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ABM Machine: AutoMac

Software Engineering 3M04

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Overview

- ✦ Software engineering is the application of engineering to software
- ✦ Software engineering guides many engineering disciplines.
- ✦ Software engineering involves design, analysis and systematic implementation of various systems.
- ✦ It sets the conciseness by using such methods as SRS, SDS and numerous other tools.

Software Engineering Applications

- ✦ Science.
- ✦ Technology.
- ✦ Supply Chains.
- ✦ Implementation Systems.
- ✦ Principle Settlements.

It is used for the organization of any system to produce more effective designs.

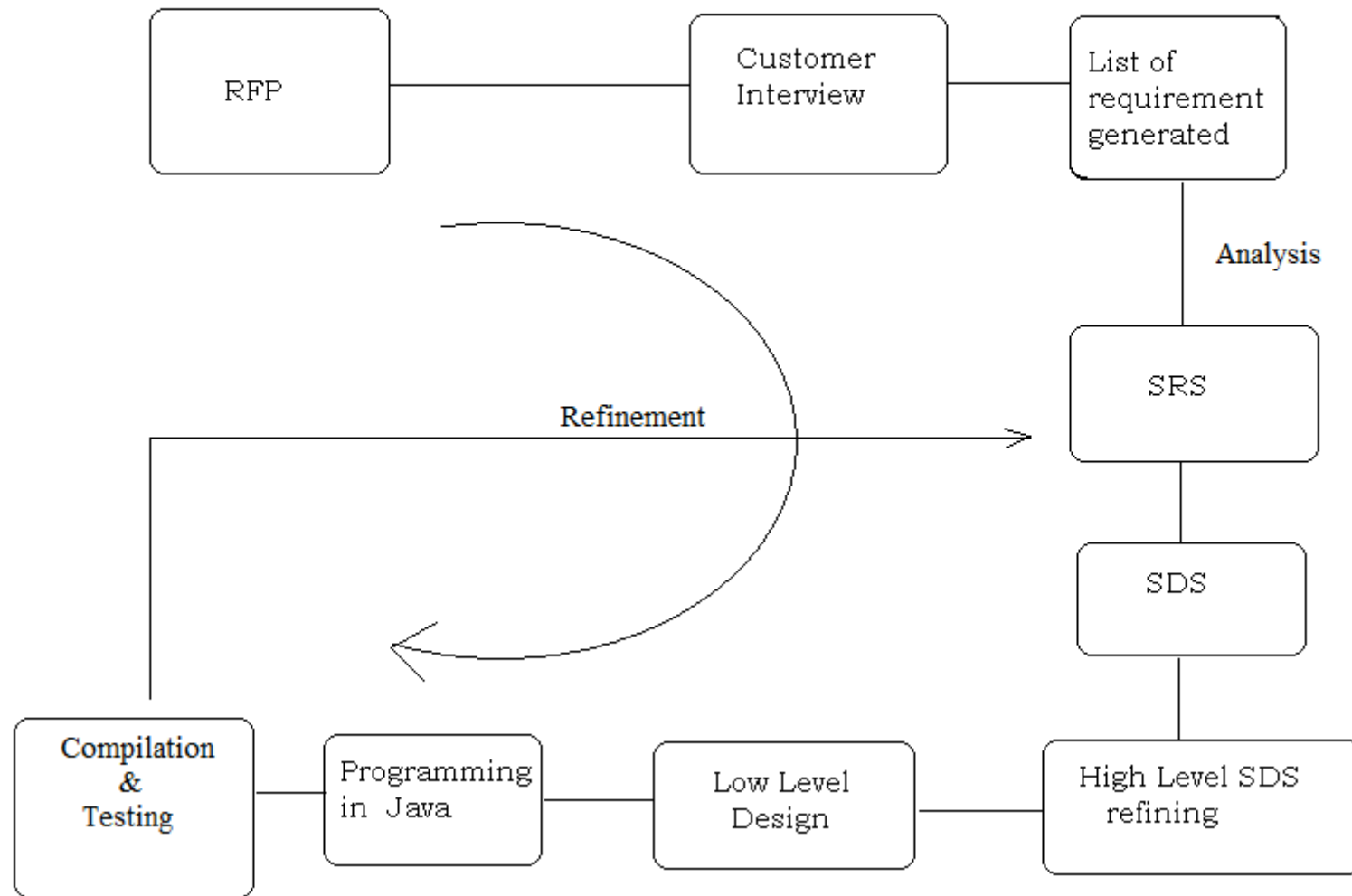
Goals of Professional Software Engineering

