

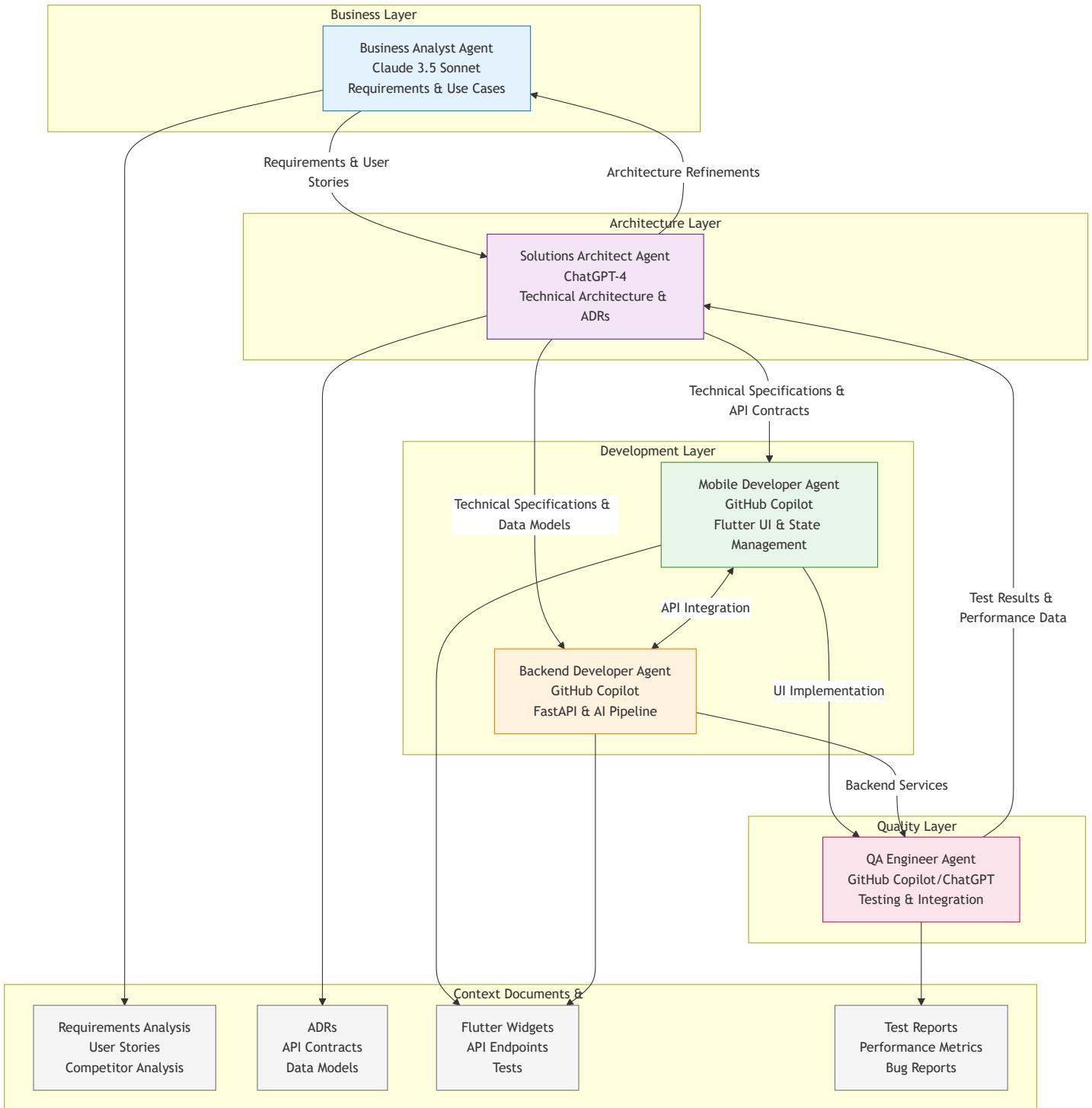
# Updated Agent Coordination Diagram

## JobWise Multi-Agent Development System

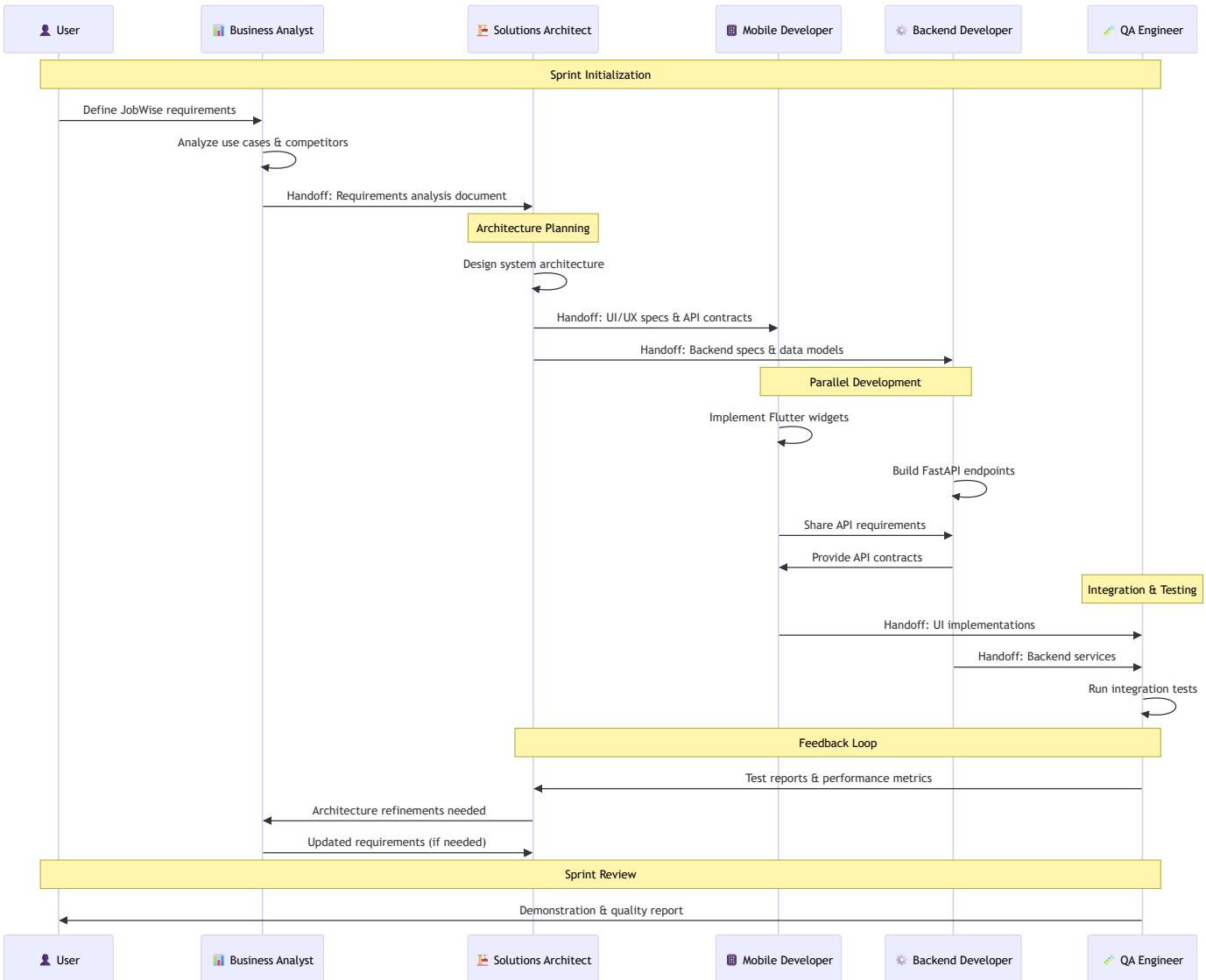
**Updated:** October 13, 2025

**Sprint 1 Implementation:** 5 Specialized AI Agents with Industry Roles

# Agent Coordination Flow Diagram



# Agent Interaction Sequence



## Context Handoff Protocols

### 1. Business Analyst → Solutions Architect

#### Artifacts Passed:

- Requirements Analysis Document (docs/requirements-analysis.md)
- User Stories Collection (docs/user-stories.md)
- Functional Requirements Specification (docs/functional-requirements.md)

#### Handoff Protocol:

#### **## BA → SA Handoff Checklist**

- [ ] Requirements validated against project constraints
- [ ] User personas and journey maps completed
- [ ] Business rules documented
- [ ] Acceptance criteria defined for each feature
- [ ] Technical feasibility considerations noted

