

TECHNICAL COMPONENTS

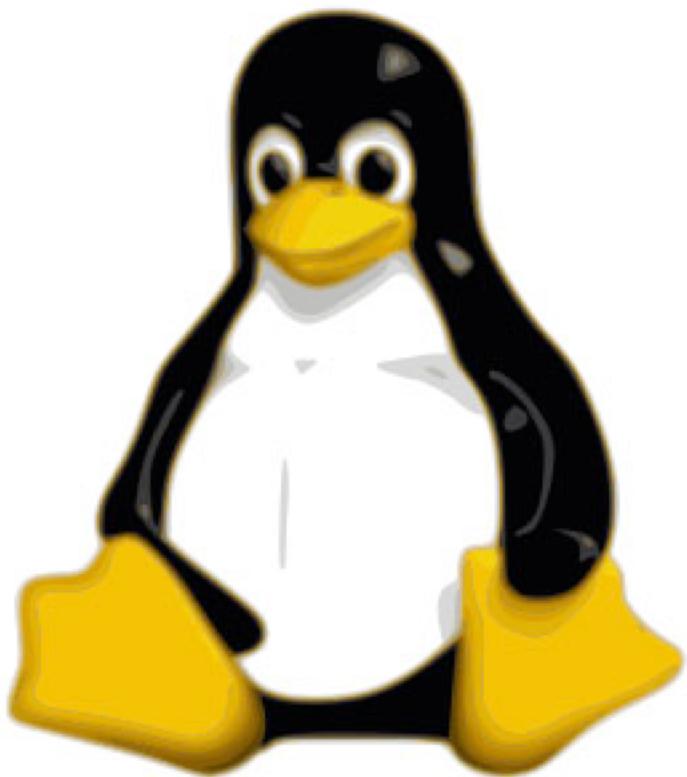
G. Molines
2018-2019



DATA STORAGE



Typical student app



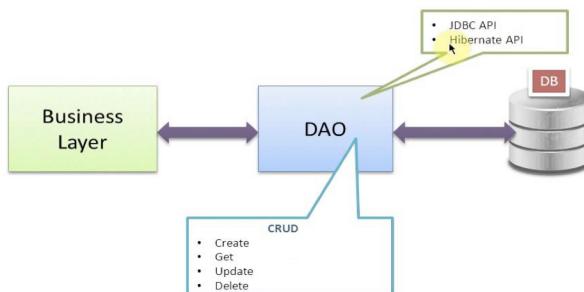
Databases

- Do you need one?
- Who accesses it?
 - Your users – and the DB is handling concurrency
 - Your app – and the DB is its own tier, slave of a real model
- SQL vs. non-SQL
- O/R mapping, DAO



Data Access Object pattern

- ✓ Data Access Object Pattern or DAO pattern is used to separate low level data accessing API or operations from high level business services.
- ✓ DAO layer is responsible for Data access from the persistence storage[DB/LDAP/File system] and manipulation of Data in the persistence storage
- ✓ Decouple the persistent storage implementation from the rest of your application.

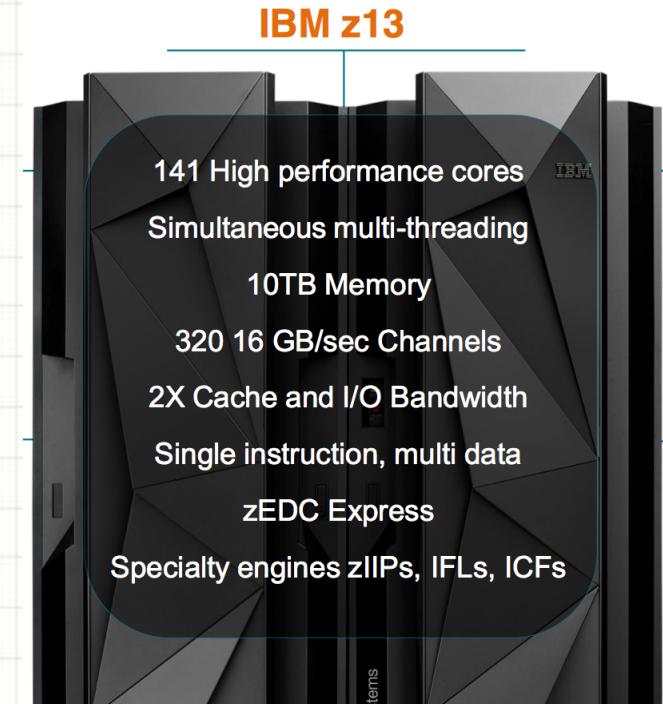


Database and big data

- DB handles large volume well
- Details in January

Other places to store data

- Files
- XML streams (XPath, XQuery, XML DBs)
- Distributed
 - Eg: in client!
 - Even in your device
- In memory!



