What is Software Crisis?

Software Crisis

The software crisis problem was encountered during software development.

Since the early 1960s

- With this increased use of computers and the complexity of applications, the need for software was increasing.
- From simple programming exercises, the focus shifted to developing software systems.
- The techniques for writing simple programs could not be scaled up for developing software systems.

Software crisis defined as a set of problems raised during the software development

The reasons for Software Crisis

The cause of the software crisis is linked to all the problems and complexities associated with the development process.

Various contributing factors responsible for the software crisis are:

1. The problem of scale

The ways to develop a small software having hundreds / thousands of lines. In other words, the methods used for developing small systems generally do not scale up to large systems.

2. Software is expensive

The cost to develop software is high as compared to hardware. Highly qualified and skilled manpower is required to develop the software.

They have to be paid a large amount of money which increases expenses.

3. Software is late

The term 'late' means that software not delivered within the stipulated time.

4. Software is unreliable

The unreliability means that software does not perform the required function. Many failures occur due to bugs that get introduced into the software.

5. Inconsistent productivity

The productivity of programmers could not keep up with demand.

6. High optimistic estimates regarding software development time and cost – Not realistic

7. Lack of understanding of the problem and its environment

8. The code was difficult to maintain

9. Increase in complexity of the problem area

Significance of software Crisis in reference to 'Software Engineering' discipline

As the computing systems became larger & complex, the demand for computer software grew faster than our ability to produce and maintain it.

To control this software crisis, some methodical approach was needed for software development.

This is where "Software Engineering" comes in, to deal with this crisis, the term 'Software Engineering' was coined.

The term Software Engineering was defined as **"The systematic approach to the development, operation, maintenance, and retirement of software."**

Software Engineering is the discipline whose goal is to deal with the problems of Software Crisis.