



“Techno-Social Excellence”

Marathwada Mitramandal's Institute of Technology

Lohgaon, Pune-411047

Accredited with 'A' Grade by NAAC

“Excellence in the field of AI & DS”

Department of Artificial Intelligence & Data Science

(Academic Year 2024-25)

Add-on Course

On

Cloud-Ready Basic Full Stack Development

Held on

20th March 2025 to 25th April 2025

Coordinator

Dr. Shrikant Dhamdhare

HOD

Dr. Jyoti Y. Deshmukh

Add-on Course Details

Topic: Cloud-Ready Basic Full Stack Development

Attendee: 65 Students (SE , TE & BE AI & DS)

Organized By: Department of Artificial Intelligence & Data Science, MMIT, Lohgaon-411 047

Date: 20th March 2025 to 25th April 2025

Total Course Hours: 45 Hrs.

Mode of conduction: Offline

Course Conducted By:

Name: Dr. Jyoti Y. Deshmukh

Designation: HOD, AI & DS Department, MMIT, Pune.

Name: Mr. Nisar S. Shaikh

Designation: Assistant Professor, AI & DS Department, MMIT, Pune.

Name: Mrs. Rucha A. Agrawal

Designation: Assistant Professor, AI & DS Department, MMIT, Pune.

Name: Mr. Swapnil M. Gagare

Designation: Assistant Professor, AI & DS Department, MMIT, Pune.

Name: Mrs. Vidya Kadam

Designation: Assistant Professor, AI & DS Department, MMIT, Pune.

Name: Mrs. Aparna Lahane

Designation: Assistant Professor, AI & DS Department, MMIT, Pune.

Name: Dr. Kiran Gaikwad

Designation: Associate Professor, Computer Department, MMIT, Pune.

Name: Dr. Babaso Shinde

Designation: Associate Professor, Computer Department, MMIT, Pune.

Name: Dr. Shrikant Dhamdhare

Designation: Associate Professor, Computer Department, MMIT, Pune.

Name: Mrs. Jyoti Nawade

Designation: Assistant Professor, AI & DS Department, MMIT, Pune.

Name: Mrs. Savitri Mane

Designation: Assistant Professor, AI & DS Department, MMIT, Pune.

Objectives of Add-on Course

The objective of the "Cloud-Ready Basic Full Stack Development" add-on course is to teach students how to build and deploy full-stack applications in cloud environments. It covers front-end and back-end development, cloud technologies and cloud deployment, enabling learners to create efficient, secure, and scalable cloud-based applications.

Introduction:

Welcome to the Cloud-Ready Basic Full Stack Development course! This course will teach you how to build complete web applications using both front-end (HTML, CSS, JavaScript), back-end (PHP, MySQL) technologies and cloud services.

By the end of this course, you will be able to:

- Create websites with structured content using HTML.
- Style your pages and make them responsive with CSS.
- Add interactivity with JavaScript.
- Handle server-side logic and data with PHP.
- Store and manage data using MySQL databases.
- Cloud Services

Module-I: HTML, CSS Basics

Conducted by Ms. Jyoti Nawade & Ms.Savitri Mane

Duration: 20/03/2025 To 25/03/2025 (10 hrs)

Following topics are covered in the Module-I:

- Introduction to HTML, structure of a webpage
- Basic tags: headings, paragraphs, lists, links, and images
- Forms: <form>, <input>, <textarea>, <button>
- Semantic HTML elements: <header>, <footer>, <article>, etc.
- Hands-on: Create a basic webpage with headings, paragraphs, and images.
- Styling with CSS: selectors, properties, and values
- Box model (margin, padding, border, content)
- Positioning and Flexbox layout
- Responsive design with media queries
- Hands-on: Style the webpage created earlier and make it responsive.

Module-II: JavaScript Basics

Conducted by: Dr. Shrikant Dhamdhere & Mr. Swapnil Gagare.

Duration: 26/03/2025 To 29/03/2025 (9 hrs)

Following topics are covered in the Module-II

- Variables, data types, and operators
- Conditionals (if, else, switch)
- Loops (for, while)
- Functions and arrow functions
- Hands-on: Write small JavaScript programs to manipulate HTML elements (e.g., a form validation).
- Accessing DOM elements (getElementById, querySelector)
- Manipulating content, styles, and attributes
- Handling events (click, submit, etc.)
- Hands-on: Add interactive elements like buttons and form inputs that trigger JavaScript events.

Module-III: Back-End Development (PHP)

Conducted by: Mr.Nisar Shaikh & Mrs. Aparna Lahane

Duration: 31/03/2025 To 09/04/2025 (8 hrs)

Following topics are covered in the Module-III

- PHP syntax and embedding PHP in HTML
- Variables, data types, and basic operators in PHP
- PHP functions and conditionals
- Hands-on: Write a simple PHP script to output data and perform basic calculations.
- Collecting form data using \$_POST and \$_GET
- Validating and sanitizing user inputs
- Displaying form data with PHP
- Hands-on: Create a simple contact form and process the data in PHP

Module-IV: Back-End Development (MySQL)

Conducted by: Mrs. Rucha Agrawal & Mrs.Vidya Kadam

Duration: 10/04/2025 To 12/04/2025 (8 hrs)

Following topics are covered in the Module-IV

- What is MySQL and relational databases?
- Setting up a MySQL database with phpMyAdmin

- Creating tables, inserting data, and basic queries (SELECT, INSERT)
- Hands-on: Set up a MySQL database and create a table for storing users or tasks.
- Connecting PHP to MySQL using mysqli_connect()
- Running queries and fetching results
- Displaying data from MySQL in HTML
- Hands-on: Display data from the MySQL database on a webpage (e.g., user list or task list).

Module-V: Integrating Cloud Services and Final Project

Conducted by: Dr. Babaso Shinde, Dr. Kiran Gaikwad and Dr. Jyoti Deshmukh

Duration: 23/10/2023 To 31/10/2023 (10 hrs)

Following topics are covered in the Module-IV

- Overview of cloud platforms (AWS, Google Cloud, Azure)
- Introduction to cloud databases (e.g., AWS RDS, Firebase)
- Deploying applications to the cloud
- Hosting front-end on a platform (e.g., Netlify, Vercel)
- Deploying the back-end on a cloud server (e.g., AWS EC2, Heroku)
- Setting up environment variables for cloud environments
- Using cloud storage services (e.g., AWS S3)
- Create a full-stack application integrating front-end, back-end, and cloud services
- Implement a simple user authentication system (login, registration)
- Database interaction and cloud deployment

Program Outcomes:

After completion of this Add-on course, Learner

- Understand and apply core concepts of front-end and back-end web development.
- Develop responsive and interactive web applications using modern frameworks and tools.
- Integrate and manage databases within full stack applications.
- Deploy web applications on cloud platforms with basic DevOps practices.
- Demonstrate problem-solving and debugging skills in full stack projects.
- Work collaboratively using version control and project management tools.

Session photos



Social Media Links:

Facebook: https://www.facebook.com/mmit.lohgaon.9/posts/1824142331480984?ref=embed_post

X: https://twitter.com/MMIT_Lohgaon/status/1922544489886863658

LinkedIn: https://www.linkedin.com/posts/mmit-lohgaon-b45855154_thecloud-ready-basic-full-stack-development-activity-7328315435081220097-pRur?utm_source=share&utm_medium=member_desktop&rcm=ACoAACUIHSUBfTyff4TDPv4JJh7srdBVa-3Kwqo

Coordinator

Dr.Shrikant Dhamdhare

HOD

Dr. Jyoti Y. Deshmukh