

# DSPACE Automation Desk Training

*COURSE CONTENT*

## GET IN TOUCH



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## About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

## About Course

DSpace Automation Desk Training by Multisoft Systems is designed to equip professionals with the skills required to manage, automate, and optimize digital repositories using DSpace. This training provides a comprehensive understanding of DSpace architecture, installation, configuration, and customization, enabling learners to efficiently handle digital assets and institutional repositories.

## Module 1: Introduction to DSpace & Automation

- ✓ Overview of DSpace
- ✓ Digital repository concepts
- ✓ Communities, Collections, Items structure
- ✓ Repository lifecycle
- ✓ Introduction to automation desk
- ✓ Manual vs automated processes
- ✓ Use cases of automation

## Module 2: Installation & Environment Setup

- ✓ System requirements (Java, PostgreSQL, Tomcat)
- ✓ DSpace installation (Linux/Windows)
- ✓ Configuration files (dspace.cfg)
- ✓ Database setup
- ✓ Server deployment
- ✓ Environment configuration

## Module 3: Workflow Automation

- ✓ Default DSpace workflows
- ✓ Submission & approval process
- ✓ Custom workflow configuration
- ✓ Role-based task assignment
- ✓ Email notification automation
- ✓ Workflow optimization techniques

## Module 4: Metadata Automation & Bulk Processing

- ✓ Dublin Core metadata schema
- ✓ Metadata customization
- ✓ Bulk import (CSV/XML)

- ✓ Metadata mapping
- ✓ Authority control
- ✓ Batch editing tools
- ✓ Validation rules

## **Module 5: Scripting & Task Automation**

- ✓ Shell scripting basics (Bash)
- ✓ Cron job scheduling
- ✓ Python scripting basics
- ✓ Task automation scripts
- ✓ Backup automation
- ✓ Log monitoring

## **Module 6: Integration & API Automation**

- ✓ REST API fundamentals
- ✓ API integration in DSpace
- ✓ OAI-PMH protocol
- ✓ Metadata harvesting
- ✓ Integration with LMS/ERP systems
- ✓ API testing (Postman)
- ✓ Data synchronization

## **Module 7: Search & Index Automation (Solr)**

- ✓ Introduction to Apache Solr
- ✓ Search indexing
- ✓ Auto-indexing processes
- ✓ Faceted search configuration
- ✓ Search filters & browsing
- ✓ Performance tuning
- ✓ Re-indexing strategies

## Module 8: Security & Access Automation

- ✓ Authentication methods (LDAP, Shibboleth)
- ✓ Authorization policies
- ✓ Role-based access control
- ✓ Permission management
- ✓ Security policies
- ✓ Audit logs & monitoring

## Module 9: Backup, Recovery & Maintenance Automation

- ✓ Database backup automation
- ✓ File system backup
- ✓ Disaster recovery planning
- ✓ System monitoring tools
- ✓ Maintenance scheduling
- ✓ Performance optimization

## Module 10: Reporting & Analytics Automation

- ✓ Usage statistics
- ✓ Google Analytics integration
- ✓ Custom report generation
- ✓ Dashboard creation
- ✓ KPI tracking
- ✓ Automated report scheduling

## Module 11: DevOps & Cloud Automation

- ✓ Introduction to DevOps
- ✓ Docker containerization
- ✓ CI/CD pipeline basics
- ✓ Cloud deployment (AWS/Azure)

- ✓ Infrastructure automation
- ✓ Scaling & performance tuning