

BA Quest

1) Flow Chart
→ Complete flow of ~~diagrams~~ ^{systems} through symbols & diagrams

→ Easy to understand for developers

SDLC → Describe the process for planning, creating, testing & deploying an IS

BA critical thinking, Global mindset -
Tech savvy, Thinking beyond box

* Challenges

1) Change Management → Enhancements, functionalities

2) Cross team mgt → Conflict betⁿ team & indiv

→ Commo' problem = Accent

* Project Management (PM)

⇒ It is the process of planning, organizing, motivating and controlling resources, procedures & protocols to achieve a specific goal.

+ RISK ⇒ Risk is something we can forecast & can handle by formulating plans

* Issue ⇒ Risk what happened is Issue

- solve by contingency or issue mgt
→ Not solved
→ we get lesson

BA

• Knowledge of Technical domain as well as
BFSS BIZ domain.

* SDD

→ SW Design Document
Dividing betⁿ biz users & developers

* Diagrams model

- 1) Activity Diagram
- 2) Business Domain model
- 3) Data model
- 4) Data flow diagram
- 5) Feature matrix
- 6) State diagram
- 7) Sequence diagram
- 8) Scope model etc

✓ SDA, CONS
Documents.

* Use Case diagram

→ It is a tool. Use to Explain Entire BIZ
Environment

→ It shows a no. of relations Events or
action performed by single actor.

* UML → (Unified modeling lang.)

→ It is a Std in industry which is used
for visualizing, documenting and constructing
various components of a System

* Exceptions → Unaccepted situations
or results in an application

Role

* BA → To organize requirement & document in a clear format & make sure co-ordination is proper between client & developer team.

* INVEST

→ Independent, Negotiable, Valuable, Estimable
Size appropriate & Testable -

→ It is used to help PM & technical team to deliver quality products/services

→ On type & Scope of the project:
SIC model always

→ Selected on the basis of Organⁿ Culture & various other scenarios to develop the ~~team~~ system

* Use Case Model

→ Shows sequence of events & streams of actions regarding any process performed by an actor.

Two Diagram heavily used ① Use Case diagram
② Collaboration diagram

* Activity Diagram

→ It's all about system activities.
→ Show various activities taking place in an organization in different departments

* Alternate flow in a use case

⇒ Alternative solⁿ or activity in use case should be followed in case of any failure in the system

* Extends

→ Actions that must take place in use case.

Two documents related to use case

- ① FRD → Functional requirement doc.
- ② Software Design Doc.
- ③ TSD → Tech spe doc, use case diagram

Business Analysis is the process performed by Business Analyst

MS Project ; Power point , Excel .

* SaaS ⇒ cloud computing
No need to installed on. or machine
→ Need internet conn

* STEPS req to develop a product

- 1) Market & Competitor analysis
- 2) SWOT Analysis for , Personnel
- 3) Strategic vision & feature set.
- 4) Prioritize feature.
- 5) Use cases
- 6) SDLC, Story based - ^{used story} scenario
- 7) Test cases
- 8) Monitoring, Scalability

* Personas

→ Latin Character → ^{marketing} group of customers & users

→ Personas are used instead of real users that assist developer and technical team to judge the user behaviour in different scenarios.

→ Personas are basically social roles performed by any actor or character.

* Database transaction → modelling

→ Any activity → Addition, Deletion, modification, Searching →

* OLTP System

→ No predictions → Present data
OLTP Capable to provide good speed for DB trans.

→ System are mainly used for data entry & data retrieval from the database.

→

* Pugh Matrix

→ Used to decide about the most optimal & alternate solⁿ.

→ Standard part of Six Sigma Jebra
known as Problem or Design matrix

* FMEA

→ Failure mode & Effect Analysis

→ It is a Failure analysis that is used mainly in product development, System Engineering and operation development.

→ Analysis is performed to figure out various failure modes & their severity in any system

* 100 point method

→ Method is used to assign priority to different steps in a process.