## **2. Solutions Architect → Development Agents**

#### **Artifacts Passed:**

- Architecture Decision Records ( [docs/adrs/](#) )
- API Specifications ( [docs/api-contracts/](#) )
- Data Models & Database Schemas ( [docs/data-models/](#) )
- Technical Specifications ( [docs/technical-specs/](#) )

#### **Handoff Protocol:**

#### **## SA → Dev Agents Handoff Checklist**

- [ ] ADR published with technical approach
- [ ] API contracts defined with request/response examples
- [ ] Data models specified with validation rules
- [ ] Performance targets established
- [ ] Error handling strategies documented

## **3. Development Agents → QA Engineer**

#### **Artifacts Passed:**

- Flutter Implementation ( [mobile\\_app/lib/](#) )
- Backend Services ( [backend/](#) )
- API Documentation ( [docs/backend-services.md](#) )
- Implementation Summaries

#### **Handoff Protocol:**

#### **## Dev → QA Handoff Checklist**

- [ ] Feature implementation completed
- [ ] Unit tests written and passing
- [ ] API integration verified
- [ ] Code reviewed and documented
- [ ] Performance characteristics measured

## 4. QA Engineer → Solutions Architect (Feedback Loop)

#### **Artifacts Passed:**

- Test Reports ( [docs/test-reports/](#) )
- Performance Metrics ( [docs/performance-reports/](#) )
- Bug Reports ( [docs/bug-reports/](#) )
- Quality Metrics ( [docs/quality-metrics.md](#) )

#### **Handoff Protocol:**

#### **## QA → SA Feedback Checklist**

- [ ] Test coverage metrics provided
- [ ] Performance vs. targets analyzed
- [ ] Integration issues documented
- [ ] Optimization recommendations listed
- [ ] Next sprint priorities suggested

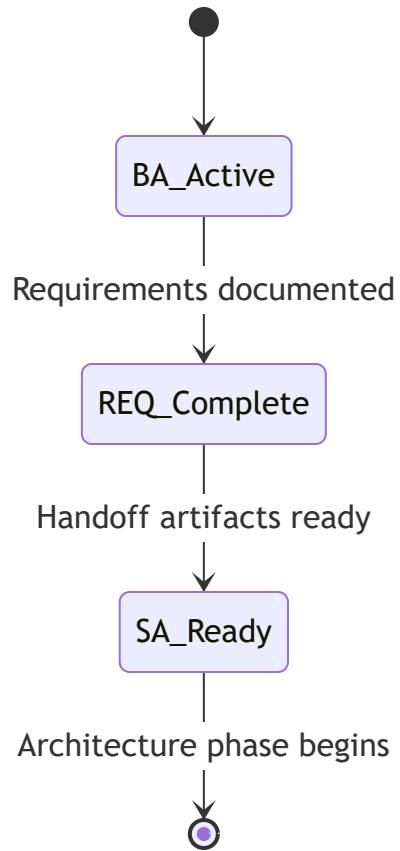
## Decision Matrix: When to Consult Which Agent

Scenario	Primary Agent	Secondary Agent	Escalation
<b>New feature request</b>	Business Analyst	Solutions Architect	User feedback
<b>Technical architecture decision</b>	Solutions Architect	QA Engineer	Architecture review
<b>UI/UX implementation</b>	Mobile Developer	Business Analyst	Design review

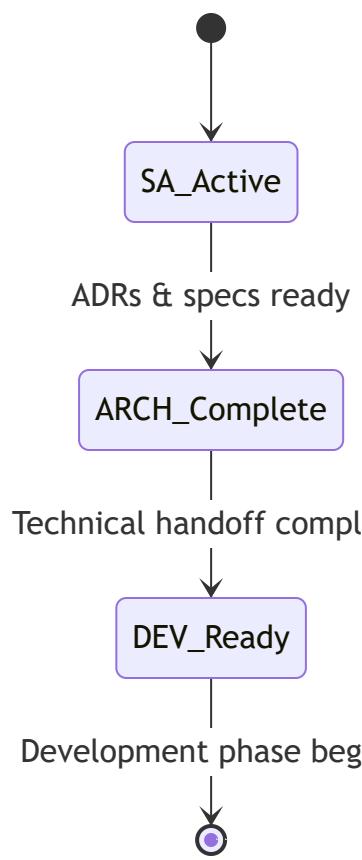
<b>Scenario</b>	<b>Primary Agent</b>	<b>Secondary Agent</b>	<b>Escalation</b>
<b>API design &amp; implementation</b>	Backend Developer	Solutions Architect	API review
<b>Performance optimization</b>	QA Engineer	Solutions Architect	Technical review
<b>Integration issues</b>	QA Engineer	Both Dev Agents	Technical escalation
<b>Requirements clarification</b>	Business Analyst	Solutions Architect	Stakeholder review
<b>Testing strategy</b>	QA Engineer	Solutions Architect	Quality review

