



Report on Mastering AI Tools & Techniques for Real-World Applications

Introduction

The two-day hands-on workshop, "Mastering AI Tools & Techniques for Real-World Applications," was organized by the Department of Information Science and Engineering at RV Institute of Technology and Management (RVITM) on March 21st - 22nd, 2025.

The workshop aimed to provide participants with a practical understanding of AI-powered tools and technologies, covering areas such as low-code development, AI chatbot building, stock price prediction, version control, cloud deployment, and AI applications in game development. Conducted by industry expert Mr. Vijay Kumar Gowda from ClassVerse, the sessions were interactive and hands-on, ensuring that attendees could implement their learnings in real-world projects.

Through this workshop, students gained insights into modern AI techniques, best industry practices, and deployment strategies, enabling them to develop AI-driven applications efficiently.

Objective of the Workshop:

The primary objective of the two-day hands-on workshop on "Mastering AI Tools & Techniques for Real-World Applications" was to equip participants with practical knowledge and skills in AI-driven development. The workshop focused on bridging the gap between theoretical concepts and real-world applications by providing hands-on experience with various AI tools and technologies.

Key Objectives:

- To introduce low-code/no-code development for rapid AI application prototyping.
- To provide insights into conversational AI chatbot development using modern frameworks.
- To enable participants to build a stock price prediction system using AI techniques.

- To familiarize attendees with version control using GitHub for collaborative development.
- To demonstrate hosting and deployment of AI applications using Vercel.
- To explore AI applications in game development and their real-world implementation.
- To guide students in resume and portfolio creation to showcase their AI projects effectively.

Day 1:21.03.2025

9.00am to 4.00pm

Topics covered in the session:

The first day of the workshop focused on **introducing AI-driven development** and providing hands-on experience with various tools and techniques. The sessions were interactive and allowed participants to implement real-world applications.

1. Low-Code / No-Code Development

- Introduction to **low-code and no-code platforms** for AI application development.
- Exploring **tools like Loveable, Supabase, Slack**.
- Hands-on session on **building AI applications without extensive coding**.

2. Conversational AI Chatbot Building

- Understanding the fundamentals of **AI-powered chatbots**.
- Introduction to **Natural Language Processing (NLP) and chatbot frameworks**.
- Developing a simple **AI chatbot using chatbase and integrating it with a website**.

3. Stock Price Prediction System Development

- Overview of **machine learning models for stock market prediction**.
- Understanding **time-series forecasting techniques**.
- Implementing a **basic stock price prediction system using Python and AI models**.

4. Resume and Portfolio Creation

- Importance of an **AI-focused resume and portfolio**.
- Tips on structuring resumes for **AI and software development roles**.
- Hands-on session on **creating an online portfolio using GitHub Page**.

Each session was designed to give participants practical experience, enabling them to apply AI techniques to real-world problems.

Day 2: 22.03.2025

9.00 am to 2.00 pm

Topics covered in the session:

The second day of the workshop focused on AI development best practices, version control, cloud deployment, and AI applications in game development. Participants gained hands-on experience in using GitHub, Vercel, and AI tools for game development.

1. Version Control with GitHub

- Introduction to Git and GitHub for managing AI projects.
- Understanding repositories, branches, commits, and pull requests.
- Hands-on session on collaborating using Git and pushing AI projects to GitHub.

2. Hosting and Deployment on Vercel

- Overview of cloud deployment for AI applications.
- Step-by-step guide to deploying AI-based projects using Vercel.
- Hands-on session on hosting AI-powered chatbots, stock prediction systems, or portfolios.

3. AI for Game Development

- Introduction to **AI in gaming** and its real-world applications.
- Understanding **game AI concepts like pathfinding, NPC behavior, and reinforcement learning.**
- Hands-on session on **building simple AI-powered game elements using Unity or Python.**

The sessions on Day 2 emphasized **project collaboration, deployment strategies, and AI's role in gaming**, providing participants with the skills needed to build and deploy AI applications effectively.