- ✦ Reduce wasteful designs
- ✦ Creating more robust designs.
- ✦ Presenting methodological approaches to solving dissatisfactory engineering dilemmas.
- ✦ Account for various requirements and specifications from the user.
- ✦ Divert efforts away from compromising designs to copyrights and trademarks.

Software Development Process

“Software Development Process” (SDP) is a process of refining different software artifacts at different levels

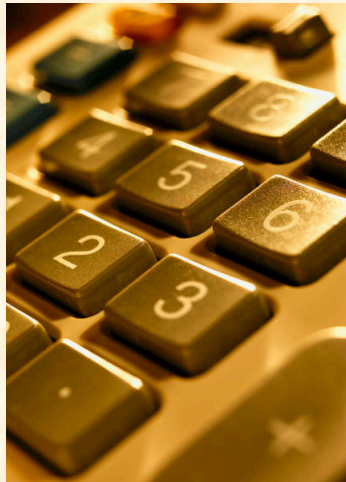
IMPLEMENTATION OF SDP



Implementation of SDP

- ✦ Short and abstract Request for Proposal (RFP) was received.
- ✦ Investigation of filed banking system helped to generate large list of features which was discussed with the customer during the customer interview.
- ✦ RFP was refined and a complete list of requirements was generated.
- ✦ SRS document was produced and analyzed using different design techniques .
- ✦ SRS was refined into UML component diagram as high-level SDS (technical and user friendly)
- ✦ High-level SDS was refined using techniques for low-level design such as modularity, UML class diagram, sequence diagram and statecharts
- ✦ low-level design that is a refinement of high-level design was generated.
- ✦ At last low level design was made and using the java programming it was implemented.
- ✦ Then java program can be converted into Assembly and machine language codes that was performed by Java compiler

SRS: Software Requirement Specification



User Interface



Vault



Transaction

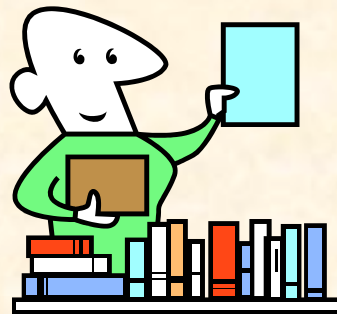


Database

SDS: Software Design Specification



Phase 1: Authentication



Client

1



2



3



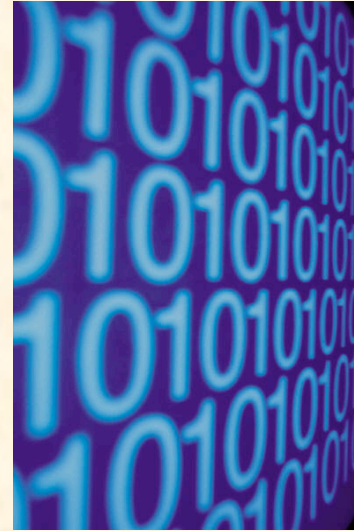
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Phase 2: Client Transaction

- Deposit
- Withdraw
- Pay Bills
- View Balance
- Transfer Money

Administrator



Phase 3: Maintenance

- Maintain Balance
- Update Customer Information
- Activate, Deactivate and Unlock Accounts

Conclusions

- ✦ A step-by-step implementation saves resources and results in a better design.
- ✦ SDS and SRS are excellent ways to approach the design of a system.
- ✦ Performance is improved when revised by a cognoscente team at every step of implementation.
- ✦ We has implemented SDP successfully which has led to a good design.

THANKYOU