# Coordination Workflow States

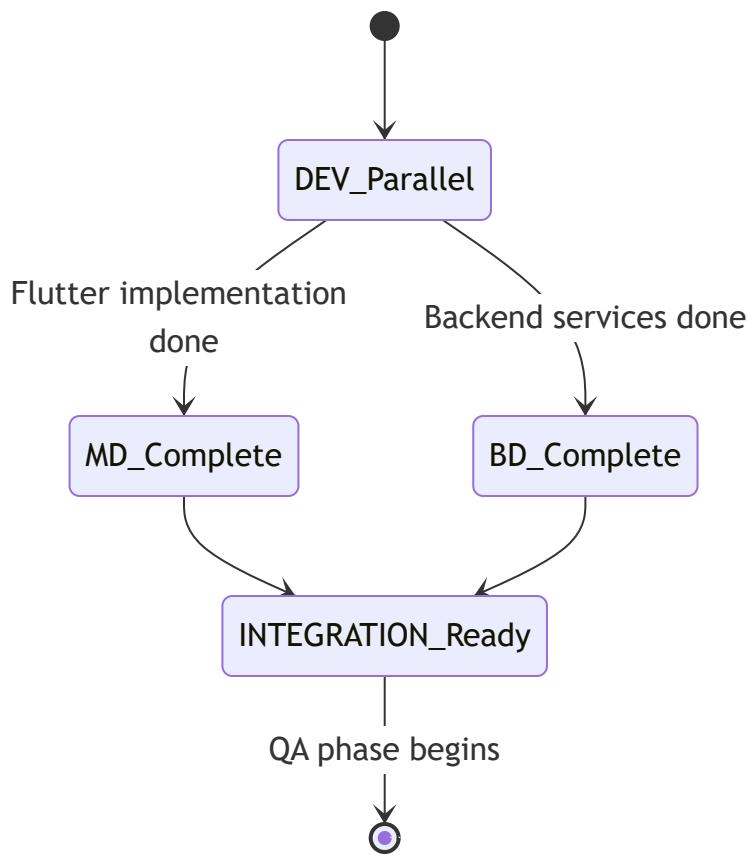
## State 1: Requirements Phase



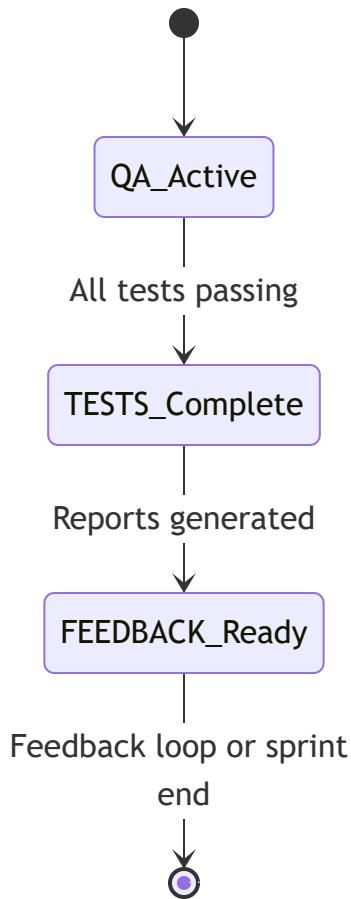
## State 2: Architecture Phase



## State 3: Development Phase



## State 4: Testing & Integration Phase



## Agent Communication Channels

### Primary Communication: Context Documents

- **Requirements:** docs/requirements-analysis.md
- **Architecture:** docs/adrs/ directory
- **Implementation:** Code repositories with documentation
- **Testing:** docs/test-reports/ directory

