

# What is architecture?

## Support the life cycle of system

- Development
  - Different team structures imply different architectural decisions
  - Small team (monolithic system) vs. a group of teams (component-per-team)
- Deployment
  - Easy - deploy with a SINGLE action
  - Early - consider the deployment issue early on
- Operation
  - Communicate the operational needs of the system (e.g., reveal the operation to developers)
- Maintenance
  - the most costly (new features, trouble shooting, bug fixing ...)
  - Spelunking and risk

# Independence

## Think of the decoupling mode

- Good architecture should leave options open
  - Use cases & operation
  - Development, deployment and maintenance
- Decoupling mode to separate layers and use cases
  - Source level
  - Deployment level
  - Service level
- Good architecture allows the model to be changed along the project life cycle with the minimal cost