UI



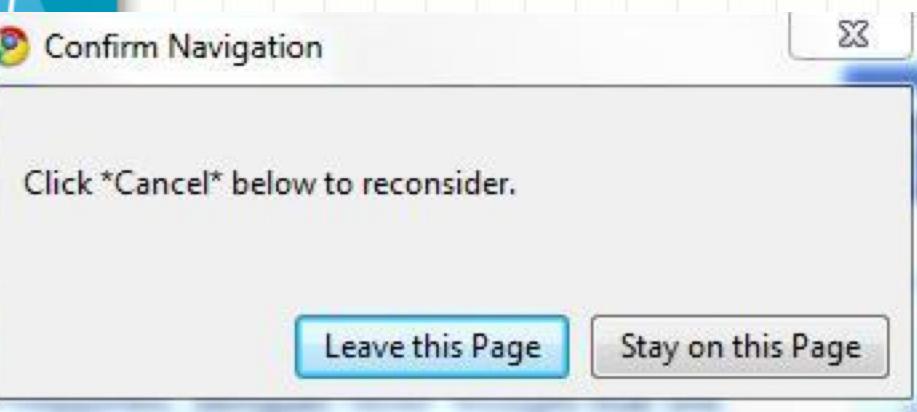
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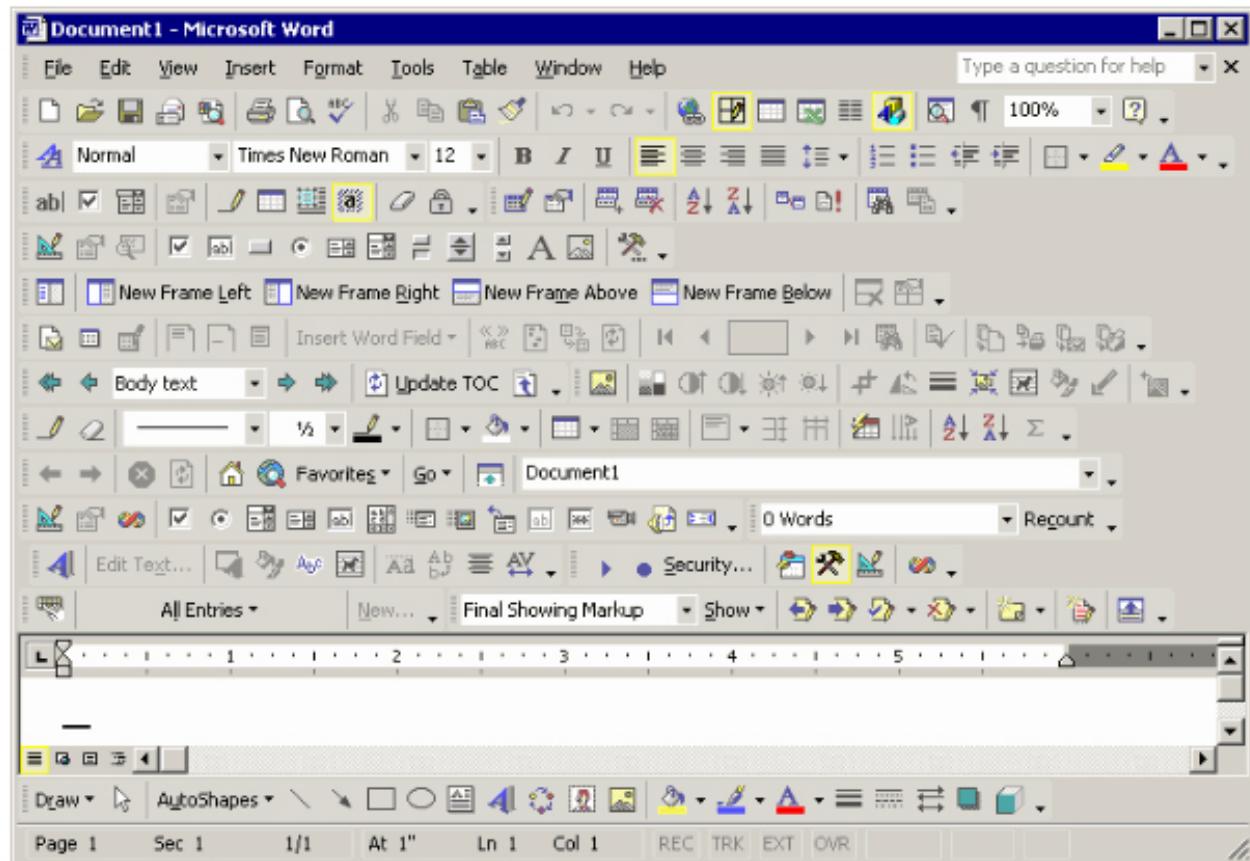
Why UI?

