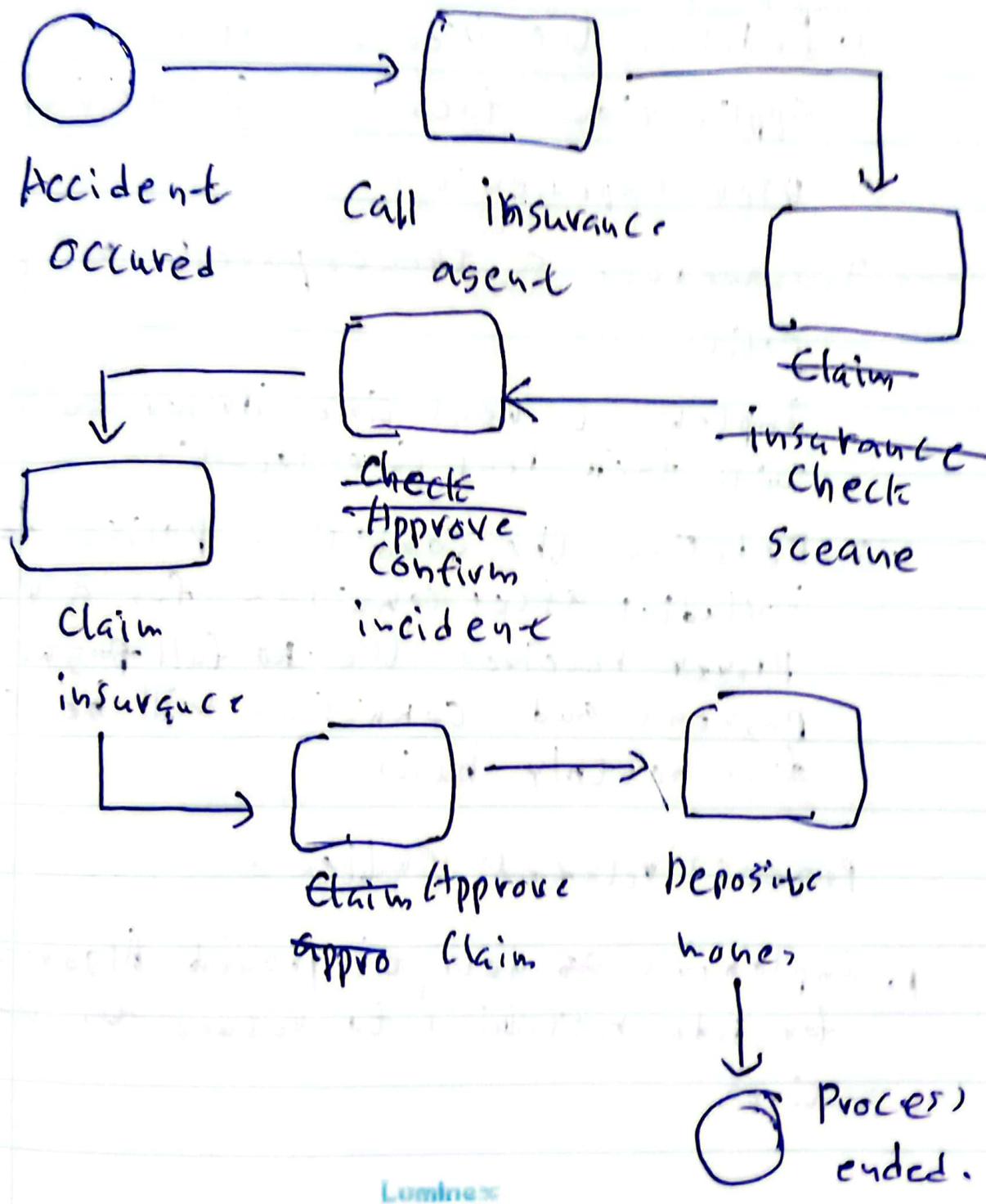


# IT Governance and IT Auditing

## 4 Assignments

What are White Papers

Car Accident business Process



## Business Strategies

### In class Movie 1

solutions for people ~~poor~~ challenges

1. Redesign the User Interface of the application focusing accessibility and user experience.
2. Introduce a transparent pricing policy.

Implement real time driver availability with their real time location.

3. Redesign the commission policy ~~with~~ including after commission for a ride. Driver receives the ~~no~~ full payment (disbursement) and commission will be scheduled in monthly basis.

