**List 5 of Software qualities with Examples.**

=> A quality of software can be defined according to the following criteria.

* The software needs to be bug free.
* The software should be delivered on time without any delays.
* All the requirements of the user needs to be met.
* The system should be maintainable.

The 5 software qualities are:

* **Flexibility**

It is the ability of the software to add,remove and modify functionality without affecting the current system.

Eg: Incase of a requirement change a new functionality might be needed to add in the software. In Such a scenario there should not be any error or the system should work as before adding the functionality. Amazon is an ecommerce company where new products are added every single day. In such a case while adding or modifying new product there should not be an error or problem while viewing the already existed product.

## **Maintainability**

Maintainability is a little similar with flexibility but it focuses on modifications about error corrections and minor function modifications, not major functional extensibilities.

Eg: In Amazon suppose a sign in function is not working currently then it is an error which needs to be fixed. So the software should be designed in such a way that these bugs can be fixed over a course of time and other important updates can also be given.

## **Performance**

Performance is mostly about the response time of the software. This response time should be in acceptable intervals (e.g. max. a few seconds), and should not increase if transaction count increases.

Eg: The response time for all the Amazon user must be the same and the system should not crash when multiple user tries to access the system at the same time.

## **Accessibility**

User interfaces are the only visible parts of software according to the viewpoint of user. So, simplicity, taking less time to complete a job, fast learnability etc. are very important in this case.

Eg: Esewa has many users. Not all of them are highly educated. So, it’s interface should be very simple so that anyone can understand it and use it.

## **Portability**

A quality software should run on as much various platforms as it can such as various browsers, operating systems and devices . So, more people can make use of it.

Eg:Any website such as Ace Travels and Tours should work in the exact same way in different browsers such as Mozilla Firefox and Google chrome.

And a software such as calculator is said to be portable if it works in the same manner in different versions of windows.

Compare and differentiate between QA and QC (activities, roles in STLC).

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| --- | --- |
| QA | QC |
| It is process oriented. | It is product oriented. |
| QA means Planning for doing a process. | QC means the actions for executing the planned process. |
| It focuses on building in quality. | It focuses on testing for quality. |
| It focuses on preventing defects. | It focuses on identifying and fixing defects. |
| It is done in SDLC. | It is done in STLC. |
| It means making sure that you are making a right system. | It means making sure that you are building the system right. |
| It is a preventive technique. | It is corrective technique. |
| It doesn't involve executing a program. | It involves executing a program. |
| It requires the involvement of the whole team. | It requires the involvement of the testing team. |