

Application State Checklist for Containerization



Persistent Data State

- ☐ Database data (e.g. PostgreSQL, MySQL)
- ☐ Files written to disk (uploads, logs, etc.)
- ☐ Persistent cache data (e.g. Redis with AOF)
- ☐ Session data stored in files
- ☐ User-generated content (images, documents)
- ☐ Application-specific blobs or archives

Ephemeral/Volatile State

- ☐ In-memory cache (e.g. Memcached)
- ☐ Temporary files (e.g. in /tmp)
- ☐ OS-level tmpfs mounts
- ☐ In-memory sessions

Configuration State

- ☐ Config files (.env, YAML, JSON)
- ☐ Environment variables
- ☐ Command-line arguments
- ☐ Secrets and credentials
- ☐ Feature flags and toggles
- ☐ Registry settings or app preferences

Runtime State

- ☐ Application-level variables
- ☐ Thread-local/request-specific data
- ☐ Event loop state
- ☐ Open file descriptors, sockets
- ☐ Dependency injection container state

User Session State

- ☐ Session cookies
- ☐ JWT tokens
- ☐ Server-side session stores
- ☐ OAuth/refresh tokens

Authentication/Authorization State

- ☐ LDAP or Active Directory integration
- ☐ OAuth providers
- ☐ Internal user databases
- ☐ RBAC configurations

Deployment State

- ☐ App versioning
- ☐ Config drift detection
- ☐ Sidecar dependencies (e.g. logging agents)

Network/Cluster State

- ☐ Service discovery mechanisms
- ☐ Cluster IP/DNS dependencies
- ☐ Firewall rules and open ports
- ☐ Sticky sessions/load balancing rules

External Integration State

- ☐ Webhooks
- ☐ Messaging queues (Kafka, RabbitMQ)
- ☐ API/third-party service dependencies
- ☐ OAuth token/integration metadata

Build-Time State

- ☐ Compiled binaries/artifacts
- ☐ Runtime dependencies (e.g. OS packages)
- ☐ Docker image cache layers
- ☐ Git version/commit hash

Logging/Monitoring State

- ☐ Log files written locally
- ☐ Log buffer contents
- ☐ In-process application metrics
- ☐ Health check endpoints state

Licensing State

- ☐ License keys in files/env
- ☐ Activation server checks
- ☐ Time-based evaluation counters

Scheduling/Job State

- ☐ Job queues/schedulers
- ☐ Cron job configurations
- ☐ Workflow state machines
- ☐ Task progress markers

Orchestration State (e.g. Kubernetes)

- ☐ Pod annotations/labels
- ☐ StatefulSet or volume claims
- ☐ Init container artifacts
- ☐ ServiceAccount roles/tokens

Hardware/Device State

- ☐ GPU state/driver needs
- ☐ USB/serial device access
- ☐ Filesystem mounts/FUSE
- ☐ Host PID/IPC/UTS namespace use

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