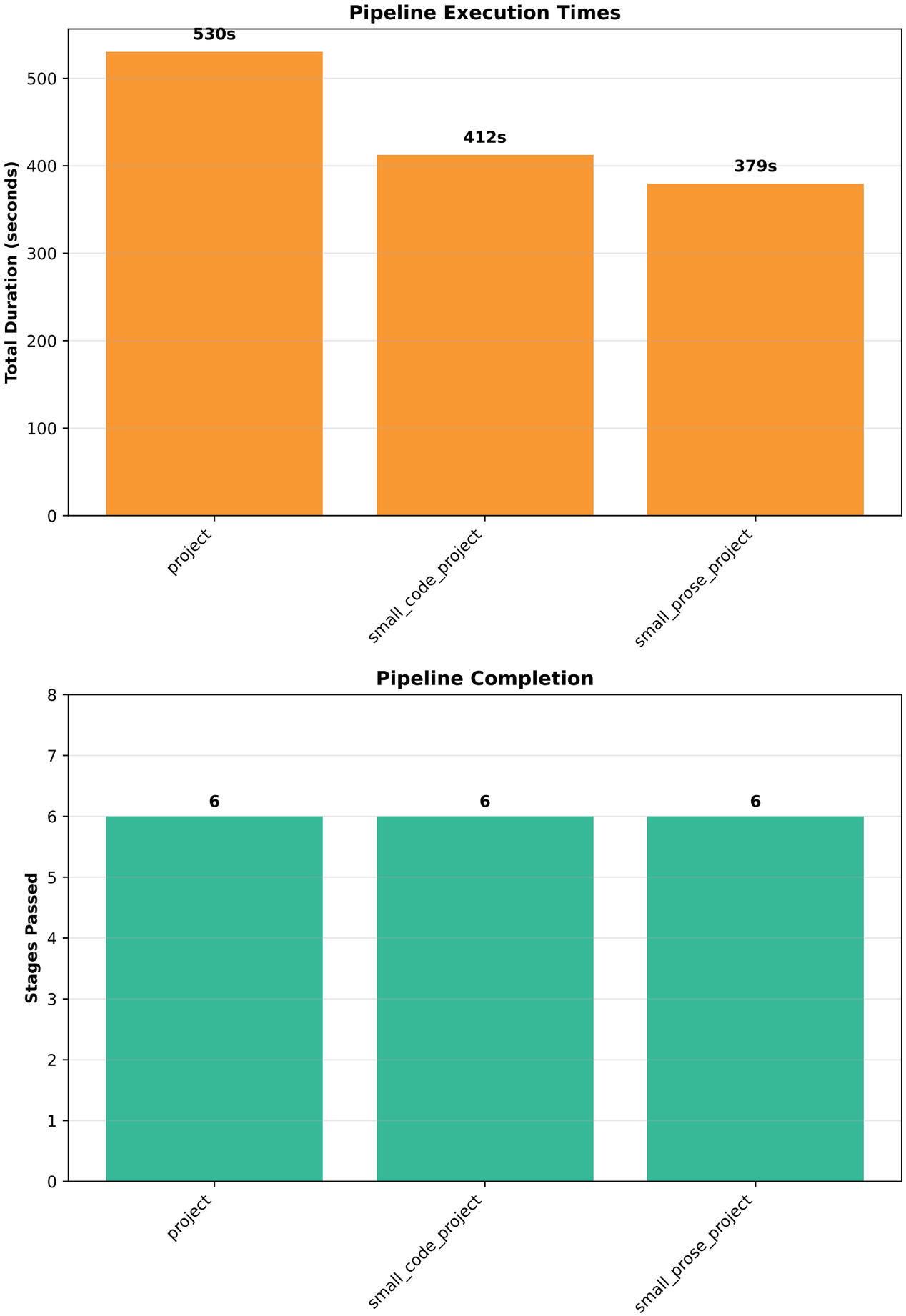