Software Re-Engineering

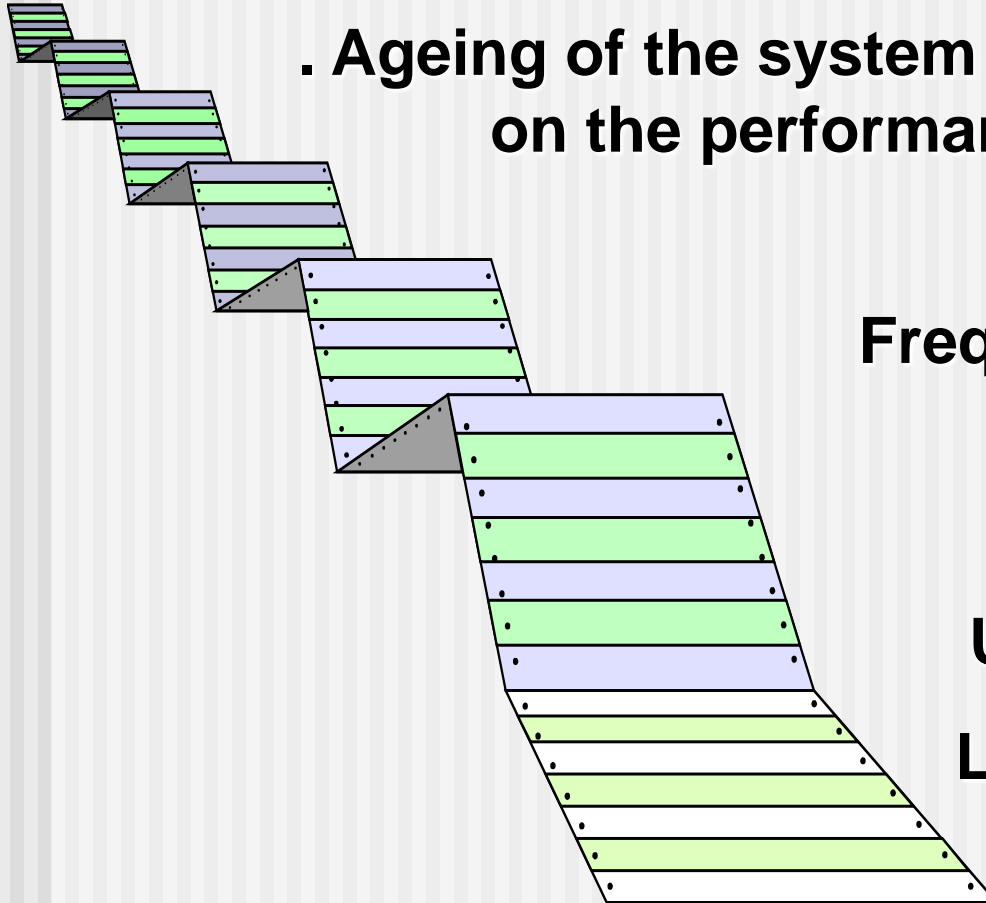**Dronacharya College of Engineering**

Software Re-Engineering

Re-engineering means having a re-look at an entity, such as process, task, design, approach or strategy using engineering principles to ring improvment

Reasons And Necessity

. Ageing of the system and its impact on the performance

Frequently failure

Use of outdate technology Leading to cost implication

Steps in Re-engineering

- *Goal setting*
- *Critical analysis of existing Scenario*
  (process, task, design, methods)
- *Identifying the problems and solving them by way of new thinking*

  The re-engineering approach attacks five parameters, namely: management philosophy, pride, policy, procedures and practices to bring in improvement in cost, quality, service and speed

Need for software Re-engineering

- Software once developed and accepted by the customer and users, become ineffective over a period due to changes in business environment. The changes could be new process definition, new rules, new strategies and so on

Software re-engineering Activities

✓ Redefining software scope and goals

✓ Redefining SRS by way of additions, deletions and extensions of functions and features.

✓ Redesigning the application design and architecture using new technology

✓ Restoring to data restructuring, improving database design, code restructuring to make it size smaller and efficient in operations.

✓ Rewriting the documentation to make it more user friendly

Techniques :of software Re- engineering

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1.Reverse engineering

2.Forward engineering

Reverse engineering

In reverse engineering , we disintegrate or disassemble the software in parts and components to understand its design, architecture and application from all angles

In reverse engineering, we analyze the software by breaking it down to suggest improvements

Forward engineering

In forward engineering , we take the existing software product and re-design it as a new system by moving it forward to new architecture and new platform in an effort to improve its overall behavioral quality

such as performance, recovery, reliability.