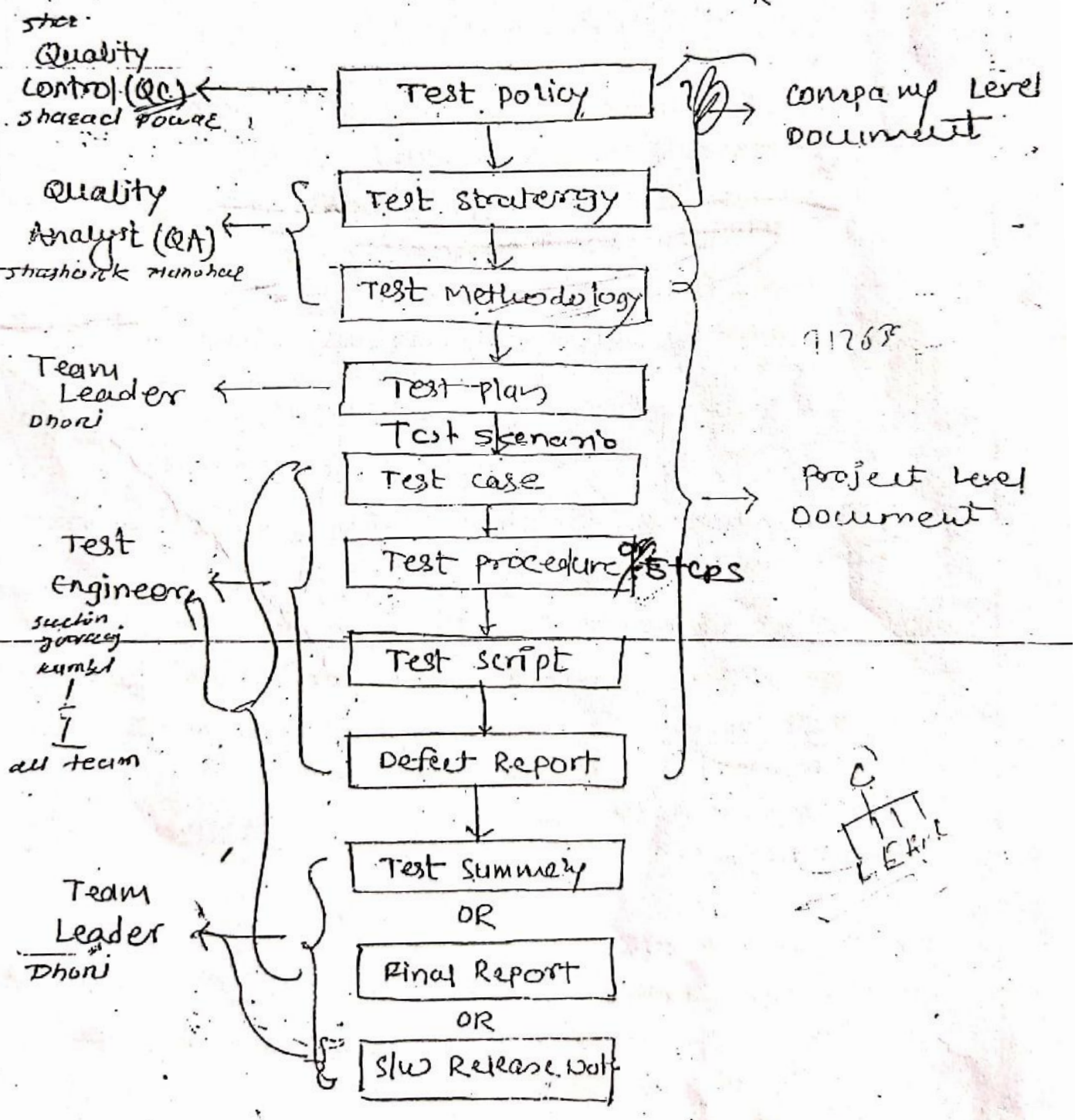
Depth part

Q. What is test documentation & what are the various types of test documentation?

→

Test Documentation :

PSM PEP SRS DRR



Q. In which part of documentation you involved?

→ i) Test plan,
ii) Test case,
iii) Test procedure
iv) Test script
v. Defect Report

① Test policy : (Company level)

- Master statement of work (MSOW)
- statement of work (SOW)
- MSOW contain project information, I mean what is the main functionality of project.
- Duration 2 yr.
- Module, submodule information
- cost
- Resource information / strength
- Technology Information.

The workflow of project being done in a room called as Class Room.

Q. what is QC?

→ QC defines objective. as stands for "quality control" Test policy is company level document defined by/ developed by QC category people.
In this document QC people defines the 'Testing objective'

Q. what are the objective?

→ 1) Test Defination
2) Test process
3) Testing standard
4) Test measurement & matrics

Test DPS measurement

format of Test policy document

Infosys LTd

1) Test Definition : verification + validation

2) Test process : proper planning before testing start (Test Deliverables)

3) Testing standards : 250 LOC / 1 defect
10 FP / 1 defect

4) Test measurement : PCM, TMM, QAM & matrices

signature
Baber

LOC = Line of code

FP = Functional point i.e no. of forms, no. of Reports, no. of class, no. of objects, no. of query.

PCM = process capability measurement

TMM = Test management measurement

QAM = Quality Assurance management.

Inf Q. How you measure testing ?

→ Basically, we use PCM i.e process capability measurement. → to put the controls in the metrics we involve in.

Q. What is CMM ?

→ CMM :

CMM stands for capability maturity model.

Levels are-

CMM Level 1, CMM Level 2, CMM Level 3, CMM Level 4, CMM Level 5, PCMM (People) public capability maturity model)

- CMM decides the level of company.

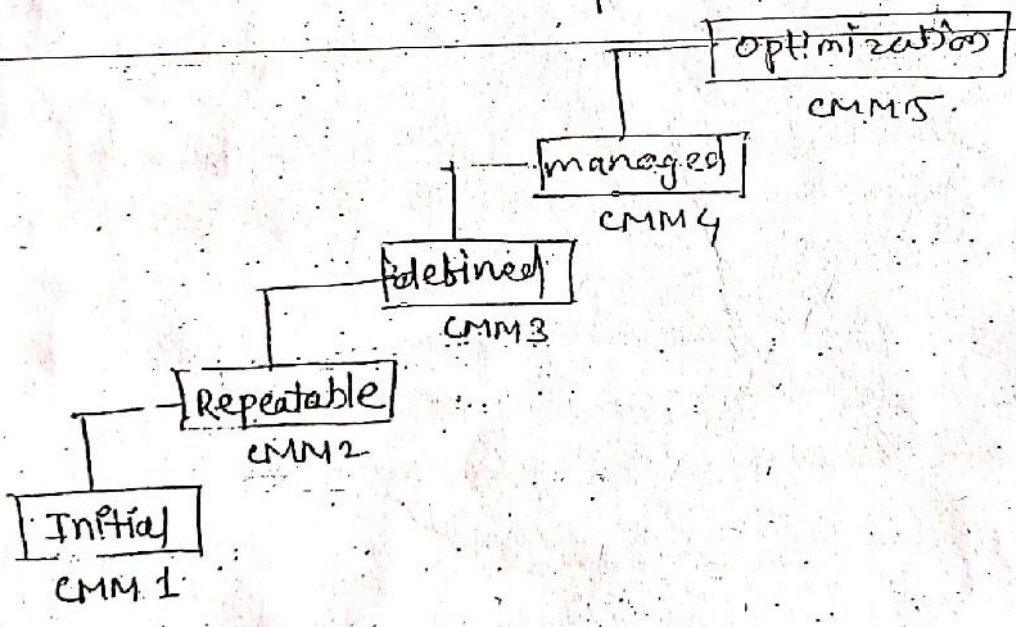
Q. - CMM broadly refers to process improvement approach that is based on process model.

- CMM is used to develope & refine an organisation's sw development process.
- CMM depends upon resources, people etc.

eg Cognizant, TCS, capgemini, Cyborge, Syntel, etc are Level 5 company.

Q. What are the various parameter of CMM?

→



i.e IRDMO

Q. What is ISO?

→ ISO stands for International standard organization

eg ISO 9000, ISO 9001

This standard specify an effective quality system for the organization. ISO 9001 deal with sw development

(2) Test strategy :

- It is project level document.
- It is developed by quality analyst (QA) / PM.
- This document is developed by QA category people which defines the "testing Approaches"
- To achieve the testing objectives QA defin testing approaches.

Q. What is the diff b/w both QA & QC ?

→ QC (quality control) defines testing objectives
QA (quality analyst) category people defines the testing approaches to achieve these testing objectives.

SB TTCD ITC RTR

* Different Approaches :

There are various different approaches of testin

(1) Scope & objective :

- This is developed by QA / PM category people.
- It defines the purpose of project & destination of project
- To achieve these objective, what is your organi zation's scope & objective ?

Purpose :
To develope banking domain appln in your organized.

Defination :
. which type of testing you are using to test this appln

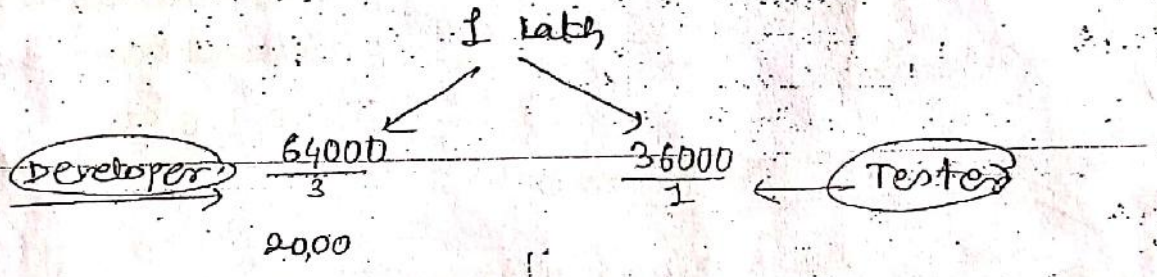
eg. security testing for banking domain appln.

H.W. google test strategy & its factors

2) Business Issue:

- It is nothing but cost analysis & done by PM.
- How much money you are going to use on testing.
- cost of testing is estimated according to cost of project.
- cost defined by client at sow.
- In general company's development & testing ratio 3:1

so suppose the project cost is 1 lakh, so it is estimated as follows:



- Initially at sow cost is estimated, but it is overall estimation. It is also estimated by the internal, by the company that time it would be varies.

3) Test Responsibility Matrix (TRM)

- Sometime also called as 'Data matrix', or "Test matrix", "Test approach" or ISX3 matrix.
- The mapping bet" development stages" vs "test issue" or factors.
- It is prepared by PM
- The main objective of test strategy is to design test approach.
- Maximum 15 components are there & 5 development stage so overall 15X5.

5) Roles & Responsibilities (according to experience & complexity)

→ who is going to do what?

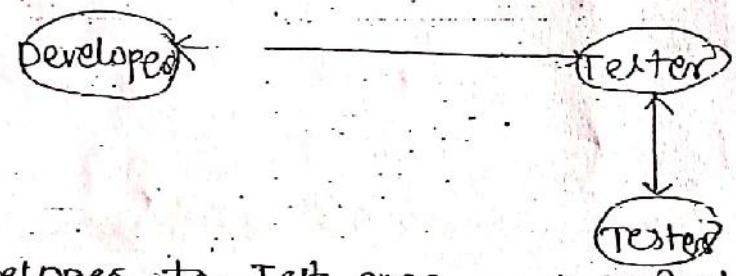
— name of the job and who is going to perform it

eg unit testing is going to perform by this team
↓ ↓
name of job who will perform this

6) Communication status Reporting:

— Require negotiation betn two consecutive jobs, I mean to say that require proper communication between two consecutive jobs.

— Two types of communication



1) Developer to Test engg. ⟶ defect status report
2) Test engg. to Test engg. ⟶ comm betn two consequetive jobs.

comm is going in team is taken by PM called meeting named as Defect status meeting.

7) Defect Traking & Reporting:

Require negotiation betn development team & testing team because it may affect on production, bcz if there is no proper communication between teams

eg if defect fix require 5 min & developer taking 20 min it effects on production

8) Test Automation :

- purpose of Automation & posibilities to go to test. advantages.
- capable to do & advantage of using test automation.
- Purpose means why we are doing automation ccritically).

9) Test measurement & matrices :

How you are going to measure the testing proce

Eg PCM (process capability matrix)
QAM (quality assurance matrix)
TMM (Test management matrix)

10) Configuration management :

- Ability to handle the 'change Request" during test execution called "configuration management'
- "PCM" comes under configuration mgmt.

11) Risk management & Metigation

Q. what are the possible risk factor in your project?
Q. what are the critical area in your project?

→ There are two types of Risk

1) project Related
2) Non project Related.

1) project Related :

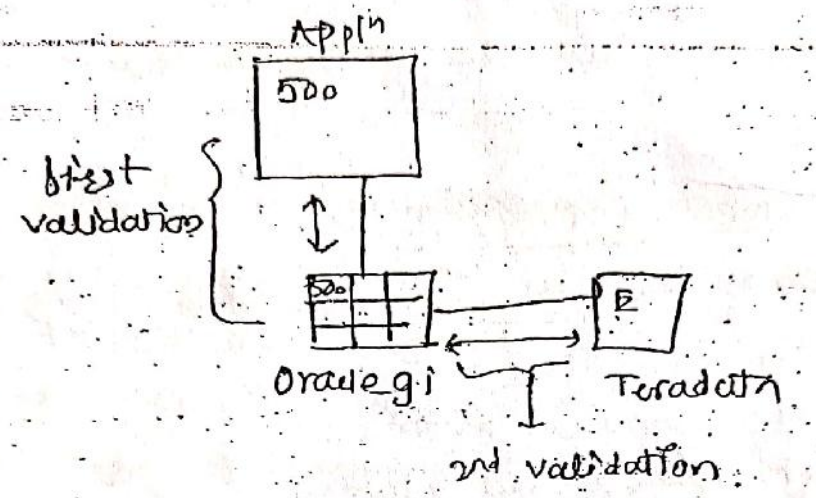
The dependant component is not physcaly present with our organization so response validation would take more time.

e.g no internet, laptop not working, it rarely happens.
Big company never face above difficulty

2) Non project related :

Due to holidays availability of resources, employee Resignation, domain knowledge of test engg.

Q. What are the risk factor to your project ? —



- Basically my application deals with 2 database i) oracle gi & ii) Teradata.
- Here we have to perform two validation.
  1) Front end with oracle gi
  2) oracle gi vs Teradata
- we are not aware about Teradata coding so to validate oracle gi v/s Teradata we require mapping sheet from developer.
- Risk factors are
  1) mapping sheet should be incorrect
  2) It will take more time
- Its Risk & mitigation. Risk means problem & mitigation means solu to problem.
- If any problem occured during test then the solu to overcome during testing.

12) Training plan & Testing session:

- Required training to new comer
- KT (Knowledge transfer) would be provided to the newly join team member before allocated unit to task.

Q. What is diffn betn QA & QE?

Testing Factors or Issues:

Q. What are the testing factors or issues?

→ In general organization uses 15 testing factors to get maximum quality product.

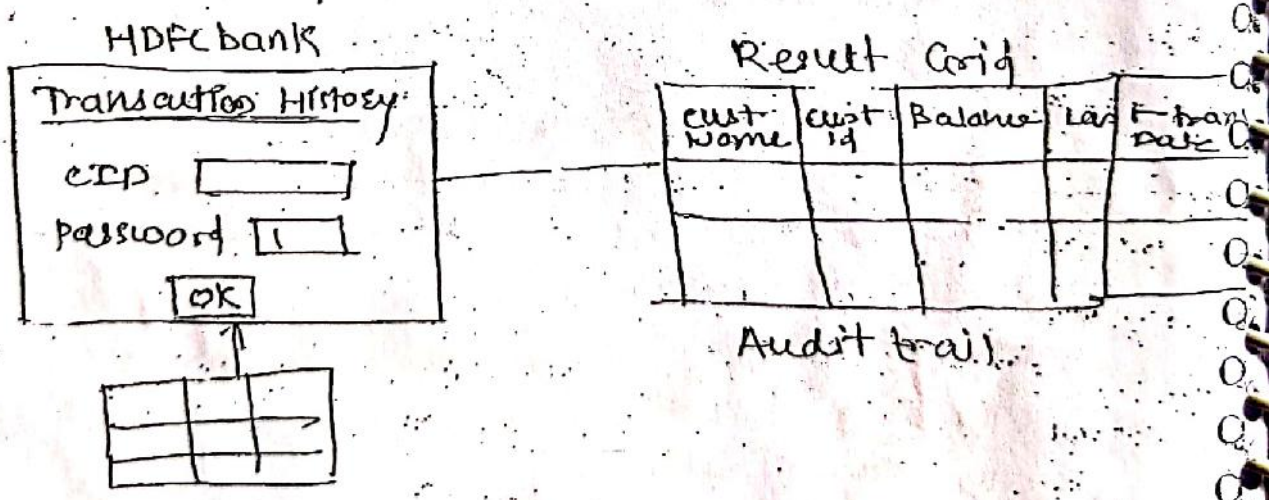
1) Authorization
2) Acess control
3) Audit trail
4) continuity of processing $A^3C^3E^2F^2P^2SM^2$
5) Coupling
6) Correctness
7) Ease of use
8) Ease of operate
9) File Integrity
10) file reliability
11) Performance
12) portability
13) service Level
14) maintainable
15) methodology

These are nothing but testing factors or issues.

1) Authorization: (security Testing)
whether the user is valid or not.
eg login to Gmail.

2) Access control: (security Testing)
whether the valid user has permission to perform specific task
eg Gtalk access to Gmail users.

3) Audit Trail: (Error Handling).
- To maintain metadata about user operations
Metadata is nothing but data about data
- eg In bank application Transaction is one requirement & transaction history is audit trail.
- eg Bank statement, mini statement are audit trail.
- Every application has audit trail report with respect to requirement.



Q- what is the evidance that you have tested the functionality?

→ There are two possible approaches.
1) Snapshot of appln
2) Audit trail Report

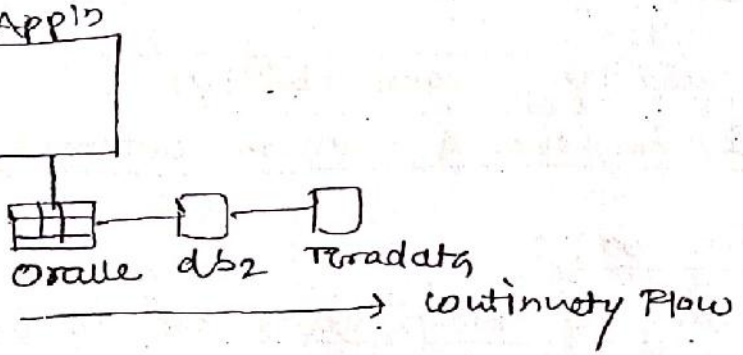
the audit trail report means to database where operations are recorded like as

User	login time	transaction	type
Sneha	10.10 AM	completed	NEFT

4) continuity of processing : (operational testing)

Interprocess comm^n whether appln deals with any subcomponent

comm^n bet two processes via XML



5) correctness : (functional testing)

To meet the customer requirement in terms of functionality.

6) coupling : (Intersystem Testing)

co-existance with other existing s/w to share info information or resources. Arrangement of sprint is defined by coupling

7) Ease of use : (usability testing)

user friendliness of screen or build.

9) Ease of operate :

: Installation, uninstallation, upload download, dumping (sanitation testing, installation testing)

9) File Integrity : (Recovery Testing)

Creation of backup file.

Eg. creation of backup file in bank application

There is no need to create backup file in telecom domain.

10) File Reliability : (recovery testing)

Recovery from abnormal situation to normal situation.

11) Performance Test

Speed of processing

- Load
- STress
- Storage.

12) Portability : (compatibility)

Application should run on customer expected platform.

13) Service Level :

Sequence of functionality i.e proper order of functionality.

14) Maintenance :

- Whether an application is long time serviceable to customer or not.
- Durability should be there.

15) Methodology :

- Whether testing people follows above standard or not.
- Review of the above attribute

1 to 14 done by TE & 15 done by PM.

* Testing factors Vs BBT

Testing factors	BBT
Authorization, Security	Security Testing
Acess control	
Audit trail	Error Handling
continuety of processing	operational Test
correctness	Functional Testing
coupling	Intersystem Testing
Ease of use	usability Testing
Ease of operate	Installation Testing
File Integrity, File Reliability	Recovery Testing
Performance	Performance Testing
Portability	compatibility / portability Testing

* Test methodology :

Q. Which is prop test methodology or test strategy & w

→

- Test methodology is important than test strategy because it is used for "selected area."
- It is project Level document developed by proje manager category people.
- In this document pm going to select list of testing factors with respect to project type, Requir ment, Risk factor, enhancement of the corresponding project. → defined in policy (domain)

- The list of testing features would be Implemented on the project will be decided by the PM by considering various parameters.

i) project TYPE → scope & objective
ii) project Requirement → Traceability matrix, test deliverables
iii) Risk factors → Risk & mitigation
iv) Enhancement → Summary Report, & Defect Report

Q. what is diff bets Test strategy and Test methodology?

Q. what is test methodology?

→ to prepare test methodology
1) Agree Test strategy
2) Determine project type.

Q. what are the project type?

→ 3 TYPES of project

1) Traditional projects : Development + Testing in same organization.
2) Off the self : only testing, development in other organizations
3) maintenance : support (issues occurred during live use development use testing

Here [development stages] would mapped with [project ty

TO prepare test methodology PM/QA follows following steps.

Adaption of test strategy document.

2) Determine project type:

Depend upon project type QA/PM selects the colour

in TRM

project Type	Information gathering	Design	coding	Testing	maintenance
1) Traditional	✓	✓	✓	✓	✓
2) off the shelf	X	X	X	✓	X
3) maintenance	X	X	X	X	✓

Note:

main objective of test methodology is to develop "Finalize TRM"

PM going to reduce no. of columns from TRM.

3) Determine project requirement:

Depending upon project requirement pm reduces the no. of rows in TRM.

eg 15-4 = 11

4) Identify scope of project (Future Enhancement)

Depending upon future enhancement the PM going to add list of previously ~~added~~ deleted test factors.

11+2=13

5) Identify Risk factors: (tactical risk)

Depending upon risk factor PM is going to remove the list of test-factor.

13-1=12

6) Design finalize TRM :

Going to define the finalized TRM.

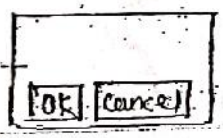
Once the Test methodology document is completed the document is going to share with team lead (TL).

Test Lead will be responsible to design test plan.

Q. What is microsoft 6th rule?

→ Microsoft 6th rule is used for GUI

① OK, cancel Existance



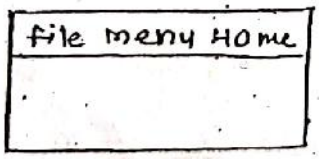
when OK is there, cancel should be there.

② controls are ~~Initcap~~ Initcap

starting letter should be in capital.

