# **Advanced Frappe & ERPNext Developer Bootcamp**

📅 **Dates**: Tuesday, May 6 – Thursday, May 8, 2025  
🕒 **Time**: 2:00 PM – 4:00 PM EAT daily  
📍 **Mode**: Live Online via Zoom  
🎯 **Focus**: Real-world ERPNext development, integrations, and business-ready automation

## **🔥 Day 1 – Frappe Framework Mastery with SIDeS**

**Theme: Extending the Core and Building for Scalability**

**2:00 PM – 2:10 PM** 🔹 Welcome & Orientation

* Bootcamp goals and outcomes
* Environment setup: Bench, Git, VS Code, Frappe
* Quick Q&A and readiness check

**2:10 PM – 3:00 PM** 🔹 Backend Development and Workflow Integration

* Create custom Doctypes: Stock Request and Requested Items
* Field design, child tables, and custom series
* Server-side scripting: validate, autoname, on\_workflow\_action
* Setup role-based permissions: Stock User vs Inventory Manager
* Configure workflow:  
   **Draft ➝ Pending Approval ➝ Approved ➝ Delivered ➝ Closed**
* Trigger logic to create:
  + **Material Request** when approved
  + **Stock Entry** when delivered
* Linking and traceability via custom fields

**3:00 PM – 3:10 PM** 🔹 Short Break

**3:10 PM – 4:00 PM** 🔹 Client-Side Scripting with Frappe JS

* Use of frappe.ui.form.on to manage dynamic form behavior
* Auto-fill item\_name, lock qty after approval
* Show/hide fields and trigger logic based on workflow state
* Using frappe.db.get\_value, Promises, and dialogs
* Hands-on: Interactive item request form with guided UX
* Q&A + recap

## **🚀 Day 2 – Live Integrations and External Connectivity**

**Theme: Connecting ERPNext with the Outside World**

**2:00 PM – 2:50 PM** 🔹 Live Coding: WordPress ➝ ERPNext Integration

* How WordPress form plugins work (e.g., Contact Form 7, WPForms)
* Create a simple plugin to send form data to ERPNext
* ERPNext endpoint using @frappe.whitelist
* Real-time test: Submit WordPress form ➝ create Stock Request

**2:50 PM – 3:00 PM** 🔹 Short Break

**3:00 PM – 4:00 PM** 🔹 QR Code Delivery Verification (External API Integration)

* Generate dynamic QR codes using [api.qrserver.com](https://api.qrserver.com/v1/create-qr-code)
* Structure the verification URL (e.g., /verify?dn=MAT-DN-2025-00004)
* Save the QR image URL in a custom field (qr\_code\_url) on the Delivery Note
* Embed the QR image in print formats using a URL-based image field
* Discuss use cases in logistics, field delivery, and proof-of-receipt workflows

## **💼 Day 3 – Reporting, Dashboards & Capstone Project**

**Theme: From Developer to Solution Architect**

**2:00 PM – 2:50 PM** 🔹 Advanced Reporting and Dashboards

* Create a script report: Stock Request Status Report
* Use filters, joins, and summarization in Python
* Build KPI cards: Pending Approvals, Delivered This Month

**2:50 PM – 3:00 PM** 🔹 Short Break

**3:00 PM – 3:45 PM** 🔹 Real-World ERPNext Development Practices

* Debugging production issues
* Managing migrations, fixtures
* Git best practices

**3:45 PM – 4:00 PM** 🔹 Capstone Project Introduction

🎯 **Challenge**: QR Code Attendance Check-In App

* Web interface with a live QR code that updates every 5 minutes
* Users check in via mobile scanner
* ERPNext stores logs with user and timestamp
* Include validation, time window logic, and security
* **Submission deadline**: within 1 month
* Ongoing feedback and support from instructors