IT BRIDGE

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WEEK2

DAY1

- SDLC Terminology
- Cloud Services
- SLA
- Activity

SDLC Terminology

The Software Development Life Cycle (SDLC) is a structured approach to developing high-quality software efficiently. It defines the stages involved in transforming an idea into a fully functional application, ensuring that the system meets business requirements is reliable, and is cost-effective.
End user is also one part of development.

Cloud Services

Cloud services refer to on-demand computing resources, such as storage, databases, networking, and software, delivered over the internet.
Infrastructure as a Service (IaaS): Provides virtualized computing resources like servers, storage, and networking

Service Level Agreement (SLA)

A Service Level Agreement (SLA) is a formal contract between a service provider and a customer that outlines the expected level of service, performance metrics, and responsibilities. It defines key aspects such as uptime guarantees, response times, resolution times, and penalties for non-compliance.

- Service Availability – Uptime percentage (e.g., 99.9% availability).
- Response & Resolution Time – The time taken to address and fix issues.
- Performance Metrics – Speed, latency, and efficiency benchmarks.
- Penalties & Remedies – Compensation if the provider fails to meet the agreed standards.

Activity

EXERCISE: COMMUNICATION

A businessman just turned off the lights in the store when a man appeared and demanded money. The owner opened a cash register. The contents of the cash register were scooped up, and the man sped away. A member of the police force was notified promptly.
Statement based on the paragraph contents:

True False Info not given

1. **A man appeared after the owner had turned off his store lights.**
2. **The robber was a man.**
3. **The man did not demand money.**
4. **The man who opened the register was the owner.**
5. **The store owner scooped up the contents of the cash register and ran away.**
6. **The businessman opened the cash register.**
7. **The robber did not demand the money from the owner.**
8. **After the man who demanded the money scooped up the contents of the register, he ran away.**
9. **While the cash register contained the money, the story does not state how much.**
10. **The robber demanded money from the owner.**
11. **The story concerned a series of events in which only three persons are referred to: the owner of the store, the man who demanded money, and a member of the police force.**
12. **The following events were included in the story. Someone demanded money, a cash register was opened, its contents were scooped up, and a man dashed out of the store.**

EXERCISE: INTERPRETATION

Define: Fact or inference
Bhargav, a buyer with XYZ Company, was scheduled for a 10 o'clock meeting in Saxena's office to discuss the terms of a large order. On the way to that office, the buyer slipped on a freshly waxed floor and, as a result, received a badly bruised leg. By the time Saxena was notified of the accident, Bhargav was on the way to the hospital for X-rays. Saxena called the hospital to inquire, and no one there seemed to know anything about Bhargav. It's possible that Saxena called the wrong hospital.

Having read the above paragraph, please classify each of the following statements as 'fact' or 'inference'. Use the following as definitions:

Fact: A statement that can be easily verified by checking its sources.
Inference: A statement about the unknown, based on what is known.

1. Mr. Bhargav is a buyer.

2. Bhargav was supposed to meet Mr. Saxena.

3. Bhargav was scheduled for a 10 o'clock meeting.

4. The accident occurred at the XYZ Company. Inference 5. Bhargav was taken to the hospital for X-rays. rerin

6. No one at the hospital which Saxena called seemed to know anything about Bhargav.

7. Saxena called the wrong hospital.

Write a fact of your own based on the above story.

WEEK2

DAY2

- Purpose of SDLC
- Spiral Model
- V-Model
- Scrum Cycle
- Activity

Purpose of SDLC

The purpose of SDLC is to provide a structured and systematic approach to software development.

