

# Software Requirements Specification (SRS)

## Core Creator – Art & Craft eLearning & Artwork Marketplace

### 1. Introduction

This document defines the technical and functional requirements for Core Creator, a global, multi-tenant, multi-vendor platform combining eLearning and eCommerce for artists, educators, and art learners.

### 2. System Overview

Core Creator is built using a headless, API-first microservices architecture. Frontend and backend are decoupled to support scalability, performance, and global deployment.

### 3. User Roles

Roles include Guest, Learner, Buyer, Artist/Instructor, Vendor, Admin, and Super Admin.

### 4. Architecture & Technology Stack

Frontend: React.js, Next.js. Backend: Node.js microservices. Database: MongoDB. Infrastructure: Docker, Kubernetes, Cloud-native deployment.

### 5. Marketplace Functional Requirements

Includes product management, cart & checkout, multi-vendor order management, returns, refunds, and tax-compliant invoicing.

### 6. LMS Functional Requirements

Supports recorded courses, live classes, offline workshops, hybrid learning, course bundles, progress tracking, certificates, and instructor revenue management.

### 7. Offline Workshop Management

Includes venue management, seat allocation, QR-based attendance, material kits, and post-event feedback.

### 8. Search, AI & Personalization

AI-powered search, recommendations, skill prediction, personalized learning paths, and optional AI art feedback systems.

### 9. Admin & Back Office

RBAC-based admin panel with user management, content moderation, financial reporting, campaign controls, audit logs, and workflow automation.

### 10. Integrations

Payment gateways, streaming platforms, CRM, accounting software, logistics APIs, and external marketplaces.

### 11. Non-Functional Requirements

Performance targets, scalability, security compliance (PCI-DSS, GDPR, DPDP), high availability, and disaster recovery.

## 12. DevOps & Deployment

CI/CD pipelines, blue-green deployments, monitoring, logging, rollback mechanisms, and SLA-based uptime management.

## 13. Database Overview

Core collections include Users, Products, Orders, Courses, Enrollments, Payments, Reviews, Notifications, and Analytics.

## 14. Assumptions & Constraints

Cloud-native environment, global user base, regulatory compliance, and content moderation requirements.

## 15. Future Enhancements

Mobile apps, AR/VR previews, AI-driven insights, and blockchain-based authenticity verification.