OK Cancel

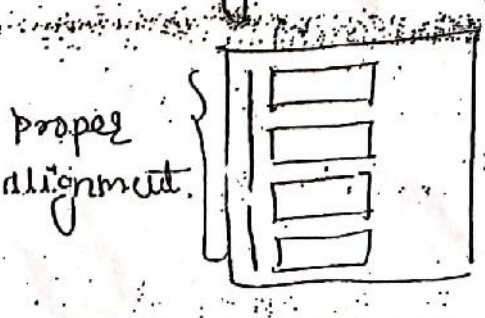
③ System menu existance



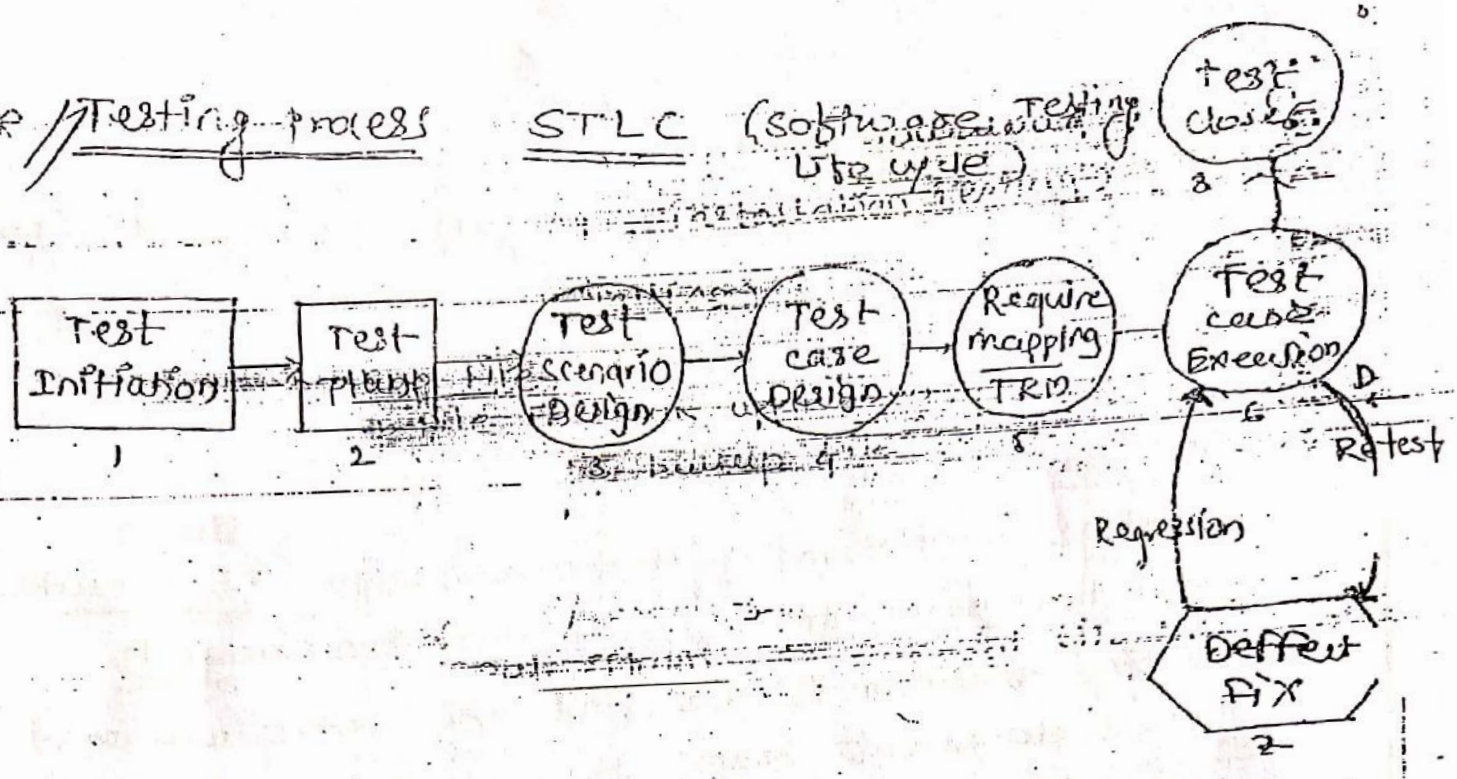
④ controls are not overlap

⑤ controls are visible

⑥ controls alignment



Testing process STLC (software testing life cycle)



Q. What is your organizations testing process?
Q. What is STLC?
Q. which testing process you followed?

→ In my organization testing process start with the Test Initiation stage.

① Test Initiation:

In this stage my PM concentrate on RISK involved in the project, scope of the project & Equirement of the project.

② Test plan:

After that during "test plan" TL (we) mainely concentrate on Job allocation, Resource allocation & eaistimation.

Job allocation in terms of what to test, how to test, when to test & who will test?

H.W: sharepoint or Microsoft teams

③ Test scenario design :

After test plan during test scenario design stage, TE prepare test case scenario & test case design from the SRS.

④ Test case Execute :

After completion of test case design, TE execute the test cases to validate the functionality.

- During execution if we find any defect we send it to developement team then developement team send fix for defect again we test it we called as "Regression testing", this process continues till defect get close.
- After sending defects to developement team to fix developer fixes that defects & modified build is sent to testing team to check defect fix works.
- Test engineer apply "regression testing" to check the bug fix work & check any side effects due to bug fix work.
- This process continues till defect get close.

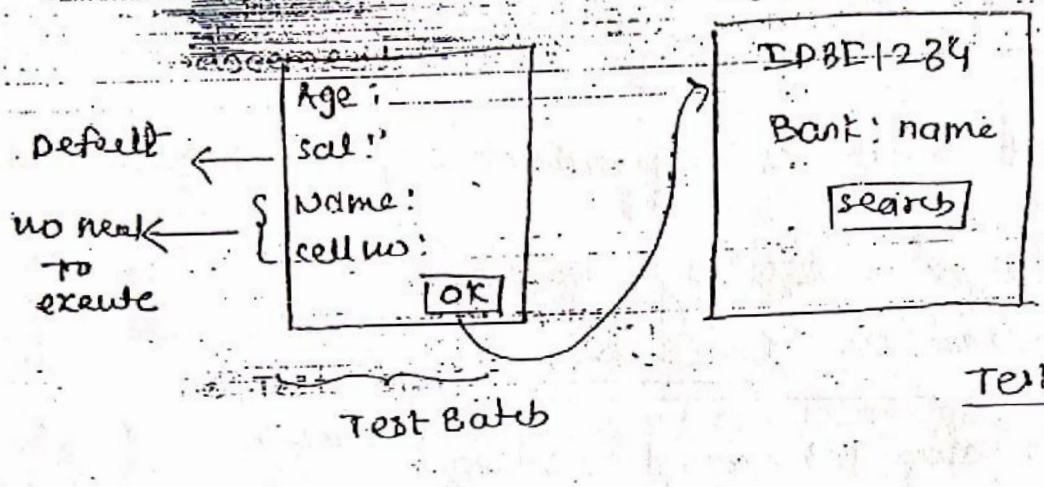
⑤ After completion of test execution, we send "defect report" to the test lead.

⑥ During the "test closer" stage, TL checks whether all the processes are correct or not & prepare test summery report.

Q. what is test batch?

→ clubbing of all interdependant test cases called as "test batch"

Q. what is purpose of clubbing?



Test Batch → Exeute TC in → Indep

- Age, sal, name, cell no & ID are dependant on each other so create test batch.
- when you click on OK button then autogenerated ID is there, so you have to enter all the details for generating ID.
- so all are the interdependant.

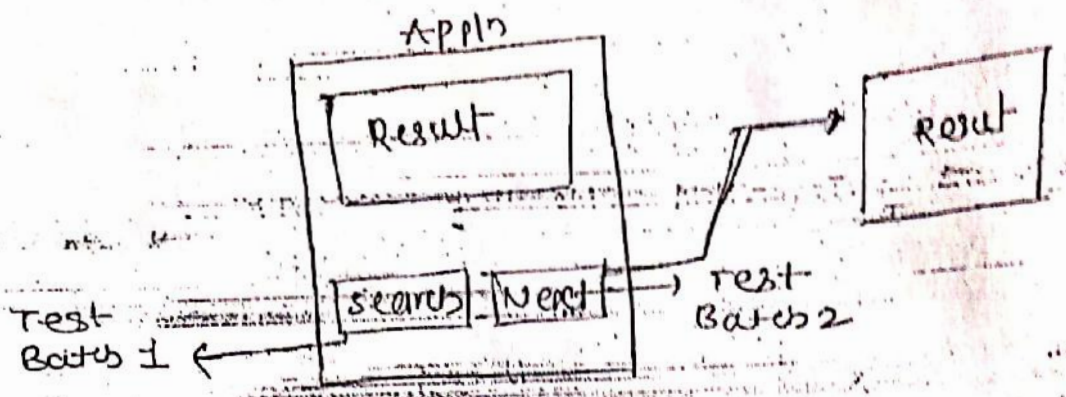
If any defect found in that test case of test batch no need to exeute other test cases suspend that test batch.

RI.O - hdfc_search → Batch name.

RI.O - hdfc - export

Q. what you will do next?

→ immediately we are going to exeute independant test case/ test batch.

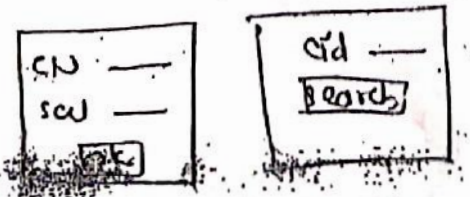
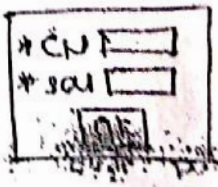


Next test batch is dependant on search ~~test~~ test batch.
search batch successfully executed.
It is called as "Batch Dependency"

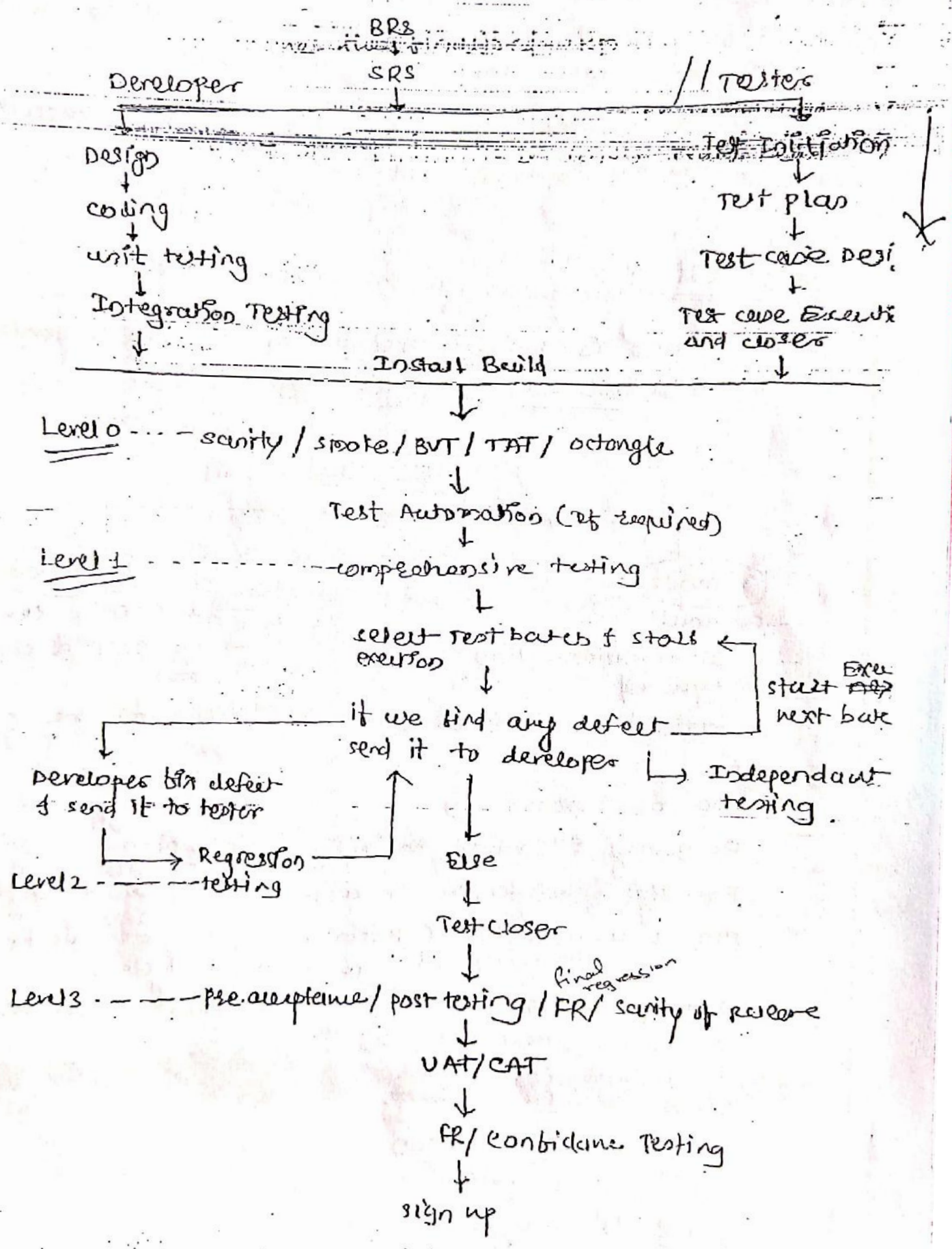
Q. what is stop & forward testing?
→ During comprehensive testing if we got any defect then stop execution otherwise forword testing.

Q. what do you mean by blocker defect?
→ If test id is not generating then without test we are not able to do further process. Ex: eg Diagram,
defect
so without solving this ^we can't proceed further test execution called as "Bloker defect"

Q. what is diff bet critical defect & blocker defect?

Blocker defect	Critical Defect
- Total Execution stop	- total execution don't stop
	
without filling all data, OK click not generating CID to search CID is not needed. i.e Blocker effect	two mandatory fields. without filling given data once OK it goes to next page & generate id. called critical defect.

Graphical representation of testing process

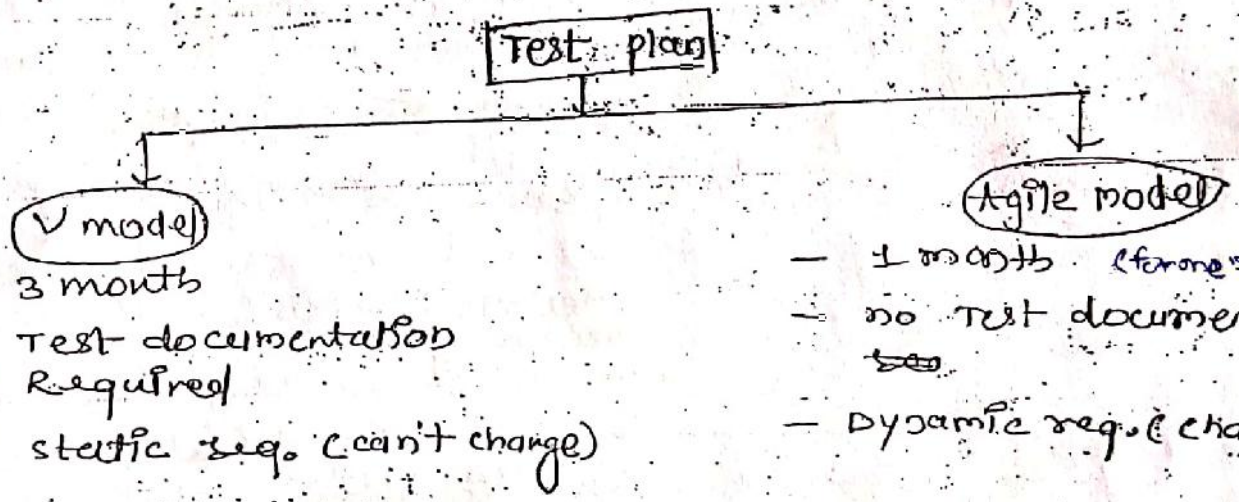


Q. If you find defect & you have sent it to developer to fix, what would you do in mean time bcoz developer takes some time to fix defect?

→ In this mean time we are going to execute other independent test case.

* Test plan

- Test plan is project level document & it is developed by Test Lead / sr. test engg.



Q. Do you followed?

→ Basically I involved in "agile sprint plan."
Recently I got chance in agile sprint plan when my PM/TL was on site (Recently I got the chance to involved in review the test plan)

- Before sprint come, Test plan would be completed. Test plan requires 3 days.

Goals objective of design test plan is

1) Resource allocation
2) Task allocation
3) Risk analysis

4) Time span betn start date & end date of test activity i.e. estimation approach

Q. which approach you are following in defining test plan?

→ Basically we wing "T-approach" i.e test estimation approach.

Q. what are the other available approaches?

→
1) Test estimation approach
2) Implicit Risk content approach
3) explicit Risk content approach
4) matrix Based approach
5) Functional point (whenever important we are involved here)
   i) no. of external system interface (Hardware Interface)
   ii) Unit test done by developer
   iii) Risk level of project
6) Test breakdown approach → (when we have limited time period & lack of resources)
7) Percentage of development approach → (किसी parent development आहे आणि त्यावर Test Plan बनवतो)
8) Iterative approach.

- The end date of testing activity is a critical entit activity why? bcoz depends on this date the projec release date would be decided.

- In general TL / Test plan author is going to focus on (job allocation) in terms of what to test? when to test & whom to test?

Q. what are the component of test plan?

→ Components

Input	process	output
Developement Document [DD]	Team formation Identify tactical RISK analysis	system Test plan (STP)
TRM	Prepare test plan Review Test plan	

Steps. ← (TIPR)

① Team formation:

- It is very initial stage
- TL is going to concentrate on team formation
- TL focus on following attributes while formation of team.
  - i) Availbility of Resource.
  - ii) Availbility of test Environment resource
    - → Banking domain
    - → out of 10, 3 are exp. holder needed in bank domain.
  - iii) Test Duration (Estimation of time)
    - Estimation is most crucial point in test plan
    - [redacted]
    - date & end date of test activities
    - this is difficult to identify end date bcoz depend on this end date client would decide

what would be the release date.

Case study :

Project type	Duration
① Agile	4 week (1 month)
② V model	quately (3 month)
③ Machine critical (Robotics, satellite Programming)	9-12 months
④ Artificial intelligence	8 month

② Identify Tactical Risk

Q what are tactical risk?

1) project related (Technical risk)
2) Non-project related (non-technical risk)

① project related risk

1) Lack of test data
2) Lack of development process rigorness (seriousness)
3) ~~task~~

② Non project related risk

1) lack of resource
2) Lack of knowledge on specific ~~resource~~ domain of resource.
3) Lak of budget with respect to time & cost
4) Delays & Deliverables.

5) our db appln deals with 2 database oracle 9i & Teradata to test that we require mapping sheet between oracle 9i & teradata.

6) when interdependent comp physically not present with less response req. real time

* Test plan document:

BOA_credit_card_RL1.0
Author → Rupali Patil (TL)
Review → PM & client

③ Prepare Test plan:
after completion of team formation and analysis of risk TL concentrate on preparing Test plan.

④ Review of TP: PM & client are responsible for review TP.

Q. What are the component of test plan?

→

① Test plan ID:
A unique name or number.
eg 2019_RL1.0_BOA_credit_card

② Intervation:
About the project.
What are the components we have in our project (functionality)

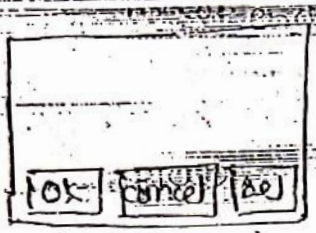
③ Test Items:
components / modules in our project module

Items → credit → domestic → 2L, 2L (sub comp. 1, 2)
credit → International → 2L, 2L (3, 4)

④ Features to be tested :

features which we are going to Test Release

eg OK, cancel



Due to dependant 'ok', cancel is checked in Release 1.0 & delete is tested in Release 2.0.

Feature not to be tested

Feature we are not testing

⑤ Approach (TRM) (Finalized TRM)

— List of selected testing factors

— Techniques to be applied on selected specified module.

⑥ Test pass / Fail criteria

which test case pass & fail that need to be send - i.e. every status of test case is need to send.

⑦ Test Environment

Required hardware / software to conduct testing

— tools - s/w tools & H/w tools.

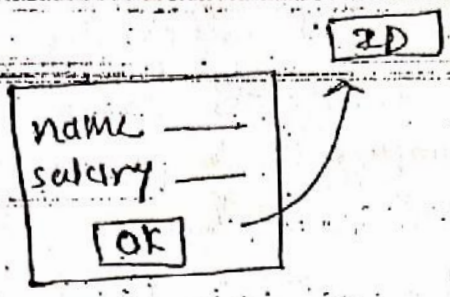
⑧ suspension criteria :

e what is suspension criteria?

→ possible abnormal situation arised during test execution.

eg database connectivity problem

Test case	pass	fail	not executed	suspension criteria



after clicking ok, ID is autogenerated / auto populated but if OK button is not enable
ok button having TC ID 65 thus write y 'suspension criteria'
defect ID 65 considered as 'Blocker defect'

(10) Test Deliverables :

- Required testing tasks (document) to be completed.

eg Test case, Test report, Test case design, summery report, strategy plan.

Name	Date
TP	23 Aug
Req. analysis	25 Aug
Test case design	5th sept

(11) Testing task :

(during test) (Job responsibilities)

— required testing tasks to do before start testing

eg review of test case, environment ~~setup~~, start testing

(12) Staff & Training needs :

— Name of selected TE & training required to them.

— Risks Analysis — questions are asked on project to BA

(13) Responsibilities :

work allocation to staff members.

(14) schedule :

Time & date.

(15) Risk & mitigation :

possible Testing level risk & solution to overcome them.

project Related risk → database (2 database)

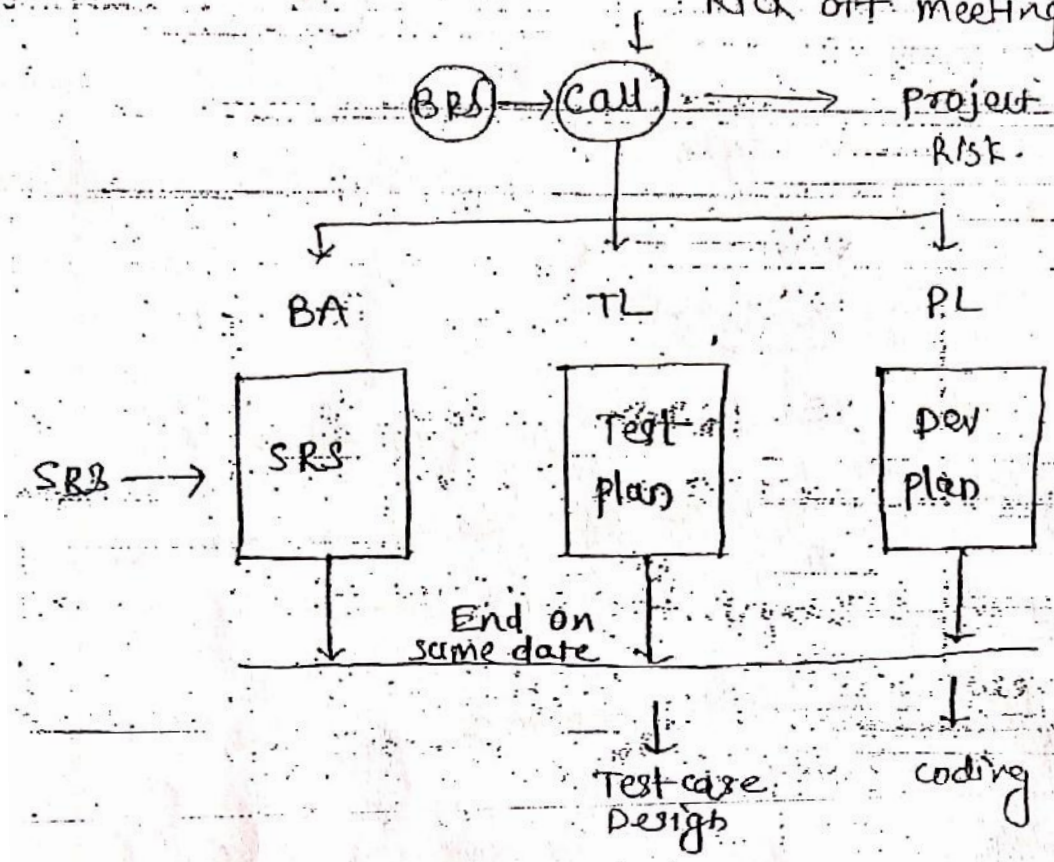
non project related risk → resource allocation

(16) singature & approvals :

signature of PM / QA for approval.

Q who is going to review test plan?

→ (PM) is responsible to review the test plan document.



