

AI Impacts Across the SDLC

AI shows up at every phase — not just coding · Industrial DevOps Now

1 Planning	2 Requirements	3 Architecture / Design	4 Implementation	5 Verification	6 Deployment
1 · Planning - Requirement analysis - Generate user stories - Requirements traceability - Develop roadmaps - Dynamically adapt to changing constraints	2 · Requirements - Summarize stakeholder needs - Sentiment analysis - Create functional requirements - Discover new requirements - Update backlogs	3 · Architecture / Design - Architecture writing / analysis - Create API · sequence flow diagrams - Generate data models - UI assist (wireframes, personas) - Simulate / validate choices - Integrate compliance constraints	4 · Implementation - Code generation / debug - Automated code review - Code explain / commenting - Refactoring · code translation - Autonomous code agents	5 · Verification - Test case optimization - Unit / integration / regression generation - Simulate multiple scenarios - Triage failure - Open bugs · generate rollback / fix	6 · Deployment - Optimize release timing - CI/CD pipelines - Infrastructure as code - Monitor pipeline · auto-reconfigure - Auto-fix failed builds

One small, AI-augmented team can move across all six phases — not hand off between six siloed teams — keeping a single auditable thread from need to deployment, with humans accountable throughout.