

**Bahria University**
Discovering Knowledge

BAHRIA UNIVERSITY (KARACHI CAMPUS)
ASSIGNMENT # 1 – SPRING 2022
Introduction to Software Engineering (SEN-120)
Class: **BSE 2(A/B)**
Submission Deadline: 24th April, 2022 (LMS)
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(Hardcopy)

Question 1:**(CLO 3)**

Many modern applications change frequently—before they are presented to the end user and then after the first version have been put into use. Suggest a few ways to build software to stop weakening due to change.

Answer:

Several modern applications and the software's have gained the capacity to eliminate errors and ways to reduce any sort of issues before the presentation of it in the front of the end user, but still weakness due to change is a rising issue.

Therefore, following are some ways that can be used to build software stop weakening due to change:

- Make sure you spend time understanding what the customer wants.
- Make sure that software applications should be maintainable. Meaning that is should be engineered to a degree that changes can be made rather easily as the application grows.
- Make sure that automatic updates are to be built in the software so that the chances of weakening becomes minimal. For example: Windows has the option to allow automatic updating for necessary security and firewall platforms to ensure that the system is always “up to date.”

Since previous applications are always being updated, it is important to build new software with the same capabilities.

- Make sure that software is designed in such a way that changes in one part of a program do not create side-effects in another part of the program.
- Make sure that software is designed in such a way that it does not depend on external devices or systems that are likely to change with time.
- Make sure that test cases and results are archived and available so that the software can be retested when changes are made.
- Make sure that designer and customer define the overall objectives for the software.
- Make sure to identify the known requirements.
- Make sure that after building a prototype the developer uses an existing program fragment, this will help the working program to complete quickly.
- Make sure Documents should be developed in a timely manner, to do this documentation standards are defined and mechanisms are established.