

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.