- System Implementation
  - System testing
    - Defintion
      - Process of testing software such that it fails
    - Types of software testing
      - Black box testing - System testing falls under this.
        - Usability Testing
          - how flexibility and comfort is it to user
        - Load Testing
          - Can system withstand real-life load
        - Regression Testing
          - Testing any error/bug while adding new features and also if any old bug comes if addition to the feature
        - Recovery Testing
          - Testing its reliability and trustworthy after a program crash
        - Migration Testing
          - System can smoothly change from old to new system without any error
        - Functional Testing
          - Overall testing of system of function
        - Hardware/Software Testing
          - Interaction between hardware and software and its smoothness
      - White box testing - testing of software code
  - System Quality
    - Definition
      - Construction of executable program and delivery of that system into production
        - how should be build
        - it is operational and used
        - Meets the quality standard
    - Software Quality Assurance (SQA)
      - Definition
        - it is the process through which developed software is ensure to meet and comply by the defined or standardized quality measures
        - It is involved in each phrase of SDLC until the software is completed. Without SQA approve, development won't move to next phrase
      - Activities of SQA
        - Employing proper methods and tools for developing
        - Conduct of Formal Technical Review
        - Testing the software
        - Enforcement of standards (customer or management)
        - Control of change (Asses the changes need with proper documentation)
        - Measurement (quality)
        - Keeping detail records
      - Formal Technical Review
        - It is performed by engineers
        - Objectives
          - Uncover errors
          - Verifying that software meets requirements
          - Software is presented according to predefined standards
          - Develop in uniform manner
          - Making project manageable
      - walk-through
        - It is a way in which software is review by peer

Feedback in short
        - Objectives (through eyes of peer)
          - Find possible errors
          - Violation of development standards
          - Other problems
      - Inspection
        - Definition
          - An organized examination or formal evaluation exercise
        - Objectives
          - measurement
          - Tests
          - specified requirements are met
          - standards are met
  - System Installation
    - Definition
      - it is at act of making program ready to executed (includes device driver and plugins)
        - Installation

It is done through "installer" and it copies codes to the local machine for OS to use.
        - Uninstall

Since it involves multiple location, deletion of it can't just be done by deleting the local folder and involves. Deleting from register files and deep code into the system.
    - Types
      - Attended
        - Needs use to be present. Normal wizard based installation
      - Silent
        - Background installation, that doesn't display anything. Malware/Virus are example
      - Unattended
        - installation that does not require any user interaction
      - Headless
        - Installation without computer monitor. Use through LAN connection. Server based installation
      - Scheduled or automated
        - That runs on a present time or when a predefined condition is met. Windows update is one of the example
      - Clean
        - Installation of new software. By removing previous/old version from the system
      - Network
        - Client - server based installation. Where the package is installed in server and different clients can use that
  - System Maintenance
    - Definition
      - On-going maintenance of system after it has been in operation
    - Difficulties
      - Since it is the costliest and longest phrase, A well strategies plan is made to minimize the cost
      - Consideration are given to evaluation and monitoring of a system for need and maintenance and consequently
      - Organization should be flexible to support old system along with new technologies
    - Types
      - Corrective
        - Errors/bugs during operation that weren't found in implementation phrase and correct this error/bug
      - Customized
        - creation of new features or adapt to existing ones
      - Enhancement
        - Enhancing or improving system performance. Either by adding features or by evolving it to update new system
      - Preventive
        - Timely and properly performed maintenance
    - Process
      - Filling up the request form
      - Evaluating the request
      - Changing the system according to the request
      - Testing the changes
      - Documenting the changes