### Process related Challenges

1. Implement a new, improved algorithm for ride matching to reduce the wait time.

## ~~Caterpillar business behaviour~~

Introduce

2. Implement a separate BI module for the demand prediction.
3. Introduce ~~CRM~~ Improved CRM System

Technology related challenges'

Setup

1. Move to Hybrid cloud platform for the infrastructure to handle the load according to the demand.
2. Replace the existing payment gateway with dedicated, well function payment gateway like Paytm, PayU, etc.
3. ...

Example: 13 winners and TCS Alishan

Customer buying analysis

Association Analysis

Moving basket Analysis

## IT Alignment

EA - Business / Strategy  
Application  
Data  
Infrastructure

## Associations analysis

Interactions Operations such as Order taking, kitchen management and delivery.

2. Fast Service, personalized Steaks, digital recommendations, payment

3. Reducing the waste and ensuring ingredients available for making food.

4. Data Analytics and demand forecast Resource Allocation

5. Technologies Integration such as Mobile, Order tracking, CRM

Find out a mark why an enterprise  
Architecture is needed for business  
strategy data layer, application  
layer and technology layer  
Justify the answer.

Date  
Care, stdj - Family Medicare

Data Architecture

Data-driven ~~matrix~~ decision matrix

Importance of Data structure & organization.

Data center

Master database, Transaction database

Master Date Management

Transactions Data Management

Data Protection

How to ~~temporal~~ Update a record in a database ~~for~~ for a specific ~~date~~ time period without affecting to the future events.