* Review of the test plan :

- Basically (PM) is responsible to review the test plan document.
- In this review PM is basically going to concentrate on completeness & correctness of test plan
  - i) BR based coverage (Business Requirement)
  - ii) TRD coverage
  - iii) Risk based coverage
- After completion of this review the PM is going to circulate this test plan with client (John). so once the client approval come the test plan status stands as "completed"

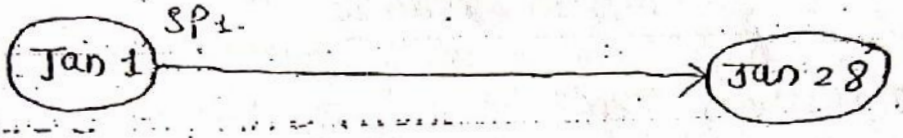
Agile Test plan

Q. Did you involved in agile test plan?

Q. what is agile sprint plan?

→ Yes, I have involved in agile sprint plan

Agile duration is 1 month



Timespan 1 Jan 12 pm - 1 pm

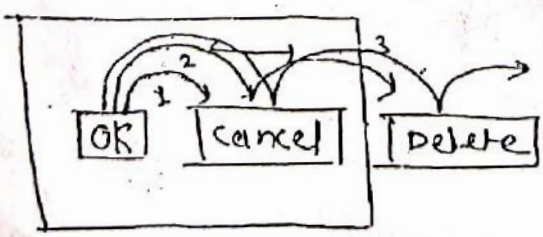
- on the very first day estimation is performe

① 1st week Jan 1 - Jan 5

- stories understanding & analysis (customer seq.)
- preparation of test case design (Iteration test case)
- Review of Iteration test case.

Q. what is Iteration?

→



Sp1 → test
Sp2 → Sp1 + Sp2 test
Sp3 → Sp1+Sp2+Sp3

Iterative Testing

② 2nd week Jan 8 - Jan 12

- Design of regression test case
- Review of regression test case
- Traceability matrix (Req. mapping)

③ 3rd week Jan 15 - Jan 19

- Iteration test case execution
- sanity (1 hr)
- Deffect report (if any)
- Regression test case execution

} Execution

④ 4th week Jan 22 - Jan 26

- Regression test
- UAT
- Test summery report
- Test plan for sprint 2

Q. what is diff b/w agile test plan & v-Test plan

→ No test document is required in agile sprint plan.
Agile sprint plan for 1 month
Document required in v test plan for 3 months

Test case design

Q. How & where you receive the SRS document?

→ SRS document is circulated to all the project teams

(Functional) SRS — BA — Email → Testing team

Hi Team

SRS document R1.0-BOA-credit has been kept @ 172.20.21.23

Basically BA is responsible for circulating SRS docu

Q. How you design the test case?

→ There are (3 types) of test case design.

After completion of test plan preparation & their review, test engg. prepares list of test cases from the [use case] (SRS) for corresponding module.

1. Business logic based test case design.

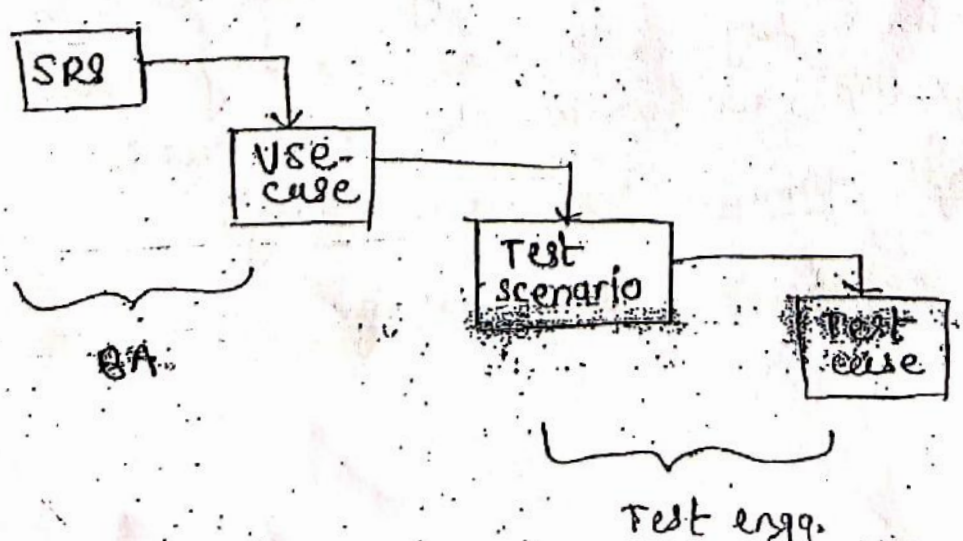
   In general we design test case by using business logic, I mean to say that form the (SRS) we write the test case.

2. Input domain test case design.

3. VI based test case design.

SRS Analysis : (customer req. analysis)

- Basically we read all requirements each & every not only related to defined task bcoz due to functional dependency.
- Once we receive the SRS document, we go through all the requirement belong to that specific release.
- Eg
  NEFT
  RTGS (Real time gross settlement)
  NEFT = < 2 lakh to transfer money.
  RTGS => 2 lakh
- After this if we have any confusion betn SRS / Requirement.
  We undergo one session conducted by BA along with testing team on Day 3
- In this session we clarify all the doubts.



Q. what is diff b/w use-case & test-case?
Q. what is diff b/w test scenario & test case?
Q. what is use case?

→

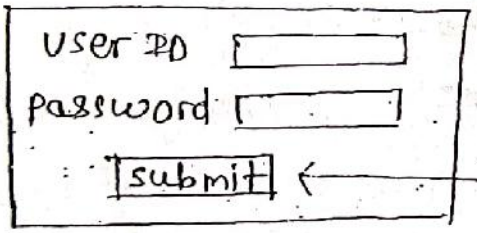
① SRS:

- SRS is defined with respect to BRS.
- This document also called as functional requirement specification.
- This document defines functional requires to be developed & system requirement to be used.

② Use case:

Use case defines the functionality in terms of input, output & process.

Eg



When we enter user ID, password & click on submit button then it should navigate to next page.

Eg.

UC1 — enter login name
UC2 — enter password
} → Input

UC3 — click on submit → process

UC4 — navigate to next page → output

⑤ Test case scenario:

The scenario can be identified by using one logic called "permutation & combination"

① What is the functionality of circle?

→ ~~All points are equivalence from center.~~ distance

All points are equidistance from the center.

TS1 — $C = 2\pi r$

TS2 — $A = \pi r^2$

② write a scenario for right angle traingle?

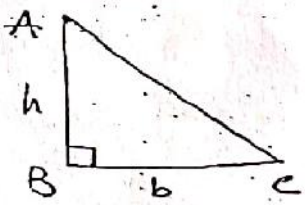
→

TS1 — $A = \frac{1}{2} \times h \times b$

TS2 — $\angle B = 90°$ (one angle should be 90°)

TS3 — $AC^2 = AB^2 + BC^2$ (Pythagorous theorm)

TS4 — $\angle A + \angle C = 90°$ (any two angle should be 90°).



③ Write down scenario for squale?

→

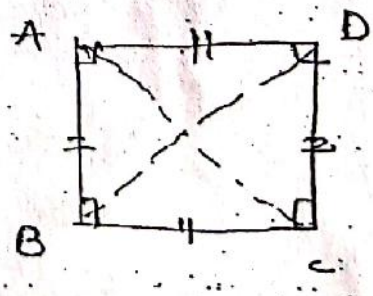
TS1 — $\angle A = \angle B = \angle C = \angle D = 90°$

and

$AB = BC = CD = AD$

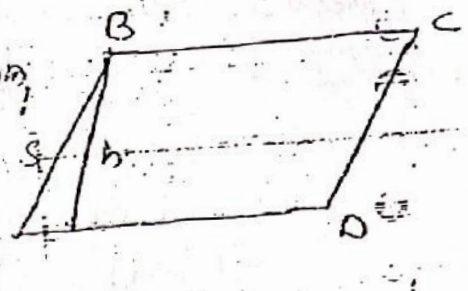
TS2 — $AC = BD$

TS3 — $A = AB^2$ (side)^2



④ Q. Write down scenario for rhombus?

→ A rhombus is four sided polygon, in which every side has same length.



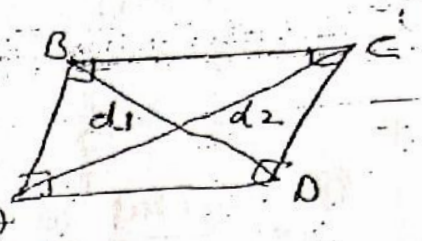
TS1 — AB=BC=CD=AD

TS2 — A=h×b

TS3 — perimeter = 4×AB

TS4 — ∠B=∠D & ∠A=∠C

TS4 — AC ≠ BD (diagonals should not be same)



⑤ Q. Write down functionality of dual sim?

→ call

TS1 — Two sim in a single device

TS2 — When sim1 is active then sim2 should be deactive.

TS3 — When sim2 is active then sim1 should be deactive

TS4 — When both call come exactly at same timestamp the sim1 should be by default activated.

TS5 — sim1 can't give call to sim2

TS6 — sim2 can't give call to sim1

message

TS7 — sim1 able to send msg to sim2

TS8 — sim2 able to send msg to sim1

TS9 — When both msg come exactly at same timestamp the msg should be delivered bydefault to sim1

⑥ functionality of human being

1) Presence of vessel cold
2) see
3) sleep
4) eat
5) walk
6) talk

⑦ Digital watch

Time should be displayed in digits.

⑧ ATM machine

1) money can be withdraw 24x7 hrs.
2) anywhere, anytime
3) By using magnetic strip, user can able to withdraw money
4) Without physical present in bank user can withdraw money

⑨ Write down functionality scenario for human eye?

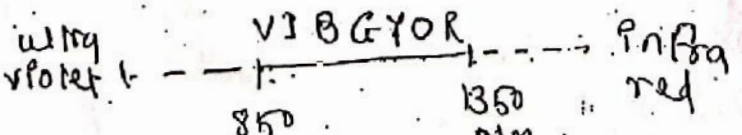
→

TS1 – Retina should identify the VIBGYOR ability to see

TS2 – expression of feeling → Hapiness, sadness

TS3 – sleep

TS4 – Blinking (to protect the eye/retina)



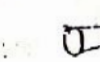
(10) What is the functionality of heart?

→ TS1 – Circulation of blood to the every organs veins.

TS2 – purification of blood

(11) Functionality of specs (glass) lens

→

TS1 – convex (long dist^n) 

TS2 – concave (near dist^n)

(12) scenario for pen

→ TS1 – user should able to write (the ink color should not match with paper color or black board)

TS2 – It obeys grantational ~~force~~ rule (Ink downword pen will work, if ink is upword pen will not work)

TS3 – Ink should be considered as fuel.

TS4 – The written line should not be erasable

TS5 – It obeys capilary tube mechanism.

(13) scenario for pencil

→

TS1 – The user should able to write (lead color should not match with paper color)

TS2 – doesn't obey grantational force

TS3 – Graphide rod considered as fuel

TS4 – doesn't obey capilary tube mechanism

TS5 – The written line should be earasable.

(14) Scenario for mouth

→ TS1 – taking food should sent to the stomach (eating)

TS2 – to test the food

TS3 – to speak

TS4 – to chiew

TS5 – to drink

TS6 – to smile

TS7 – to kiss

(15) scenario for sending email

→

TS1 – compose

TS2 – Reply

TS3 – Reply to all

TS4 – forword

TS5 – Autoreply

compose

TS 1.1 – 1.1.a) TO : Reciever email id should be written / present.

1.b) multiple reciever email id should be seperated with commas.

1.c) reciever email id should not be kept blank

TS 1.2 – 'CC:' (carbon copy)

1.a) single email id should be present

1.b) multiple email id should be present with comma

1.c) should be kept as blank.

TS 1.3 — Bcc: (Blind carbon copy)

1.a) single email Id should be present

1.b) multiple should be present seperated w commas.

1.c) should be kept as blank.

TS 1.4 — subject (summery of text)

1.a) fill the subject line

1.b) should be kept as blank (warning msg should popup)

TS 1.5 — Text

Enter the text msg.

TS 1.6 — Attachment

1.a) attachment should be there
- i) attachment > 2MB
- ii) attachment < 2MB
- iii) attachment = 2MB

1.b) attachment should not be there.

Reply

TS 2.1 — 'TO:'

2.a) single email Id present — then single sender's email Id should be autodisplayed.

2.b) multiple email Id present — then multiple email Id should be autodisplayed.

TS 2.2 — 'cc:' (senders)

2.a) single Id — kept as blank

2.b) multiple Id — kept as blank

2.c) blank — kept as blank.

TS 2.3 — 'Bcc:'

2.a) sender's single email id — kept as blank

2.b) sender's multiple email id — kept as blank

2.c) Senders email Id blank — kept as blank

TS 2.4 — 'subject'

subject line of sender's email should be displayed along with 'RE:' as prefix.

TS 2.5 — 'Text msg'

sender's email id should be displayed along with text msg.

TS 2.6 — Attachment

2.a) If attachment present to sender's email then it would not get attached by default

2.b) If no attachment present to sender's email then it should kept as blank.

2.c) Attachment should be added

i) size > 2Mb

ii) size < 2Mb

iii) size = 2Mb

2.d) attachment should kept as blank.

Forword

TS 3.1 — 'TO:'

3.a) single email Id — sender's email id should not be auto displayed.

3.b) multiple Id — to sender's multiple email Id should not be displayed.

3.c) Enter single sender's email id

3.d) enter multiple sender's email id seperat with commas.

TS 3.2 – 'cc'

3.a) sender's single id – kept as blank

3.b) sender's multiple id – kept as blank

3.c) sender's blank id – kept as blank not mand

3.d) if blank enter single sender's email id

3.e) if blank enter multiple sender's email id seperated by commas.

TS 3.3 – 'Bcc'

3.a) sender's single id – kept as blanks

3.b) sender's multiple id – kept as blank

3.c) sender's blank id – kept as blank not mand

3.d) if blank enter single sender's email id

3.e) if blank enter multiple sender's email id seperated by commas.

TS 3.4 – 'subject'

~~sender~~ subject line of sender email should be displayed along with 'Sub:' as prefix.

TS 3.5 – Text msg

sender's email format msg is displayed.

TS 3.6 – Attachment

3.a) if attachment present then by default add

3.b) if not present attachment add it or kept blank

3.c) size = 2Mb
> 2Mb
< 2Mb

Reply to all

TS 4.1 — 'To'

TS 4.a) sender's single email id should be auto displayed.

4.b) sender's multiple email id should be auto displayed.

4.c) Enter ~~receivers~~ single email id

4.d) Enter multiple email id seperated with commas.

TS 4.2 — 'cc:'

TS 4.a) sender's single email id should be auto displayed.

TS 4.b) sender's multiple email id should be auto displayed.

TS 4.c) Enter single email id

TS 4.d) Enter multiple email id seperated with comma.

TS 4.e) kept as blank. (not mandatory to enter)

TS 4.3 — 'Bcc:'

4.a) sender's single email id should be blank

4.b) sender's email id should be blank

4.c) enter single email id

4.d) enter multiple email id seperated with commas

4.e) kept as blank (not mandatory to enter)

TS 4.4 — 'subject'

TS4.a) subject line should be displayed along with 'RE:' as prefix.

4.b) subject line should be blank (warn msg should be popup)

TS 4.5 — 'TEXT msg'

sender's email format should same as email displayed along with text msg.

TS 4.6 — 'Attachment'

TS4.a) If attachment is present in sender's email then sender's email attachment not displayed bydefault.

4.b) If no attachment present in the sender's email then attachment should be kept blank

4.c) attachment should be added

i) size = 2Mb
ii) size > 2Mb
iii) size < 2Mb

4.d) not mandatory to add attachment.

To break the scenario there are two approaches that can be implemented.

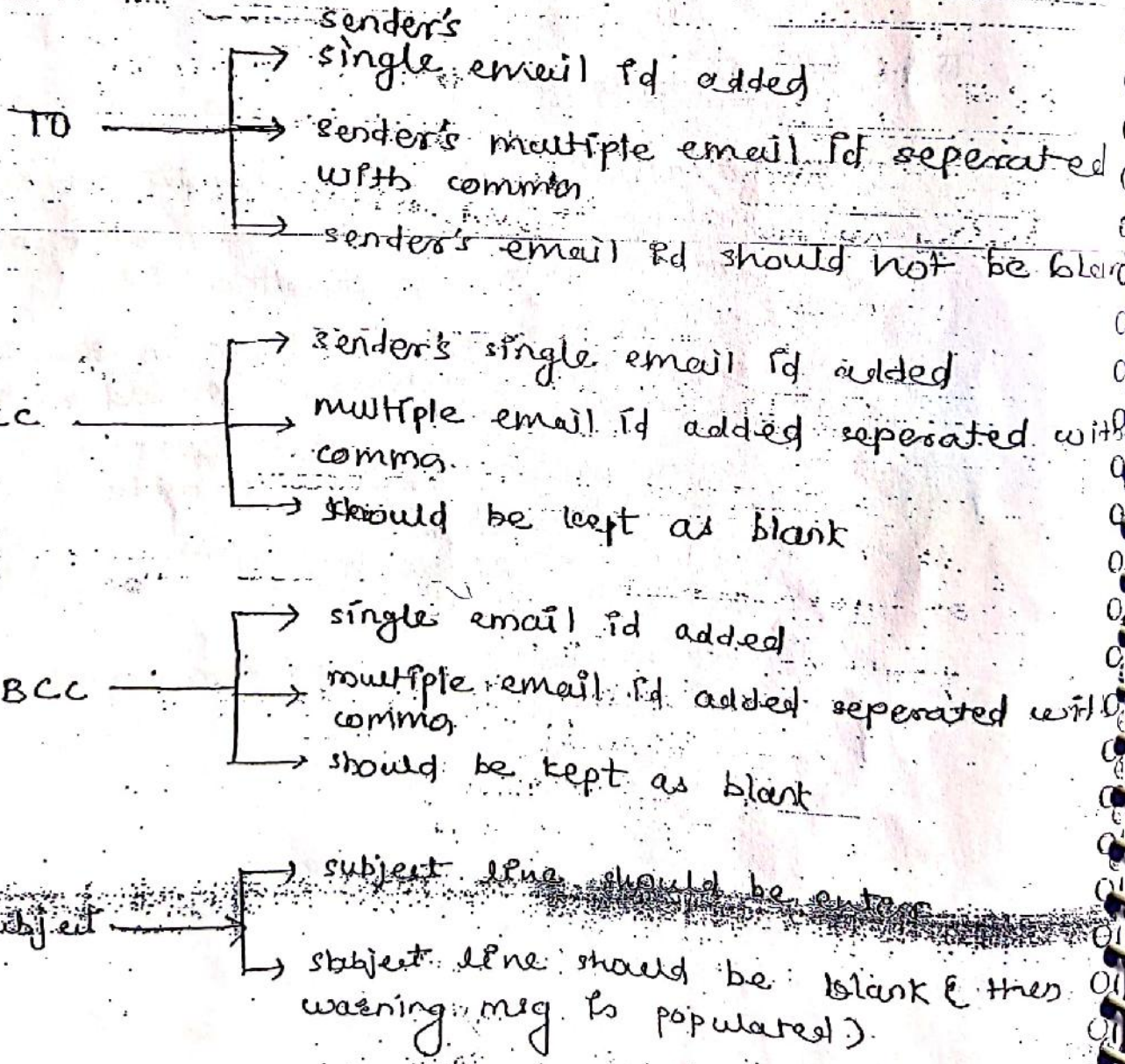
1. Matrix
2. Channelization

1. Channelization process

Q. scenario for sending an email.

→

1. compose



Text msg → enter the text message
→ text msg should not be written ⊂ then warning is populated)

Attachment → add attachment → size = 2Mb
→ size < 2Mb
→ size > 2Mb
→ attachment should be blank

② Reply :

TO → if single email id present then sender's single email id auto displayed.
→ if multiple email id present then sender's single email id auto displayed
→ enter sender's single email id
→ enter sender's multiple email id seperated with comma
→ should not be kept as blank

CC → single email id – should be kept as blank
→ multiple email id - should be kept as blank
→ if blank - kept as blank
→ enter sender's single email id
→ enter sender's multiple email id seperated with comma

Bcc
- single email id — should kept as blank
- multiple email id — should kept as blank
- If blank — should kept as blank
- enter sender's single email id
- enter sender's multiple email id seperate with , comma.

subject
- subject line of sender's email should be displayed same along with 'RE:' as prefix.
- user can edit subject line
- subject line should be kept blank & then warning msg is populated)

Text msg
- sender's email ~~if should~~ format is displayed same along with text msg
- ~~add~~ user can edit text msg
- user can add text msg
- if text msg kept blank warning msg should be populated.

Attachment
- If attachment present in sender's email then it should not be displayed by default
- If no attachment present then it should be kept as blank
- user can add attachment
  - size = 2Mb
  - size > 2Mb
  - size < 2Mb
- should be kept as blank

(3) forword

TO →
- if single email id present then it sha be by default blank
- If multiple senders email id present then should be by default blank
- enter single senders email id
- enter senders multiple email id seperates with comma.
- should not be kept as blank (mandatory to enter)

CC →
- single email id should kept as blank
- multiple email id should be kept as blank
- if senders email id blank – kept as blank
- enter senders single email id
- enter senders multiple email id seperated with comma.
- not mandatory to enter

BCC →
- single email id – should be kept as blank
- multiple email id - should be kept as blank
- if blank – kept as blank
- enter senders single email id
- enter senders multiple email id seperated with comma
- kept as blank not mandatory to enter

subject →
- → subject line same as senders email along with 'Fwd:' as prefix
- → user can edit
- → user can add
- → should be kept blank then warning msg should be populated

Text msg →
- → text msg format is same as sender's email depth text msg
- → user can edit
- → user can add
- → text msg should be kept as blank then warning msg should be populated.

Attachment →
- → if attachment is present in sender's email then it get by default added.
- → if attachment is not present in sender email ; it should be kept as blank.
- → user can add attachment
  - → size = 2MB
  - → size > 2MB
  - → size < 2MB
- → attachment should be kept as blank not mandatory to add.

(4) Reply to all

TO →
- → If sender's single email id present then sender single email id is auto displayed.
- → If sender's multiple email id present then multiple email id is auto displayed.
- → enter sender's single email id
- → enter sender's multiple email id seperated with comma

→ sender's single email id should be displayed
→ sender's multiple email id should be displayed

T.C → → if blank then kept as blank
→ ~~Enter sender's~~ single email id
→ enter sender's multiple email id seperated with comma
→ should be kept as blank.

→ sender's single email id should be kept blank
→ sender's multiple email id should be kept blank
→ if blank - kept as blank

BCc → → Enter sender's single email id
→ Enter sender's multiple email id seperated with comma.
→ should be kept as blank

→ subject line should be same as sender's email along with 'RE:' as prefix
→ if ~~not~~ subject line ~~kept~~ blank warning msg is populated.

subject → → user can edit subject line
→ user can add subject line

→ Text msg format to same as sender's email
→ If not text msg present warning msg populated

Text msg → → add
→ Edit

Attachment
- if attachment is present to sender's email then it should not be auto display
- if attachmet is not present it should left as blank
- user can add attachment
  - size = 2Mb
  - size ? 2Mb
  - size < 2Mb
- not mandatory to add attachment

Q(2) Date box is customizable

Date [/ / ▼]

→

LOV = standardized

LOV + Enter date manually = customized.

customized Date
- select date by using LOV
- enter date manually in text box

one test scenario = multiple test cases

enter date manually (scenario)
- check format of date
- bydefault current date
- edit
- add

(test cases)

Q. Do you have involved in database testing?

→ Yes, basically we use one column 'database impacted' in the testcase format

eg Database impacted: Y or N

We just need to maintain which testcase should impact on database, yes or not.

Only database impacted field is enough for database testing we need to write query.

So practicle approach at the time of execute we take db, table information from developer & execute query.