# Coordination Log: docs/ai-coordination-log.md

```
## Interaction Log Entry Template
**Date**: [timestamp]
**Agent**: [agent name]
**Task**: [specific task performed]
**Input Context**: [documents/artifacts used]
**Output**: [artifacts generated]
**Next Agent**: [who receives the handoff]
**Status**: [completed/blocked/in-progress]
```

## Escalation Protocol

1. **Technical Conflicts:** Solutions Architect makes final decision
2. **Requirements Conflicts:** Business Analyst consults user/stakeholders
3. **Quality Issues:** QA Engineer has veto power on releases
4. **Integration Failures:** All agents coordinate for resolution
5. **Timeline Issues:** Solutions Architect adjusts scope with Business Analyst

## Success Metrics for Agent Coordination

### Handoff Quality Metrics

- **Requirements Clarity:** % of dev tasks completed without clarification requests
- **Architecture Completeness:** % of implementations matching ADR specifications
- **Integration Success:** % of features passing QA on first attempt
- **Feedback Loop Efficiency:** Time from QA report to architecture adjustments

### Communication Effectiveness

- **Context Preservation:** Consistency of artifacts across agent handoffs
- **Decision Traceability:** Ability to trace decisions back to requirements
- **Knowledge Transfer:** Quality of implementation summaries and documentation

### Overall Coordination Success

- **Sprint Goal Achievement:** Features delivered matching acceptance criteria

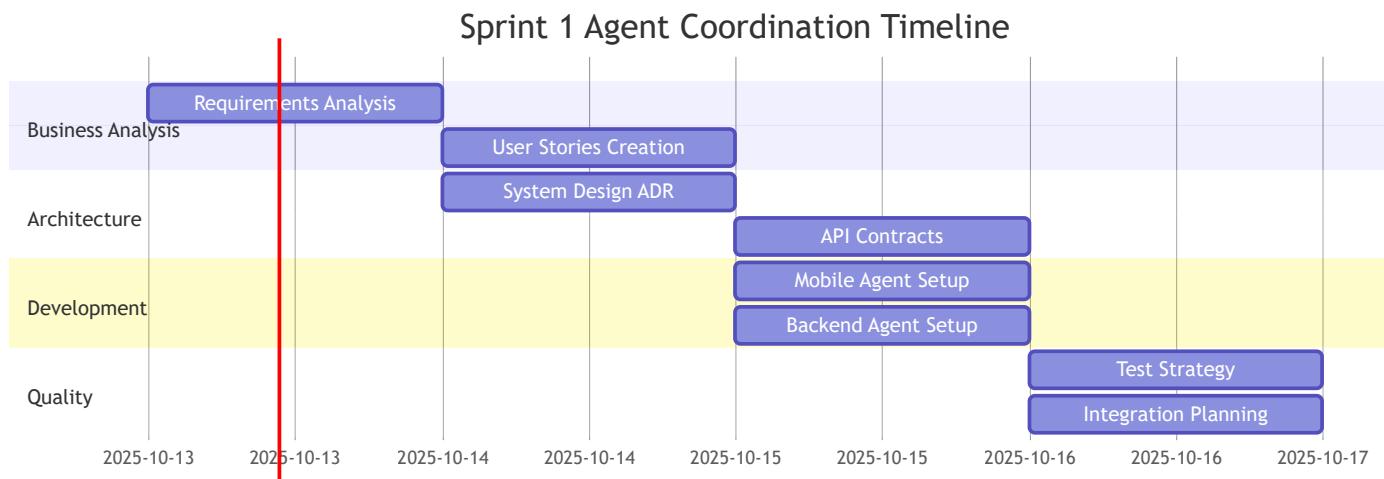
- **Technical Debt:** Minimal rework needed between sprints
- **Quality Maintenance:** Consistent test coverage and performance targets
- **Agent Utilization:** Balanced workload across all agents

# Implementation Timeline for Sprint 1

## Week 9 Daily Agent Coordination

- **Monday:** Business Analyst → Requirements analysis
- **Tuesday:** Solutions Architect → System architecture ADR
- **Wednesday:** Mobile + Backend Developers → Project structure setup
- **Thursday:** QA Engineer → Test strategy documentation
- **Friday:** All Agents → Coordination workflow refinement

## Context Handoff Schedule



This updated coordination diagram reflects the realistic Sprint 1 scope focusing on planning, documentation, and agent infrastructure setup rather than feature implementation.