

# CPT302 Week 2 InClass Exercises

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Q1. What is an agent? What are multiagent systems? Give examples to both cases.

Ans: An agent is a computer system capable of autonomous action in some environment, in order to achieve its delegated goals.

A multiagent system is one that consists of a number of agents, which interact with one-another. To successfully interact, they will require the ability to cooperate, coordinate, and negotiate with each other, much as people do.

Agent example: thermostat. multiagent system example: Air Traffic Control

Q2. Define flexible autonomous actions.

Ans: reactive, proactive, social

Q3. Give the main differences between objects and agents.

Ans: Agents embody a stronger notion of **autonomy** than objects - in particular they decide whether or not to perform an action on request from another agent.  
Agents are capable of flexible (reactive, proactive, social) behavior (standard object model does not deal with it).  
A multi-agent system is inherently multi-threaded - each agent is assumed to have at least one thread of control.

Q4. What are intentional systems?

Ans: An entity, whose behavior can be predicted by attributing belief, desires and rational acumen