time and effort. The expert demonstrated how to search for packages on the npm registry, install them using the npm install command, and leverage their functionalities within a Node.js project.
- ❖ **Installation and Execution:** The expert then guided the participants through the process of installing Node.js on their respective systems. They covered different installation methods, such as using the official Node.js installer or package managers like apt or brew. Once Node.js was installed, the expert showcased how to execute Node.js scripts from the command line, enabling participants to run their first "Hello, World!" program.
- ❖ **Applying Conditions on the Server:** To make the server more dynamic, the expert showed how to apply conditions based on the requested URL or HTTP method. They introduced the req.url and req.method properties, enabling participants to handle different routes and HTTP methods (GET, POST, PUT, DELETE) accordingly. This concept laid the foundation for building more complex and interactive web applications with Node.js.
- ❖ **Handling Requests and Responses:** The expert then focused on handling requests and responses in Node.js. They explained how to access and parse request data, such as query parameters and request bodies. Participants learned about the req.query and req.body objects, enabling them to retrieve and process data sent by clients. Additionally, the expert demonstrated how to send responses back to clients using the res.write() and res.end() methods, along with setting appropriate response headers and status codes.

Throughout the session, the expert provided hands-on examples and encouraged participants to follow along, allowing them to gain practical experience in building server-side applications with Node.js. The workshop concluded with a Q&A session, where participants had the opportunity to clarify their doubts and seek further guidance from the expert.

DAY-5

(12.APRIL.2024)

The fifth day of the workshop focused on exploring the file system module in Node.js and understanding the concepts of synchronous and asynchronous operations.

Introduction to File System: The expert began the session by introducing the built-in file system module in Node.js, which provides a set of APIs for interacting with the file system. Participants learned about the importance of file operations in web development, such as reading and writing configuration files, storing user data, and handling file uploads.

Reading Files: The expert demonstrated how to read files using the `fs.readFile()` method. They explained the different encoding options and showcased how to handle the read data, either as a buffer or a string. Participants practiced reading files from the local file system and displaying their contents in the console. `fs.appendFile` and `fs.writeFile`: Moving on, the expert covered two essential methods for writing to files: `fs.appendFile()` and `fs.writeFile()`.

Synchronous and Asynchronous File System: In the second half of the session, the expert delved into the concepts of synchronous and asynchronous operations in Node.js. They explained the differences between these two approaches and their implications on application performance and responsiveness. The expert demonstrated synchronous file operations using methods like `fs.readFileSync()` and `fs.writeFileSync()`. Participants learned about the potential drawbacks of synchronous operations, such as blocking the event loop and causing performance bottlenecks. Subsequently, the expert introduced asynchronous file operations using callbacks and promises. They showcased how to use the asynchronous versions of file system methods, like `fs.readFile()` and `fs.writeFile()`, to perform non-blocking operations. Participants practiced implementing callbacks and promises to handle asynchronous file operations effectively.

At the end of the session, the expert assigned a practical exercise to reinforce the concepts learned. Participants were tasked with building a simple command-line application that interacted with the file system. The assignment involved reading data from a file, performing operations on the data, and writing the modified data back to a new file. Participants were encouraged to implement error handling and use both synchronous and asynchronous approaches to compare their performance and behaviour.

The workshop concluded with a brief Q&A session, allowing participants to address any remaining doubts or concerns regarding file system operations and asynchronous programming in Node.js

DAY-6

(13.APRIL.2024)

The sixth day of the workshop covered various important concepts in Node.js, including event handling, inheritance, debugging, and middleware. Additionally, the session delved into event emitters and their related methods.

❖ Event Handling in Node.js

The expert began the session by introducing event handling in Node.js. They explained that Node.js follows an event-driven architecture, where events are emitted and handled asynchronously. Participants learned about the built-in 'EventEmitter' class and how to create and handle custom events. The expert demonstrated how to register event listeners, emit events, and pass data through events.

❖ Debugging

In this section, the expert introduced various debugging techniques in Node.js. They discussed the built-in debugging tools, such as the Node.js debugger and the 'console' module. Participants learned how to set breakpoints, step through code, and inspect variables during runtime. The expert also covered third-party debugging tools and IDEs that can be used for more advanced debugging workflows.

