Create an LLM agentic workflow which will address the following:

1. Automated query generation for clinical quality reporting - Design a system that converts natural language requests from quality managers into optimized SQL queries for Epic Clarity, extracting the right metrics from the right tables to generate CMS-required reports. The workflow would:
   * Prompt 1: Parse the quality measure specifications (e.g., "30-day readmission rates for CHF patients")
   * Prompt 2: Identify relevant Clarity tables and fields for the specific measure
   * Prompt 3: Generate optimized SQL with appropriate joins and filters
   * Prompt 4: Explain the query logic and provide validation steps to ensure accuracy
2. Structured data extraction from unstructured clinical notes - Create a workflow that reviews clinician notes to extract discrete data elements for billing, registry reporting, and research:
   * Prompt 1: Analyze the clinical note to identify key conditions, procedures, and findings
   * Prompt 2: Map extracted conditions to appropriate ICD-10 codes with supporting evidence
   * Prompt 3: Identify documentation gaps that would support higher specificity coding
   * Prompt 4: Generate a structured output with confidence scores for each extracted element
   * Prompt 5: Suggest specific documentation improvements for future notes
3. Automated prior authorization submission and tracking - Develop a system that streamlines the insurance approval process:
   * Prompt 1: Extract relevant clinical information from the EHR to support medical necessity
   * Prompt 2: Match extracted data to specific payer criteria for the requested service/medication
   * Prompt 3: Generate a complete prior authorization request with supporting documentation
   * Prompt 4: Analyze denial patterns to predict approval likelihood and suggest modifications
   * Prompt 5: Generate appeals with additional evidence for denied requests
4. Protocol-driven clinical trial eligibility screening - Create a workflow that continuously evaluates patients for clinical trial eligibility:
   * Prompt 1: Parse complex inclusion/exclusion criteria from trial protocols
   * Prompt 2: Convert criteria into structured logic that can be applied to EHR data
   * Prompt 3: Identify potential matches and calculate match confidence scores
   * Prompt 4: Generate patient-specific summaries highlighting which criteria are met/unmet
   * Prompt 5: Create coordinator-facing worklists prioritized by enrollment likelihood
5. Automated discharge summary generation and distribution - Implement a workflow that creates comprehensive discharge documentation:
   * Prompt 1: Analyze the entire hospitalization record to identify key events and interventions
   * Prompt 2: Synthesize the hospital course into a structured clinical narrative
   * Prompt 3: Generate medication reconciliation with clear instructions for post-discharge regimen
   * Prompt 4: Create patient-specific follow-up instructions and warning signs
   * Prompt 5: Tailor communication versions for different audiences (patient, PCP, specialists)
6. Clinical guideline adherence monitoring and intervention - Design a system that evaluates treatment decisions against evidence-based guidelines:
   * Prompt 1: Monitor real-time clinical data against condition-specific guideline recommendations
   * Prompt 2: Identify variance between current treatment and guideline-recommended care
   * Prompt 3: Generate provider notifications with specific recommendation and evidence summary
   * Prompt 4: Track provider response to recommendations for quality improvement
   * Prompt 5: Aggregate data to identify systematic guideline implementation barriers
7. Social determinants of health extraction and intervention matching - Create a workflow that identifies SDOH factors affecting patient care:
   * Prompt 1: Analyze clinical notes for mentions of housing, food, transportation, or financial issues
   * Prompt 2: Classify identified needs into structured categories with severity assessment
   * Prompt 3: Match patient needs to available community resources and support programs
   * Prompt 4: Generate referrals with patient-specific eligibility information
   * Prompt 5: Track referral outcomes and resource utilization patterns
8. Automated radiology report structuring and critical finding alerts - Develop a system that enhances radiology workflow:
   * Prompt 1: Parse free-text radiology reports into structured findings by anatomical region
   * Prompt 2: Identify critical or unexpected findings requiring urgent communication
   * Prompt 3: Compare current findings against prior studies to highlight changes
   * Prompt 4: Generate appropriate follow-up recommendations based on findings
   * Prompt 5: Create structured data elements for registry reporting and outcomes tracking
9. EHR data normalization across multi-hospital systems - Design a workflow that harmonizes clinical data from disparate EHR implementations:
   * Prompt 1: Analyze source system data models to identify semantic equivalents across institutions
   * Prompt 2: Generate mapping rules between local terminologies and standard vocabularies (SNOMED, RxNorm)
   * Prompt 3: Identify and resolve data quality issues (duplicates, conflicts, missing values)
   * Prompt 4: Create a unified patient timeline that integrates events from all sources
   * Prompt 5: Generate data provenance documentation for regulatory compliance
10. Procedural documentation optimization for appropriate reimbursement - Create a workflow that ensures complete documentation for accurate coding and billing:
    * Prompt 1: Analyze procedure notes against CPT code requirements for specific procedures
    * Prompt 2: Identify missing documentation elements needed for optimal code assignment
    * Prompt 3: Generate tailored documentation templates for specific procedure types
    * Prompt 4: Provide real-time feedback during documentation to ensure completeness
    * Prompt 5: Track documentation improvement metrics and financial impact over time