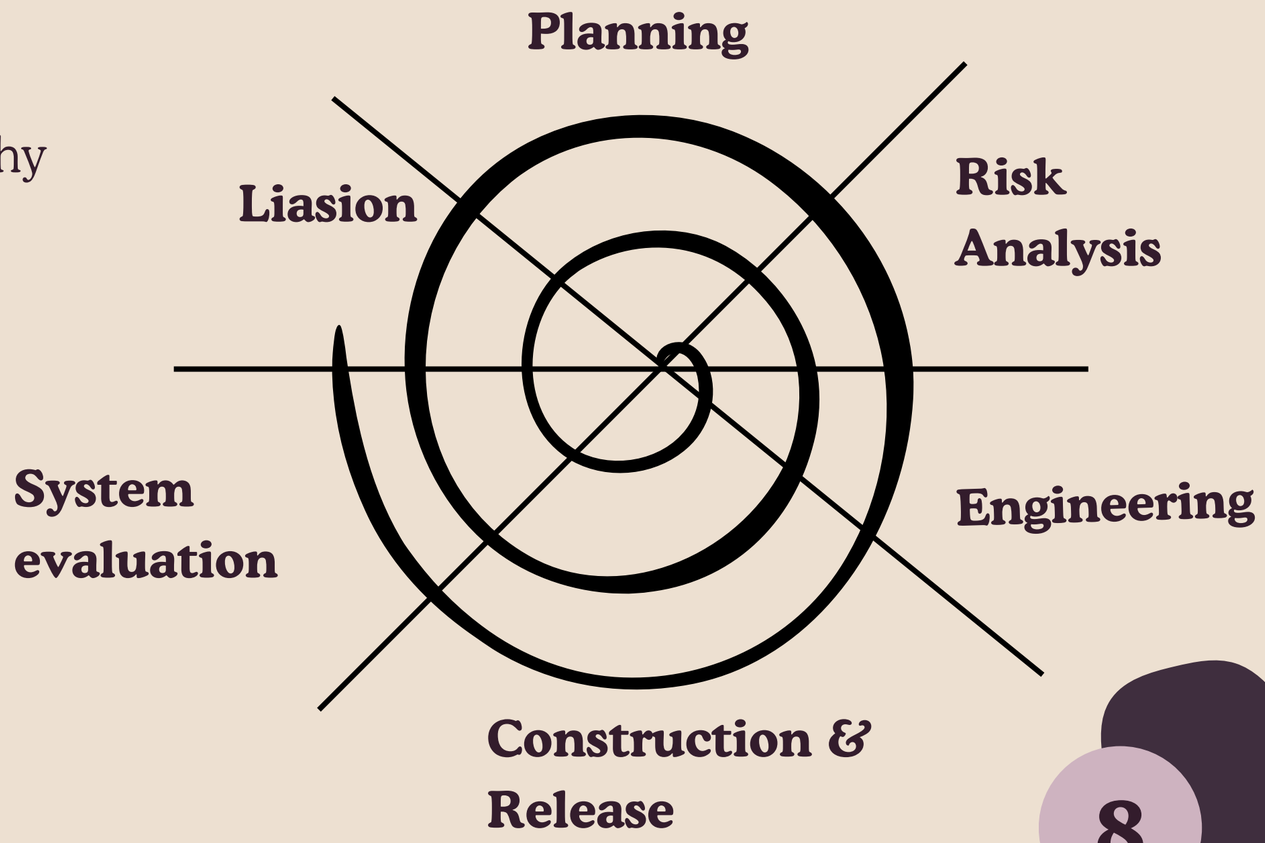
- Allows the planning of workload
- illustrate key events
- Milestone for management control.

Spiral Model

The spiral model is similar to the incremental development for system,with more emphasis placed on risk analysis.

In every phase, there will be one FTR.

