Lecture 3

Characteristics of Software

i) <u>Functionality</u> → It refers to the degree of performance of the software against its intended purpose.

ii) <u>Reliability</u> → A set of attribute that bear on capability of software to maintain its level of performance under the given condition for a stated period of time.

iii) <u>Efficiency</u> → It refers to the ability of the software to use system resources in the most effective and efficient manner.

iv) <u>Usability</u> → It refers to the extent to which the software can be used with ease, the amount of effort or time required to learn how to use the software.

v) <u>Maintainability</u> → It refers to the ease with which the modifications can be made in a software system to extend its functionality, improve its performance or correct errors.

vi) <u>Portablity</u> → A set of attribute that bear on the ability of software to be transferred from one environment to another, without or minimum changes.

Difference between hardware and software

Hardware	Software
i) It is manufactured	i) It is developed and engineered
(ii) Hardware wears out with time	(ii) It does not wears out with time but deteriorates
(iii) If hardware component is damaged, it is replaced with new one.	(iii) It software is damaged, its backup copy can be reinstalled.

Important Graph

Y — Number of defects or errors

real software

Hardware

Ideal software

time →

X