Activity List

Activity List

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Description: PMBOK Activity List

Activity List

Project: ADPA - Advanced Document Processing & Automation Framework
Version: 3.2.0
Prepared by: Project Management Team
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Document Overview

This Activity List decomposes the principal work packages for the ADPA project into specific, actionable activities. Each activity is measurable, assignable, and supports project objectives—including modular, standards-compliant automation, enterprise integration, AI-powered document generation, and compliance with frameworks (BABOK v3, PMBOK 7th Edition, DMBOK 2.0).
This list is derived from the Work Breakdown Structure (WBS) and provides the foundation for schedule planning, resource assignment, and progress tracking.

- **Relationship to WBS:**
  Activities are mapped to WBS work packages by phase and deliverable.
- **Identification Methodology:**
  Activities are defined by reviewing functional modules, integration points, compliance requirements, and roadmap milestones.

Activity Definitions

Project Phase: Core Framework Development

Work Package: WBS-1.1 - AI Provider Integration

Activity ID: ACT-001
Activity Name: Implement OpenAI Integration
Description: Develop connectors and authentication for OpenAI GPT-4/3.5 APIs, configure failover logic.
Deliverable: Working module in `src/modules/ai/openai.ts` with tested API calls
Effort Estimate: 24 hours
Skills Required: TypeScript, Node.js, OpenAI API, OAuth
Constraints: API key management, rate limits
Assumptions: OpenAI account access available

Activity ID: ACT-002
Activity Name: Implement Google AI Integration
Description: Integrate Gemini Pro APIs, configure authentication, and ensure parity with OpenAI connector.
Deliverable: Module in `src/modules/ai/google.ts`
Effort Estimate: 20 hours
Skills Required: TypeScript, Node.js, Google AI API
Constraints: Provider quotas
Assumptions: Google developer access granted

Activity ID: ACT-003
Activity Name: Implement Provider Choice Menu
Description: Build interactive CLI menu for AI provider selection; auto-update `.env` as needed.
Deliverable: Menu in CLI interface, configuration update logic
Effort Estimate: 12 hours
Skills Required: Node.js, CLI development
Constraints: Backward compatibility
Assumptions: Providers already integrated

Work Package: WBS-1.2 - Context & Template Management

Activity ID: ACT-004
Activity Name: Design Context Injection System
Description: Develop logic for injecting project context into AI prompts across providers.
Deliverable: Utility in `src/modules/context/`
Effort Estimate: 16 hours
Skills Required: TypeScript, AI prompt engineering
Constraints: Provider token limits
Assumptions: Context data structures defined

Activity ID: ACT-005
Activity Name: Develop Template Management API
Description: REST API endpoints for CRUD operations on document templates.
Deliverable: Routes in `src/modules/documentTemplates/`, OpenAPI spec
Effort Estimate: 16 hours

Skills Required: Express.js, TypeSpec, OpenAPI
Constraints: Auth required
Assumptions: Basic API server operational

Work Package: WBS-1.3 - Document Generation Engine

Activity ID: ACT-006
Activity Name: Implement Template-Based Generator
Description: Engine for converting templates + data into documents (Markdown, PDF, DOCX).
Deliverable: Core engine in `src/modules/documentGenerator/`
Effort Estimate: 32 hours
Skills Required: TypeScript, templating, Puppeteer
Constraints: Output formats
Assumptions: Templates available

Activity ID: ACT-007
Activity Name: Integrate Adobe PDF Services
Description: Use `@adobe/pdfservices-node-sdk` for premium PDF output.
Deliverable: Integration module, sample output
Effort Estimate: 20 hours
Skills Required: Node.js, Adobe API
Constraints: Adobe API key
Assumptions: SDK access

Project Phase: Enterprise Integration

Work Package: WBS-2.1 - Confluence Integration

Activity ID: ACT-008
Activity Name: Implement Confluence OAuth2 Authentication
Description: Setup and test OAuth2 device flow for Atlassian Confluence API.
Deliverable: Auth logic in `src/modules/confluence/oauth.ts`
Effort Estimate: 12 hours
Skills Required: OAuth2, Node.js
Constraints: Confluence admin access
Assumptions: App registration complete

