

Software Maintenance

Presentation Outline

- ❑ Introduction to Software Maintenance
- ❑ Types of Software Maintenance
- ❑ Problems associated with Software Maintenance

Introduction

- ❑ Software maintenance denotes any changes made to a software product after it has been delivered to the customer
- ❑ It is inevitable for almost any kind of product

- ❑ However, most products need maintenance due to the wear and tear caused by use
- ❑ Software products do not need maintenance on this count, but need maintenance to correct errors, enhance features, port to new platforms, etc.

Types of Software Maintenance

The requirement of software maintenance arises on account of the three main reasons:

- ❑ **Corrective**
- ❑ **Adaptive**
- ❑ **Perfective**

Types of Software Maintenance

(Contd...)

- ❑ **Corrective maintenance** of a software product becomes necessary to rectify the bugs observed while the system is in use.

Types of Software Maintenance

(Contd...)

- ❑ A software product might need maintenance when the customers need the product to run on new platforms, on new operating systems, or when they need the product to be interfaced with new hardware or software. This is known as **Adaptive maintenance**.

Types of Software Maintenance

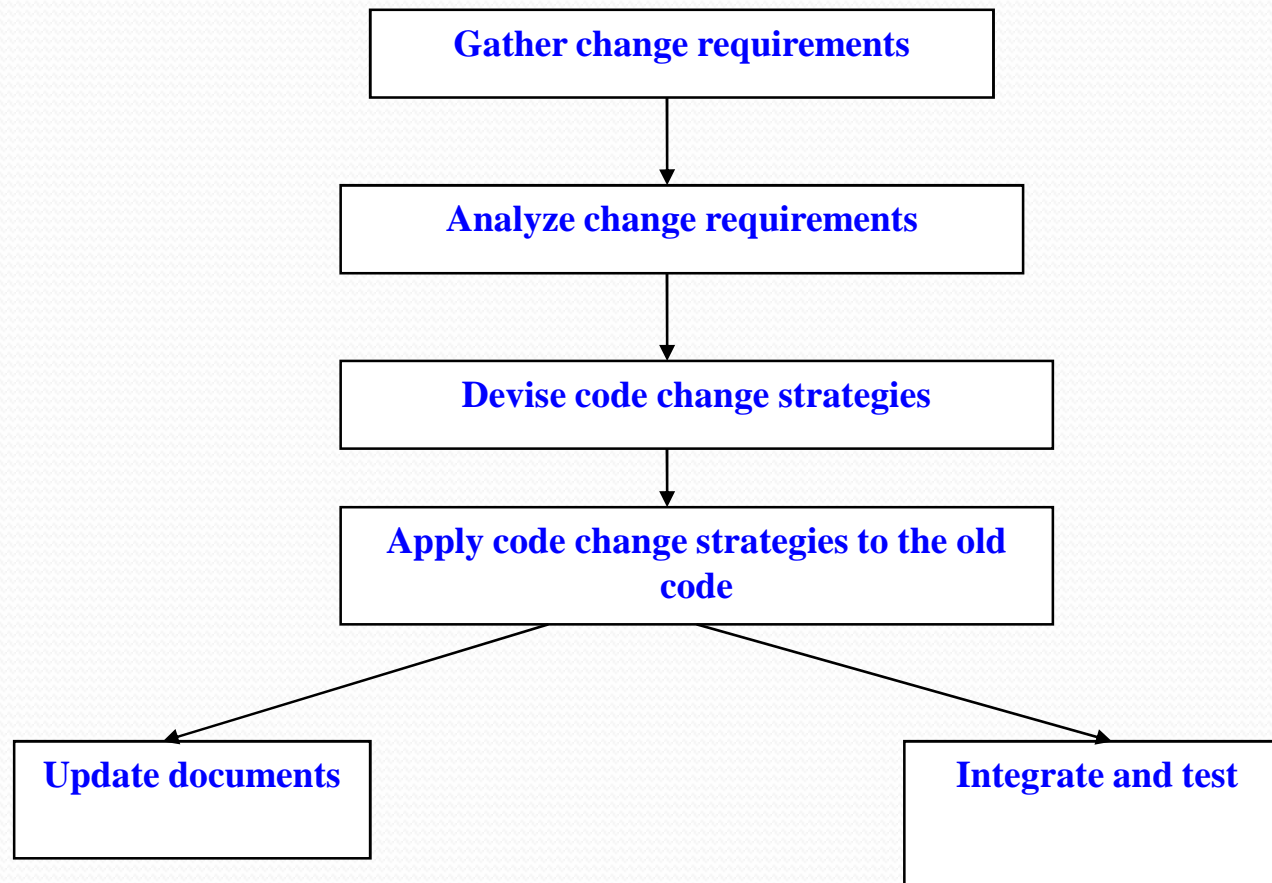
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- ❑ A software product needs maintenance to support the new features that users want it to support, to change different functionalities of the system according to customer demands, or to enhance the performance of the system. This is known as **Perfective maintenance**.

Problems associated with Software Maintenance

- ❑ It is one of the neglected areas of Software Engineering
- ❑ It is mostly carried out using *ad hoc* techniques, rather than through systematic and planned activities
- ❑ During maintenance, it is necessary to thoroughly understand someone else's work and then carry out the required modifications and extensions
- ❑ Problems related to **legacy** systems

Software Maintenance Process Model



**That's all about Software
Maintenance**