❖ Middleware

The session then shifted focus to middleware in Node.js. The expert explained that middleware functions are essential for modifying incoming requests and outgoing responses in web applications. Participants learned about the concept of middleware chains and how to create and use middleware functions in Node.js applications, such as Express.js.

❖ Event Emitter and Related Methods

In the second half of the session, the expert delved deeper into the 'EventEmitter' class and its related methods. They covered methods like 'on()', 'once()', 'off()', and 'emit()', which are used to manage event listeners and emit events. Participants practiced creating and using event emitters in various scenarios, such as building a simple pub-sub system or implementing event-driven communication between components.

At the end of the session, the expert assigned a practical exercise to reinforce the concepts learned. Participants were tasked with building a simple chat application using Node.js and the 'EventEmitter' class. The assignment involved creating an event emitter to handle client connections, broadcasting messages to connected clients, and implementing basic error handling and debugging mechanisms.

DAY-7

(22.APRIL.2024)

The seventh day of the workshop marked the beginning of the exploration into MongoDB, a popular NoSQL database system. The session started with addressing any remaining doubts or questions from the previous class. The expert dedicated the initial part of the session to addressing any doubts or concerns that participants had regarding the concepts covered in the previous class. This included clarifying topics such as event handling, inheritance, debugging, middleware, and event emitters in Node.js. The expert encouraged participants to ask questions and provided detailed explanations to ensure a solid understanding of the concepts.

Introduction to MongoDB: After addressing the doubts, the expert introduced MongoDB, a widely-used NoSQL database system. They explained the differences between SQL and NoSQL databases, highlighting the advantages of MongoDB's document-oriented data model and its flexibility in handling unstructured data. Participants learned about the key features of MongoDB, such as scalability, high performance, and ease of use.

Downloading MongoDB: The expert then guided the participants through the process of downloading and installing MongoDB on their respective systems. They covered different installation methods, such as using the official MongoDB installers or package managers like `apt` or `brew`. The expert also discussed the importance of setting up the MongoDB environment variables and configuring the database directories.

Creating and Showing Databases: Once MongoDB was installed, the expert demonstrated how to create and show databases using the MongoDB shell. Participants learned about the `use` command to switch between databases and the `show dbs` command to list all available databases. The expert also introduced the concept of collections, which are analogous to tables in relational databases.

Difference between MongoDB and MySQL: To highlight the distinctions between MongoDB and traditional relational databases like MySQL, the expert compared and contrasted their data models, querying languages, scalability, and use cases. Participants gained an understanding of the fundamental differences between these two database systems and when it might be appropriate to choose one over the other. **Assignment:** At the end of the session, the expert assigned a practical exercise to reinforce the concepts learned. Participants were tasked with setting up a MongoDB database, creating collections, and performing basic CRUD (Create, Read, Update, Delete) operations using the MongoDB shell. The assignment aimed to familiarize participants with the MongoDB environment and its querying syntax. The workshop concluded with a Q&A session, allowing participants to clarify any remaining doubts or concerns regarding MongoDB, its installation, and database operations.

DAY-8

(23.APRIL.2024)

The eighth day of the workshop focused on the fundamental CRUD operations in MongoDB, along with essential concepts like indexing, schema design, and error handling.

CRUD Operations: The expert began the session by introducing the four basic operations in MongoDB: Create, Read, Update, and Delete.

1. **Creating Documents:** Participants learned how to insert new documents into a collection using the `insertOne()` and `insertMany()` methods. The expert demonstrated various techniques for creating documents, including generating unique identifiers and handling multi-document inserts.
2. **Reading Documents:** The session covered different ways to retrieve documents from a collection, such as `find()`, `findOne()`, and `findMany()`. The expert explained how to use query filters, projections, and sorting to retrieve specific subsets of data.
3. **Updating Documents:** Participants learned about updating existing documents using the `updateOne()` and `updateMany()` methods.
4. **Deleting Documents:** The expert demonstrated how to remove documents from a collection using the `deleteOne()` and `deleteMany()` methods.



C → Create
R → Read
U → Update
D → Delete

Schema Design: In this section, the expert discussed schema design in MongoDB. They explained the importance of proper schema design for efficient data storage and retrieval. Participants learned about embedding and referencing data, denormalization techniques, and best practices for schema design in MongoDB.