HL7 Healthcare protocol

The primary goal of Enterprise ~~Arch~~ Architecture - B  
Luminesc

EA artifact B

Architecture Definition is the first phase of EA development

Value Chain Analysis

Frameworks - Much

~~key com~~ mobile

Game

Key components of an Enterprise Architecture

Meta Data

Power BI

Business Intelligence

Business Analytics

API Catalog

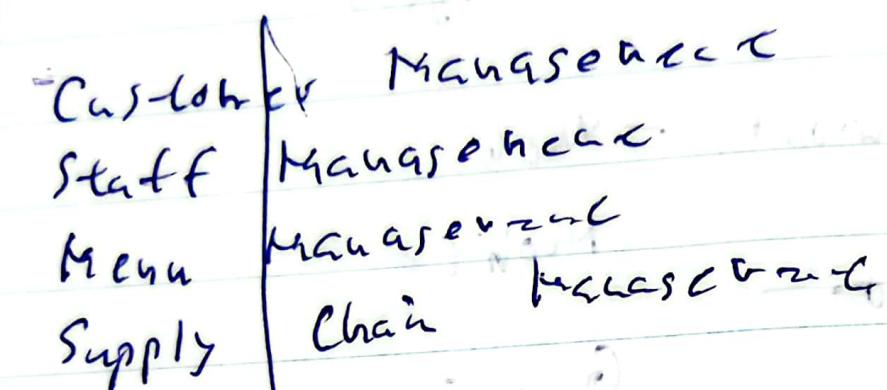
Cloud Computing

Security Framework

Lumines

# Risk Management

## Enterprise Architecture Diagram for a Restaurant



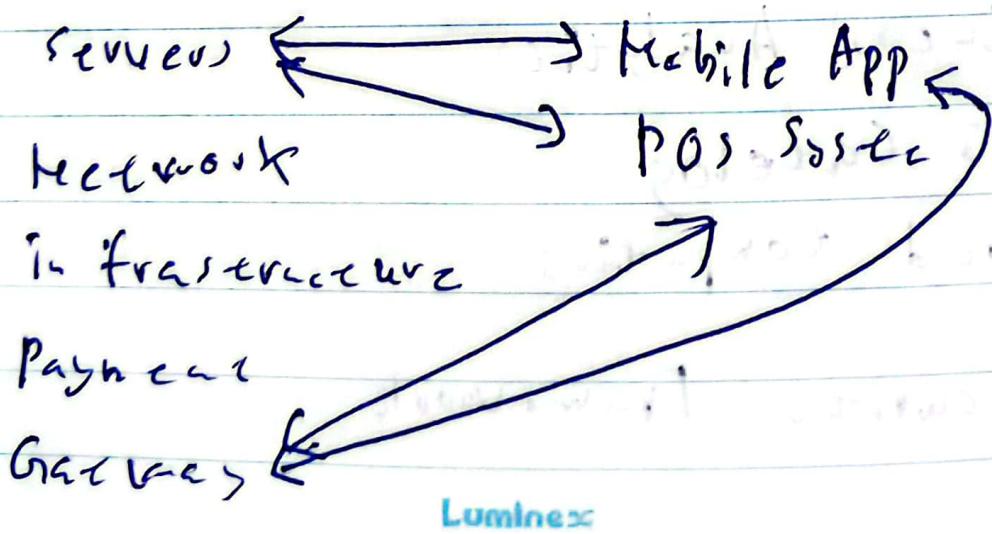
Customer facing Applications

POS

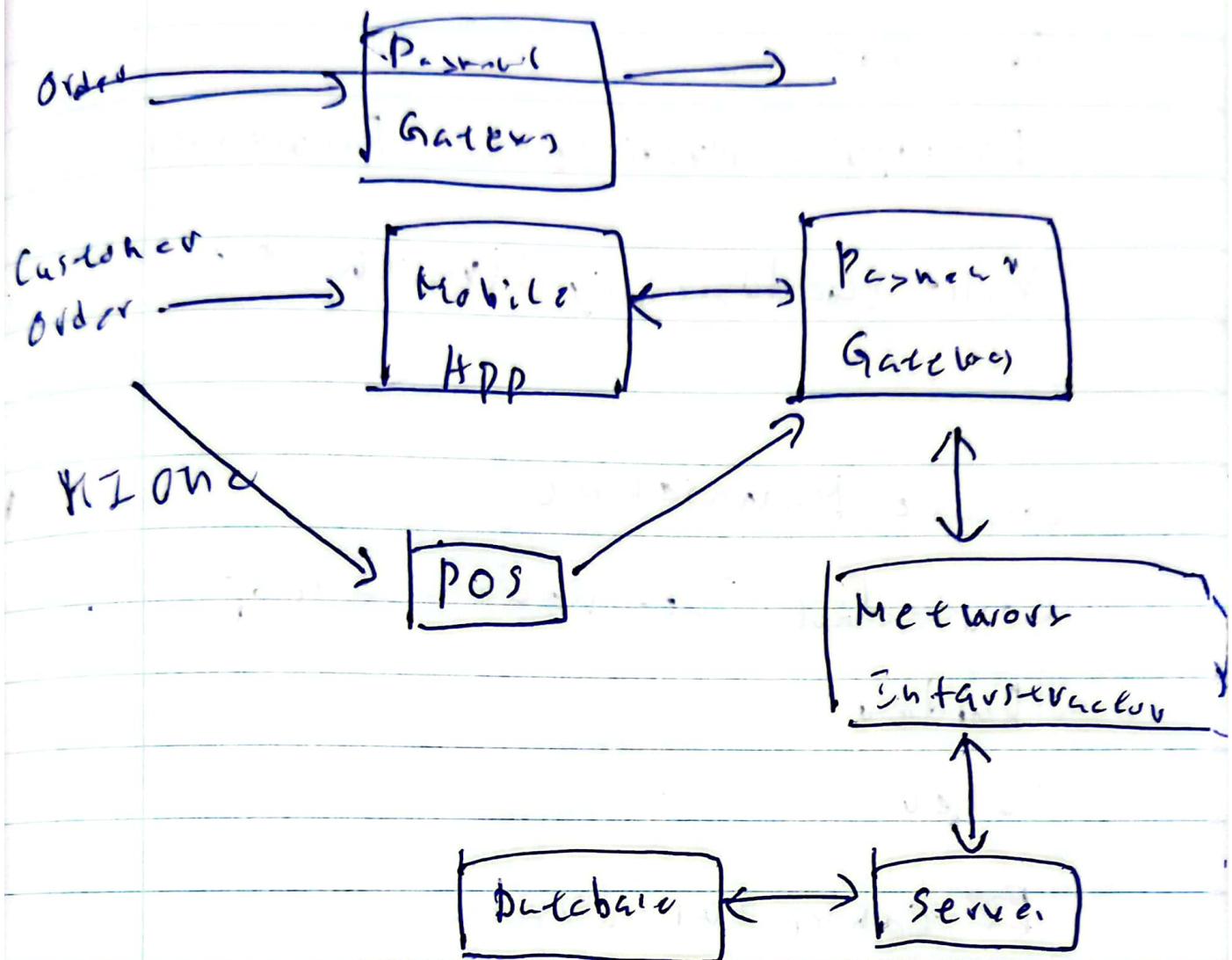
Kitchen Display System

CRM System

Components



Date



2025.04.06

Frameworks

Enterprise Architect

Five ~~the~~ levels

Well ~~set~~ logically structured

choose reasonable

Contextual Information, step

Builder.