→ Each grp member supposed to assigned pts to different steps - points are calculated

Highest pts → right priority

* 8 - Omega II

→ Biz framework mainly being adopted by firms & Organisation for the betterment of their business

Key factors ⇒ Strategy, Tech, People, process

→ This Use Case

→ What kind of Malicious activities can be performed by an actor that may result in system failure

→ SQUARE

→ Security, Quality, & Req Engg.

* One of the SW Engg. steps
→ mainly focus on documenting the security requirements of the system

→ Pareto analysis → 80/20 rule

→ Decision making technique

→ Use for quality control & defect resolution

80% effect arises from 20% of causes

→ AGILE Manifesto

→ Guide for SW Developers about the development process to ensure iterative solution

→ BPMN = Biz process model & Notation

→ Graphical repⁿ of Biz process

part 3

* BPMN Gateway → Processing modeling component.

→ used to control flow of interaction sequence of process

* Five Elements

① Flow object, Data Connecting objects

* Kano Analysis → Analyze a system of ^{interests} requirements to identify impact on customer satisfaction

↓
3 Key areas

① Unexpected Delighters

② Performance Attributes

* Pair Choice techniques

used to give priority to various items in a process

→ Ask from govt to compare each item with others & select highest priority

* Effective use case model

⇒ Making two separate diagrams

(1) use case (2) Actor diagram

Types of actors

1) Primary Actors

of store the process

2) Secondary process assist them.

Actors → Human, system, H/w, time

* BCG matrix

→ Analyse several biz process
New product offering from companies

useful tool → portfolio analysis

* Swimlane → Group of activities on activity diagram

Pool → Dedicated activity to a single person

* Fish model = (When no Ambiguities)

→ Costly & time consuming

✓ model → less time & cost

↓ Document if No change will be accepted
after a certain period of time.

* Case points

Evaluation the cost of work done to develop the system

PEST → used to Analyse Biz Env.

* Key phases of Biz Development

- ① Forming
- ② Storming
- ③ Norming
- ④ Performing

JAD → Joint Appⁱ Develop

* Benchmark → Measuring performance of an organization to compete in the industry.

Uses Rules, policies etc.

SWEBOI → Slow Ereg Boot of know

* Gap Analysis → Comparing & determining process betⁿ two things or process

Agile → RAD, XP, SCRUM =
focus on development of iterative solution

* Scrum → Agile method → used to develop iterative info system.
→ Small team works on assigned task. → Time period usually

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user req doc → . Scope, purpose, Avn
System report, Adit

* Process mapping → work flow
→ Requirement documented ⇒ work flow

* System study → BA getting Clarify abt
Requirements of a Client

* User Req Poc → Basic scope, purpose
present functioning of the system

* Tracing the work flow → walking through the
system to understand how the physical work
being delivered.

Grid chart, (Decision table)

↳ used for mapping various entities such as
depts to people.

Tools ⇒ Documenting facts gathered

- 1) Data flow diagram
- 2) flow chart
- 3) use cases
- 4) Activity Diagram
Zachman Framework

* Activity Diagrams

↳ Techniques to Explain the Biz process
& work flow

When to use ⇒ ① Complex use case flow
② Biz process

- (1) Initial node → Start of a flow
- (2) Act final node → completion ⇒ final execution
- (3) Action → Describes activity / Transformation
- (4) Decision → Point of conditional progression
- (5) Merge → Multiple alternate flow are merged
- (6) Fork → splits one incoming flow into mult outgoing
- (7) Join → Ends several incoming flow into one outgoing
- (8) Flow/edge → Bridges the flow betn action nodes

Activity Diagram ⇒ use cases modeling

↳ Buy a product

- (1) select
- (2) shipment information
- (3) system rep full price in the
- (4) credit card details
- (5) sys authorize purchase
- (6) confirm sale

* MISS → Main Success Scenarios

Activity Diagram → What happened? ⇒
Partition → Who does what'

* How to partition → separate diagram into
 Parallel lanes ⇒ Swimlanes
 → Name of the actor → activities

BA ⇒ set of tasks and techniques used to work as liaison among stakeholders in order to understand structure, policies & ops of an org & recommend soln that enable org to achieve its goal