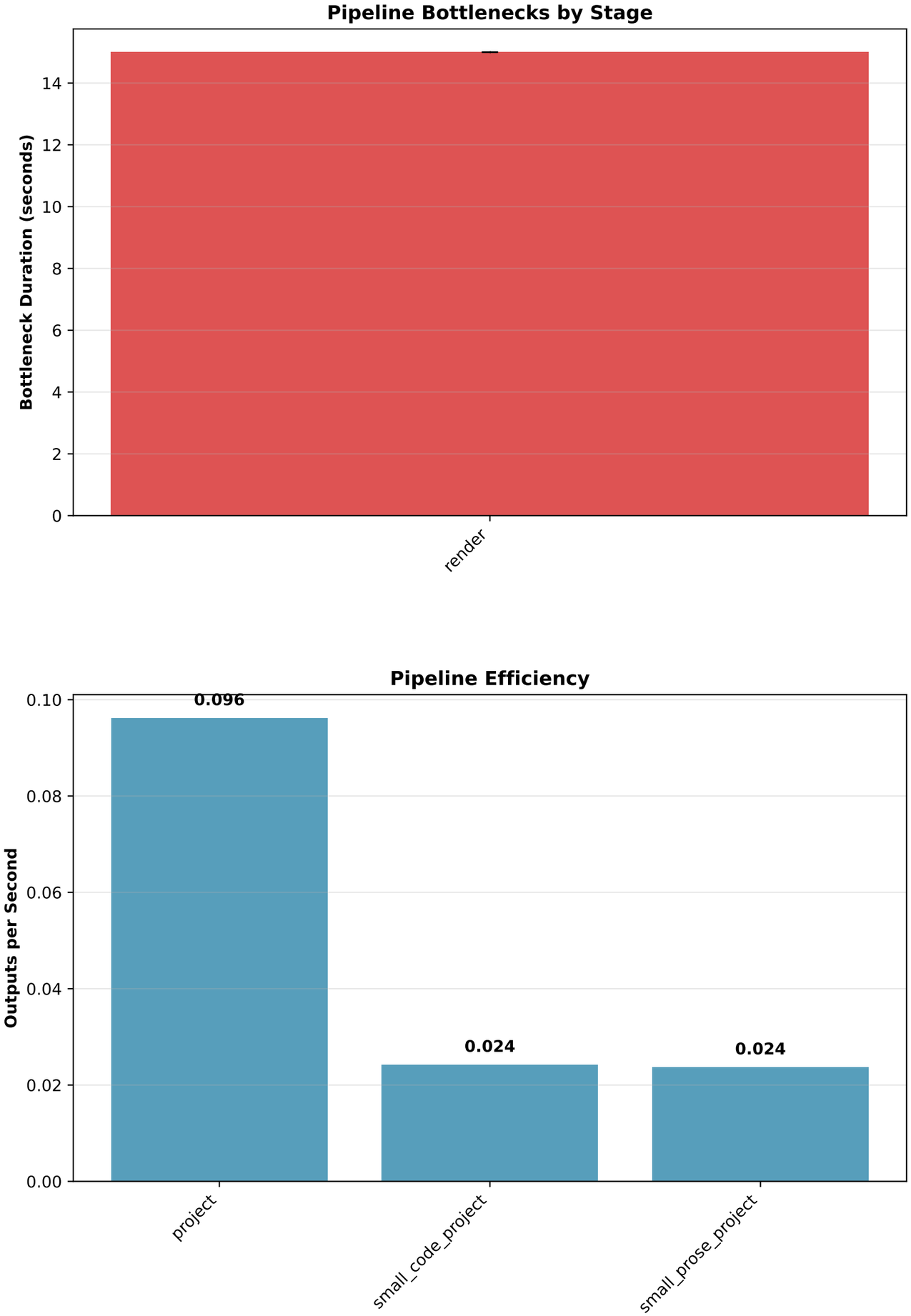Pipeline Efficiency Analysis