

Victoria University of Bangladesh

Course code: CSI-321

Course title: Software Engineering

Submitted By

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(a) Ans to the Q: No: 1 (a)

Software Engineering is the branch of computer science that deals with the design, development, testing, and maintenance of software applications.

Software engineering apply engineering principles and knowledge of programming languages to build software solutions for end users.

## Ans to the Q No: 1 (B)

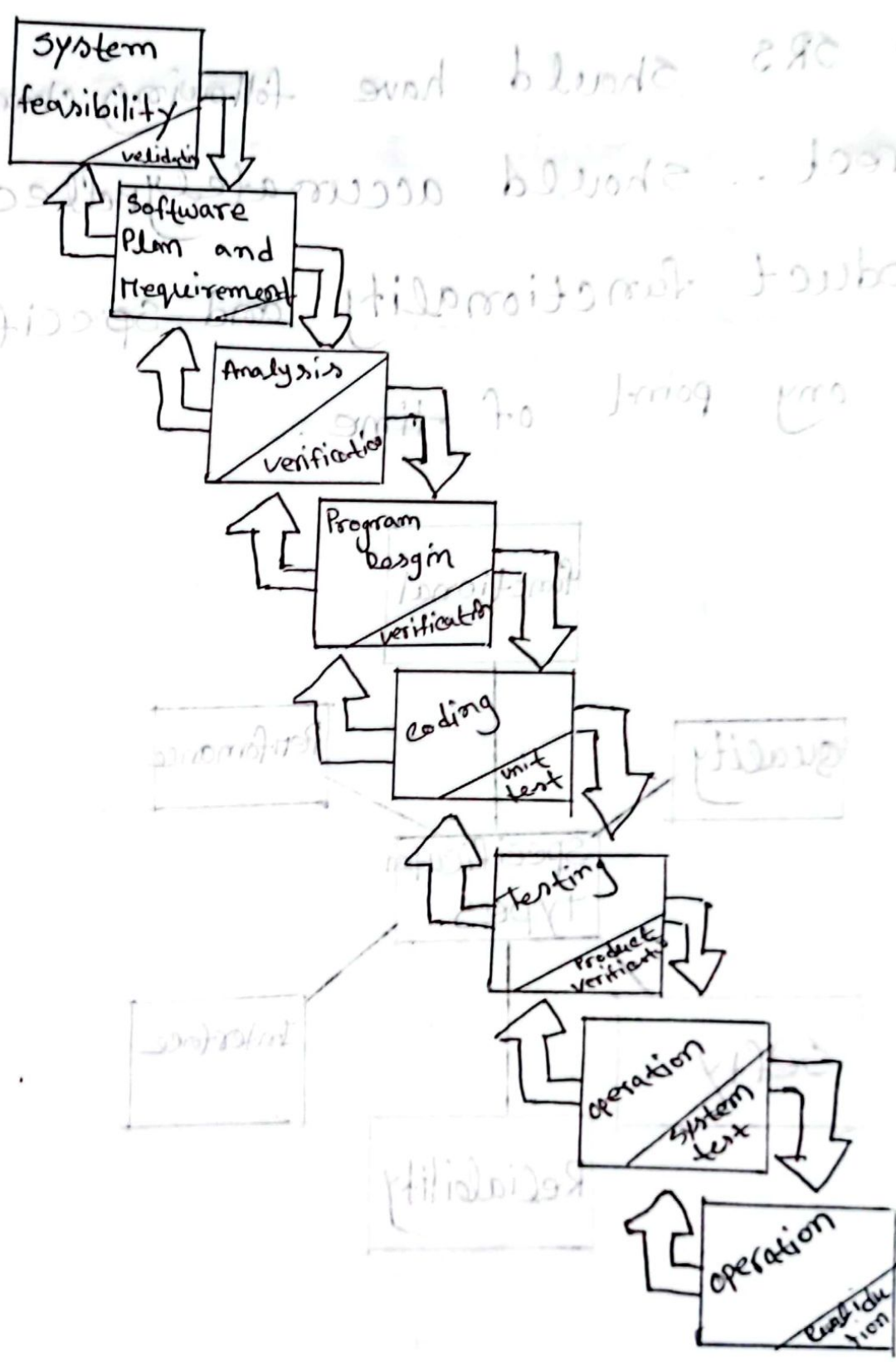
The water-fall model is a linear application development model that uses rigid phases when one phase ends the next begins.

Steps occur in sequence, and it unmodified the model does not allow developers to go back to previous steps

(hence water-fall once water-falls down, it cannot go back up)

The modified water-fall model allows a return to a previous phase for verification or validation, ideally confident to connection steps.

