Architecture Decision Record Template

Status

- □ Proposed
- □ Accepted
- □ Deprecated
- □ Superseded

Date: _______________

Decision Makers: _______________

Context

What is the issue we're trying to solve?

Describe the forces at play, including technological, political, social, and project-related factors. This section should be neutral and factual.

Decision

What decision did we make?

State the decision clearly and concisely.

Consequences

Positive Outcomes

-
-
-

Negative Outcomes / Trade-offs

-
-
-

Alternatives Considered

Alternative 1: [Name]

Pros:

Cons:

Why rejected:

Alternative 2: [Name]

Pros:

Cons:

Why rejected:

References

- [Link to related ADRs]
- [Link to discussions]
- [Documentation]

Example ADR

Title: [ADR-001] Use PostgreSQL for Primary Database

Status: Accepted

Date: 2026-01-01

Context: We need to choose a primary database for our new microservices platform. Requirements include:

- Support for complex queries with joins
- ACID compliance for financial transactions
- Strong community support and tooling
- Cloud-native deployment options
- Expected dataset: 10M+ records, 100+ concurrent users

Decision: We will use PostgreSQL as our primary relational database.

Consequences:

Positive:

- Mature, battle-tested technology with excellent documentation
- Rich SQL feature set including JSON support
- Strong consistency guarantees (ACID)
- Wide ecosystem of tools and extensions
- Cloud-native options (AWS RDS, Azure PostgreSQL, GCP Cloud SQL)
- Open source with no vendor lock-in

Negative:

- Vertical scaling limitations compared to distributed databases

- Requires careful index management for performance
- More complex clustering setup than some NoSQL options
- Team needs PostgreSQL-specific training

Alternatives Considered:

MySQL:

- Pros: Slightly simpler setup, good performance
- Cons: Less robust JSON support, weaker constraint handling
- Rejected: PostgreSQL's advanced features justified the choice

MongoDB:

- Pros: Horizontal scaling, flexible schema
- Cons: Eventual consistency, less mature transaction support
- Rejected: ACID requirements ruled this out

References:

- PostgreSQL vs MySQL comparison
- Team discussion thread
- PostgreSQL documentation