Error Handling in CRUD Operations: The expert covered error handling strategies for CRUD operations in MongoDB. Participants learned how to handle common errors, such as duplicate key errors, write concerns, and validation errors. The expert demonstrated techniques for catching and handling exceptions, as well as providing appropriate error messages and logging.

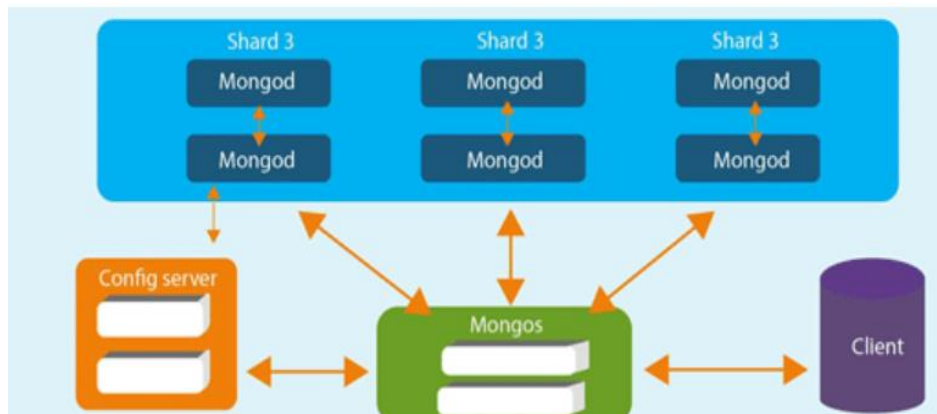
Assignment: The expert assigned a practical exercise to reinforce the concepts learned. Participants were tasked with building a simple application that interacts with a MongoDB database.

DAY-9

(24.APRIL.2024)

The ninth day of the workshop focused on MongoDB Compass, a graphical user interface (GUI) for MongoDB. The expert introduced this powerful tool, guiding participants through its installation, setup, and various features.

Introduction to MongoDB Compass: The expert began the session by introducing MongoDB Compass, a comprehensive GUI for MongoDB. They explained the benefits of using a GUI tool, such as easier data visualization, query building, and database administration tasks. Participants learned how to download and install MongoDB Compass on their respective systems. The expert covered different installation methods, including using package managers or standalone installers. They also discussed the configuration settings required to connect MongoDB Compass to a local or remote MongoDB instance.



The expert demonstrated how to explore data using MongoDB Compass. Participants learned how to navigate through databases and collections, view document structures, and inspect individual documents. The expert also showcased techniques for filtering and sorting data within the data viewer.

Analyzing Data: The session then shifted to analyzing data using MongoDB Compass. The expert introduced the aggregation pipeline builder, which allows users to perform advanced data transformations and calculations. Participants learned how to construct aggregation pipelines, apply various stages like \$match, \$group, and \$project, and visualize the results. **Security Features:** Towards the end of the session, the expert discussed security features in MongoDB Compass. Participants learned about user authentication, role-based access control, and data encryption options. The expert emphasized the importance of implementing proper security measures to protect sensitive data stored in MongoDB.

Assignment: At the end of the session, the expert assigned a practical exercise to implement the concepts learned. Participants were tasked with importing a sample dataset into MongoDB using MongoDB Compass. They were then required to perform various queries, aggregations, and data analysis tasks using the GUI tools.

DAY-10

(25.APRIL.2024)

The tenth day of the workshop was dedicated to a practical project that combined the knowledge of Node.js and MongoDB with front-end web development using HTML and CSS. The main goal was to create a registration form and establish connectivity with a database. The expert started by guiding participants through the process of setting up a new Node.js project. This involved creating the necessary project structure, installing required dependencies, and configuring the project environment.

Registration Form Design

Participants learned how to design a registration form using HTML and CSS. The expert demonstrated the creation of input fields for name, email, and a submit button. Throughout the process, they emphasized the importance of semantic HTML and best practices for structuring web pages.

