c. Why software architecture is important

Working with software architecture can give more better internal quality than without that. Whether the end-user can't see from outside at first, time can tell which project or software is structured in the proper way to be able to work and changed with low cost.

Software project will not end in a time limit like a building construction project. It will become more complex and more change with new features and requirements or need maintained or support. So, the software or project we are going to build must be strong enough for those changes in the future. That is why software architecture became important.

Software architecture is the important stuff whatever that might be. If we did not properly work with software architecture, we might face the problems in the following.

- Performance
- Flexibility
- Reusability
- Changeability
- Maintainability
- Understandability
- Testability
- and much more

So, to avoid those, we should deeply think of software architecture from the start of the project.

d. The difference between software architecture and software design

Software design works for individual component while software architecture is for overall system.

Software design is "How we are building" while software architecture is "What we are building".

e. What makes software architecture so difficult

Software architecture is making non-optimal decisions in the dark.

- It is never ideal
- Constance change of
  - Business
  - Technology
- Complexity
  - No physical limitations
  - Huge state-space

- Many possibilities

Every possibility has advantages and disadvantages, and everything is a tradeoff.