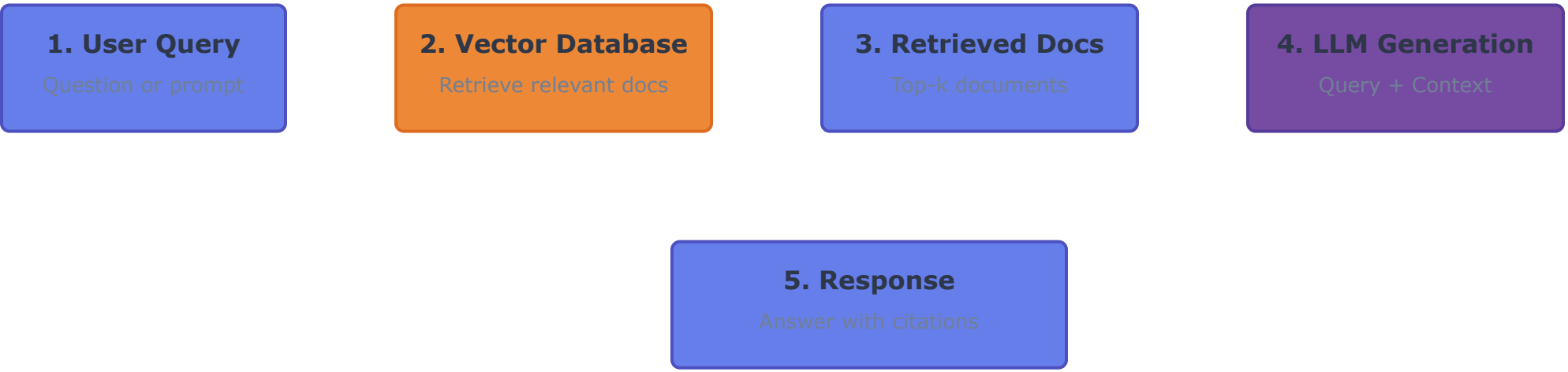
Retrieval-Augmented Generation Architecture



Benefits

- Access to current and external knowledge
- Reduced hallucination (grounded in sources)
- Source attribution and citations
- No model retraining required
- Update knowledge by updating database
- Enables smaller LLMs with external knowledge

Cost Considerations

- Retrieval latency: +20-50ms per query
- Vector DB costs: $0.0001-0.001 per query
- Embedding computation for queries
- Storage costs for vector database
- Net cost often neutral vs larger models
- Enables use of smaller, cheaper LLMs