

# Ideas for Course Project

## Multiple-player Games

Like:

- Star Craft
- Students vs. Zombies
- Virtual Water Fight

Key ingredients:

- Central registry for tracking current processes
- Games hosts by game servers
- Players are clients
- Multiple concurrent games
- Multiple players per game
- Players are authenticated by the registry
- Playing a game involves accessing shared resources
- The system tracks player statistics

## Virtual Environments

Like:

- Minecraft

Key ingredients:

- Shared virtual spaces, e.g., worlds
- Central registry for tracking the worlds currently available
- Servers that can host a world or parts of “worlds
- Different kinds of participants in the world (automated or interactive)
- Monitor for tracking statistics

## Real-time Monitoring Systems

Like:

- Bee farm monitoring system
- Traffic monitor system
- Population health monitoring system

Possible ingredients:

- Lots of sensors or devices that collect raw data from individual sources
- Aggregators that gather and process data from collectors
- Data archives
- Trend analyzers
- System monitors for the users to view and track system status