* Scope → Solution Scope
↳ set of capabilities

* **CSF** ⇒ Critical success factors
→ certain factors are crucial to an organization survival

Identifying ⇒ CSF helps BA to focus on Infosys & critical issues

To control these factors, manager must be able to make these factors ⇒ measurable (Quantifiable) ⇒ Define performance std for each measure
→ KPI

* **Logic Modelling** → (i) Decision tree
(ii) Decision tables

→ Rep structured decisions

be
it to * Document & analyze the logic of structured decisions

→ Reduce process ambiguity

→ When analyzing procedure & decision BA must identify condition & action & common possibilities of event that can happen

* Tree structures \Rightarrow Conditions & actions

Root of tree \rightarrow Name of process

Nodes \rightarrow (Conditions)

Leaves \rightarrow actions to be performed

Decision tree \rightarrow Relⁿ of each condition
Tells \rightarrow which condition to consider
first & its ^{resp} actions

* Decision table

Matrix of rows and columns \rightarrow Condⁿ & Actions

\rightarrow ① Condⁿ Statements \rightarrow set condition

② Condⁿ Entries \rightarrow value

③ Action state ④ Action set/total

list all steps

which specify action

C state

C Entries

A state

A Entries

Binary selectors \rightarrow Y & N

* Cause & Effect Relⁿ \rightarrow user validation -
All combination of Condⁿ have been considered

Data flow Diagram DFD

- List of activities

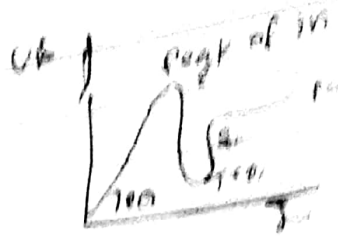
① External Entity \rightarrow Student People/obj \rightarrow supply info

② Process (P)

③ Data flow (DF) (APPⁿ form)

④ Data store (DS)

+ Grid Chart

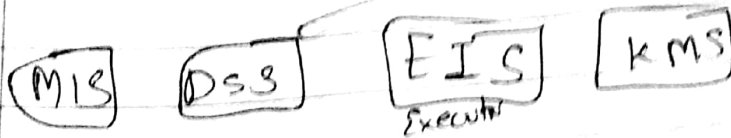


* Gartner hype curve

↳ marketing budget
 ↳ Product

↳ maturity, a

J T ⇒ H/w comp req ⇒ Ad hoc support



↳ pre-specified Report → to support decision making

builds product right

Verify ⇒ S/w correctly implements a specific funⁿ

Validate ⇒ Ensures S/w built meet customer req^t
b/c right product

Unit test, Acceptance test, Smoke test, Regression
Integration, System, Performance

Unit test ⇒ white box

Behavioral Black box ⇒ DB is multiple process

* White box testing

↳ Knowing the internal working of a product

↳ Test are performed to check the working of all possible logical path.

Goal - All statement & conditions have been executed atleast once.

ndale
andale

at data

* Regression Testing

- Re Execution of some subset of test to ensure changes have not created side effect
- Check for defects

* Smoke testing → For Time critical project

* Acceptance testing → Ensure SW works correctly for users

Alpha test ⇒ Tested by customer under supervision of the developer at developer's site

Beta test ⇒ Tested by customer at his own site with developer being present

= Benchmark, Pilot testing, Recall

* Use Case

Model ⇒ Abstract representation of a system, constructed to understand the system