Activity ID: ACT-009
Activity Name: Develop Direct Publishing to Confluence
Description: Code to publish generated docs to configured Confluence spaces.
Deliverable: CLI/API endpoint, publishing logs
Effort Estimate: 16 hours
Skills Required: TypeScript, REST API
Constraints: API quotas
Assumptions: Auth complete

Work Package: WBS-2.2 - SharePoint Integration

Activity ID: ACT-010
Activity Name: Setup SharePoint Azure App Registration
Description: Register Azure app, configure Graph API permissions, record credentials.
Deliverable: App registration, credential documentation
Effort Estimate: 8 hours
Skills Required: Azure Portal, Microsoft Graph
Constraints: Azure admin required
Assumptions: Tenant available

Activity ID: ACT-011
Activity Name: Develop SharePoint Document Uploader
Description: Implement logic to upload and tag documents in SharePoint libraries.
Deliverable: Module in `src/modules/sharepoint/`, usage guide
Effort Estimate: 16 hours
Skills Required: Node.js, Microsoft Graph, OAuth2
Constraints: Library access
Assumptions: Auth setup complete

Work Package: WBS-2.3 - Adobe Creative Suite Phase 2

Activity ID: ACT-012
Activity Name: Register Adobe Creative SDK Applications
Description: Register and configure API keys for InDesign, Illustrator, Photoshop, Document Generation.
Deliverable: SDK accounts, `.env.adobe.creative` file
Effort Estimate: 8 hours
Skills Required: Adobe Dev Console, API registration
Constraints: Adobe developer access
Assumptions: Accounts available

Activity ID: ACT-013
Activity Name: Implement Adobe API Authentication Module
Description: Build `creative-suite/authenticator.ts` for OAuth2 flow for all Adobe services.
Deliverable: Auth module, tested token retrieval
Effort Estimate: 16 hours
Skills Required: TypeScript, OAuth2, Adobe APIs
Constraints: Key security
Assumptions: Keys provisioned

Activity ID: ACT-014
Activity Name: Integrate InDesign/Illustrator/Photoshop APIs
Description: Build modules for layout, graphics, and image processing; combine for premium outputs.
Deliverable: API integration code, demo output
Effort Estimate: 32 hours
Skills Required: TypeScript, Adobe SDKs
Constraints: API quotas
Assumptions: Auth module complete

Project Phase: **Compliance & Security**

Work Package: WBS-3.1 - Security Implementation

Activity ID: ACT-015
Activity Name: Implement JWT & API Key Authentication
Description: Security middleware for JWT/API Key auth on CLI & API endpoints.
Deliverable: Middleware in `src/modules/security/` , test cases
Effort Estimate: 12 hours
Skills Required: Node.js, Auth, Security
Constraints: None
Assumptions: User directory exists

Activity ID: ACT-016
Activity Name: Apply Regulatory Compliance Checks
Description: Automate checks for GDPR, SOX, PCI DSS, etc. in doc generation and storage.
Deliverable: Compliance check modules, documentation
Effort Estimate: 20 hours
Skills Required: Legal standards, TypeScript
Constraints: Legal review
Assumptions: Standards documentation

Project Phase: **Testing & Quality Assurance**

Work Package: WBS-4.1 - Automated Testing

Activity ID: ACT-017
Activity Name: Develop Unit and Integration Test Suites
Description: Write Jest tests for all modules, ensure 90%+ coverage.
Deliverable: Test cases in `test/` , coverage reports
Effort Estimate: 24 hours
Skills Required: TypeScript, Jest
Constraints: Code coverage goal
Assumptions: Modules implemented

Activity ID: ACT-018
Activity Name: Execute Performance and Provider Failover Tests
Description: Stress test provider switching, document generation throughput, and failover logic.
Deliverable: Test reports, tuned configuration
Effort Estimate: 12 hours
Skills Required: Node.js, Performance testing
Constraints: Test environment
Assumptions: All providers configured

Project Phase: **Documentation & Training**

Work Package: WBS-5.1 - End-User Documentation

Activity ID: ACT-019
Activity Name: Write Admin & User Guides
Description: Document installation, configuration, CLI/API usage, and troubleshooting.
Deliverable: Markdown docs in `docs/`, Wiki updates
Effort Estimate: 16 hours
Skills Required: Technical writing
Constraints: English only
Assumptions: Features stable

