Knowledge Engineering in First-Order Logic

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Identify the Task

• Outline the range of questions
• Determine available facts
• What is needed to connect problems to answers?
Assemble the Relevant Knowledge

• Knowledge acquisition
• Understand the scope of the knowledge base
• How does the domain work?

Decide on a Vocabulary

• Determine vocabulary of predicates, functions, and constants
• How is the knowledge base represented?
• Ontology
Encode General knowledge

- Encode the general knowledge about the domain

Encode the Problem

- Describe the specific problem instance using the general knowledge
Pose Queries

• Let the inference procedure operate on the axioms to derive facts

Debugging

• Check the knowledge base for errors