

* ASSIGNMENT 3 *

Q1. Explain SQA activities.

- Prepare SQA plan for a project
- Plan is developed as part of project planning & is reviewed by all stakeholders.
- Quality assurance actions performed by SE team & SQA group are governed by plan.
- The plan identifies evaluations to be performed, std that are applicable to proj, procedures for error reporting & tracking work prod that are produced by SQA group, & feedback that will provide to SW team.
- Review SE activities to verify compliance with defined SW process.
- The SQA group identifies, doc, and tracks deviations from process & verify that corrections have been made.
- Audit designated SW work product to verify compliance with those defined as part of SW process
- The SQA grp reviews selected work products, identifies, docs and tracks deviations verifies that correction have been made.
- Ensure that deviations in SW work and work product are documented & handled acc to a doc procedure.
- Deviations may be encountered in project

plan, process description, applicable standards or SE work products.

- Records any noncompliance & reports to senior management.
- Non compliance items are tracked until they are resolved.

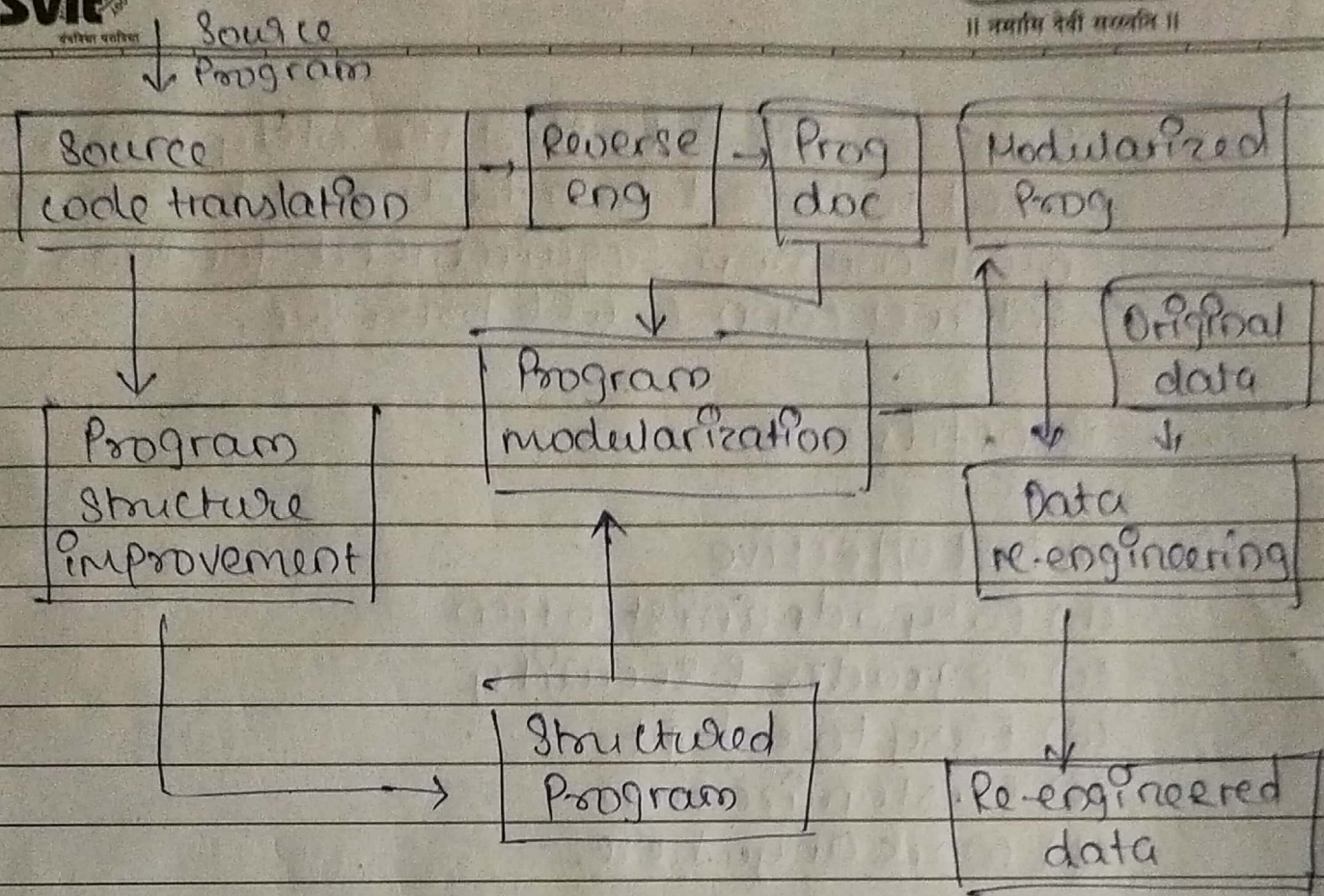
Q2. Explain slw re-engineering Process model.

- slw re-engineering means re-structuring or re-writing part or all of SE system.
- slw re-engineering is needed for application which require frequent maintenance.

→ Advantages of slw re-engineering.

- Reduced risk - re-engineering allows developer to eliminate certain constraints on system. This help in reducing risk of failures.

- Source code translation - In this phase code is converted to new language.
- Reverse engineering - under this act program is analysed & understood thoroughly.
- Program structure improvement - Restructure automatically for understandability.



- Program modularization - The program structure is reorganized.
- Data re-engineering - Finally clean-up & restructure system data.

Q3. Explain S/w as a Service (SaaS)

- S/w as a service is a S/w delivery method. This method provides access to S/w & its func as a web-based services.
- S/w as a service allows org to access business functionality at a cost typically less than paying for licensed application becoz pricing of SaaS is based on monthly fees.

→ This service is hosted remotely users don't need to invest in additional hardware. The most common requirement for SaaS is only internet conn & web browser.

→ Benefits

- (a) Cost effective
- (b) Easy administration
- (c) Upgrades & security
- (d) Easy to adopt
- (e) Customization
- (f) Work anywhere

→ Examples of SaaS

| Programming framework | Prog language |
|-----------------------|---------------------|
| Active server pages | Common lang runtime |
| Java server pages | JSP |
| Rails | Ruby |

Q. Explain SIW process improvement framework

→ Process improvement means understanding existing process & changing these processes to increase product quality, to reduce cost & or to reduce development time in order to accelerate project

→ Following are process attributes focusing on concept of process improvement

- (a) Understandability : "Its process definition easy to understand?"
- (b) Visibility : "Do process activities happen in such manner that progress of process is visible?" - This aspect is focused for visibility.
- (c) Reliability : "Is process design in such a manner that process error ~~are~~ are avoided before getting introduced in product as the product error?"
- (d) Supportability : "To what extent case tools support process activities?"
- (e) Robustness : "Will system continue to work even if some unexpected error occur?"
- (f) Acceptability
- (g) Rapidity
- (h) Maintainability.