I, Sarthak Singh, role as the Automation & Integration Specialist. This detailed artifact includes:

**Key Deliverables:**

**1. Multi-Service API Orchestration**

* Complete TypeScript implementation of ServiceOrchestrator
* Plugin-based architecture for M365 services (Intune, Exchange, SharePoint, Teams, Entra ID)
* Robust error handling and retry mechanisms

**2. DevOps & Deployment Pipeline**

* Full GitHub Actions CI/CD workflow
* Infrastructure as Code with Terraform
* Docker containerization
* Automated deployment to Azure App Service

**3. Service Extension Framework**

* Base plugin architecture for easy M365 service integration
* Plugin Manager for dynamic service loading
* Example Teams plugin implementation

**4. Advanced Integration Systems**

* Alert Manager with multi-channel support (Email, Slack, Teams, Azure Monitor)
* Report Generator with multiple output formats
* Workflow Engine for automated compliance processes

**5. Monitoring & Observability**

* Performance monitoring with real-time metrics
* Health check system for service validation
* Circuit breaker pattern for resilience
* Comprehensive logging and alerting

**6. Configuration Management**

* Dynamic configuration system
* Azure App Configuration integration
* Environment variable monitoring
* Real-time configuration updates

**7. Testing & Validation**

* Integration test suites
* Performance benchmarks
* End-to-end pipeline tests
* Deployment validation scripts

**8. Documentation & Flowcharts**

* System architecture diagrams
* API documentation generation
* Deployment guides and runbooks
* Performance optimization guidelines

This module demonstrates enterprise-level automation and integration capabilities, following industry best practices for scalability, reliability, and maintainability. The code includes real-world patterns like circuit breakers, retry mechanisms, and comprehensive error handling that would be essential for a production Microsoft 365 compliance monitoring system.