

Google Agent Development Kit (ADK)

Research Todo List

Research Tasks

- [x] Research Google ADK introduction and purpose
- [x] Core purpose and benefits
- [x] Target users and use cases
- [x] Getting started with ADK
- [x] Research ADK agent types and models
- [x] LLM agents: architecture, capabilities, use cases
- [x] Workflow agents: structure and interactions
- [x] Custom agents: flexibility and customization
- [x] Multi-agent systems: development and coordination
- [x] Compatible language models and integration methods
- [x] Research ADK tools and integrations
- [x] Function tools: integration of custom functions
- [x] Built-in tools: pre-packaged tools
- [x] Third-party tools: integration process and examples
- [x] Google Cloud tools: specific services integration
- [x] MCP tools: purpose and usage
- [x] OpenAPI tools: integration with OpenAPI specification
- [x] Research ADK deployment and authentication
- [x] Authentication mechanisms
- [x] Agent Engine: features and deployment
- [x] Cloud Run: deployment process
- [x] Research ADK sessions, memory and runtime
- [x] Session management
- [x] State maintenance

- [x] Memory types and utilization
- [x] Artifacts concept
- [x] Callbacks: types and patterns
- [x] Runtime environment
- [x] Event handling

- [x] Context concept

- [x] Research ADK evaluation, guides and API

- [x] Evaluation methods and tools
- [x] Best practices and guides
- [x] Contributing guide
- [x] API reference
- [x] GitHub repository structure and examples

Document Compilation

- [x] Compile comprehensive document
- [x] Review and finalize document
- [x] Deliver final research document to user