HTML and CSS Properties

While working on the form design, the expert covered various important properties of HTML and CSS:

- ❖ **Relative Units:** Participants learned about relative units in CSS, such as em and rem, which are useful for creating responsive and scalable layouts.
- ❖ **Absolute Units:** The expert explained absolute units like px and their use cases, highlighting the importance of considering different screen sizes and resolutions.
- ❖ **Position Properties:** Participants explored CSS position properties like static, relative, absolute, fixed, and sticky. The expert demonstrated how to position elements precisely on a web page using these properties.
- ❖ **Display Properties:** The session covered the different display properties in CSS, including block, inline, inline-block, and flex. Participants learned how these properties affect the layout and behavior of HTML elements.

Form Validation and Error Handling

The expert emphasized the importance of form validation and error handling. Participants learned how to implement client-side and server-side validation to ensure data integrity and provide a better user experience.

The expert assigned a practical exercise to reinforce the concepts learned. Participants were tasked with enhancing the registration form by adding additional fields, implementing more advanced form validation rules, and incorporating responsive design principles using CSS media queries. The workshop concluded with a Q&A session, allowing participants to address any remaining doubts or concerns regarding the project, front-end development with HTML and CSS, and database connectivity using Node.js and MongoDB. CopyRetry.

DAY-11

(26.APRIL.2024)

The eleventh day of the workshop delved into the world of JavaScript, a essential programming language for web development. The expert introduced the fundamentals of JavaScript and its integration with HTML pages. The session began with an introduction to JavaScript, highlighting its importance as a client-side scripting language for adding interactivity and dynamic behavior to web pages. The expert covered the basics of JavaScript syntax, data types, variables, operators, and control structures. Participants learned how to incorporate JavaScript into HTML pages using various methods, such as inline scripts, internal scripts, and external script files. The expert demonstrated the use of a code editor to write and manage JavaScript code, emphasizing the importance of code organization and readability.

DOM Manipulation: The expert introduced the Document Object Model (DOM), which represents the structure of a web page and allows JavaScript to access and manipulate its elements. Participants learned how to select and modify HTML elements using DOM methods and properties, enabling them to create dynamic and interactive web pages.

Arrays: The session covered arrays in JavaScript, which are data structures used to store and manipulate collections of values. The expert explained array declaration, indexing, and various array methods like `push`, `pop`, `shift`, `unshift`, `concat`, `slice`, and `splice`. Participants practiced working with arrays through hands-on exercises and examples.

Arrays of Objects: Building upon the understanding of arrays, the expert introduced arrays of objects, a powerful concept in JavaScript. Participants learned how to create and manipulate arrays containing objects, enabling them to work with complex data structures. The expert demonstrated techniques for accessing and modifying object properties within arrays, as well as performing common operations like filtering, mapping, and sorting.

Hands-on Practice: Throughout the session, the expert provided numerous coding examples and encouraged participants to follow along, allowing them to gain practical experience in writing JavaScript code. Participants had the opportunity to practice implementing JavaScript on HTML pages, manipulating the DOM, working with arrays, and handling arrays of objects.

At the end of today's session participants were tasked with creating a simple web application that utilized JavaScript for dynamic content manipulation. The assignment involved working with arrays, arrays of objects, and DOM manipulation to build interactive user interfaces and display data dynamically on the web page. The workshop concluded with a Q&A session, allowing participants to address any remaining doubts or concerns regarding JavaScript fundamentals, DOM manipulation, arrays, and arrays of objects.

DAY-12

(27.APRIL.2024)

The twelfth day of the workshop delved deeper into JavaScript programming, emphasizing the development of logical thinking and problem-solving skills. The expert introduced the process of analyzing problems and translating them into code using various programming concepts and techniques.

Logic Development Process: The session began with an introduction to the logic development process, which involves breaking down complex problems into smaller, manageable steps.

Problem Analysis: Participants learned how to analyze problems effectively, breaking them down into their core components and identifying the necessary data structures and algorithms.

Even/Odd Numbers: The expert introduced a simple problem related to determining whether a given number is even or odd. Participants learned how to implement the logic using conditional statements and modulus operators in JavaScript.