Reference section

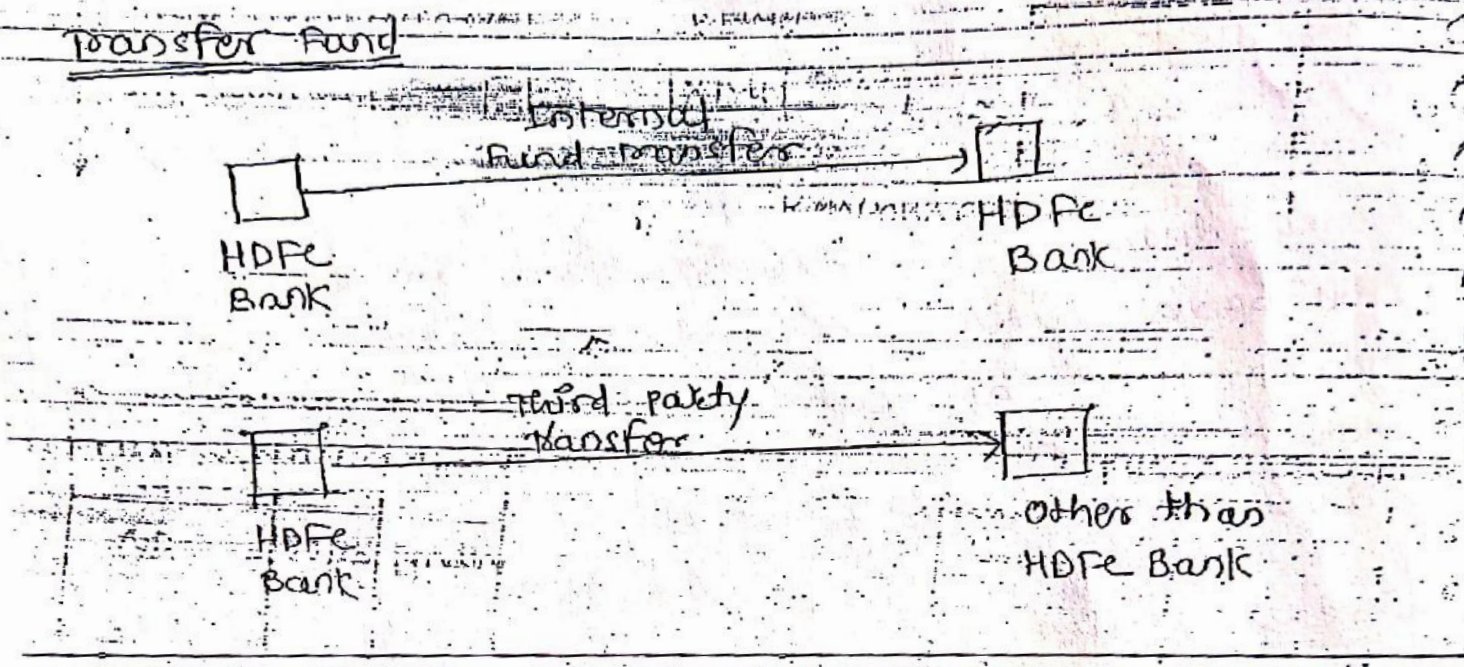
At the end of all testcases one reference section is there

Author & designed By	Reviewed By	Reference DOC	modified on	version
Amit Patil	N/A	R1.0-SRS-goibibo-flights.doc	N/A	Draft-001
Amit Patil	Rahul Patil	R1.0-SRS-goibibo flights.doc	22/8/15	Issue-001
Amit patil	Rahul patil	—	25/8/15	Issue-002

Banking Domain

HDFC Bank provide eg.

Transfer fund



NEFT → less than 2 lakh money can transfer

RTGS → bet. 2 to 10 lakh money can transfer

Branch name
Bank name
location
} ⇒ IFSC code

Now write Test case for fund transfer -

Test case name excelsheet :

R1.0_SIT_HDFC_NEFT.xlsx.

Test scenario :- From_account

Test case ID : R1.0_SIT_HDFC_NEFT_From_account_001

Priority : High

Reference : RI.0-SRS. HDFC-NEFT. doc

Title/summary : To validate 'From Account' dropdown

Prerequisite : 1) HDFC appln should sucessfully logged in
2) make sure user's name should be added as 'Beneficiary'
3) 'The third party Fund Transfer' page should be displayed.

Test data : N/A

Action : Vality 'From Account' dropdown.

Action	Expected Result	DB Impact
Vality 'From Account' dropdown	1. By default 'select an account' should be displayed.	
click on 'From Account' dropdown	List of account IDs should be displayed along with branch name & city name seperated by '-' eg 00001231f5 - BRANCH - PUNE	yes select * from custinfo where cust-name = 'A'
select as 'Account ID From' From account' dropdown.	The amount of balance should be displayed along with 'INR' as prefix. eg INR 500.50	yes select balance from custinfo where cust-ID = '00102245'

Test scenario name : Beneficiary

Test case ID : RI.0-SRS-HDFC-NEFT-beneficiary-001

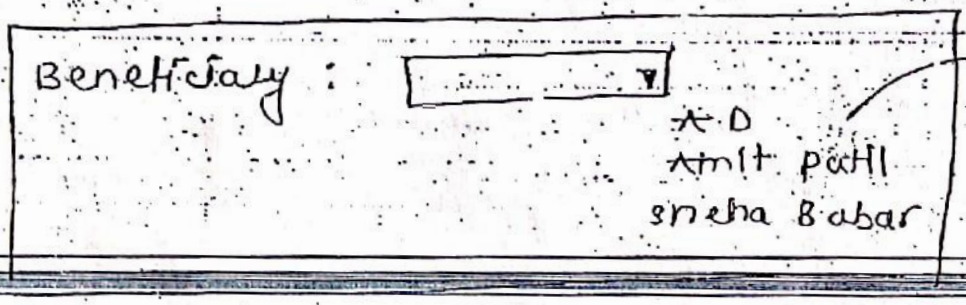
Priority : High

reference : RI.0-SRS-HDFC-NEFT.doc

Title : To validate Beneficiary dropdown.

Q. Ricky defect in ~~Beneficiary~~ banking domain?

→



Beneficiary shows the list of all added beneficiary users name.

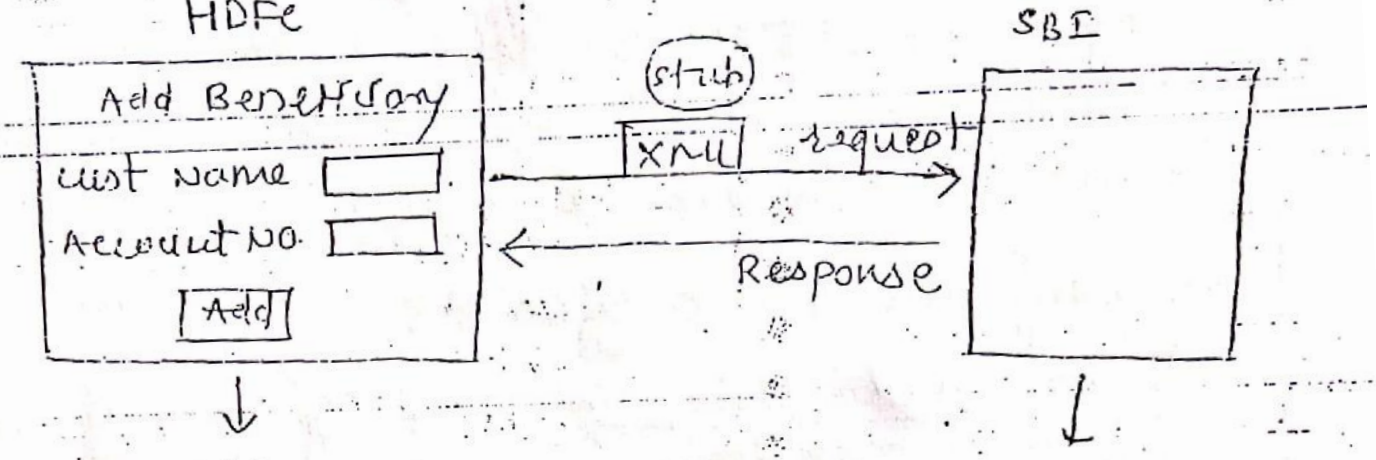
In database testing we have to test beneficiary users status should be 'enable'. If status is 'disable' & still present in the beneficiary dropdown this is very tricky defect.

To write the status of beneficiary write query.

```
select * from beneficiary_info
where status = 'E'
```

Integration Testing practical eg.

HDFC - Third party fund transfer



Beneficiary_Info

Last Name	acc no.	status
AD	00123	pending

Third_party_transfer

Beneficiary name	status
AD	E

Acc no.	Account Type	DESC code	Beneficiary name	email	status

Q what are the various types of account in bank?

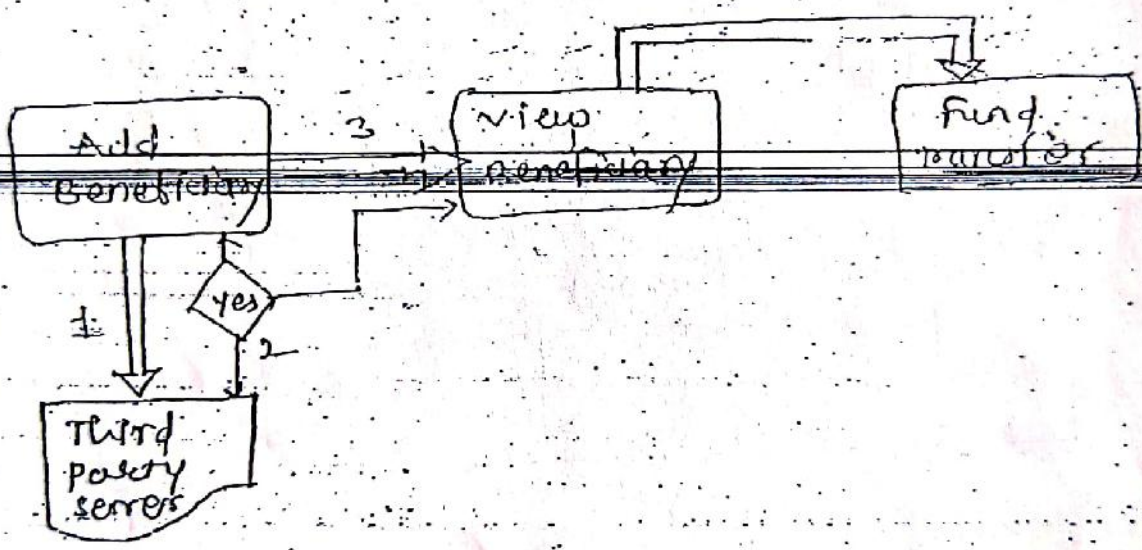
→
1) saving.
2) current
3) overdraft
4) cash credit
5) loan account
6) NRE
7) card payment

when the transaction would be triggered first time amount & username would be verified by server. Until the response came from the server the status is 'pending' once the response get status would be 'enable'

Q. Why RBC code is required?

→ for more authentication & security purpose RBC code is required.

HLD for third party fund transfer



dia: Functional flow dia

- while writing testcases for textbox, prepare BVA & EP.

eg. Transfer amount [ ]

1) prepare BVA & EP for 'transfer Amount' textbox.
2) In expected result column of testcase, just write enter dia-1 for 'transfer amount' textbox in reference section.

Min to transfer amount

BVA		Ecp	
min	max	valid	Invalid
3=p	10=p	0-9	a-z A-Z
2=f	9=p		special char,
4=p	11=f		blankspace

BA: develope a foll. SRS ~~doc~~ ~~by~~

Attribute Name	TYPE	Length	Datatype	mandatory
From_Account	Dropdown	N/A	N/A	Y
Benebiciary	—	N/A	N/A	Y
Beneficiary IFSC code	N/A	N/A	N/A	Y
Beneficiary acc.no	N/A	N/A	N/A	Y
Transfer amount	Textbox	max = 10 min = 3	numeric	Y
Transfer description	—	—	alpha ~~alpha~~ numeric	Y
status send to reg. mobile	textbox	~~min=1~~ 0 max=10	numeric	Y
Email	—	N/A	alpha numeric	Y

from above given SRS reberance table TE ~~create~~ ~~to~~ design testcase

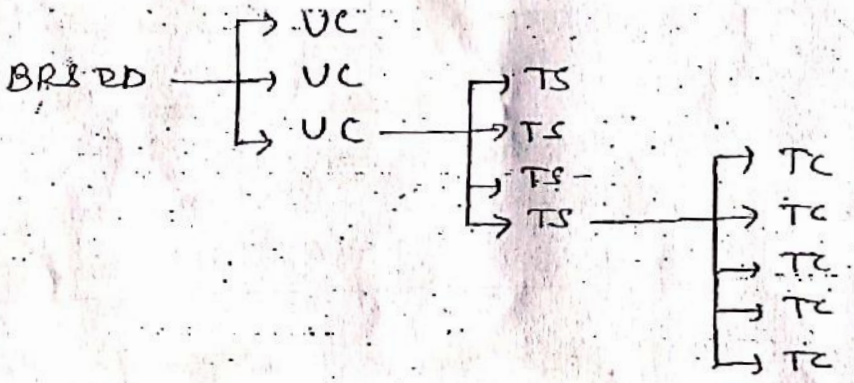
customer requirement is
The account no should be displayed only last 4 digit but it is getting displayed full account no.
This deffect is called 'High priority' & 'Low serority deffect'

Q. what is diff bet usecase & testscenario?

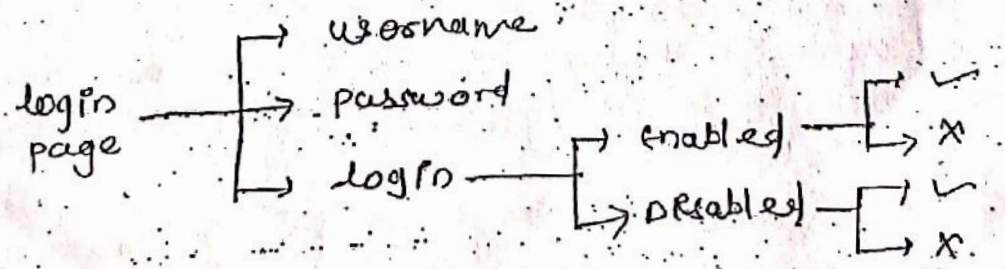
→ Test scenario defines the functionality
usecase defines functionality in terms of input, output & process.
usecase can be multiple test case scenario.

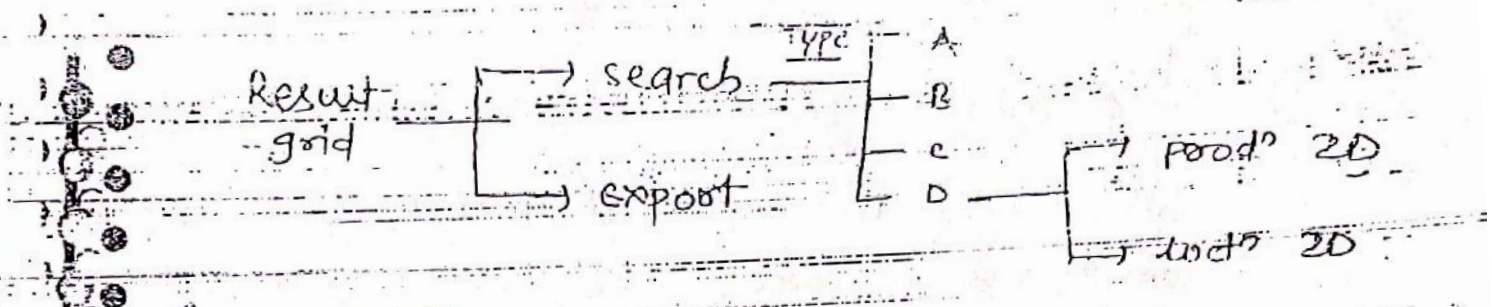
Q. what is diff bet Test scenario & test case?

→ Test scenario defines the functionality in other words what to test?
- one test scenario consist of multiple testcase
- Testcase defines conditions to be applied i mean to say navigational statement to define the functionality i.e How to test?



eg. login page

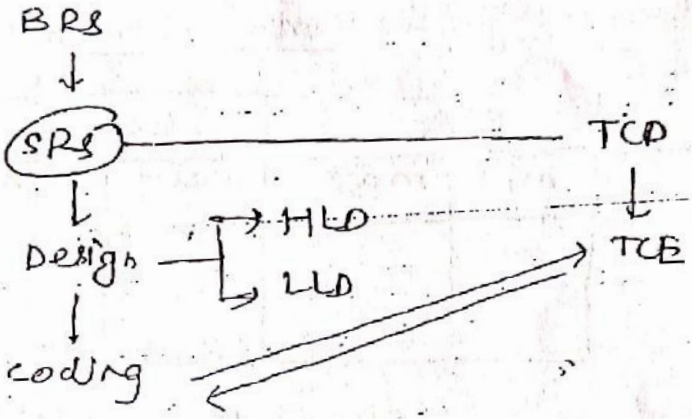




Imp

Q. How you write the testcase?

→



There are 3 types of design method to prepare testcase.

i) Via Business logic (SRS Document) gui.
ii) Data model (Input Domain)
iii) UI (Usability Testing)

① UI Testcase (Usability Testing)

- If it is an application, UI design would be implemented by the 'customer'
- If it is product then the UI design would be implemented by organization itself.
- If the customer is not qualified enough about UI to provide the information then organization use 'microsoft 6Hs rule.'

② Data model (input domain) Based Testcase:

This model is implemented only for textbox. sometimes customer requirement is not responsible to provide the information about textbox. Hence we use data model based test-case design to cover the functionality

BVA		EP	
min	max	valid	Invalid

dia. Data model (catamatic model)

* examples of UI:

1) font size, alignment, color
2) Data should be displayed with respect to customer req.
3) e.g DOB [ ] dd/mm/yy
DOB [ ] DD/mm/YY
DOB [ ] DD/mm/YYYY

3): Data should be displayed with 'currency'

eg. amount [200]
amount [200.00]
amount [Rs 200.00]

4) currency of data displayed with respect to dt

5) Accuracy of data displayed with respect to environment.
e.g. Appl^n colors should not get fade w.r.to t
6) proper alignment.

* case study

1R = 3 month quarterly

1) customer requirement analysis — 1 Jan —
2) Test case scenario — 3 Jan - 4 Jan
3) Test case design — 4 Jan - 11 Ja
4) Test case Review — Jan 14 - 3 day
5) Test case Traceability matrix — 2 day - Jan 1
6) Traceability matrix Review — 1 day - Jan 1
7) Test case execution & defect fix — Jan 20 - Feb 2
8) Regression — Feb 20 to Feb 23
9) UAT — 15 days 1 M to 15 marc
10) UAT regression — marc ~~20 to 30~~ 1 15 to 17
11) FR/ confidence Testing — marc 20 to 30.
12) Release

Test case Review

Q. what are the various types of reviews?

→ Basically after designing draft version of TC we focus on review.

Generally, there are 4 types of reviews.

1) self review
2) peer Review
3) Internal Review
4) External Review

1) Self Review: TE review their own testcase

2) Peer review: TE review their own testcase along with colleague (team members)

3) Internal review: TE + Team mates + BA + Developer

Internal review = self review + peer review

4) external review: Any customer.

Q. Do you have involved in review?

→ Yes, I involved in review.

Basically, in practical approach we done Internal review considering time constraint. what happen in Internal review we circulate our testcase along with testing team, BA, developers & PM.

eg mail format.

Date 31st

cc : PM (testing), PM (development)

TO : Testing team, BA, development team

Subject : Review of R1.0-Hdfc-NCERT-TPT-TC

Hi team,

Please find attached testcase of R1.0-Hdfc-NCERT-TPT-draft-version. pls send us the review comments & any modification is there on or before Jun 15 COB IST. & we would not receive any review comments on & above said date we would consider it as final version of TC.

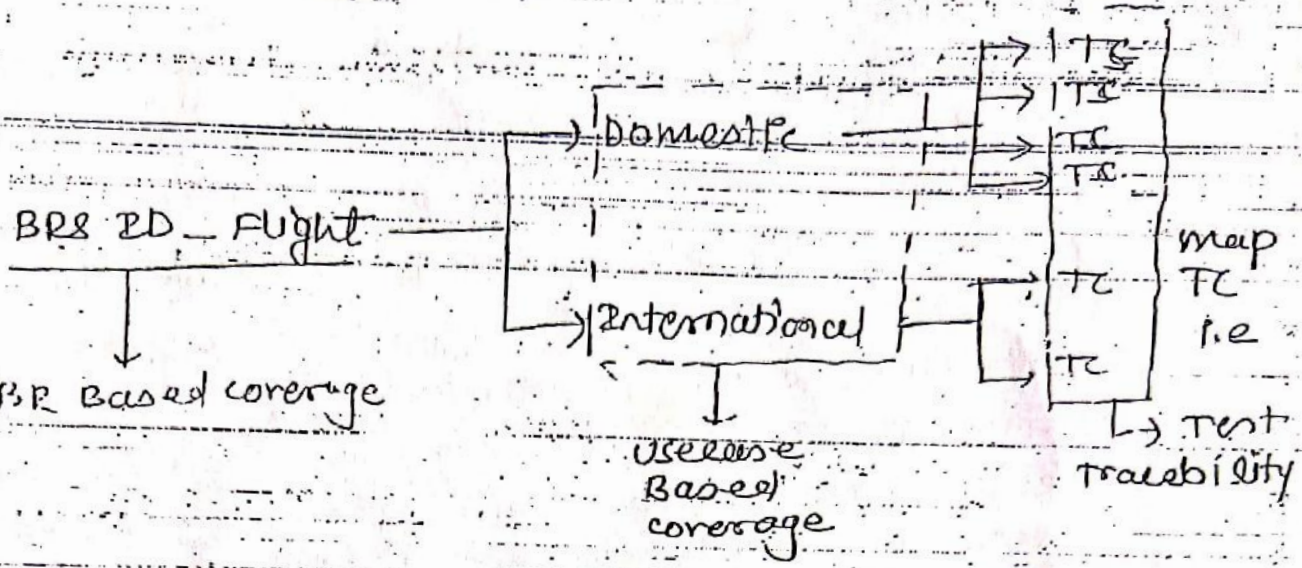
Thanks & regards.
Amit

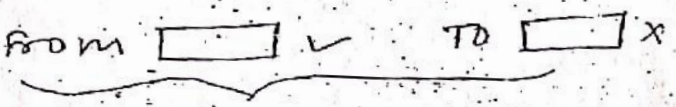
from above definition it defines during internal review we cover self & peer review.

Q. what are the things you focused during review of TC?

⇒ we basically focus on

1) Usecase based coverage
2) BR based coverage
3) data model based coverage
4) UI based coverage
5) Test Responsibility matrix coverage





In practical approach we focused on Usecase Based coverage (SRS) & TRM based coverage (Test responsibility matrix)

Client Review comments:

Q How you send testcase review comments?

→ customer requirement

☑ A This checkbox 'A' is mandatory.

→ TC1 : By checking 'A' checkbox user can able to progress the next page

TC2 : without checking 'A' appln should throw an error msg as 'A is mandatory field'

so.

Hi Amit,

Pls find below review comments

Row no 26 => negative scenario for the checkbox has not been emphasized.

After getting all review comments, we modify it in the 'draft version' of the testcase & save it called as 'Issue version'

Amit

Q. Even after review if any mistake occure then what to do?

Q. If you missed out any testcase during review then what you will do?

→

Test case → Testcase Review → Traceability Matrix → Traceability Matrix Review

If any testcase missed after this then 'Production Issue'

4) External Review:

After completion of internal review the external review start.

Hi Michel,

Pls share your convenient time slots that we can perform external review

Thanks & regard.

In general external review timespan is (2) days (9hr)

4 hr + 4 hr = 8 hr
1 day 1 day 2 day

In this review the 'customer' is considered as chair person & everybody belongs to ~~project~~ & IT Testing

MOM (~~meeting~~ minute of meeting)

After completion of external review, we are going to circulate 'MOM' to all the stack holder (PM, DM) including all the team members, BA also.

Format of MOM :- what review comments get or updated all these info present in MOM.

Please find the mom of external review of the R1.0 - NEFT - Test - scenario.

Date : 8th Dec 2015

Place : TBD oophuro

~~Chairperson : Avinash P, mtcsEGhm~~

start time : 6 PM EST

end time : 7.15pm EST

subject : External review of NEFT R1.0.

URL : www. Hdfc. com

Agenda : Walkthrough session of NEFT test scenario

Discussion

Below details are covered during meeting on 6th Dec 2015.

1) Date field should be customized
2) by default country type is 'US'
3) currency code is displayed as prefix instead of postfix

Attendence : sneha, Jyotsna, Bhushan

Tomorrow plan : Rest of the ~~sss~~ scenario would be identified

IMP

Traceability matrix (RTM)

Req. mapping sheet / Req. validation matrix

This document defines the mapping bet customer requirement & prepared testcase

It is classified into 2 categories.