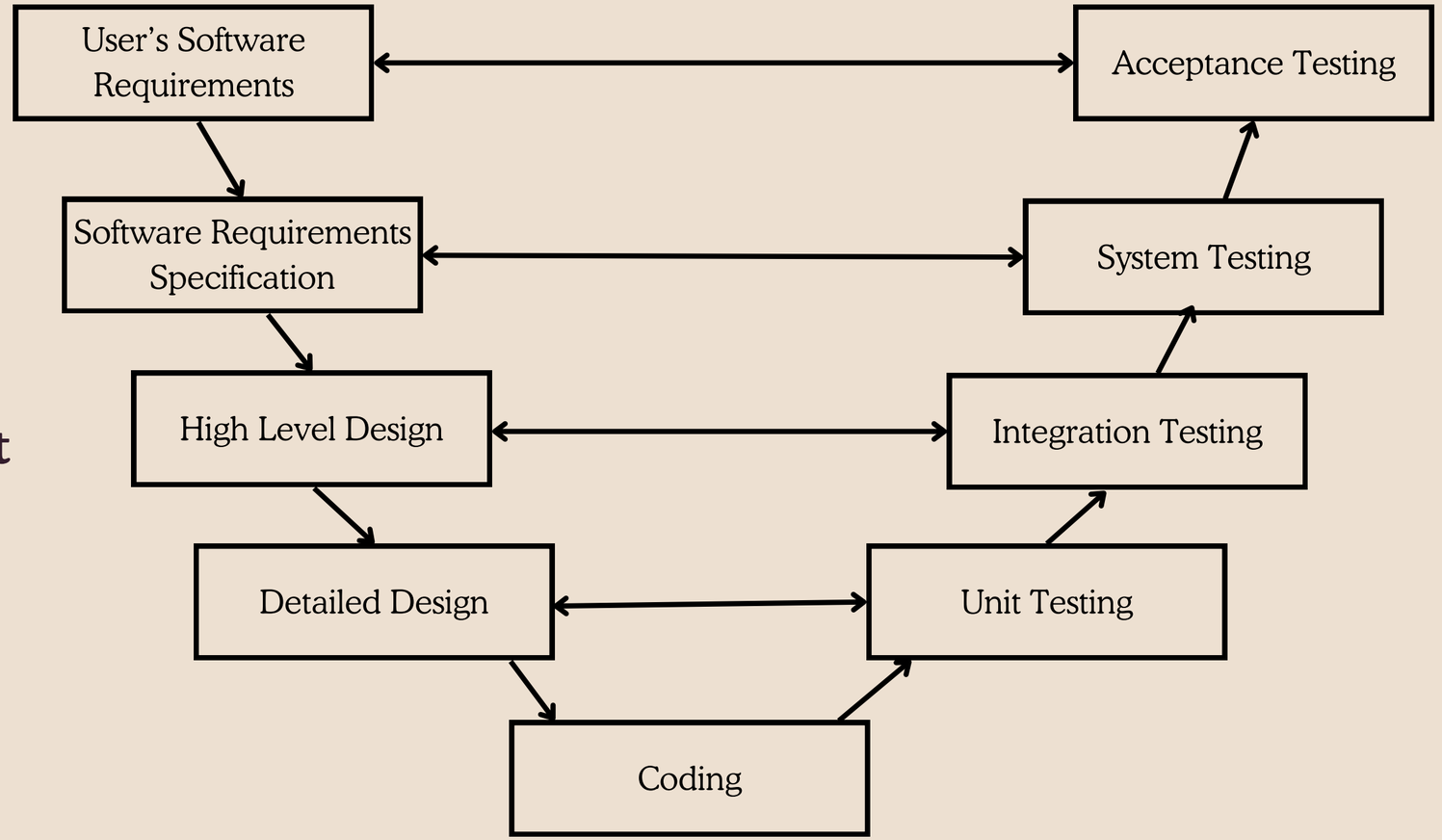
In FTR will either approve or give the reason why not this.



V-Model

The V-Model is an extension of the Waterfall model where development and testing activities run in parallel.