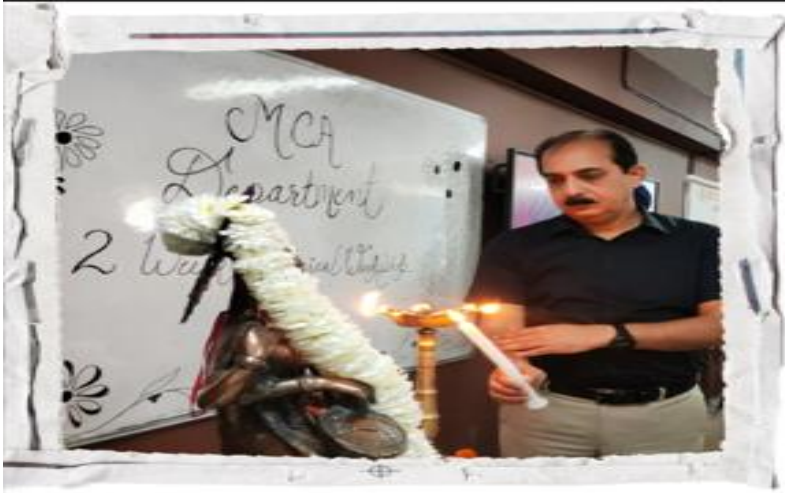
Reverse Numbers: Another problem presented to the participants involved reversing the digits of a given number. **Palindrome:** The concept of palindromes was introduced, where participants learned how to write a program to check if a given string or number is a palindrome (reads the same forwards and backwards).

Events: The session covered events in JavaScript, which are essential for creating interactive and responsive web applications. Participants learned about different types of events, such as click events, keypress events, and form events. The expert demonstrated how to attach event listeners and write event handler functions to respond to user interactions.

Hands-on Practice: Throughout the session, the expert provided hands-on exercises and coding challenges to reinforce the concepts learned. Participants had the opportunity to practice their problem-solving skills, write JavaScript code to solve various problems, and implement the learned concepts in practical scenarios.

At the end of the session, the expert assigned a practical exercise to further solidify the participants' understanding of logic development processes and programming concepts in JavaScript. The assignment included a set of problems that required participants to analyze the problem statements, develop logical solutions, and implement them using JavaScript code. The workshop concluded with a Q&A session, allowing participants to address any remaining doubts or concerns regarding logic development processes, problem analysis, programming concepts, and their applications in JavaScript.