1) Forword traceability matrix
2) Backword traceability matrix

① Forword traceability matrix

mapping bet Test scenario & BR & usecase

It is prepared before execution. prepared in excelsheet.

BR	usecase	Test scenario
flights	domestic	multicity Round Trip oneway from To depart return children Adults Infants economy

② Backword traceability matrix:

mapping bet defect & usecase is called as 'Backword Traceability matrix'

BR	usecase	Test scenario	defect

sometimes if the testcases satisfy the customer requirement still there is probability of chances to get a defect

Eg

customer req. is amount should be numeric

TC1 → amount should be in numeric
create BVA for req for amount

TC1 → when you enter a negative value
error should be thrown.

But

then Amount = −10 Rs

i.e. amount should be −ve.

Q what will you do if critical defect is rejected by the developer?

↔ 1) I will try to explain the developer with strong reason.

2) I will try to discuss with BA. — 96% case solved.

2% practical scenario 9% cases get solved by using 2nd step. even after this if Bug occured other we will discuss with client with the permission of pm.

R1.0-HI-Hdfc_traceability_matrix.xlsx

BRS ID	usecase	Testcase
Domestic (BRS-001)	Oneway (001.a)	oneway-from oneway-to oneway-depart
	Roundtrip (001.b)	roundtrip-from roundtrip-TO roundtrip-depart roundtrip-return
	multicity (001.c)	multicity-from multicity-To multicity-depart multicity-return

same as for 'International'

Traceability matrix Review

once the preparation of ~~BF~~ TM gets completed we send it to BA for review.

Q. who is responsible for TRM review?

→ Basically the (BA) is responsible for TRM review.

If any modification required the review comment would be get within 24 hrs i.e next day.

once we get the review & review comment update it & save it.

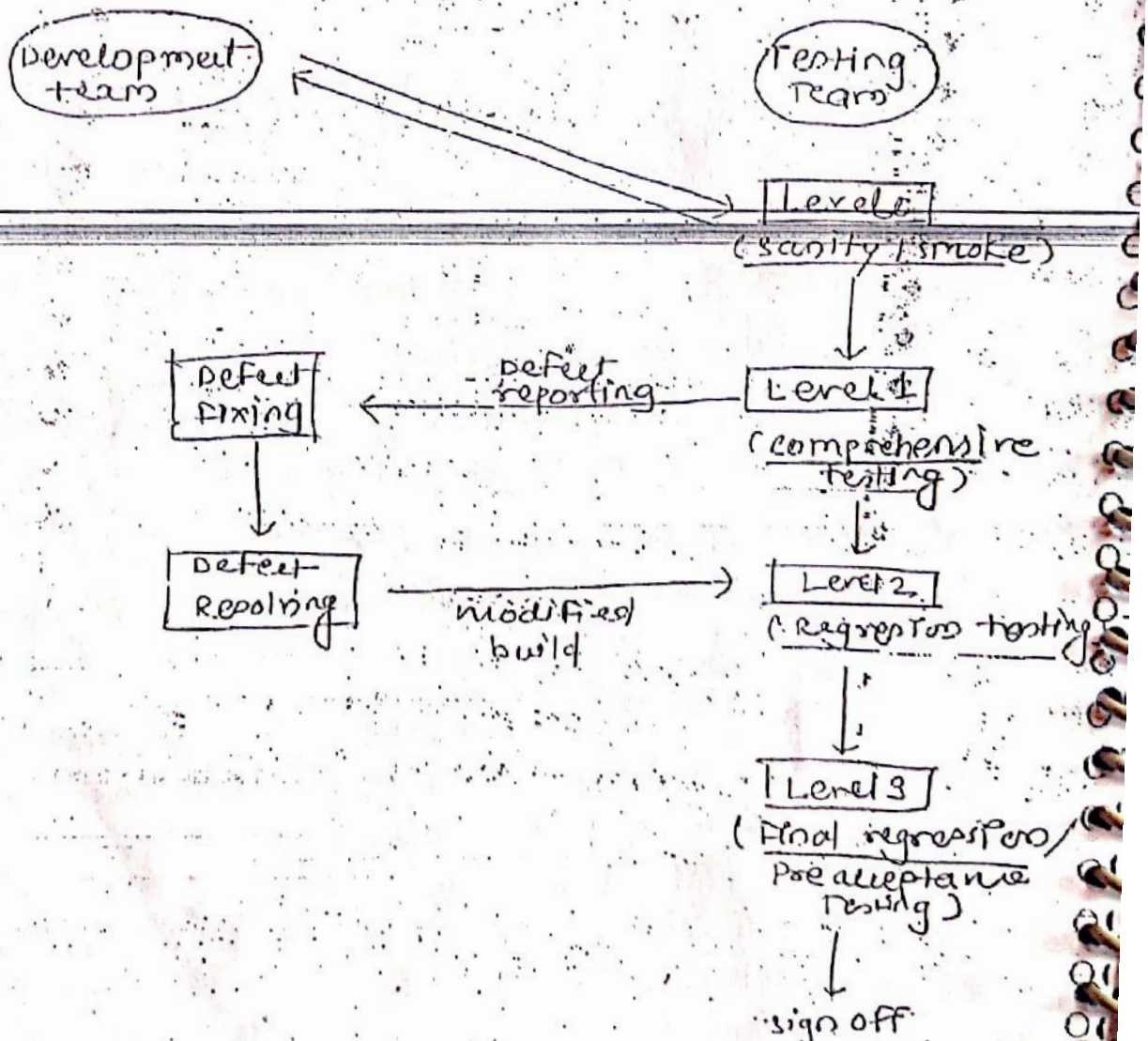
Test case Execution

After completion of traceability matrix review TE waits for build release from development team, called as test

Q. What are the various types of levels of test execution?

Q. In which level you involved?

→ I'm involved in all levels of testing



Level 0 : All high priority test case (sanity test testing)

- After receiving initial build from developer team TE concentrate on basis functionality of app to estimate stability of build.
- TE cover all core functionality
- If testing team find any malfunction or missing functionalities they reject the build

Level 1 : (Comprehensive testing)

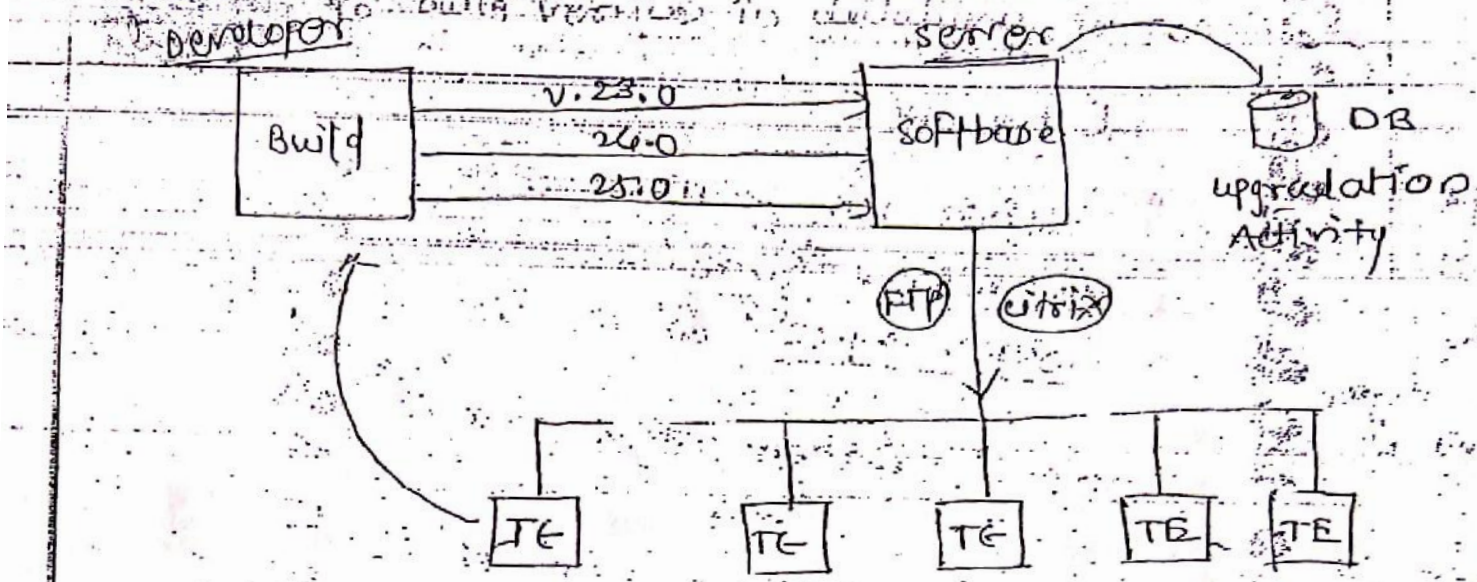
- After confirmation of stability of build they start execution of all high, medium & low priority testcase.
- Tuesday to Friday
- If we find any defect we report to development team & they sends new build on Friday evening.

Level 2 : (Regression Testing)

- All high, medium, low priority testcase with respect to modified build.

Level 3 : FR

- All high, medium, low priority with respect to critical area



Ingeneral the developer put the build at the "Softbase"

Softbase is server nothing but server or collection of server.

From the DB softbase TE collects the appln via ftp.

During execution of TE find any defect they send the developer to fix it.

Developer fix the defect & send the modified build to the TE.

To distinguish betn old build & new build the developer maintain unique version numbering system this things would be done by 'VSS Tool' i.e configuration mgmt tool. VSS is stands for visual source safe.

VSS is product of microsoft & clearcase is product of IBM also.

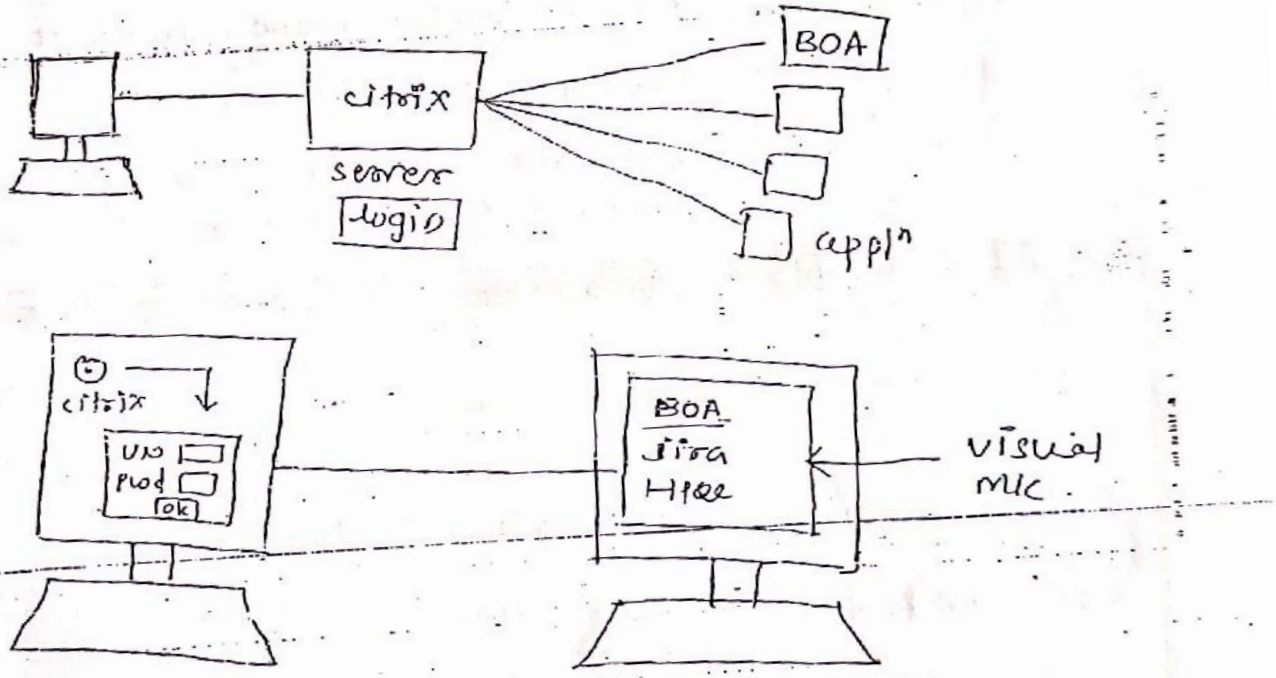
Which configuration tool you are using?

→ VSS tool.

Q If the upgradation done by DBA people then how the upgraded details replicated in your api

→ Basically we are using 'citrix metaframe server' Hence once the build upgraded from the DB end it get replicated to our system.

log file is generated of specific citrix id



Q How you connect to the appln?

→ via using citrix metaframe server.

Q. What are the tools you are basically using ?

→

1) Idoc / Erise (8.11) — Requirement visualization & Analysis. (BA used)
2) JIRA — project management tool for Agile.
3) putty — unix terminal
4) Toad / SQL Developer — front end database utility tool.
5) HPQC (Version 11) (ALM 11) — Defect management tool
6) Jira / mantis / Rally — Defect mgmt tool
7) SOAP UI — web servering functionality Automation tool, SOA (service oriented architecture)
8) ETL (Informatica) — Extract transform load
Pod-ium
9) microstrategy — reporting
Cognos
10) File diff — comparison of two file
11) Notepad ++ — edit file
12) clearcase / vss — configuration mgmt tool
13) FTP — file transfer protocol.
14) microsoft Lync — for external office comm.
15) outlook 2013 — free email comm.
16) caliber — used by BA & TC — To see the snapshot & detailed SRS
17) QTP, USQ, selenium — functionality automation tool
18) load runner — performance testing tool.
19) Ipconfig — IP address

Q. Did you get high severity defect?

→ [redacted] to build version to database is considered as high severity defect.

HPQC : Defect management tool

Defect mgmt tool

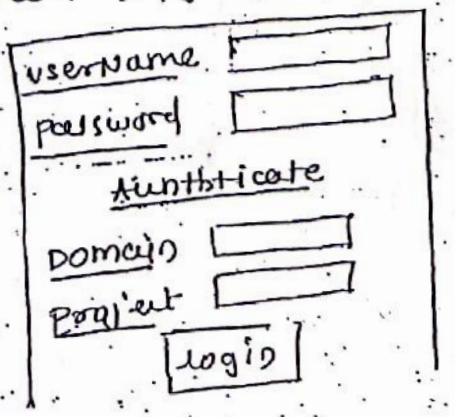
1) Bugzilla
2) JIRA
3) Rally
4) most advanced tool is HPQC / MQC / ALM ++

year	version	name	company name
2006	4.0/6.0	Test Director	mercury
2008	8.0/9.0	MQC (Mercury quality center)	mercury
2010	9.2/10	HPQC	HP
2011	11	ALM	HP

ALM - Application lifecycle mgmt tool.
Latest version is ALM 11 & 12.5

Q. It is defect tracking or defect mgmt tool?
→ HPQC is a defect management tool.

Q. How you login the MQC?
→ we have to provide username, password, domain & project name.



User id = userid of QC
(given by client)

Q who provide the credentials?

→ Customer provide us the credentials.

By clicking on authenticate the domain and project name automatically displayed.

Domain is nothing but on which component / module of project you working.

project — name of project

eg. Hdfc bank

domain name — eg — WEB.

Q what are the tabs in ALM?

→

1) Requirement
2) Business component
*3) Test plan
*4) Test lab
*5) Defects
6) Dashboard.

① Requirement:

Basically this tab is used to map the testcases VS business requirement.

Requirement mapping is done by (TE) after execution.

Q Do you have involved in requirement?

→ I am not aware about requirement.

② Business component:

I doesn't have permission to access it. (It consist of business requirement details)

⑧ Test plan :

Q. What is the functionality of test plan?

→ Test plan is used by Test Lead

1) Design the testcase inside the test plan
2) Creation of Test Batch.
3) ~~Export~~ Upload TC to QC

There are 2 attributes we are going to perform.

Q. Why we are using excelsheet to write testcase?

→ Excelsheet is user friendly tool.

Q. How to create Test Batch?

→ Test batch is nothing but clubbing of Intended dependant modules.

step 1 : click on 'new folder' ☐

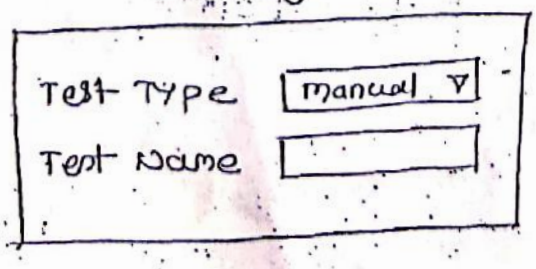
step 2 : Enter the 'batch name'

eg R1.0-make_my_trip-Flight_reservation_Domestic

step 3 : click on 'subfolder' ~~create~~

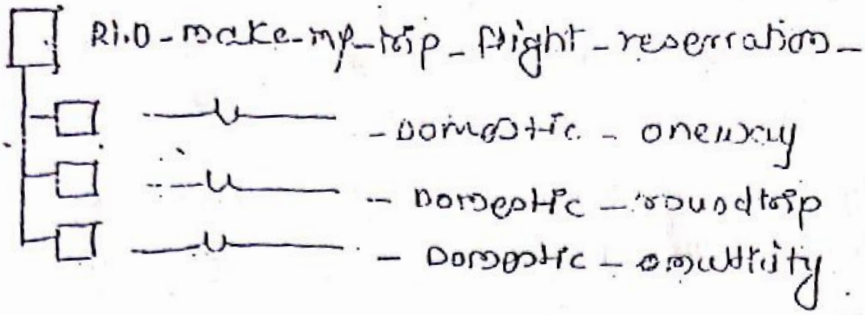
step 4 : Enter the 'Test name'

eg. R1.0_make_my_trip_Flight_reservation_Domestic_oneway.



← After clicking on the subfolder

tree structure look like



Q. How to design testcase in testplan?

→ step 1 : click on subFolder
eg —— Domestic_oneway

step 2 : click on 'design step'

step3 : select 'new step'

	step name	description	expected Result
	step 1	select depart date	by default current date should be displayed

ok cancel

attach

step4 : click on 'new step' to add one by one.

step5 : Attachment

Here we can take the printscreen of appln ~~table~~ where we find defect & save it in .Jpeg. format

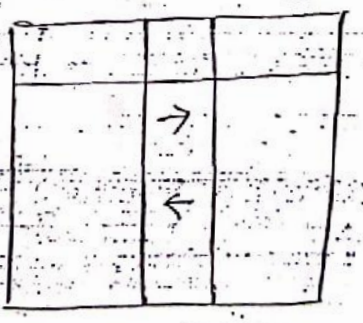
& using attachment we can attach this .jpeg image for reference.

Disadvantage of HPQC:

1) spelling mistake correction is not available in the QC, so write in excelsheet
2) HPQC is a server. If everyone is opening & writing testcase then performance issue might be occure
3) occasionally if few testcases we have to write then we can write directly in the HPQC.

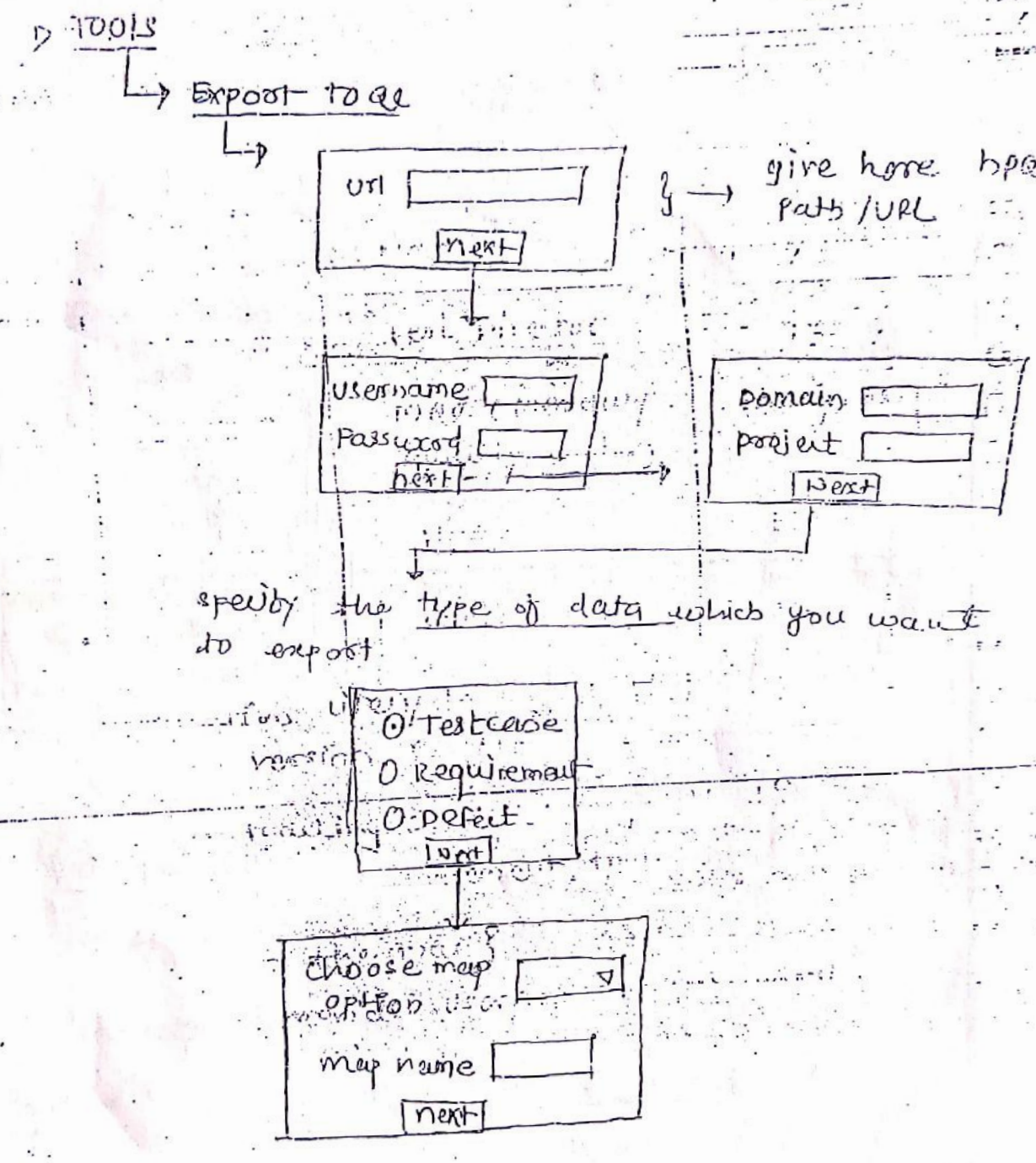
Indeed
Q what is the testcase format of HPQC?
→
1) step name
2) Description
3) expected Result
4) priority
5) reviewed
6) Level

Q can new coloumn would be added? How?
→ yes, we can add new or extra coloumn.
click on → 'select coloumn'
Basically PM / admin is responsible to add the coloumn.