Review/Test



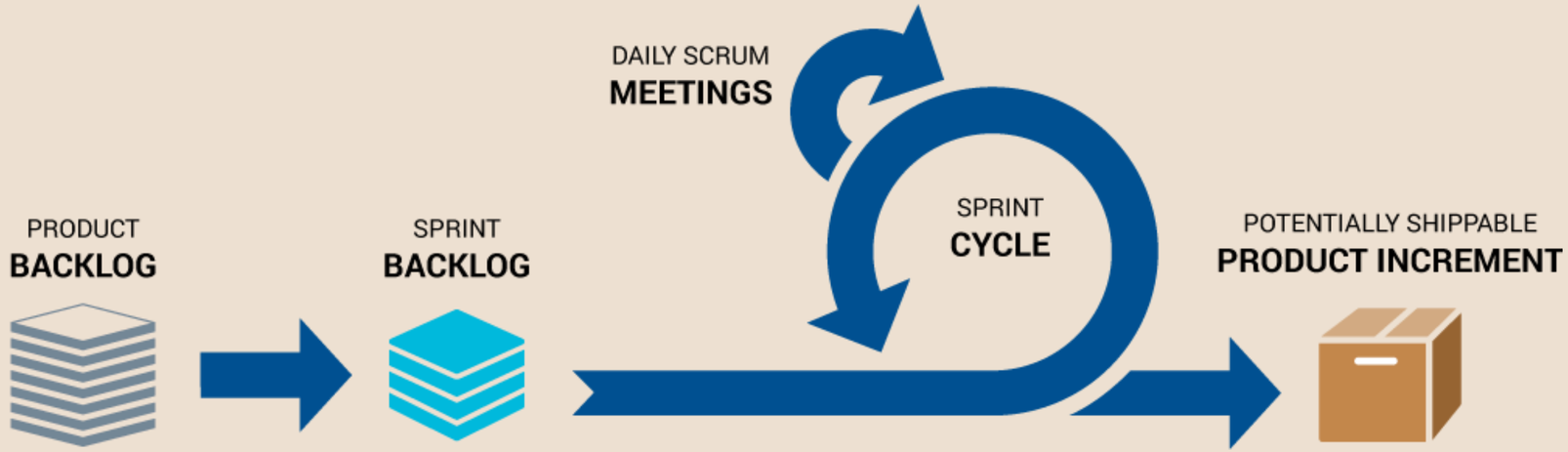
Software Development

Quality Assurance

Project Management

Scrum Cycle

The Scrum Cycle is an iterative framework used in Agile software development to deliver high-quality products in a fast and flexible manner. It is based on short, time-boxed iterations called Sprints, which typically last 2 to 4 weeks.



Activity

WEEK2

DAY3

- Weinberg-Schulman Experiment
- Software Architecture

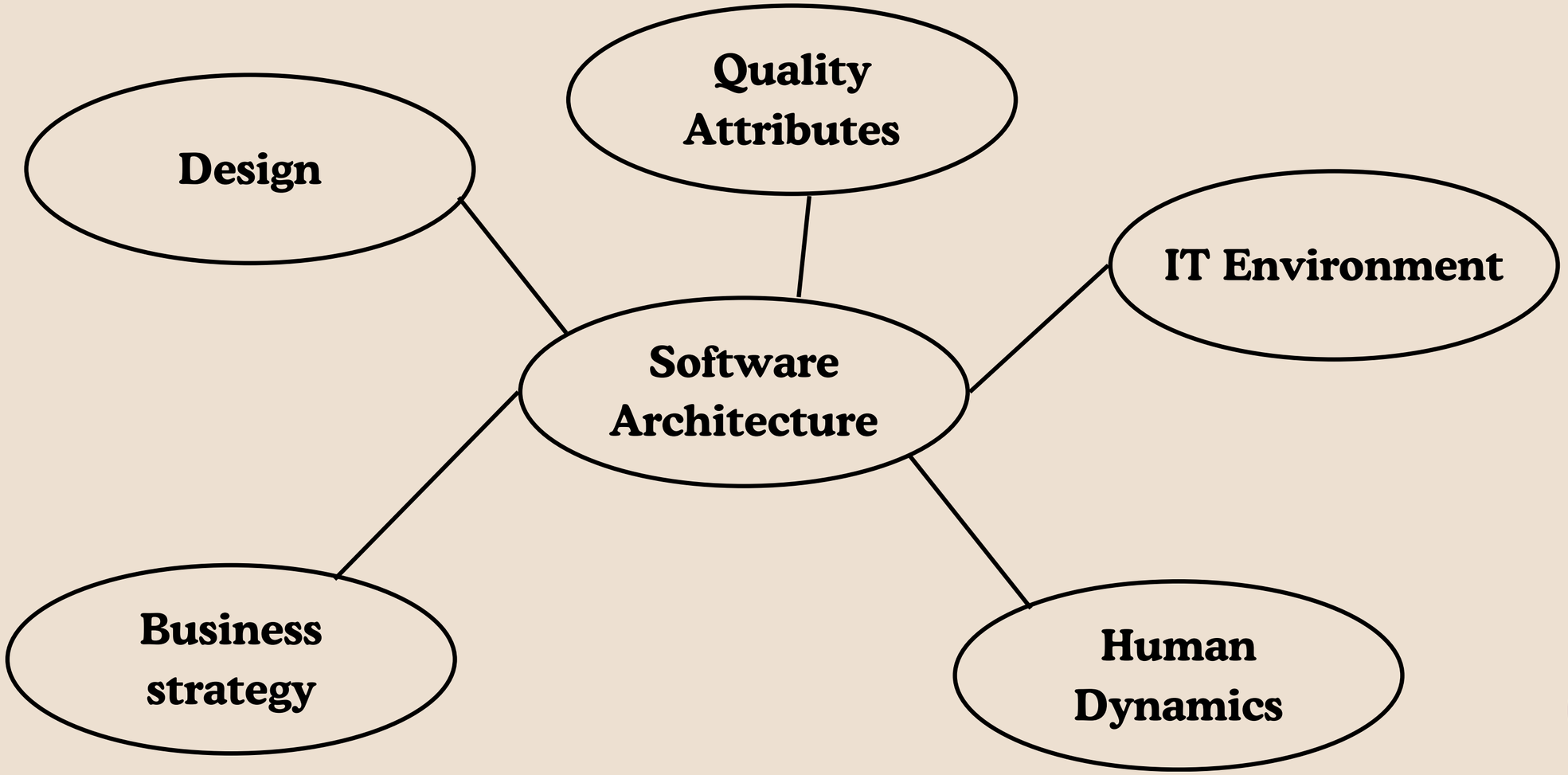
Weinberg-Schulman Experiment

The Weinberg-Schulman Experiment was a study that examined the relationship between goals and performance in computer programming.