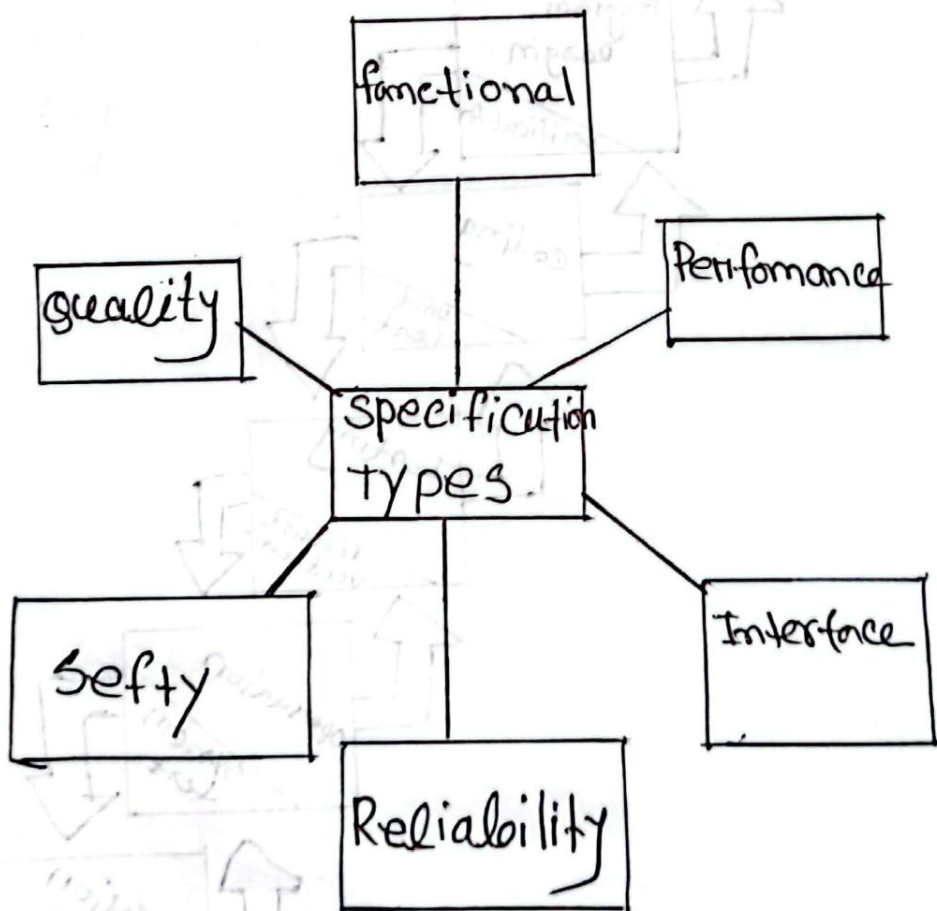
(3) The V-model





Ans to the Q: NO: 1 (c)

An SRS should have following characteristics:  
Correct.. should accurately reflect  
Product functionality and specifications  
at any point of time.



Ans to the Q: NO: 2 (A)

There are four types of Software Maintenance

① Corrective Software Maintenance

② Adaptive Software Maintenance

③ Perfective Software Maintenance

④ Preventive Software Maintenance

(A) Ans to the / Q NO. 2 (B)

Black Box Testing	White Box Testing
It is also called Specification Based Technique	It is also called Structural Testing Technique
Internal Structure and coding knowledge is not required	Internal structure and coding knowledge is required
Main concentrate on functionality of system	Main concentrate on code structure, loops conditions etc
Implementation knowledge is not required	Implementation knowledge is required.
Less time consuming	More time consuming

Ans. to the Q: No: 2

Types of documents in SQA

- ① Test plan
- ② code control
- ③ Reference
- ④ Bug Report
- ⑤ Checklist
- ⑥ Purpose
- ⑦ Risk Management
- ⑧ software design
- ⑨ software testing.



Ans to the Q: NO113 (1)

Software Project Management is the process of Planning and leading Software Projects.

It is a sub-discipline of Project Management in which Software Projects are planned, implemented, monitored and controlled.

Ans to the Q: NO: 3 (B)

The Project Management is the individual responsible for delivering the project. The individual leads and manages the project team, with authority and responsibility from the project board to run the project on a day-to-day basis.

As well as the formal responsibilities set out in methods such as Prince 2 the project manager has an important role in Interfacing between the Project and business area.

\* designing and applying appropriate Project Management.

\* Meaning the Project to the required deliverables.

\* Planning and Monitoring the Project.

\* Managing Project Risks. Including the development of contingency Plans

\* Establish a good ~~As~~ working Relationship with the senior responsible owners

\* Direct, Manage and Motivate the Project team.



Ans to the q No: 3 (c)

Even though, iterative model is extremely beneficial. there are few drawbacks and disadvantages attached to it. such as each phase of an iteration is rigid with no overlaps.

- \* More Resources may be required
- \* More management attention is required
- \* it is not suitable for smaller Project
- \* Highly skilled resources are required for skills analysis.
- \* Defining increments may require definition of the complete system.



## Ans to the Q No: 4(a)

Quality is defined as constant conformity to the expectation of the customers in an organisation. Others define quality as excellence, absolute best, value, etc. when quality is defined in accordance with organisations. It is the organisation that has to survey and classify. Low quality is defined and perceived by their customers so that they can work towards meeting these expectations.

Quality is critical to satisfied customers.

if you fail to meet customer expectation they will quickly look for alternatives.

Quality is critical to satisfying your customers and retaining their loyalty so they continue to buy from you in the future. Quality Product make Important contribution to long-term revenue and Profitability.

Establish your Reputation : quality reflects on your company Reputation. The growing Importance of social media means that customers and prospects can easily share both favorable opinions and criticism of your Product quality on forums, Product review sites and social networking sites, which can boost your sales.



Ans to the Q: NO: 4-(B)

SQA is a set of activities that verifies that everyone involved with the project has correctly implemented all procedures and processes.

SQA works parallel to software development, an ongoing activity applied throughout the software development life cycle.

- \* A defined quality management approach
- \* Holding formal technical reviews
- \* Implementing a multi-testing strategy

\* A measurement and reporting mechanism.

Additionally, all software quality assurance Programs contain the following ~~to~~ vital elements.

- ① Software engineering Standards
- ② Technical Reviews and audits
- ③ Software testing for quality control.
- ④ Error collection and analysis
- ⑤ change Management
- ⑥ security Management
- ⑦ safety.