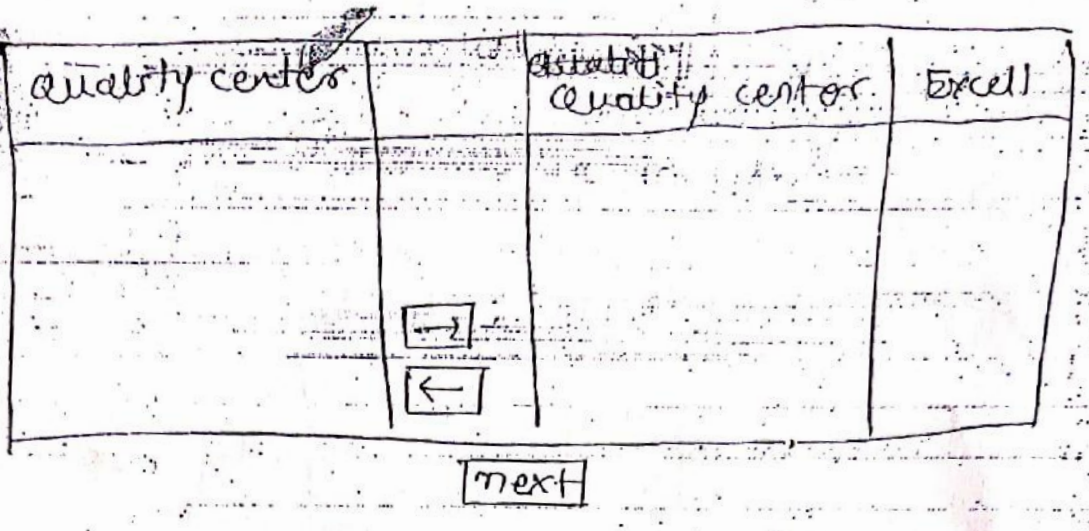


Q How to upload testcase from excellsheet to testplan in HPQC?
→ step 1 : First we have to install 'add-in' software

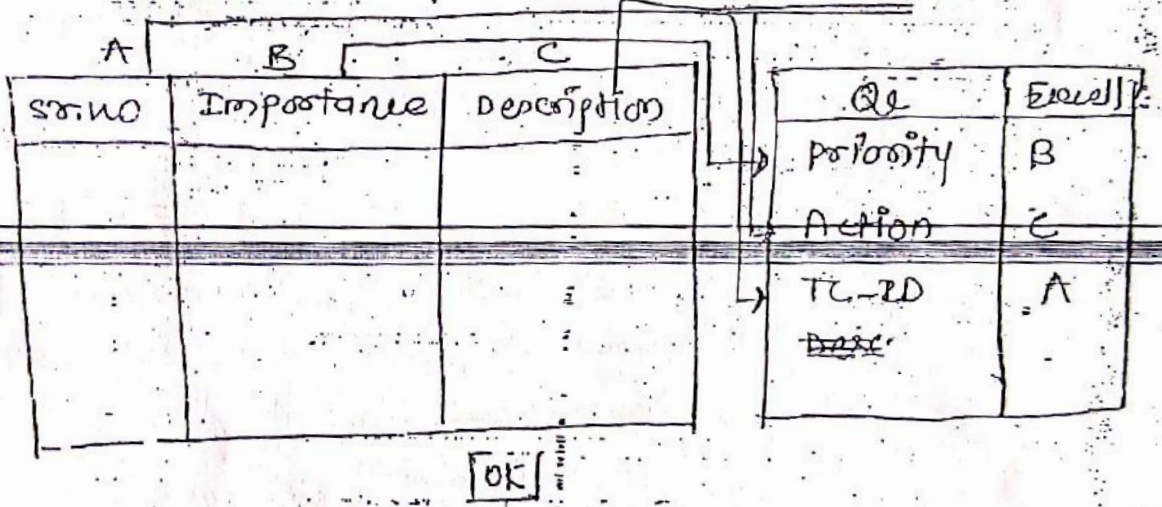
Step 2 : In excel sheet 'TOOLS' option is there; Click on Tools & select option 'Export to qc'



Add-ins software installation is necessary. then only Export to qc option will be available.



select the columns we required from Qc which we want to export from excel to Qc



status 60% exported

Q How you map?

→ Basically we have to select system column, i.e HPQc column & map with the excel sheet column.

Q. Whas you face the dibficulties during uploading testcase?

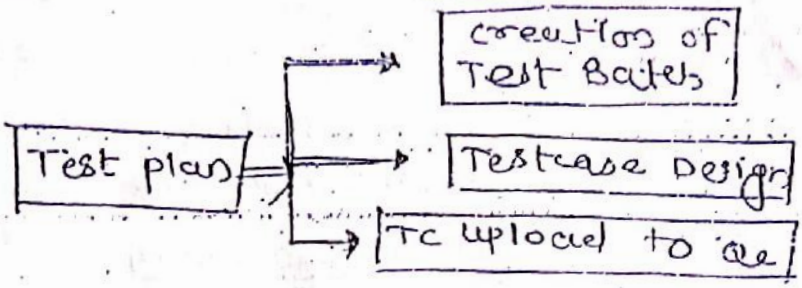
→ 1) Testcase ID should be in proper sequence.

any improper sequence of Testcase ALM system should not accept.

2) Make sure nothing would be bold.

3) Testcase row should not be blank.

creation of test plan contain;



* Test Lab

Q. Brief description of Test Lab?

→ Test Lab stands for "Test Laboratory"

1) To execute the TC
2) To Maintain the status of TC
3) Linking of the defect

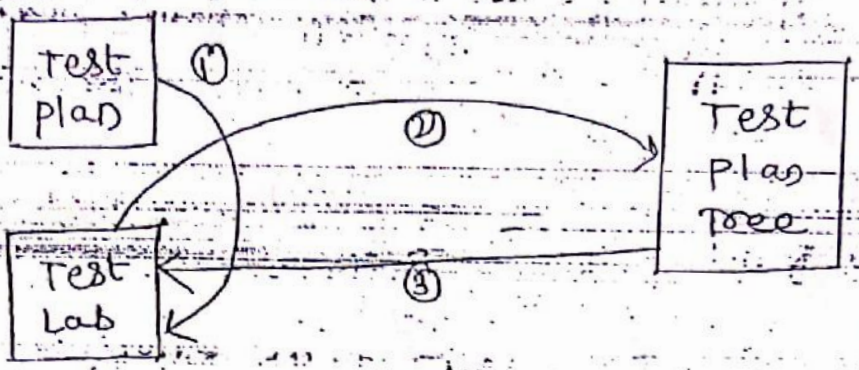
(1) To execute the TC:

Q. How to move TC from TEST plan to test Lab?

→ We have to create same type of folder & subfolder.

once we create the subfolder in the right panel. 'Test plan tree' gets created'

after that we select the corresponding TC & move to Test Lab.



Folder_name

- RI.0 - make_my_trip - flight_reservation - Domestic
  - domestic_oneway
  - domestic_roundtrip
  - domestic_multicity

→ F2 → (F2) — copy the name of folder & subfolder name & save in notepad. we have to use it later.

1) Go to 'Test Lab'
2) select on 'Root'
3) click on create Folder
   ↳ enter folder name
4) click on subfolder
   ↳ enter subFolder name

→ same as Testplan:

5) at right panel → Test plan tree is created
6) In test plan tree the corresponding testcases are there.
7) select that TC from Test plan tree.

(2) To maintain the status of TC :

Q. What are the status of TC in HPQC?

→
1) Pass
2) Failed
3) N/A
4) Not run
5) Not completed.

1) Pass : Expected result = Actual Result

2) Fail : Expected Result ≠ Actual Result
not equal to mean variant with actual Result.

3) No Run : The test execution has not begun yet.

Q. Which status is by default present in HPQC?
→ 'No Run' is by default ∅ status.

4) Not completed : Corresponding parent function alt failed. (Partial Execution completed)

5) N/A : Not applicable.
Requirement was previously there but currently that requirement not exist / removed is called 'descope' status.

→ Steps :

Step 1 : click on 'Run'

Step 2 : click on 'Begin Run'

Step 3 : Execute the appln to check / validate the TC.

Step 4 : click on 'pass' status

Steps : Enter Actual Result after executing appln

Step 6 : Description : verify the 'OK' button

Expected Result	Actual Result
OK button should be get focused after entering data in 'A Textbox'	'OK' button get displayed.

(6) : Attach snapshot of page

Step 7 : click on 'End run'

This status get automatically to TC as 'passed'

x x x

Req

↳ click on Run

↳ Begin Run

↳ execute appln & validate TC

↳ click on 'Fail' → select 'All fail'

↳ Enter actual data / Result after Executing appln

Description : verify the From dropdown

Expected Result	Actual Result
List of city should be display.	List of city should not be display.

→ End row

Then status get automatically updated as 'Failed'

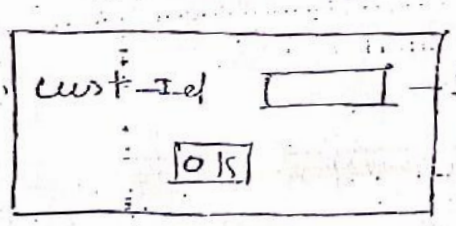
Q. What is the evidence that ~~they~~ you got error in the program / appln.?

→ 1) we are going to put the snapshot of result in the TC

2) To send the Audit trail report

Audit trail

www.BOA/neft.com



cust_ID	Date	Time	transaction
1234	12/2/15	10:10:12	sucess

Note

Attach snapshot — In terms of passed TC.

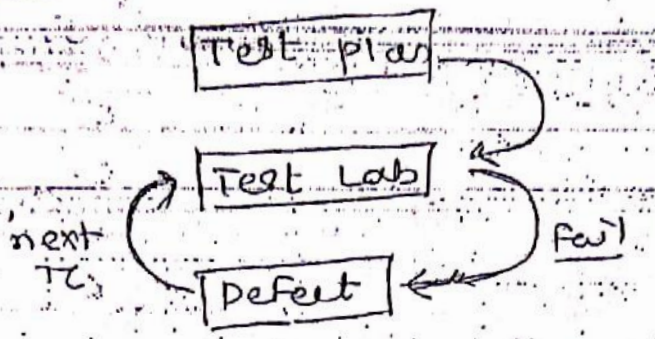
No need to attach snapshot in terms of failed TC. we have to log defect. in Failed TC.

Test Report

Total TC	Executed	Failed	pass
60	40	30	10

Q What would you do if you find a defect / TC get failed?

→ Navigation



1) obviously log the defect
2) we are going to start independant TC

(3) Defect

step1 : 1) click on defect

step2 : 1) click on 'new defect' (first time log / register defect)

1) summary :

summary should be uniformal

P1.0 – S.RT – BOA – NEFT – sp45

- P1.0 → Release version
- S.RT → Team
- BOA → pool name
- NEFT → module name
- sp45 → sprint version.

1) what : what is a defect?
'OK' button not getting enabled

2) when : when occured?
after inserting data in csv textbox.

3) where : where occured?
in the customer info page.

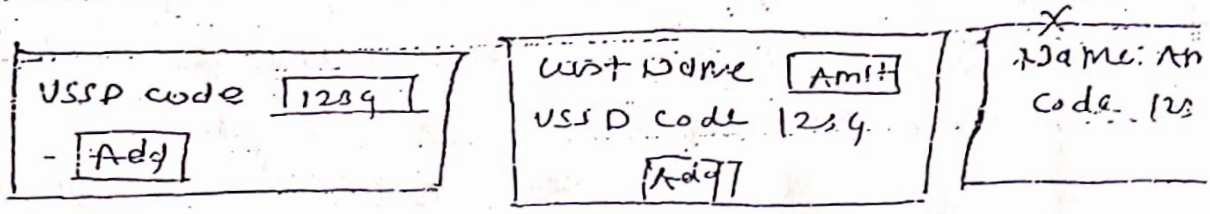
Summary

RI·O_BRT_BOA_NEFT_SP45 : 'OK' button not getting enabled after ~~clicking~~ inserting data in cell textbox to customer_info page.

(2) Database Testing

RI·O_SIT_BOA_NEFT_SP45 : Customers name is not displaying in DB after clicking on 'ADD' button in customer_command page.

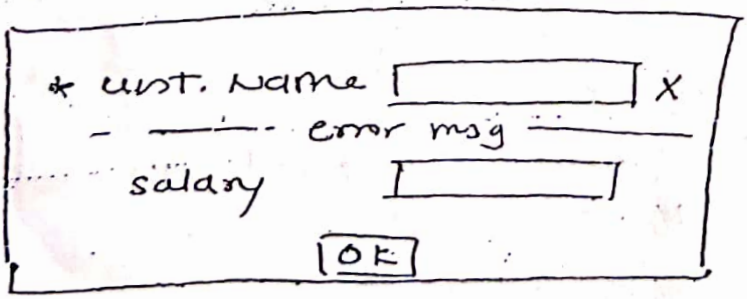
Req.



(3) Req.

Reservation class [▽]
Business
Economy X

RI·O_SIT_Reservation_domestic_SP41 : Economy is not getting displayed after clicking on 'class' drop-down in reservation page.



RI·O_SIT_customer_data_salary_SP46 : Error msg is not displaying ~~eresatter~~ ~~fitting~~ ~~it~~ customer name kept blank in ~~cart~~ salary info page.

Q. How much time required to log the defect?

→ max 10 min required to log the defect (7 to 10 min)

Q. what are the component / attributes / parameters of the defect?

→

① Assigned To :

To whom you assign the defect

Q. To whom you assign the defect?

→ A responsible person of developement team ? mean team lead / pm of developement team,

↳ click on 'assigned to' dropdown

↳ list of all members corresponding project will display.

② Category : 1) Functional suggestion
2) security
3) performance

what type of defect category

③ Detected To version :

In which version you found the defect.

write query to find build line.

select * from build_version desc2

④ Estimate fix time :

What is the estimated time developer take to fix the defect.

estimated time = current date + 3 days
i.e. 15/12/2015

⑤ Planned fixing version:

In which version this defect would close in next version or very next version.

⑥ project *

project dropdown contains the list of projects select on which project you are working.

⑦ Reproducible: Y/N
Bydefault it is NO: (N)

Q. What is reproducible?

→ If the same defect is coming again & again is called Reproducible defects / actual Defects.

Q If the defect is not reproducible then what can you do?

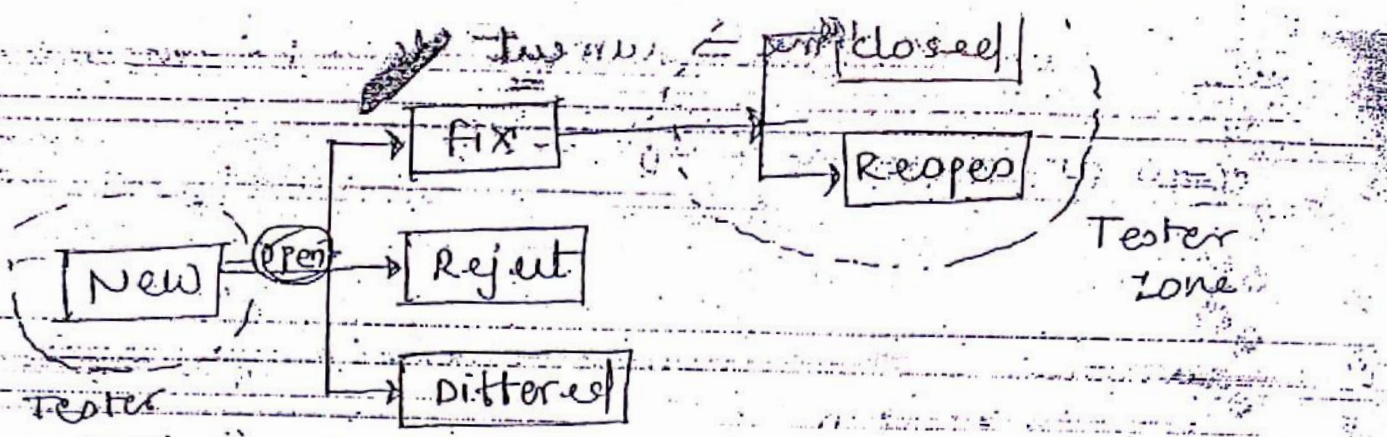
→ In this situation we are going to register the defect with proper comment line.

e.g Issue coming in ~~first~~ firefox browser but not in 'crome browser'

⑧ status:

Q what is defect status life cycle?

→ status
- new
- open
- closed
- reject
- Differed
- reopen



Dia. Deffect status life cycle.

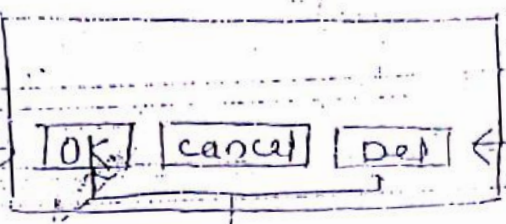
1) New:
When first time TE log the defect

2) Open:
It is as under analysis stage bet new & Fix

3) Fix:
The developer is agreed to provide the solution for defect

4) Reject:
The developer didn't accept the defect, then the status will be rejected.

5) Differed:
The developer agreed the defect & ready to give the fix to later version is called as 'Differed Defect'
This situation occures beoz the current defect is functionally dependant with other defect thats why developer require extra time to give the fix.



6) Closed :-

After the developer provided fix the TE test the defect again, if it doesn't exist called as 'closed' defect

7) Reopen :

After developer provided fix, the TE test the defect again, if it exist still again tives states to 'Reopen'

Q. who assigns the status of defect?

→ logically - Fix, defect deffered & Reject states of the defect would be done by the developer.

But practically considering the time constraint developer send us the resolution type via email & we (TE) change the status.

This work only in traditional project.

Q. who is responsible to fill up status zone?

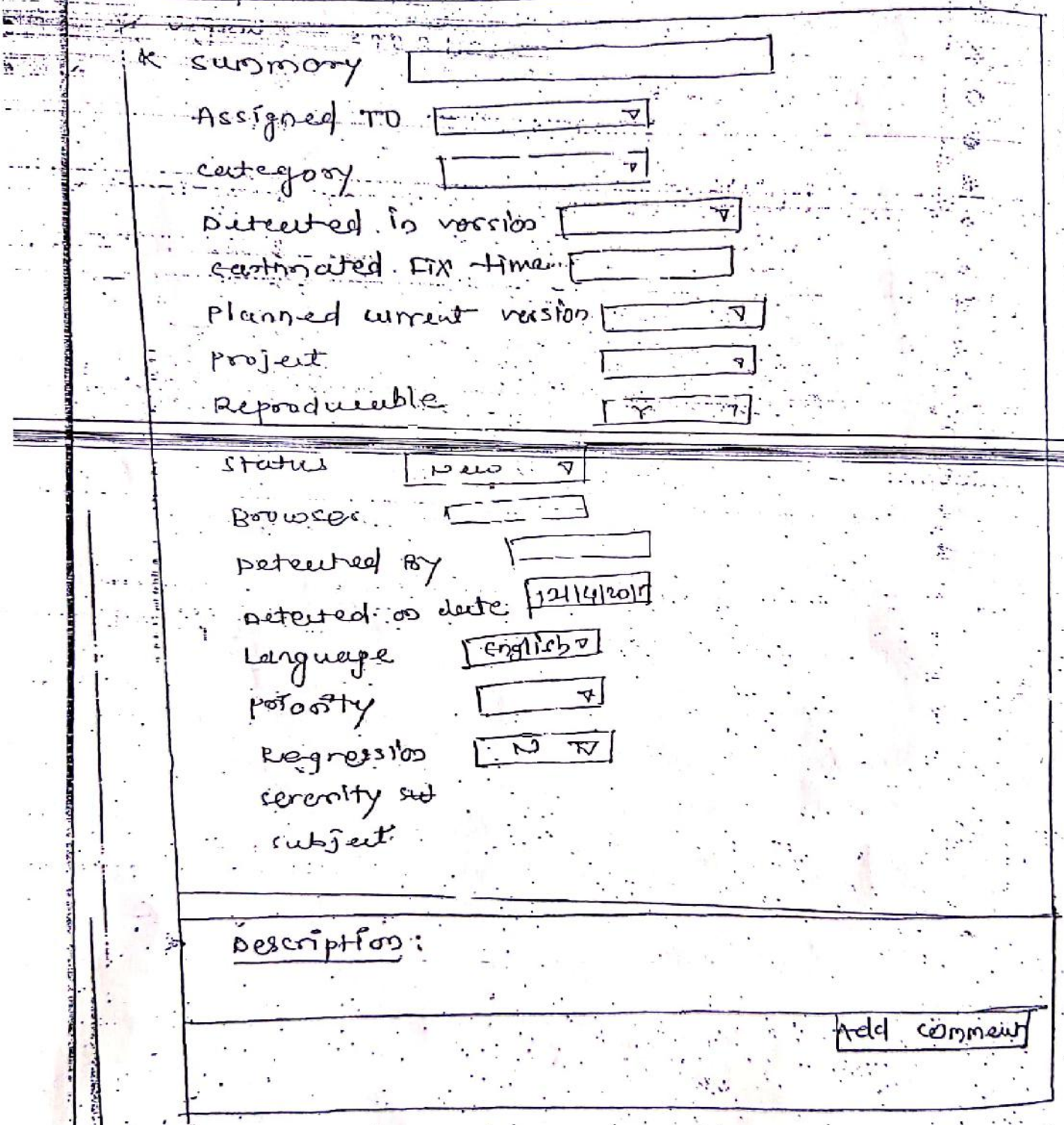
→

Fix, Differed, Reject → Developer	New, open, closed, Reopen → Tester

Q. What is the by default value of status

→ 'New' is by default status.

Component of Defect



9) Browser :
On which browser you executing an app?
or found defect

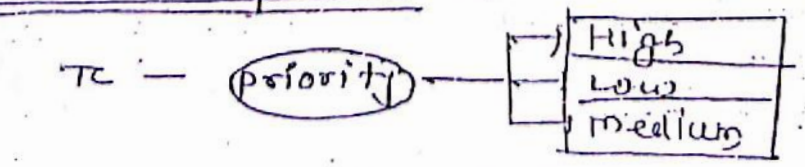
10) Detected By :
By default the name of login TE.

11) Detected on Date :
On which date you found a defect
Default Date = current date.
Date format is mm/dd/yyyy

Defect age :
The timespan or time gap b/w defect reported on & closed on.
Defect age is required to identify the comm? b/w developer & Tester.

12) Language :
It is used for language compatibility.
By default lang is English.

VEMP
13) priority :
Q. what are the components of prority ?
→
Importance of the defect with respect to customer requirement.



eg customer req. is Amount : 2000 $
but developer developed this as Amount : $2000
but this doesn't impact on development / Functionality called -- Low severity

But with respect to customer requirement called 'High priority' defect.

eg: Next >

Q. What are the various status of priority?

→ 1) Low → 72 hr time to the developer to get defect fix
2) medium → 48 hr
3) high → 24 hr
4) very high → 12 hr
5) catastrophic / urgent — 2 to 3 hr.

Q. If there is delivery of appl? & logo is missing in the appl? then what will you do?

→ It is hypothetical question, but I will give answer. First I will inform to 'DD'. As I will commence at my end.

14) Regression:
First time or second time you saying the defect is nothing but regression.
By default status is N

15) severity:
seriousness of the defect with respect to functionality, I mean to say due to this defect how much the application is getting impacted is called as 'severity'

defect → severity / priority

eg. logically every ♦ BB defect is considered as High ~~priority~~ severity defect.

Q what are the various status of severity ?

→
1) Low — 72hrs
2) Medium — 48 hrs
3) High — 24 hrs
4) very high — 12 hrs
5) Urgent — 2 to 3 hrs

Q what is diff bet priority & severity ?

→
16) subject : Module name.

Description :

Improper subject line for 'Flowpath' export email.

This defect is pertaining to sprint 7 DCF integration

Steps to recreate / Navigation

1) login to application URL
   userid = 12345
   pwd = sneha

2) select production / location search tab.
3) enter 'SKU id' in 'SKU List' search criteria i.e 12345
4) select result set as 'Flowpath'
5) click on export button
6) verify export email subject line.

Expected result :

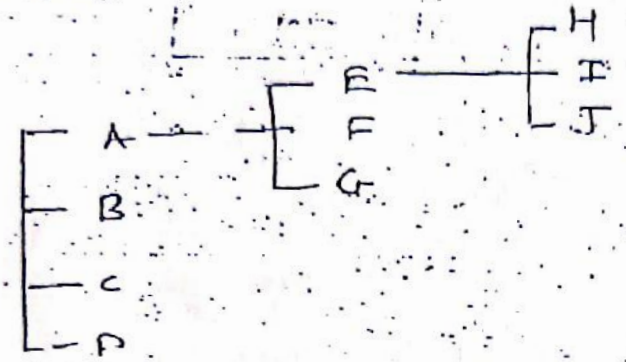
Email subject line is getting displayed as 'MAT export : Flowpath'

Actual Result :

email subject line is getting displayed as 'mat export flow path' ×

Build Line : 2610

Test Data : N/A



go to option. A → E → I

To highlight use blue color.

Attachment

↳ click on attachment

↳ Take screenshot

↳ Highlight the defect.

- To printscreen = Alt + printscreen

- If profile applⁿ of popup come, to take the snapshot of only popup use 'printscreen' only

- always save screenshot in .jpeg format.

for saving that print .jpeg format

Eg Defect ID - 283 - R1.0 - SIT - HDFC - NEFT

Q. What is defect ID? (ID tool)

→ Defect ID to tool is autogenerated it obeys 'N' newconsts

↳ Delete Attachment

↳ click on 'attach'

↳ Attach same defect as screenshot.

