

What are the most important elements of making quality software, in your opinion?

To make quality software your code should have these elements:

Testable:

Making your code testable (adhering to TDD, or functional programming, etc) allows you to catch issues using automated tests, and less manual QA time. It also gets you thinking of edge cases and issues while you're programming, and you can catch them quicker, sometimes before you even get to QA

Readable/Maintainable:

It should be easy to understand what's going on in the codebase. I'm a big fan of writing code where it's easy to tell what methods and classes are doing with minimal need for comments (more comments mean there's more things to maintain and update as things change, and it's possible to forget to update a comment when making changes to a module).

Architecture:

Should separate modules and operational layers into logical parts that are easy to find and modify.

Performance:

Software needs to perform operations on the front end and back end as efficiently as possible. This greatly improves user experience.

Peer Review:

Peer review is valuable so you can draw on the experience of your team members and also catch issues earlier in the release process.

UI/UX:

There should be an understanding of the users needs and their demographics make more relevant user interfaces and user experiences. This can change over time, so it's important to keep this knowledge up to date so you know how to implement software in the best way, for front end and back end (performance, which also ties into UX).

What are the most important attributes of a software engineer or software developer?

- Problem solving ability
- Creativity
- Adaptability
- Communication skills

What are the most important attributes of a software team?

- Collaborative: people are able and willing to help each other.

- Organized: information is documented when it might be useful later on, goals are clearly outlined.
- Diversity: There's a range of experiences to draw upon - different educations, backgrounds, specializations, and interests.
- Safe: Team members are encouraged to voice their questions, concerns, and opinions in a respectful way.
- Soft skills: Communication and people skills are valued.

What are the most important attributes of an organization that makes software?

- They are aware that the software is only one part of the business (even if it's the main product), and other parts need to be taken care of to be successful (business, marketing, HR, accounting, etc).
- Organization wants to involve people in decision making that have relevant expertise and experience.
- The organization wants to stay on top of current trends in their industry and plan for product improvements and new products with that information.
- Organizational goals are transparent, and individuals and teams that help meet those goals are acknowledged

How do you get through a situation where you are faced with solving a problem in a complex system and have only a limited amount of information?

- Separate the system into discrete modules if possible, identify inputs and outputs and how the modules work.
- Identify the unknowns and try to find answers - does someone in the organization have the information I need? Can I Google it or read a paper on it?
- Test different cases - I can feed in data and see what is output at different points so I can see if it meets my expectations or not.