- Why tackle UI in an architecture class?
- Is it really important?



Choose the right UI type

- Fat client

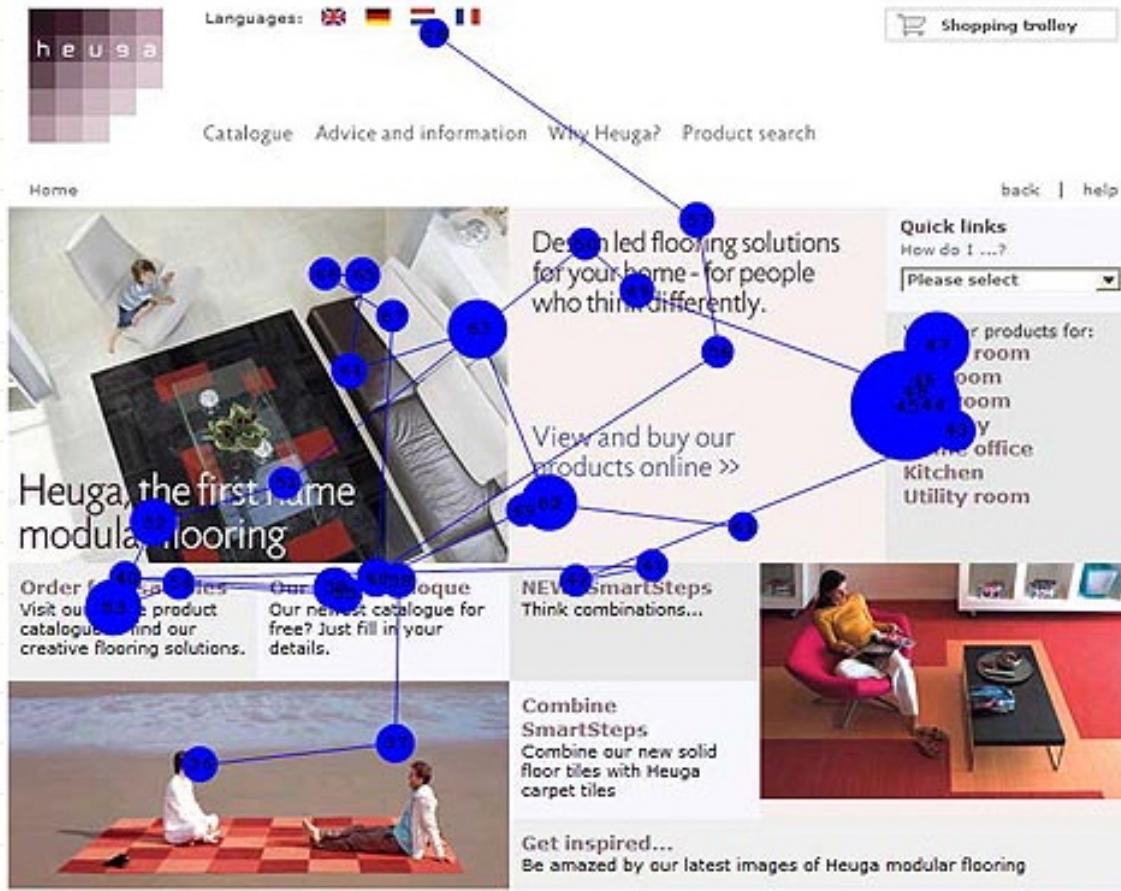


Choose the right UI type

- Thin client
- Mobile
- Device



Eye tracking



REMOTE INVOCATION

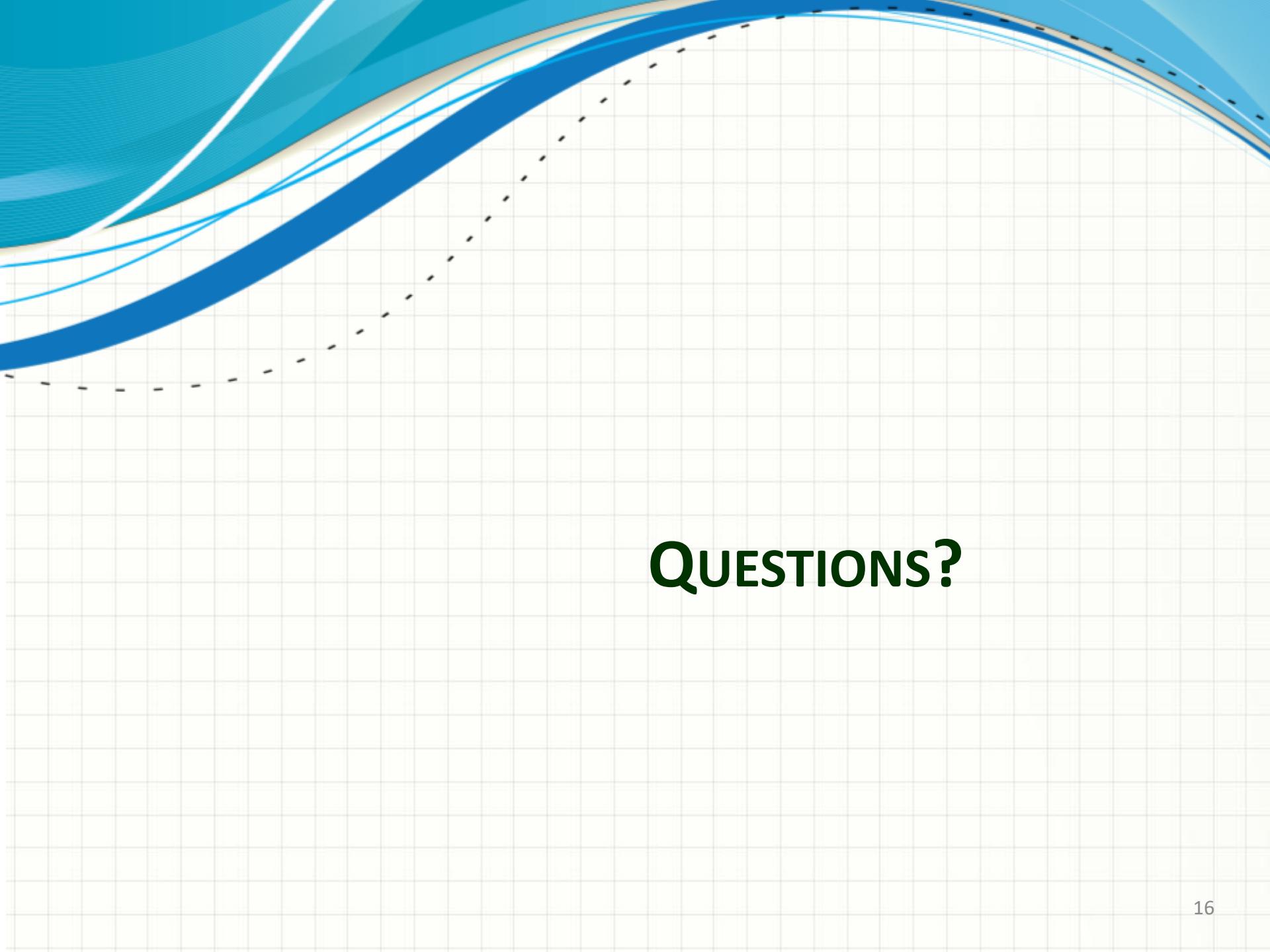


How to invoke code running somewhere else?

- “somewhere else” =
 - Distant
 - Local, but in another process
- RPC
- Events
- Messages
- Web Services
- REST API

Things to consider

- Synchronous / async
 - What does the caller do in the meantime?
 - How does it know the call failed?
- Message size
- Marshalling / unmarshalling → coupling
- Batch processing



QUESTIONS?