Activity ID: ACT-020
Activity Name: Prepare Enterprise Demo Scenarios
Description: Create demo scripts for BABOK/PMBOK/DMBOK compliance scenarios.
Deliverable: Demo scripts, sample data sets
Effort Estimate: 8 hours
Skills Required: Business analysis, documentation
Constraints: None
Assumptions: All frameworks implemented

Activity Summary

Activity Inventory

Activity ID	Activity Name	Work Package	Phase	Effort Est.	Skills Required
ACT-001	Implement OpenAI Integration	WBS-1.1	Core Framework Development	24h	TypeScript, OpenAI API
ACT-002	Implement Google AI Integration	WBS-1.1	Core Framework Development	20h	TypeScript, Google AI API
ACT-003	Implement Provider Choice Menu	WBS-1.1	Core Framework Development	12h	Node.js, CLI dev
ACT-004	Design Context Injection System	WBS-1.2	Core Framework Development	16h	AI prompt engineering
ACT-005	Develop Template Management API	WBS-1.2	Core Framework Development	16h	Express.js, API design

Activity ID	Activity Name	Work Package	Phase	Effort Est.	Skills Required
ACT-006	Implement Template-Based Generator	WBS-1.3	Core Framework Development	32h	TypeScript, templating
ACT-007	Integrate Adobe PDF Services	WBS-1.3	Core Framework Development	20h	Node.js, Adobe API
ACT-008	Implement Confluence OAuth2 Authentication	WBS-2.1	Enterprise Integration	12h	OAuth2, Node.js
ACT-009	Develop Direct Publishing to Confluence	WBS-2.1	Enterprise Integration	16h	TypeScript, REST API
ACT-010	Setup SharePoint Azure App Registration	WBS-2.2	Enterprise Integration	8h	Azure Portal, Graph API
ACT-011	Develop SharePoint Document Uploader	WBS-2.2	Enterprise Integration	16h	Microsoft Graph, OAuth2
ACT-012	Register Adobe Creative SDK Applications	WBS-2.3	Enterprise Integration	8h	Adobe Dev Console
ACT-013	Implement Adobe API Authentication Module	WBS-2.3	Enterprise Integration	16h	TypeScript, OAuth2
ACT-014	Integrate InDesign/Illustrator/Photoshop	WBS-2.3	Enterprise Integration	32h	TypeScript, Adobe SDKs
ACT-015	Implement JWT & API Key Authentication	WBS-3.1	Compliance & Security	12h	Node.js, Security
ACT-016	Apply Regulatory Compliance Checks	WBS-3.1	Compliance & Security	20h	Legal, TypeScript
ACT-017	Develop Unit and Integration Test Suites	WBS-4.1	Testing & QA	24h	Jest, TypeScript
ACT-018	Execute Performance and Failover Tests	WBS-4.1	Testing & QA	12h	Node.js, Performance testing
ACT-019	Write Admin & User Guides	WBS-5.1	Documentation & Training	16h	Technical Writing

Activity ID	Activity Name	Work Package	Phase	Effort Est.	Skills Required
ACT-020	Prepare Enterprise Demo Scenarios	WBS-5.1	Documentation & Training	8h	Business analysis, documentation

Activity Categories

- **Development Activities:** 14
  Includes all activities related to integration, module development, API implementation, and CLI features (ACT-001 to ACT-007, ACT-009, ACT-011, ACT-013, ACT-014, ACT-015, ACT-016).

- **Testing Activities:** 2
  Covers automated/unit/integration/performance/failover testing (ACT-017, ACT-018).

- **Documentation Activities:** 2
  Covers technical and end-user documentation, training, demo scenario preparation (ACT-019, ACT-020).

- **Management Activities:** 2
  Includes environment setup, API/app registration, and compliance review (ACT-010, ACT-012).

Notes

- All activities are designed to be measurable, assignable, and tracked via the project management system.
- Assignments should reflect required expertise (e.g., TypeScript developer, AI integrator, DevOps, technical writer).
- Each activity should have a clear owner and due date in the project schedule tool.

End of Activity List