Inaugural Ceremony



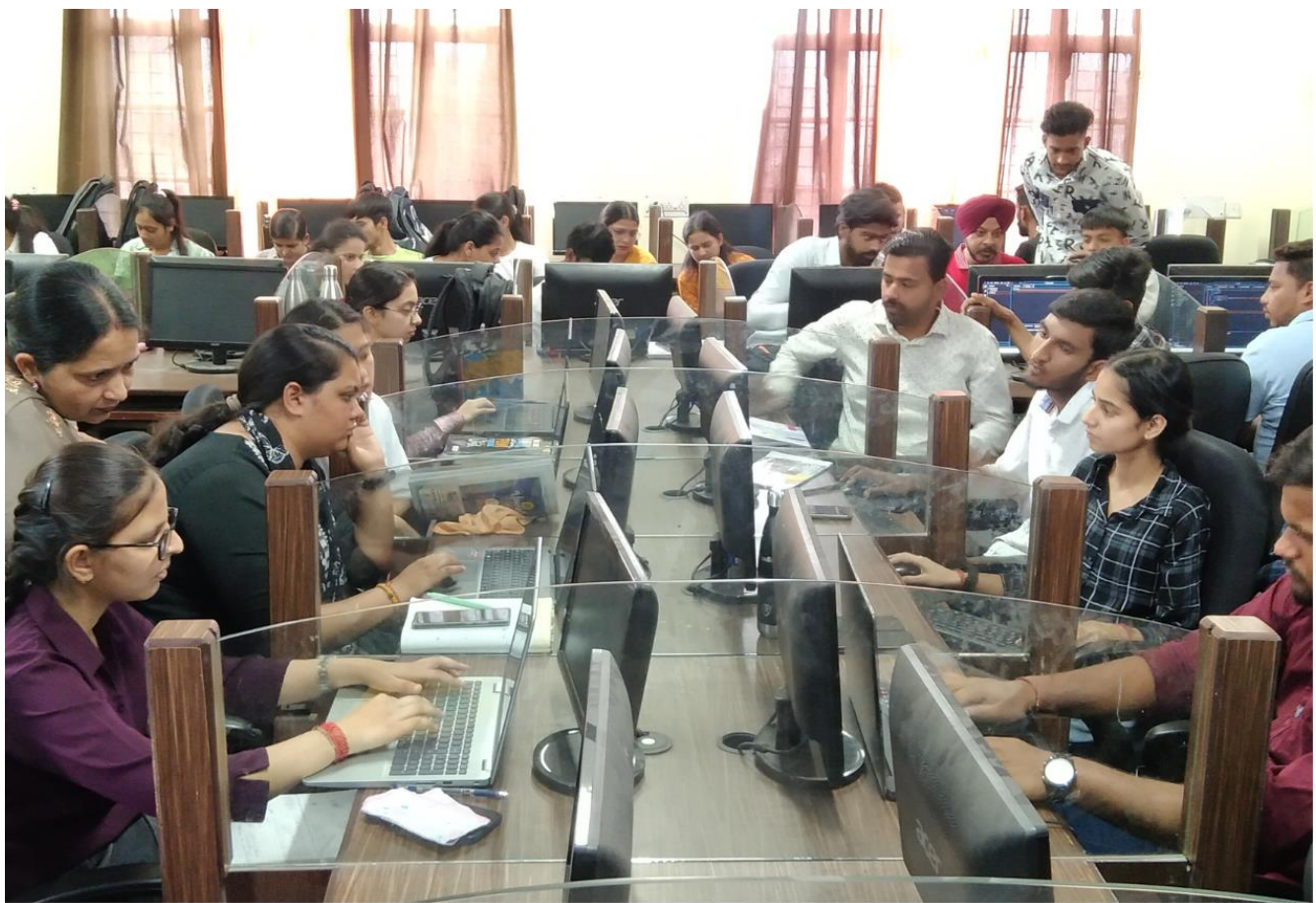
Lamp Lightning
and
Inaugural Ceremony



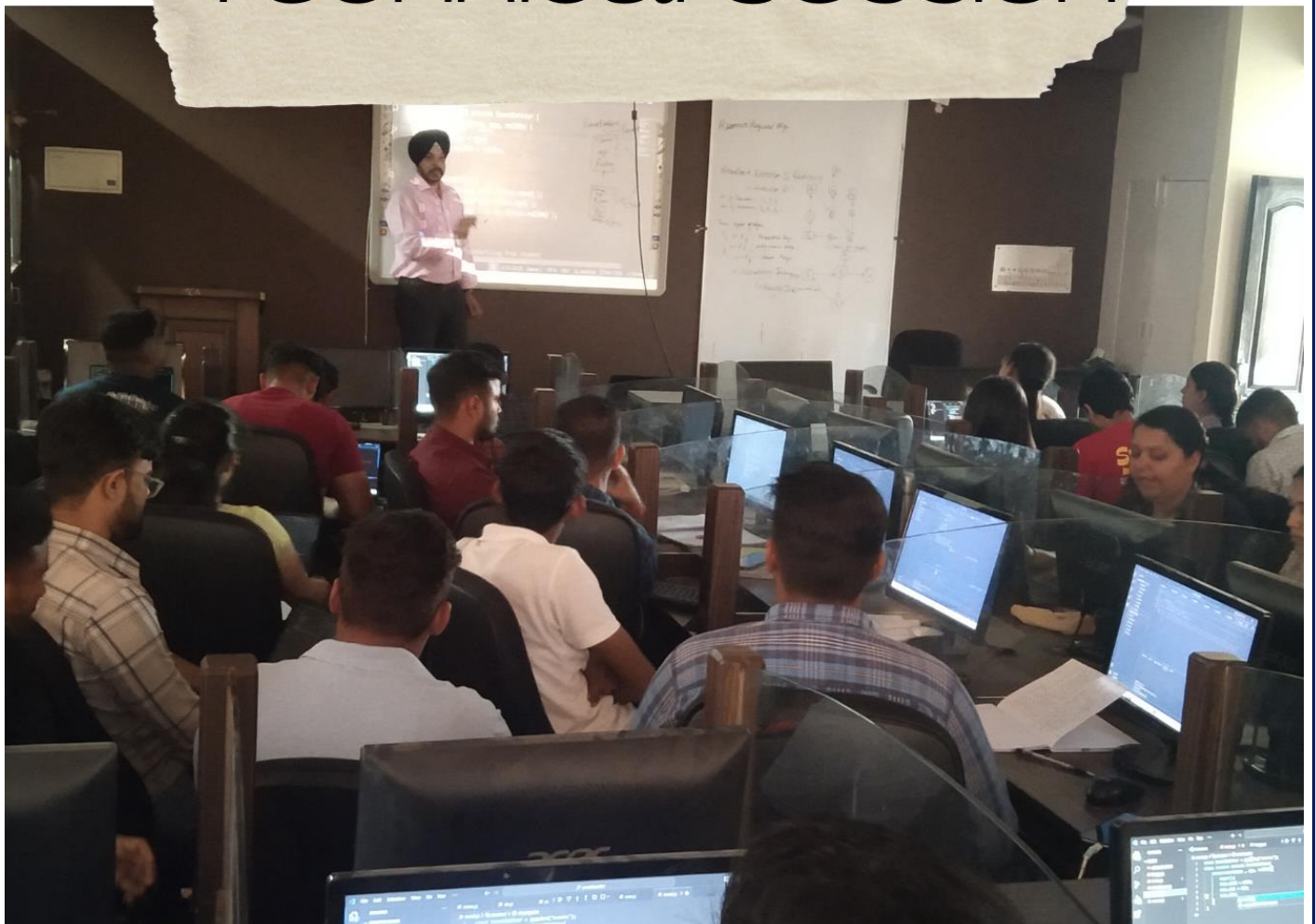


Inaugural ceremony





Technical Session



ऊना कालेज में एम.सी.ए. विभाग के लिए 15 दिवसीय टेक्नीकल वर्कशॉप शुरू

ऊना, 8 अप्रैल (सुरेन्द्र): राजकीय महाविद्यालय ऊना के एम.सी.ए. विभाग में होने जा रही 15 दिवसीय टेक्नीकल वर्कशॉप का उद्घाटन किया गया। इस उपलक्ष्य पर प्राचार्या डा. मीता शर्मा ने बतौर मुख्यातिथि शिरकत की और वर्कशॉप का उद्घाटन किया। विभाग के को-ऑर्डिनेटर प्रो. पुनीत प्रेम कँवर ने बताया कि इस वर्कशॉप का आयोजन एम.सी.ए. विभाग के दूसरे सेमेस्टर के विद्यार्थियों के लिए किया गया है। वाइज टेक्नो के एम.डी. डा. जसप्रीत सिंह ने विद्यार्थियों को नोड जे.एस. और मॉगो डी.बी. बैंक एंड डिवेलपमेंट से अवगत करवाया।