UML

ER conceptual diagram

logical diagrams

physical database

detail specification

Info, behavior, using, what, ~~how~~, how,  
when, where

# Zachman Framework Matrix for a Banking Sector

perspective	Value	How	Where	Who
(Rows)	(Data)	(Function)	(Network)	(People)

Planner

(Scope)

Business Account S  
Model

people  
private &

Technology  
Model

Fragrance Analysis

Online Banking Loss

Online Bank Withdrawal

What - Card number, Amount, Account balance

How - User enters Account number → User enters amount → System checks balance → Money withdraw

Where - ATM, bank ~~server~~ account holder server

Who - Customer

When -

Why - Withdraw money,

## Loan Application and Approval

What - ~~card number~~ loan amount  
Credit Readiness

How - Submit loan application →  
Analysis credit readiness →  
Grant loan

Where - loan Application,

Who - customer, loan officer, bank manager

When → ~~Customer~~

Why - Grant loan

Online Money Transfer

Migration Plan

1. Data
2. Module

Change management

Trigger

The Open Group Group Fram

4 France Model

Business Architecture

Information System

Technology Architecture

## Green IT definitions

Reducing Power consumption and  
Carbon emission improving System  
Performance

Promoting Interactions and  
Collaboration

Computer desposis is Coming into  
Green IT

### Virtualization

Reducing consumption of Energy

1. Reducing power consumption and carbon emission
2. Desposis of electronics
3. Data centers

Electronic waste policy  
Planned e-waste collector - CEA  
Air Quality Index  
User satisfaction

CRUD

from DB

spin boot

Streamline Business Process

Business Analytics with AI

Business Strategy

IoT with ERP

NoCode / LowCode

Lever Language Models (LLMs)

Explains the AI and its application

- Health care

- Education

Luminous

Date \_\_\_\_\_

Non-functional Requirements  
Software Qualities

How fast it is

How easy to use

Quality Attributes

1. Variability

Efficiency

Interoperability

Maintainability

Userability

How they achieved in movies

realibility and security

How to

Scalability

Monitor

Luminos

pr prioritize

Find out priorities for user stories

ATM

Find out what is in Architecture

Analysis method

Performance

Modifiability

Availability

Security

No functional requirements

Scenarios

Performance

The account holder wants to check  
the most recent transaction - <sup>longest</sup> word

Date

to generate a PPF view in +

Modifiability = Add message broker  
within 5 days so

## Priorities Rankings

Security > Availability > Performance  
> Modifiability

Sensitivity points

Tradeoff points - Affects performance  
and Profitability

Profitability - Financial gain

If you have performance influences  
the following quality attributes.

Efficiency

~~Real~~ Reusability

Scalability

Luminex

Date: \_\_\_\_\_

Profitability vs Maintainability

Profitability vs Portability

Portability - Reach more people

Profitability vs ~~flexibility~~ Userability

\* Investing on Quality attributes

leads to fewer failures lower

Maintainance cost, higher customer

satisfaction as a result their will

be enhanced profitability

\* It is high performance ensures better

user experience, customer satisfaction

and competitiveness

Cost benefit Analysis

# Assignment

## Virtualization

- Spins Boot ~~in~~

Processor

OS Virtualization

Storage Virtualization

Network Virtualization

Memory Virtualization

Cloud Computing

System Administration

Data Backup

Troubleshooting

Data security

Network security

Documentation

Help for personnel life

Migration

Data migration

~~GRS~~ Avus GRS

Retire - Retire hardware

Reform - Retain employees

Rehost - Host again

Repurchase - Purchase again

Replatform -

ReArchitecture = 32 bit → 64bit

Luminex

Date

## Data Migration Strategies

- Bis band - Move all at once

ETL - Extract, Transform and Load.

It's used in web browser.

Data is extracted from systems

and transferred

ELT - Extract Load Transform

Critical

Bis Band, — Move all the data  
Be careful, the config

3.4

Wc down the server

Resource Utilization

Enhanced security

G Metrix :-

1. CPU utilization

Disk space

Power usage of a application

Latency of the network.

Potential security dangers / vulnerabilities

which can be exploited to harm  
a software system, & organization

SQL Injection

Denial of Service - Overloading a  
server or a network by injecting traffic  
to make it unavailable.

Malware

trojan

virus

Trojan Horses

Ransomware

Phising

Man-in-the Middle Attack - (MitM)

Risk

Probability of occurrence / likelihood.

Risk = Calculated threat  $\times$  Vulnerability

Vulnerability  $\times$

For an example, if ransomware exists.

is a threat, as a result high risk of data loss if no backup is implemented.

Why is the relationship between security threat and risk.

Lumines

Date  
Positive Risk

Negative Risk

Enterprise Risk Management

Identification

Analyses the impact / probability

Develop strategies to Manage over

highlight those risks -

Implementing the strategy

Max Risk Monitoring

Failure or Regulatory & Tech Violations

TRCSL

Data Compliance

Employee Awareness

## Frequencies of Data Backup

Business Continuity Planning

→ Oil crisis - Over - Foot by cycle