

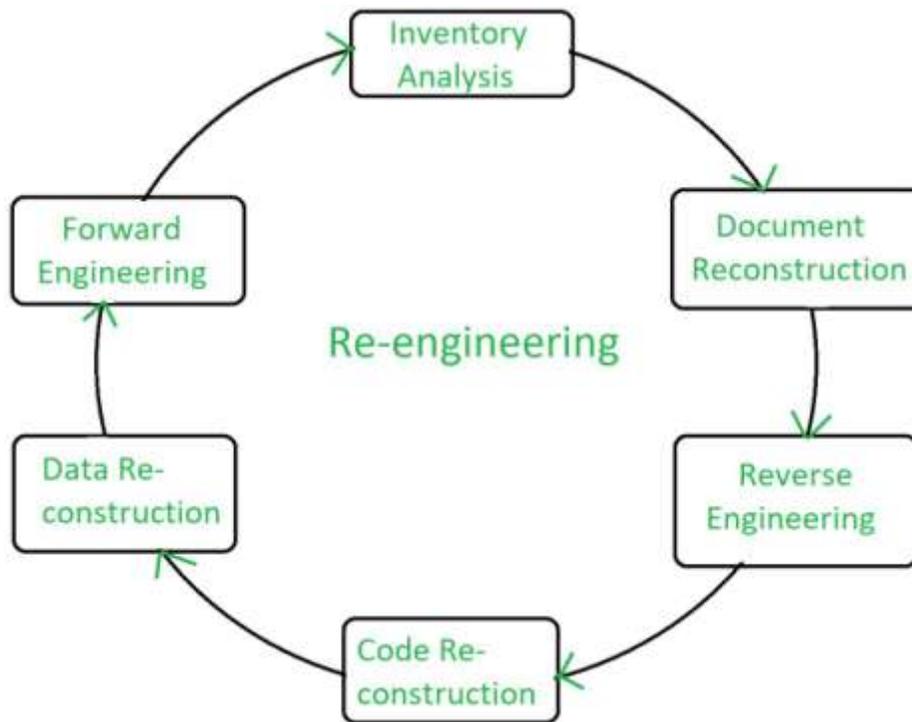
Unit: IV
Lecture: 11
Re-engineering

Software Re-engineering is a process of software development which is done to improve the maintainability of a software system.

Re-engineering is the examination and alteration of a system to reconstitute it in a new form.

This process encompasses a combination of sub-processes like reverse engineering, forward engineering, reconstructing etc.

Re-engineering is the reorganizing and modifying existing software systems to make them more maintainable.



Objectives of Re-engineering:

- To describe a cost-effective option for system evolution.
- To describe the activities involved in the software maintenance process.
- To distinguish between software and data re-engineering and to explain the problems of data re-engineering.

Advantages of Re-engineering:

- **Reduced Risk:** As the software is already existing, the risk is less as compared to new software development. Development problems, staffing problems and specification problems are the lots of problems which may arise in new software development.
- **Reduced Cost:** The cost of re-engineering is less than the costs of developing new software.
- **Revelation of Business Rules:** As a system is re-engineered , business rules that are embedded in the system are rediscovered.
- **Better use of Existing Staff:** Existing staff expertise can be maintained and extended accommodate new skills during re-engineering.

Disadvantages of Re-engineering:

- Major architectural changes or radical reorganizing of the systems data management has to be done manually.
- Re-engineered system is not likely to be as maintainable as a new system developed using modern software Re-engineering methods.