Q. How you report the Defect?

→ There is (mail server) in HPQC. once we register the defect. we evaluate the defect to developer via email.

steps

↳ cursor on that defect

↳ click on [▼]

↳ send by email

↳ click on attachment
(subject line bydefault come with defect ID)

TO : Developer Lead

CC : PM of development
PM of testing
Test team (Group mail-id)
SD mail (Test-HDFC-NEFT)

Additional comments :

"This is new defect identified during NEFT module Testing.".

↳ send

↳ Add comment
Bydefault login name displayed.

Q. What is defect analysis?

→ Defect analysis of TE

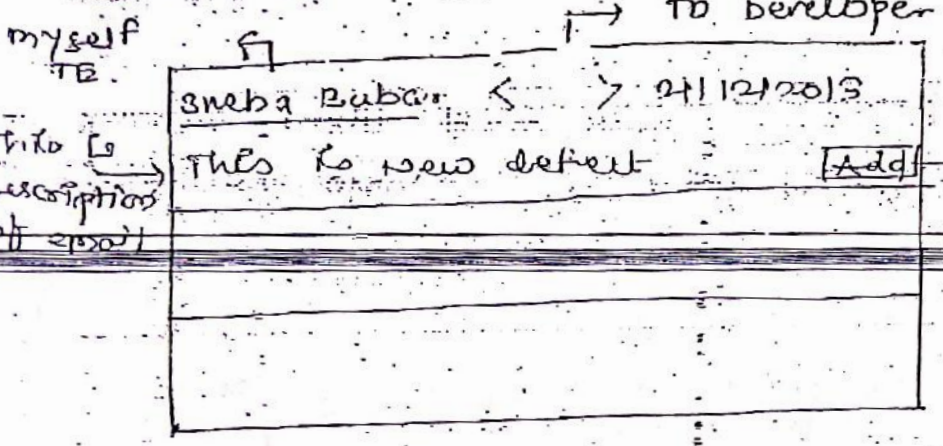
1) To identify the RCA (Root cause analysis)

2) To assign the severity & priority.

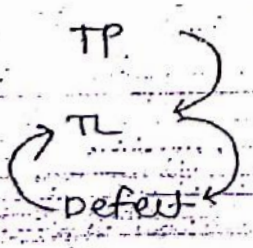
Q. Whose job is to analysis RCA?

→ Both developer & tester.

↳ Add comment



Before you close the defect, every defect analysis should be in one email chain.

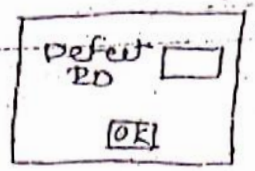


Immediately after defect goes to test lab.

(3) Linking of the defect:

↳ Linked Defects tab

↳ Popup come



↳ click on 'OK'

Main objective of linking defect is we have to integrate b.t.n the defect & the bailed TC i.e nothing but linking of the defect.

Q once you get the defect what will you do?

→ steps

1) change the status of TC in the test lab as 'failed'

2) Register the defect.

3) Link that defect with TC in TL

4) Immediately start with Independent TC.

TO all this step around 15 to 20 min required.

Q If something is going to update/change in TP is it going to be updated in TL & & vice versa &

→ obviously yes.

Q. what are the diff components of HP QC ALM?

→

1) Defect ID
2) Status
3) Assigned To
4) Application
5) Reproduciable
6) severity
7) priority
8) detected By
9) Detected in release
10) detected in cycle
11) failure count
12) Appl" group
13) detected by Team — QA
14) FMS ID
15) Environment
16) Testing Type
17) Reopen count
18) assigned to Team — DEV
19) Existance in prod : N
20) Assigned to name
21) detected by name
22) Browser
23) Browser method

failure count:

No. of attempt taken by developer to fix the defect.

① **Open** :-

This status is intermediate stage between New & Fix.

Every 'open' defect status is 'new' but every 'New' status is not 'open'.

It is nothing but 'under analysis' stage

> From : Developer
> TO
> TE,
> Hi, D
> I analysed the defect, when I found. RCA, I will give you ans.

after getting email from developer, we change the status to 'open'.

Q what is resolution type?

→ Developer send us the resolution type & we change the status of defect.

② **Fix** :-

Developer send email to TE that He fixed the defect in build 28.0 . Plz check it in the next build i.e build 29.0.

* commentline for ~~Add~~ close :

TE comments

This defect has been retested successfully on 24.0 build line. Issue no more exist. Now 'ok' button is getting enabled properly. Hence we are making this defect status as 'closed'.

Comment line for Reopen:

This defect has been retested in build 24.0. Issue still exist. 'OK' button still not getting enabled after entering data in 'cell textbox'. Hence we are marking this defect status as 'Reopen'

Comment line for Differed:

Due to functional dependancies development team has agreed to give the fix but in the later version, Hence we are marking this defect status as 'Differed'

Comment line for Reject:

As per BRD provided by developer the 'ok' button will not be by default gets enabled until unless user enters the data in 'cell textbox'. The defect is getting mismatched with customer req. Hence, we are marking this defect as 'Reject'

Q. What is duplicate defect?

→ Duplicate defect = similar defect. not same

Q. How duplicate defect occures?

→ Duplicate defect doesn't means same defect. It is similar defect.

eg. From city [ ] To city [ ]

from city name not displayed
To city name is not displayed
} ⟹ called as duplicate defect.

Q. Which approach is used to reduce the no. of duplicate defect?

→ Best approach is whenever you log the defect make sure this defect should be circulated along the testing team members.

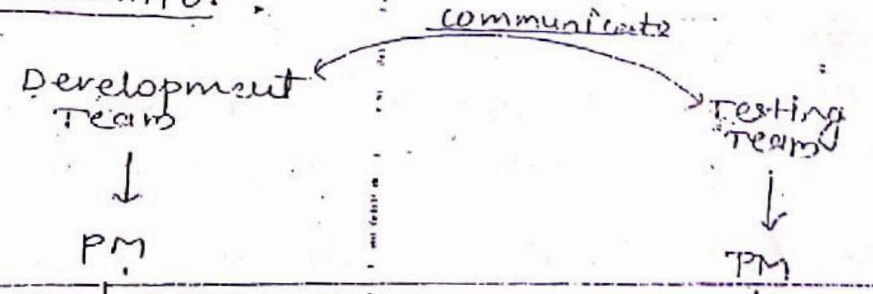
Q. What is defect submission process?

→ Defect submission process:

Basically there are 2 types of defect submission process

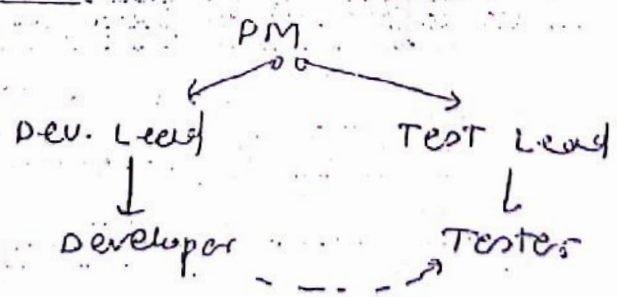
1. Transmitter
2. Transmittal

1) Transmitter:



This process is called as 'transmitter'

2) Transmittal:

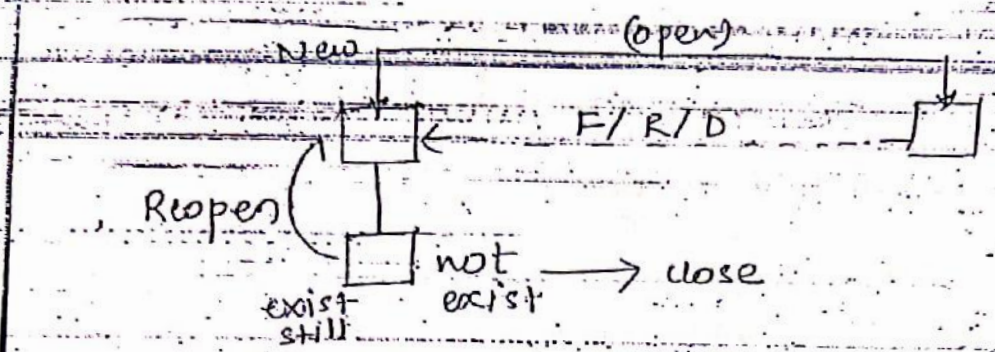


Used in small company.

This process is called 'transmittal'

Q. what is reopen defect?

→ **Reopen** :-



Once the fix is given by developer TE retest the defect this is called as 'regression Testing'

If the defect is still exist we mark the status as 'Reopen' else 'closed'

Andocs

Q. what would you do if existing defect get closed but any side effect / other issue occuring

→

In this situation basically we can Implement 2 approaches.

1) existing defect can be closed & new defect can be logged / registered.

2) we can reopen the defect with proper comment line.

Q. what is diff b/w priority & severity?

→

severity	priority
low	Low
medium	Medium
High	High

1) High severity — low priority
2) High severity — high priority
3) low severity — high priority
4) low severity — low priority
5) medium severity — medium priority

Examples

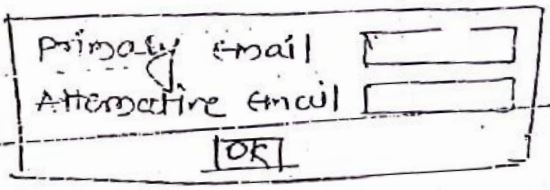
1) High severity High priority

a) Transaction ID [ ] is getting displayed is duplicated twice in the DB

b) currency code is not getting displayed in DB.

c) Decimal value is not getting displayed in DB

2) Low severity & High priority

a) 

Appln is accepting primary & Alternative email id as same.

b) mst seq is account id should be displaye last 4 digits.

Account ID [xxxxxx 7410]

but it display whole account id.

1) Low severity/low priority

1) Account Balance 200$

Cust requirement is $ as prefix but developer developed it as $ as postfix.

2) In the UI currency code is not getting displayed but present in DB.

Examples:

Q. Transaction completed status is getting displayed properly but emphasizing colour not shown.

→ It is absolutely defect.

'Low severity & High priority'

Q. Transaction status is getting updated in DB properly but not getting replicated in GUI.

→ Low severity & high priority.

Q. Transaction ID hyperlink is not getting accessible

→ High severity & high priority

RCA:

Bcoz of this not accessible hyperlinks, timeline grid not get open.

Q. The date format is not getting displayed as mm/dd/yyyy but displayed as dd/MM/YYYY.

→ low severity & high priority

* Resolution Type :

Q. What is resolution type ?

→ Once we log the defect developer send us resolution type via email.

(*) for Reject :

* 1) Duplicate Defect :

Duplicate ~~reject~~ defect would be rejected by developer.
Developer send email to TE
" This defect has been rejected because similar type of defect logged before".

2) Enhancement :

This defect has been rejected bcoz it belongs to future requirement.

3) Hardware limitation :

This defect has ~~been occured~~ bcoz of hardware devices.

eg. print option → we click on 5 prints → but it gives only 3.

This is hw problem bcz not developer pbm.

4) software limitation :

This defect is rejected due to software issue.

eg. Let click on ~~browser~~ attachment, download the attachment, it supports 2007 & our system have 2005. Thus it is sw issue.

5) Functional as Design :
defect has rejected due to developer ego.
It has been developed as per 'customer req'.
Eg.
cust Req : amount value should be numeric.
defect : amount value is not accepting -ve value.

6) need more information :
this defect is rejected bcoz sufficient inform has not been provided to understand the defect.

*(2) Neither Reject nor Fix :
1) more procedure to understand :
This defect is neither accepted nor rejected.
we require more test data to validate issue

(3) Fixed :
This defect is valid defect & fixed

(4) Differed :
This defect is differed & fix will be provided by developer in later / next version.

(5) User misunderstanding :
Due to ego of tester & developer miscomm" takes place
Eg 1) 'OK' button not getting enabled } same
2) data not saved after clicking 'ok'

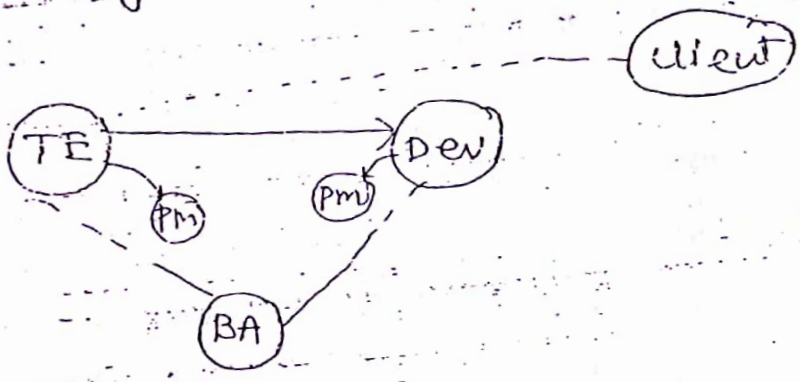
Q. What are the critical factors in ~~defect~~ resolution type

→ critical factors use.

1) Duplicate
2) function as design
3) need more information
4) Fixed
5) Differed

Q what would you do if critical defects get rejected?

→



1) I tried to convience the developer with strong reason.

2) If he doesn't agree I will discuss with solution designer / BA / project designer.

3) In practicle scenario 95% of pbm get resolved in this 2nd stage.

4) But even after this problem is not solved then with the permission of pm I will discuss with customer / client.

Q. when should you come to know your testing has been completed?

→

Defect closer:

After the completion of test execution the defect closer activity would start.

In this TE focus on various types of coverages.

① coverage analysis:

coverage analysis contains [BUDUT]

1) BR based coverage
2) usecase based coverage
3) Datamodel based coverage
4) UI based coverage
5) TRM based coverage.

All these are analysed before defect closer.

② Defect density / Bug density:

No. of defects found on specified module is called as "defect density / Bug density"

modules	M1	M2	M3
Bugs	30	20	25

Here M1 is called as 'Hyper bug density module'
TE try to found out area where max defect has been identified this area is called as Hyper bug density module.

- Identify this type bug density module because this area is focused at the time of regression Testing

③ Analysis of differed Box :

TE going to analys whether defect is actually differed or not.

Q. If defect is closed ? can you reopen it?

→ In SIT we test it. after the fix we close it we can't reopen that defect after close.
In UAT it will open but it is new defect for UAT.

* **User Acceptance Testing** : (UAT)

- After completion of system integration testing build moves to UAT
- main objective of UAT is functionality would be validated with the awareness of customer.
- In general UAT is performed in customer side enviornment.
- only API + GUI testing is performed not DB.
- seperate testing team is formed for UAT.
- customer involved means he doesn't do any testing. he must know about this.
- customer involvement is prime factor for UAT.
- 2 TYPES of UAT
  - ① Alpha Testing
  - ② Beta Testing

Load Runner

Q. What are the report you sending to developer?

Test Report

There are following type of test reports

1. Everyday / Daily status report
2. weekly status report
3. Business unit report
4. RAG report (Red Amber Green)

1. Daily status Report:

Time : 5:30 to 6:00 pm before EOD

TO : PM, other stakholders / DM, SPM

CC : TL, All test team

subject : Daily_status_report_R1.0_SIT_BOA_26 Friday 2015

Text :

Hi Team

Please find the ~~xxx~~ everyday status report of

R1.0_Spec_SIT_BOA_26/12/2015, Friday

Plz find below statistics of test execution.

mark blue color not bold

A	B	C	D	E	F	G	H
Team	Total no of TC	Execution completed	% completed	no. of TC pass	no. of TC fail	not run	Total no. of defect
SIT	100	75	75%			25	

Excel sheet logical cal =

C = E+F

G = B−C

please let us know if any concern.

thanks & regards
(sneha Babar,
Infosys)

Akash : attach the test report in excelsheet.

② weekly status report :

Time : (any working day but not friday) 20 to 11 am

To : Testing pm, Dev pm, DM, SPM, other stakeholde

ce : TL, Testing team

subject : weekly status report - SNT - 21 dec - TO - 25 dec

Text :

Hi Team,

Please find attached weekly status report for the period of 25 dec please let us know if any concern.

Thanks & regards.

Format of report is same as daily status report.

③ Business unit report :

In this report main is.

How much testing impacted on business.

Weekly once we send it.

friday evening before build move / come to SIT zone testing done at developer end i.e on thursday or friday called as "DEV Testing"

1) The main objective of shift left testing is to identify the potential defects & issues in developement or local region.

In otherwords the TE ensurance that the list of no. of potential issues should be reduced in SIT region, such that it will help to improve the standard of code

Before build moves to SIT this testing done.

DEV to Tester email

Hi Amit,

can you please test the below details in DEV region.

2) 2nd objective is to reduce time span of defect fix & reduce risk factor

- Functional Testing in DEV region called as 'shift left testing'
- some team members of SIT do the testing in DEV region
- we don't log the defects in DEV bcoz it is informal way of testing only drivable defect by email.

Project

All terms related to project

Hierarchy in terms of Revenue

Telecom	BNFS	Healthcare	manifacturer
1) OSS 2) BSS 3) mobile Testing	- core Banking - Investment Banking - card payment - loan mgmt - International money transfer	Health Insurance	

Retail & logistic	others
Fedex (courier service) ERP ~~CRM~~	CRM

Verticals :

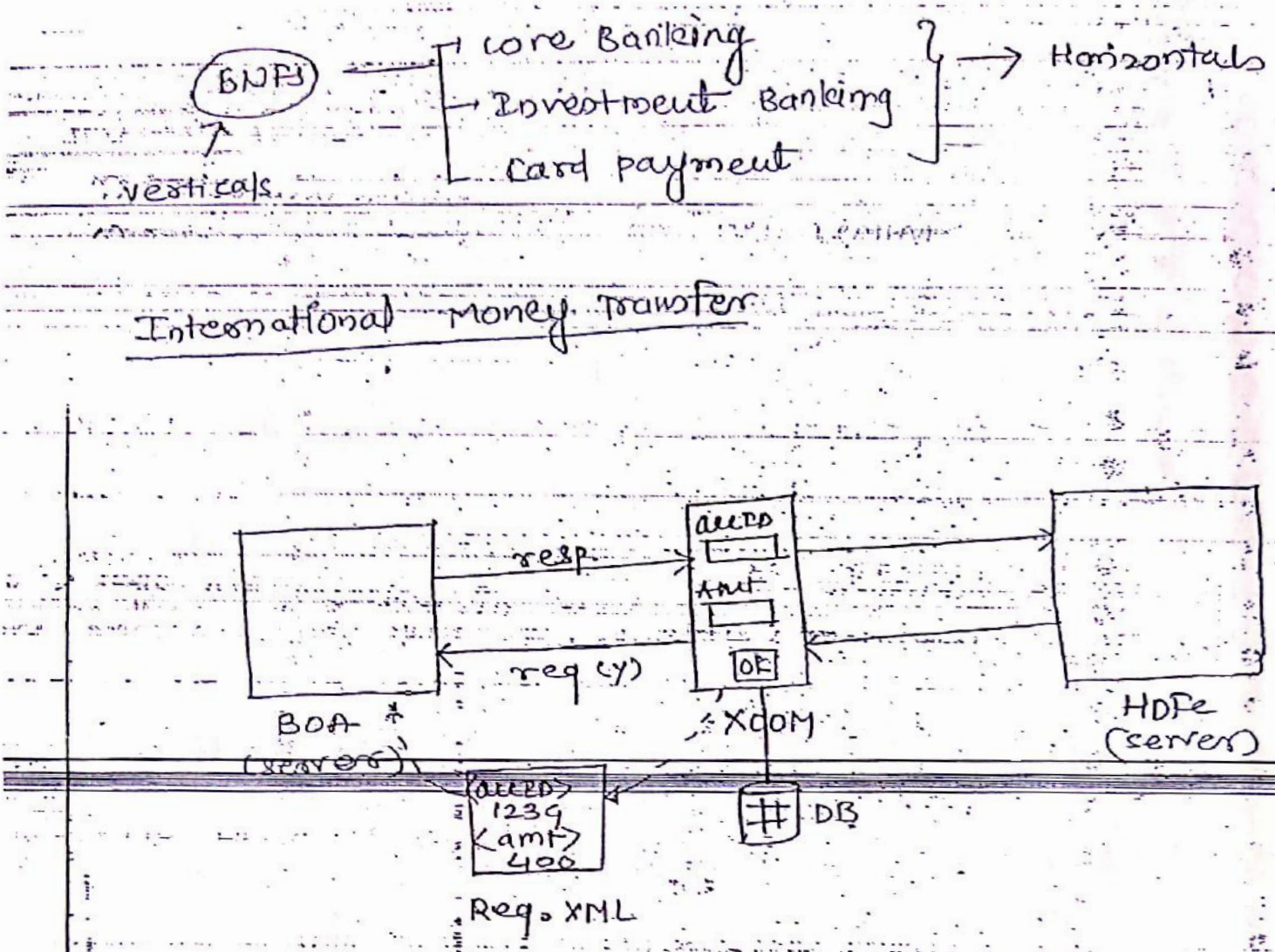
vertical is nothing but an hierarchy of organization we are working called as verticals.

eg Telecom, BNFS (Banking & Finance), Healthcare manifacturer etc.

Horizontal :

The domain belongs to particular a vertical called as horizontal.

e.g



Q How you validate the XML?

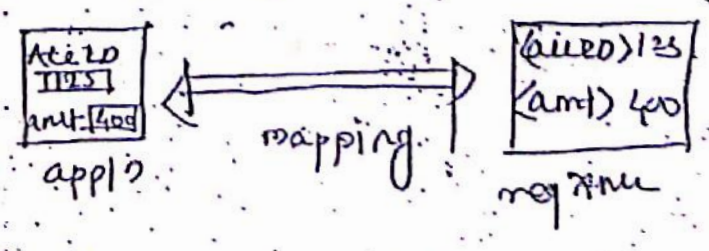
→ Below are 6 critical XML validations.

step1: Request XML is getting generated or not.

```
select *
From Req_XML
where trans_ID = '1111'
```

step2: The mapping of input data provided in the appln with data carried out by XML.

ie.



step3 : Req XML is reached at server or not

step4 : Response XML is generated or not

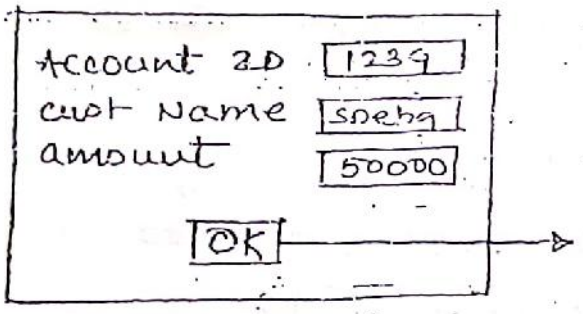
step5 : Response XML is getting reached at client or not.

```
select *
from resp_xml
where trans_ID = '0011'
```

step 6 : Mapping betn request XML & response XML called as 'XML parsing'

Q. How you collect the XML?

→



trans_info table look like

Trans_ID	account_ID	cust_name	amount
0011	1234	sneha	60000

① TO get the trans_ID. use SQ query

```
select *
from trans_info
where account_ID = 1234
```

② TO get the request XML we have to fire sql query on transaction table where all data is stored.

```
select *
from transaction_xml_info
where trans_id = '001'
```

trans_id	account_id	Bank_name	req.xml
001	1234	HDFC	LINK → click Here

transaction_xml_info.

After clicking on xml link we get format of req_xml like

```
<account ID> 1234 </>
<cust_name> sneha </>
<amount> 500000 </>
```
→ req.xml

In this way we get xml.

Q. How to do XML parsing?

→ xml parsing is nothing but mapping between request xml & response xml.

①
```
select *
from req_xml_info
where trans_id = 001
```
→ Req.xml

②
```
select *
from resp_xml_info
where trans_id = 001
```
→ resp.xml.

What are the tables you used?

1) customer_info
2) Bank_info
3) transaction_info
4) req_XML_info
5) resp_xml_info
6) trans_detail_info

Defects found

All XML related defects are high severity

1) Tags are missing in req_XML / resp_xml

2) In UI date entered as dd/MM/yyyy but req_xml is displayed as mm/dd/yyyy

3) XML is getting generated but status of transaction not getting updated in DB (High priority & high severity)

To Test the status of transaction developer give us the mapping sheet.