Modeling techniques ⇒ Graphical Languages

Static → Snapshot of a system at ~~end~~

Dynamic = collection of procedures -
Reflect behaviour of system over time

* Aim of modeling

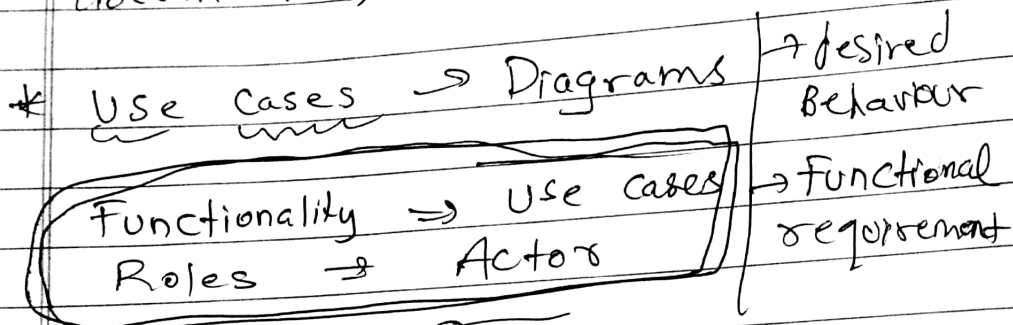
- Visualize a system
- Specify structure or behaviour
- Gives a template guides in constructing a system
- Document the decision made

(A)

- Reduce complexity
- Cost of modeling technique lowers
- Manipulation of model is easy

* UML

- Specify, Construct, Visualize & documenting the S/W system & components



* Actor



- Role that interacts with system.
- Role can be person, device or another system
- An Actor can participate in many use cases

Indian Railway → Tickets & Reservation
Advance booking, Canceled

~~Use case~~

Use case always initiated by an actor.

- Describe interaction betⁿ actor & system

* UML Est System boundary

- Identify actor that use the system
- Rep Each funⁿ as a Use Case.

* Magic Quadrant \Rightarrow Graphical Comp Position

BPM - Identify & modify Existing Process
 \rightarrow Structure Methods

Obj-Oriented Use case Act Diagram

Structure Analysis DFD (Data flow diagram)

Flowchart \rightarrow Seq of activity
 identify bottleneck & loops
 \rightarrow Graphical representation

Search
Storage
API
Server

DBMS \Rightarrow Define, construct manipulate
 Share data, Security \rightarrow Track Growth

Rel model \rightarrow Primary key Foreign key
 SQL for Data manipulation

Removing outliers

Search

Query in: DevOps

OLAP \rightarrow collects from databases like
 \rightarrow maintains historical data

DBMS \rightarrow overall system managing RB

Per Ops One Size fits all \rightarrow high performance
 \rightarrow Biz Problems

C auto
M meas
S status
Per = IT Ops
Len

Enterprise Arch

Align Biz & IT Strategy

↑ Biz agility, Reduce time to market
→ IT Str^y & Tech alignm^t

↳ Set of process & policy -

ITIL

① Design ② Transition

③ Continuous improvement ④ Oper^a

⑤ Strategy

BRD, FSD, SRS

↳ Share responsibility

DPS Req Spe Doc

↳ Culture, movement, a philosophy

* DevOps

→ set of practices that automates the process betⁿ SW Dev & IT teams in order to they can build, test, & release SW faster more reliably.

↳ DevOps ⇒ Collaboration betⁿ teams
→ Include trust, faster SW release

Ability to solve critical issues

⇒ Highest deliver value to Biz & customer

Determine
How Actions → will affect teams Dev['] holistically

Break down barrier betⁿ Dev & Ops

Aims at shorten Dev cycles

Trade Export

Phone calls

Investment

Immigrants

Waterfall opposite.

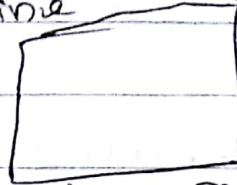
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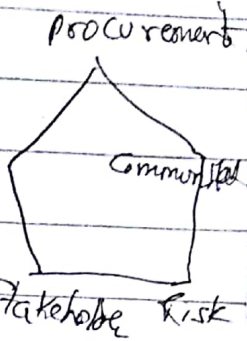
AGILE Project → Type of project Management

① Methodology (system of method)

Time Cost



Integration OR



② Iteration

subsequently execution Quality Score
prototype → Blueprint

Streamlined → more fast

③ } Less of documentation, quick meetings
process

Short tight documentation over huge documents

- 1) Initial project set
- 2) Planning
- 3) Execute
- 4) Monitor & control
- 5) Closing

④ Time boxing → Deadline

⑤ Very collaborative.

Cost ↓

Cost of change, Budget Management