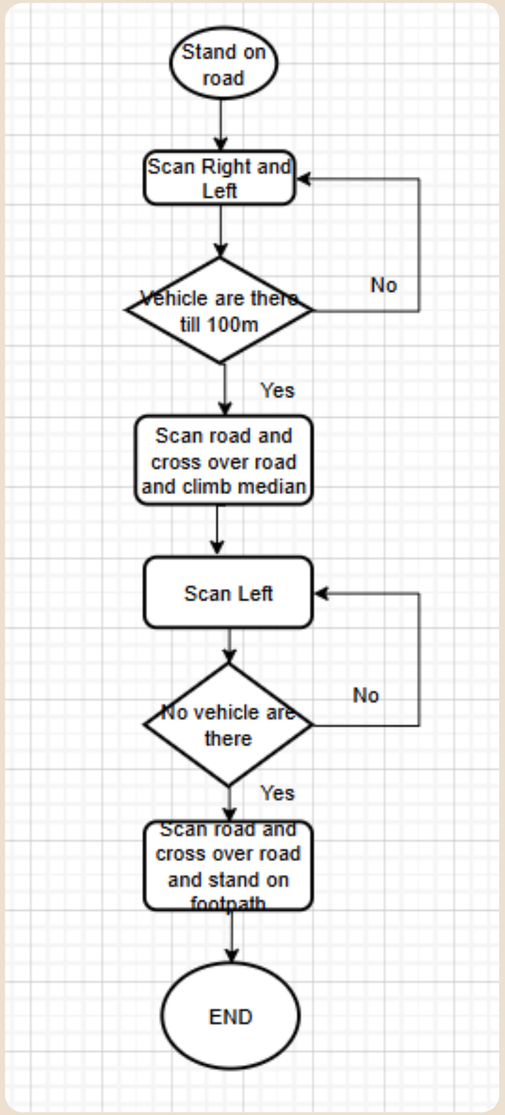
	Completion time	Program Size	Dataspace Used	Program Clarity	user Friend Output
Completion time	1	4	4	5	3
Program Size	2-3	1	2	3	5
Dataspace Used	5	2	1	4	4
Program Clarity	4	3	3	1-2	2
user Friend Output	2-3	5	5	1-2	1

Software Architecture

Architecture is a means towards an end.



Activity


Stand on road
Scan Right and Left
Vehicle are there till 100m
No
Yes
Scan road and cross over road and climb median
Scan Left
No vehicle are there
No
Yes
Scan road and cross over road and stand on footpath
END

WEEK2

DAY4

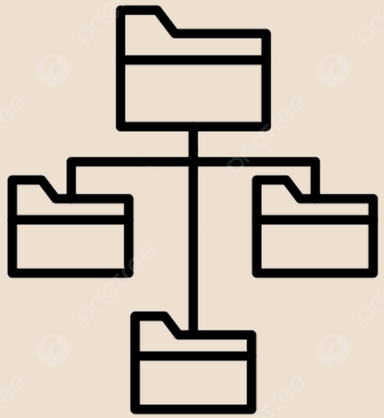
- Data & Information
- File System
- Class & object
- Two components of a DBMS
- Database Interface Language
- ER Diagrams

Data & Information

Data is a collection of raw facts.
When ever is being processed and meaning is derived out of it is know as a information.

File System

A file system is a structure that organizes and manages files on a storage device.



Class & object

A class is a blueprint or template for creating objects.
An object is a real world entity which have Attributes and Operations. Object is also called an instance of class.

Two components of a DBMS

An intergrated collection of interrelated data, called database.
Structure of the database called database schema.

Database Interface Language

- DDL
- DML
- DCL

Compilers

- DDL Compiler
- DML Compiler
- DCL Compiler

ER Diagram

THANK YOU