इस वर्कशॉप को 2 चरणों में आयोजित किया जा रहा है, जिसमें विद्यार्थियों को जावा स्क्रिप्ट लाइब्रेरीज, डाटाबेसिस विद नोड जे.एस., डाटा बेसिस विद मॉगो डी.बी., फ्रेमवर्क डिवेलपमेंट के बारे में सिखाया जाएगा। इस टेक्नोलॉजी को सीखकर विद्यार्थी विभिन्न क्षेत्रों में अपना करियर बना सकते हैं। इस अवसर पर विभाग के को-ऑर्डिनेटर प्रो. पुनीत प्रेम कँवर, प्रो. शशि कँवर, डा. सुरेश कुमार, एम.सी. विभाग की प्रो. उपासना शर्मा, प्रो. लव जसवाल, प्रो. रजनी कौशल, प्रो. मानव ठाकुर व प्रो. तनु शर्मा उपस्थित रहे।



ऊना : गवर्नमेंट कालेज ऊना में एम.सी.ए. विभाग द्वारा आयोजित वर्कशॉप के दौरान प्राचार्या डा. मीता शर्मा के साथ स्टाफ व विद्यार्थी सामूहिक चित्र में। (विनोद)

CS Scanned with CamScanner

महाविद्यालय ऊना के एम सी ए विभाग में पंद्रह दिवसीय टेक्नीकल वर्कशॉप का उद्घाटन किया गया

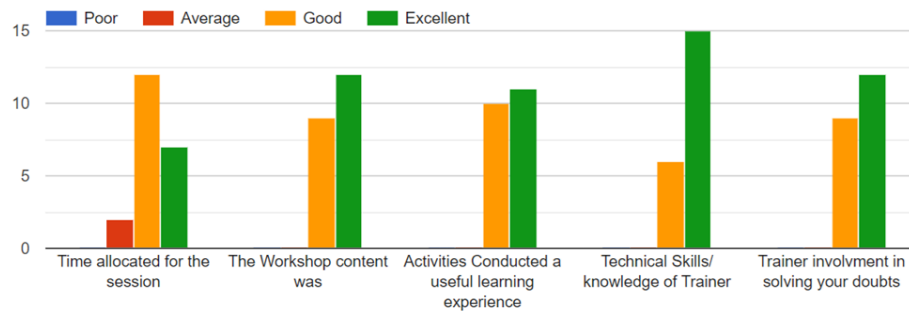
सचिन, ऊना, राजकीय महाविद्यालय ऊना के एम सी ए विभाग में होने जा रही पंद्रह दिवसीय टेक्नीकल वर्कशॉप का उद्घाटन अवसर पर प्राचार्या डॉ मीता शर्मा ने बतौर मुख्य अतिथि शिरकत की और अपने कर कमलों से इस वर्कशॉप का उद्घाटन किया। विभाग के कोऑर्डिनेटर प्रो पुनीत प्रेम कँवर ने बताया कि इस वर्कशॉप का आयोजन एम सी ए विभाग के दूसरे सेमेस्टर के विद्यार्थियों के लिए किया गया है। वाइज टेक्नो के एम डी डॉ जसप्रीत सिंह ने विद्यार्थियों को "नोड जे इस और मॉगो डी बी" बैंक एंड डेवलपमेंट से अवगत कराया। इस वर्कशॉप को दो चरणों में आयोजित किया जा रहा है जिसमें विद्यार्थियों को जावा स्क्रिप्ट लाइब्रेरीज, डाटाबेसिस विद नोड जे एस, डाटा बेसिस विद मॉगो डी बी, फ्रेमवर्क डेवलपमेंट के बारे में सिखाया जाएगा। इस टेक्नोलॉजी को सीखकर विद्यार्थी विभिन्न क्षेत्रों में अपना करियर बना सकते हैं जैसे कि फुल स्टैक डेवलपर , डेवोपस इंजिनीर्स, कालिटी ऐशोरेन्स टेस्टर , फ्रीलांसर्स इत्यादि।

इस उपलक्ष्य पर कॉलेज प्राचार्या डॉ मीता शर्मा, विभाग के कोऑर्डिनेटर प्रो पुनीत प्रेम कँवर, प्रो शशि कँवर , डॉ सुरेश कुमार , एम सी विभाग के प्रो उपासना शर्मा, प्रो लव जसवाल , प्रो रजनी कौशल , प्रो मानव ठाकुर , प्रो तनु शर्मा उपस्थित रहे।



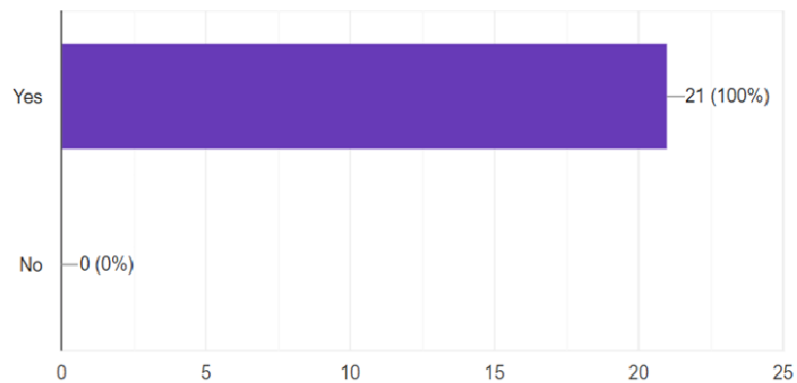
STUDENT'S FEEDBACK

Please rate according to the following in the rating column *



Are the lectures Interesting ?

21 responses



Are you satisfied with workshop

21 responses