To check the status of transaction

```
select status
from trans_detail_info
where trans_id = 0011
```

trans ID	cust_name	acount ID	status
0011	sneha	81234	A

mapping sheet look like

1) Transaction process started — A
2) Transfer amount process — B
3) payment process — C
4) transaction completed — D

Q. How much % you rate yourself ?

→ DB — 8
Testing — 9
Unix — 7.8

Application Level Validation

① GUI Validation :

alignment, font size, colour, mandatory field.

② API validation :

Naikari validation.

③ API VS Database validation :

Validate UI & Database because DB between business logic is used.

No. of employes = 150 In GUI / front end.

M	F
100	50

DB (Here business logic used)
no. of emp = female + male)

④ XML VS Database validation :

critical validation.

⑤ File validation :- (critical & imp)

file validation is one of the imp validation of testing life cycle.

① File validation

Q what you perform during file validation?

→ file validation mainely contain 2 types

1) control validation
2) Data validation

There are various types of files

1) CSV (comma seperated value)
2) flat files (notepad)
3) EDI (file Electronic Data Interchange)

Q what is csv file format?

→ csv file :-

A csv is comma seperated value file, which allows data to be stored in table structured format.

Text file containing information seperated by commas hence the name csv. file

1) open notepad file & save it with .csv extension.
eg. data.csv.

eg format of data.csv.

```
Amit, 9890010390, 5000, IND
sneha, 9975108622, 60000, IND
```

2) EDI : (Electronic Data Interchange)

EDI is file format for structured text files, used by lots of larger companies & organisation for std. database exchange.

Q. what are the advantages of EDI validation?

Q. why EDI is mostly used?

→

1) security
2) low cost
3) minimum chances of data corruption

Q. what EDI consist?

→

1) ISA (Interchange header information)
2) GS (Functional group header)
3) ST (Transaction set header)
4) SE (Transaction set trailer)
5) GE (Functional group trailer)
6) IES (Interchange trailer)

for every header, trailer should be there.

no. of header = no. of trailer

It provided by developers.

Other segments

N1 = Name segments (name related info)

TRN = Transaction information.

format of EDI

```
ISA *00 *  *00*  *BO*
TRN *1 *4100100100 *40000*
N1R PR *CUSTPAYER*
N4 R chicago *
```

Q How you edit a file ?

→ using notepad ++

customer Requirement

provided by customer to excelsheet.

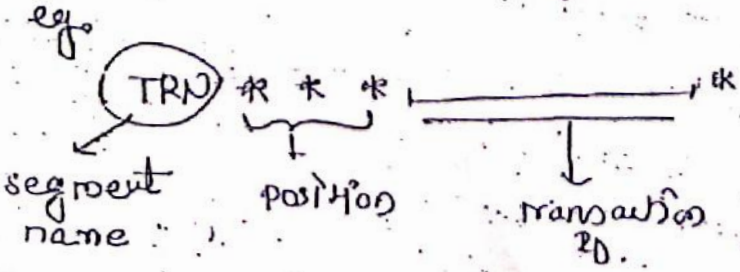
first validation is

① Data validation :

To validate the data with respect to position & Data

Attribute	datatype	Length	position	no-of files
cell no.	Numeric	10	N1/6	1
Trans ID	Alpha Numeric	15	TRN/3	1
cust name	alpha numeric	8-15	N2/7	2
date code	Numeric	2	G3/3	1

eg.



TRN - seg. name
3 = position

cell no

1 2 3 4 5 cell-no. value

Q. what type of validation you perform on EDE?

→ 1) control validation
2) data validation.

② control validation:

In control validation, we validate the length of attribute.

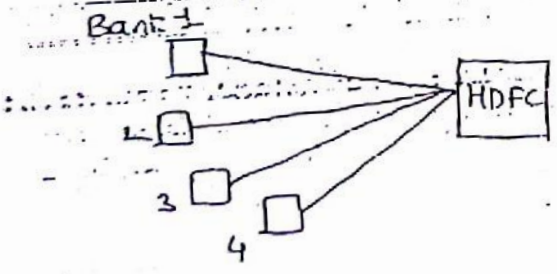
eg: cust req. is a state name 4 to 15 char.

* chicago * → 15 digit.

so while validating ~~ent~~ ~~enter~~ click spacebar button from start & count till 15 to char space available or not.

* scheduler:

scheduler is concept or mechanism that is set to transfer / run data of the appln on specific time.



diff people data transfer → diff location

At a time data transfer impact on both applications so for every 2hr scheduler is set so every data to sent to 2hr.

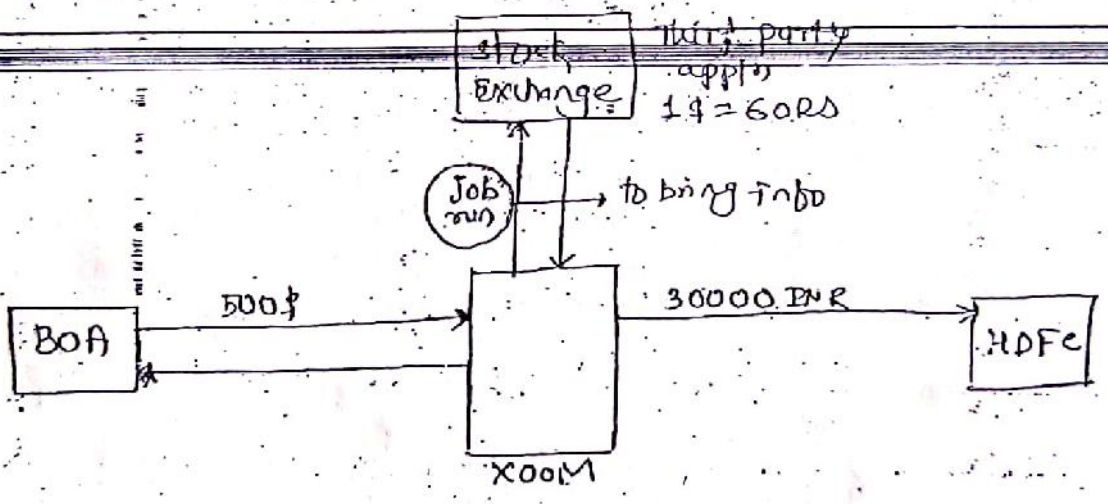
due to performance issue scheduler

eg. Data transfered at 10, 10:30, 11 all are sent at 12 to 2pm i.e 4 hr scheduler time.

Job Run:

Definition:

- set of program created by using UNIX commands to bring / get information from any third party & this information is helpful for next validation is called as 'Job run'.
- That means it obeys $x = y + 5$
  we can't calculate the value of x, until & unless we get value of 'y' so we need to run the job.



- If the output value is dynamic so to bring that continuously changing value which is required for next validation called as 'Job Run'
- To run job automatically scheduler is used in real time.
- But in testing we manually run the job by using unix command.

Q. Where you used linux commands in your appl?

→ 'PUTTY' Terminal is used to write unix commands. Unix commands are used in 3 places.

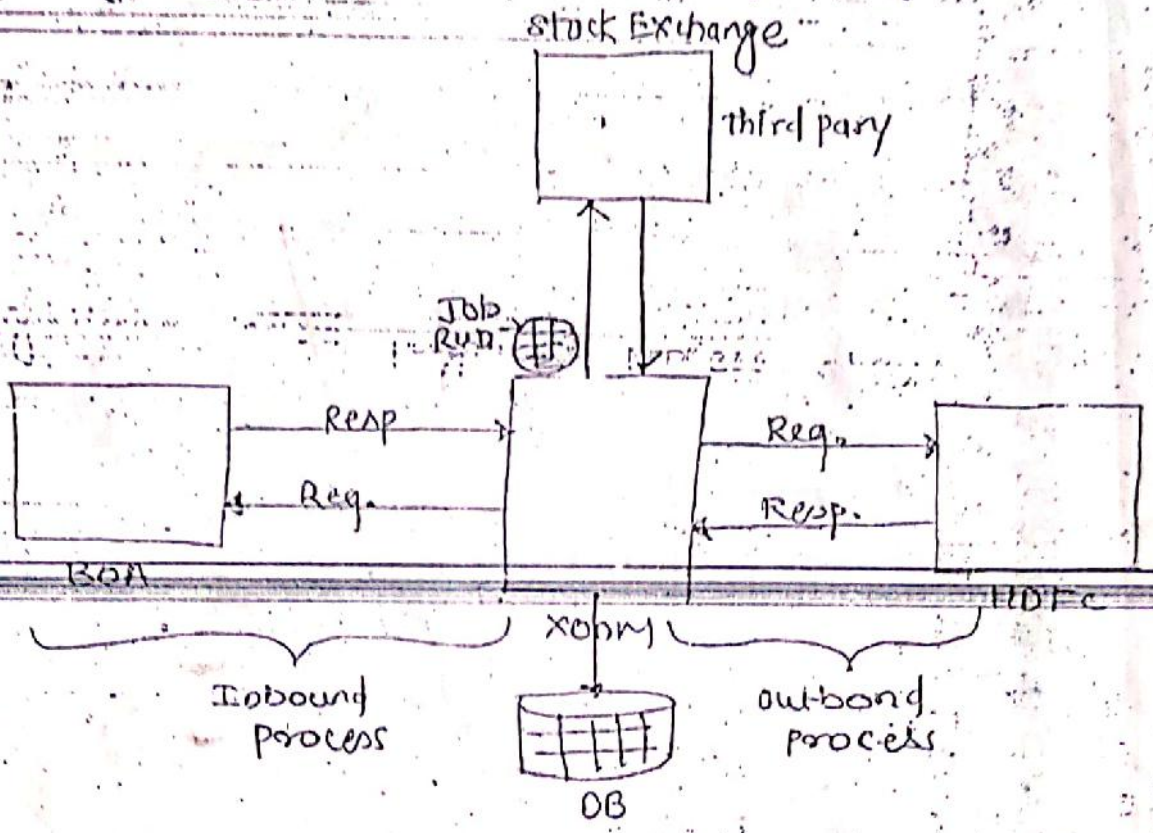
1) To run the job
2) During validation of response log file
3) To send file to the DB.

Q. List of unix commands used in real time?

→
1) cd.
2) cp
3) cd..
4) cat
5) chmod 777
6) grep

Project 1

Project Name : XOOM (International Money Transfers)



Q. Tell me about project ?

→ My project belongs to BFNS vertical & project name is XOOM International money transfer, client is BOA.

Basically my project contain Inbound & outbound two processes.

Business flow :

communication bet^n client & server would be taken place via XOOM (payment gateway) using req. XML & resp. XML.

ETL

It is used to decission System.

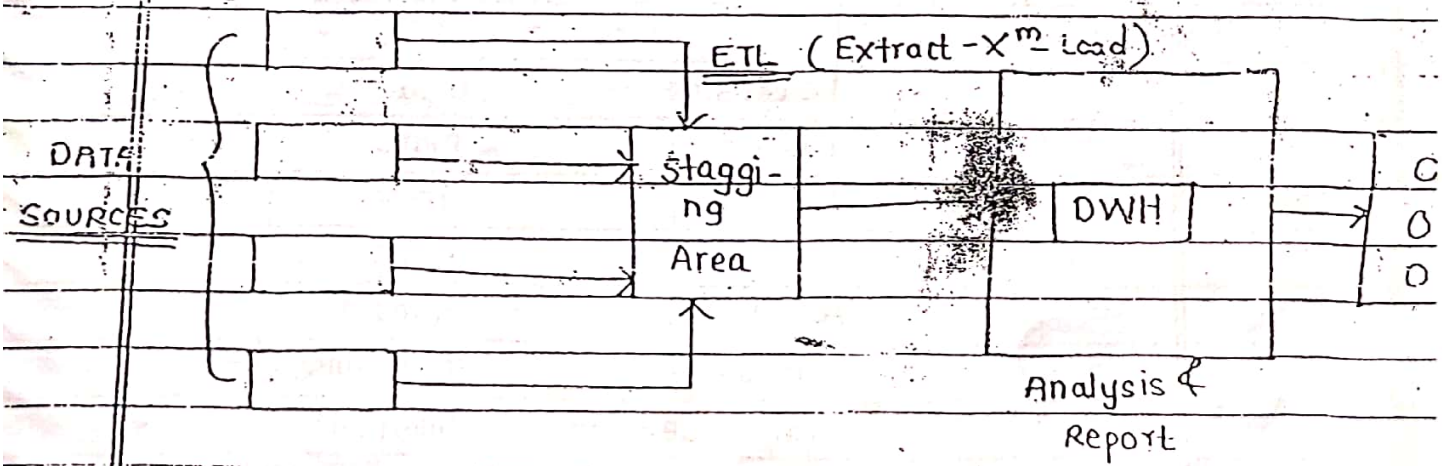
* DWH. – For Analysis & reporting purpose.

Defⁿ → DWH is a dB designed for query & analysis rather than transaction processing.

1. It contains historical data derived from transactional data (operational/current)

2. DWH seperates analysis workload from transactional workload and enables to consolidate from various DB (sources)

Defⁿ → DWH is a subj. oriented, integrated, nonvolatile, time varying collⁿ of data in support of management decⁿ making process.

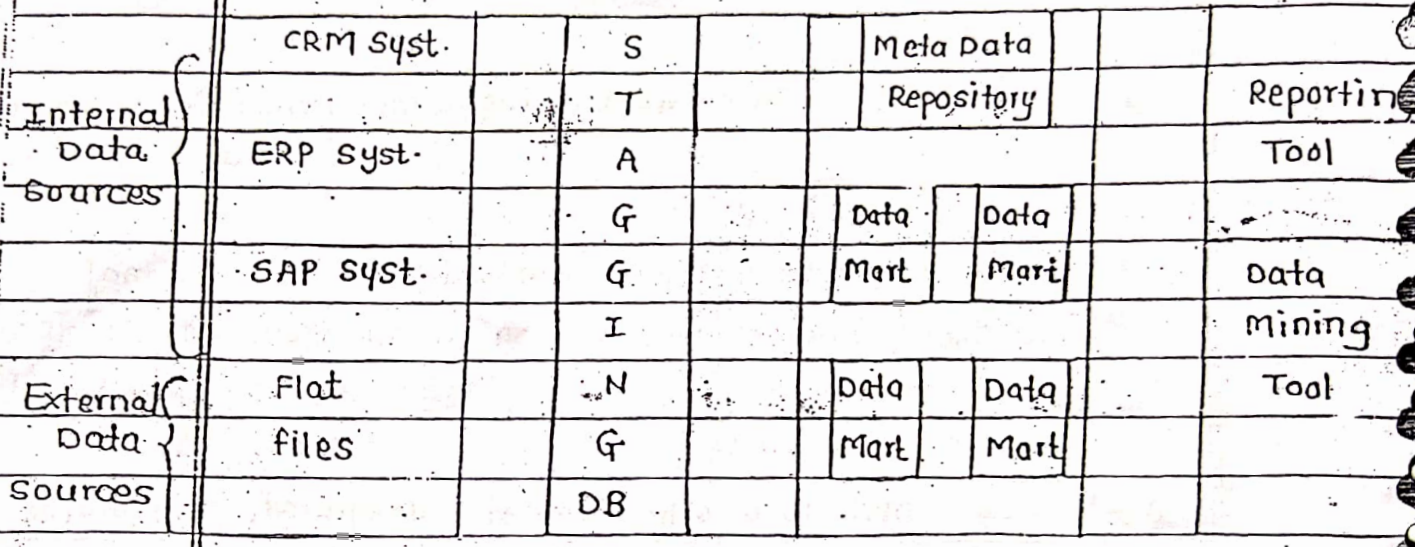


* Data Ware House
Business Ware House
Decⁿ support syst
Business Intelligence solⁿ
} various names.

Date 17-8-1
Page

IMP

** ARCHITECTURE of DWH →



Data Source Layer	Staggling Area	DWH Layer	Front Tier
	↓	↓	
	Cleansing Filtering ordering	Data Mart	
	↓	↓	
	For storing Temporary database.	Stores subjectwise informatn.	

1. 1st layer — Data source layer.

— which refers to various data sources in multiple format like relational dB, flatfiles & others.

— contains Transactional / current / operational data.

2. 2nd Layer — Stagging Area

— Intermediate area stage betn source to target where required business rules [Transformn] are applied.

— This layer takes care of data processing methods like

1. Data cleansing	To avoid duplicate Data.
2. Filtering	
3. Merging	
4. Splitting, etc.	

— After this all data put it into DWH
i.e. DWH Layer / Data store / Data Meta Repository.

3. 3rd Layer — DWH Layer

— In this layer :- cleaned
Integrated
Transformed
ordered data is present in multidimensional environment

4. 4th Layer — Front Tier

— In front tier data in DWH layer is used for reporting analysis with the help of reporting & data minning tool.

* Stagging Area →

— Also called as Landing zone.

— Intermediate storage Area used for data processing during ETL process.

* Need of stagging Area →

— In the abscence of stagging area data load will have to go from OLTP to OLAP syst. directly.

— This can hampers the performance of OLTP syst.

— This is the primary reason of existance of stagging area.

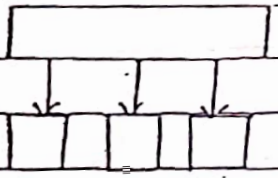
* Data Mart →

— is a subset of DWH which is limited to specific fun area (subj. area) or group of users.

It is a condensed version of DWH focussed on single fun area at a time.

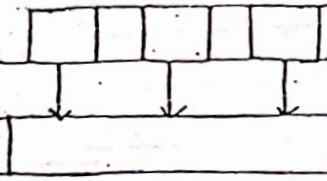
2 Approaches → Top Down
Bottom Up

Top Down



- Data Mart can be build later to form DWH.
- High cost
- Les Time consuming.
- More Planning & designing.

Bottom Up

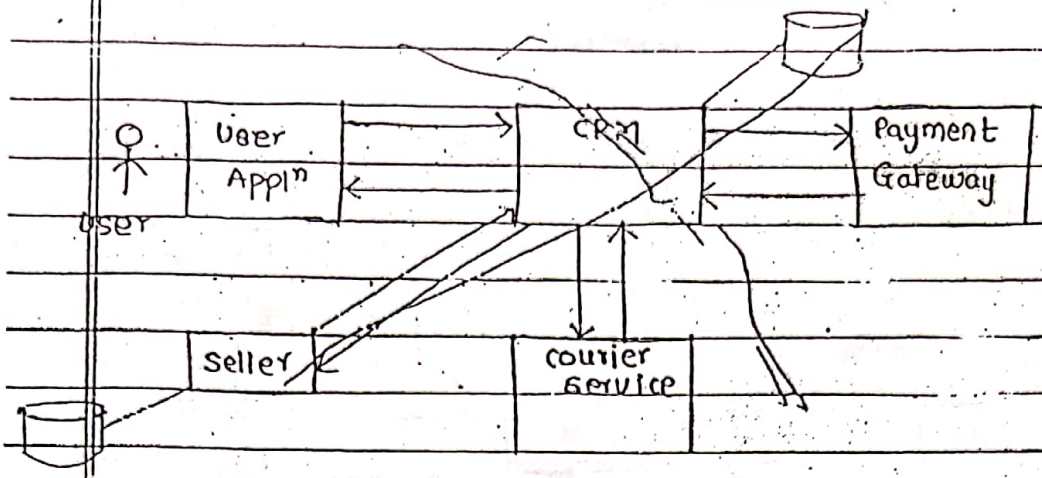


- Data Mart can be build before or in ||el with DWH.
- Low cost
- less Time consuming.
- Less Planning & designing.

Data Ware Housing	Data Mart
1. Union of all data.	1. Data of Single Subj. area.
2. Implement^{n} — Time consuming.	2. Implement^{n} — less time consuming.
3. Enterprise View ↓ No. of users More	3. Departmental view ↓ No. of users ...

Date 18-8-18
Page

* OLTP vs OLAP —



I. OLTP :- online Transact^{n} Processing.

— OLTP DB → detailed and current data is stored, of transactional syst. Mostly data is in 3NF form.

— It is mainely used for data processing not for analysis.

II. OLAP :- online Analytical Processing.

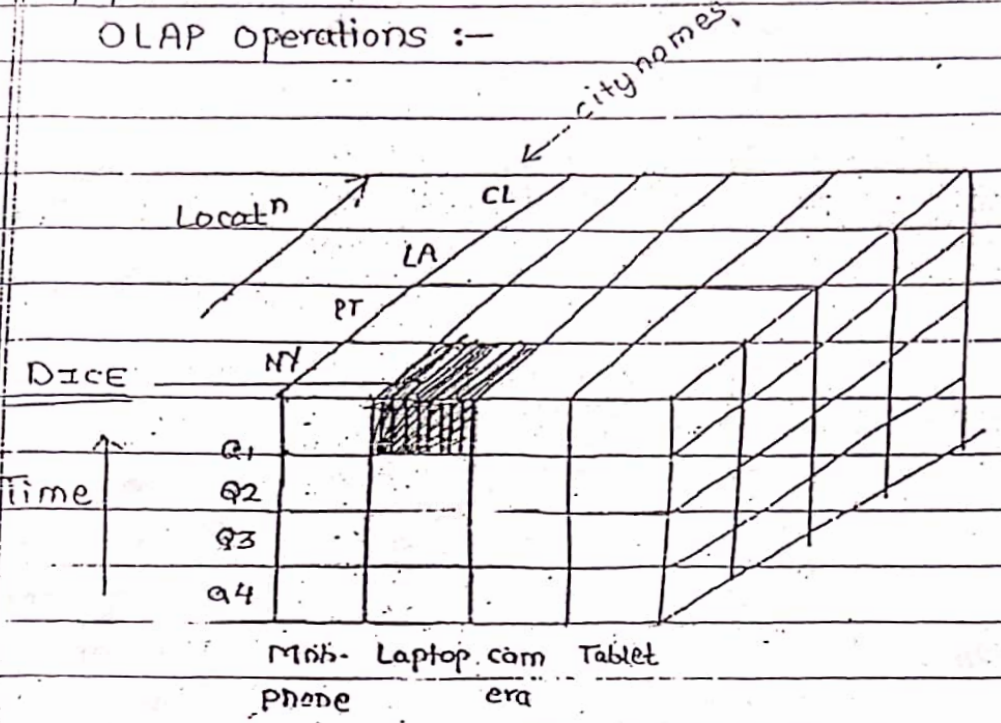
— It allows user to analyze info. from multiple DB syst. at once.

— mainely used for data analysis not for processing.

— It provides single platform for all platforms of business needs which include
↓ planning, designing, analyzing info & reporting.

*	OLTP	OLAP
1.	Used for Transactn processing.	1. Used for Query & Analysis.
2.	Data 1) current data/operational. 2) Data is in normalised form. 3) Stores all data. 4) Volatile data.	2. Data 1) Historical data / sth 2) Data is in denormalised form. 3) stores only relevant data. 4) Nonvolatile data.
3.	To run fundamental business task.	3. To help with planning prob. solving, & decn support.
4.	No. of users are more.	4. comparatively less users.
5.	Applⁿ driven.	5. Analysis driven.
6.	Used to store the data into dB.	6. Used for reading data from DWH.

OLAP Operations :-



operations —

Ch navigates data from less detail to high de

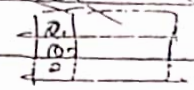
1. Drill Down. — Add dimension from data cube
2. Roll up — Remove dimension from -11-
3. Dice
4. Slice
5. Pivot

1. Drill Down :- physically data is present in quarter wise user want it month wise

2. Roll up :- physically data present city wise user want region wise.

3. Dice → Particular data e.g. User wants data (laptop) in 1st qu arter

User wants

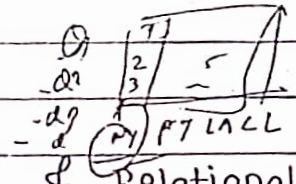


4. Slice → Detailing data in 2D. 3D → 2D

Q1				
Q2				
Q3				
Q4				
	NY	PT	LA	CL

5. Pivot → Rows Becomes column & column only becomes rows.

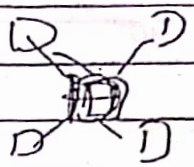
NY	1	2	3	4
PT				
LA				
CL				



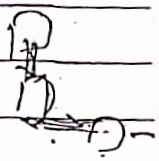
Q1 Q2 Q3 Q4

Quarter

* Dimensional Model & Relational Model →

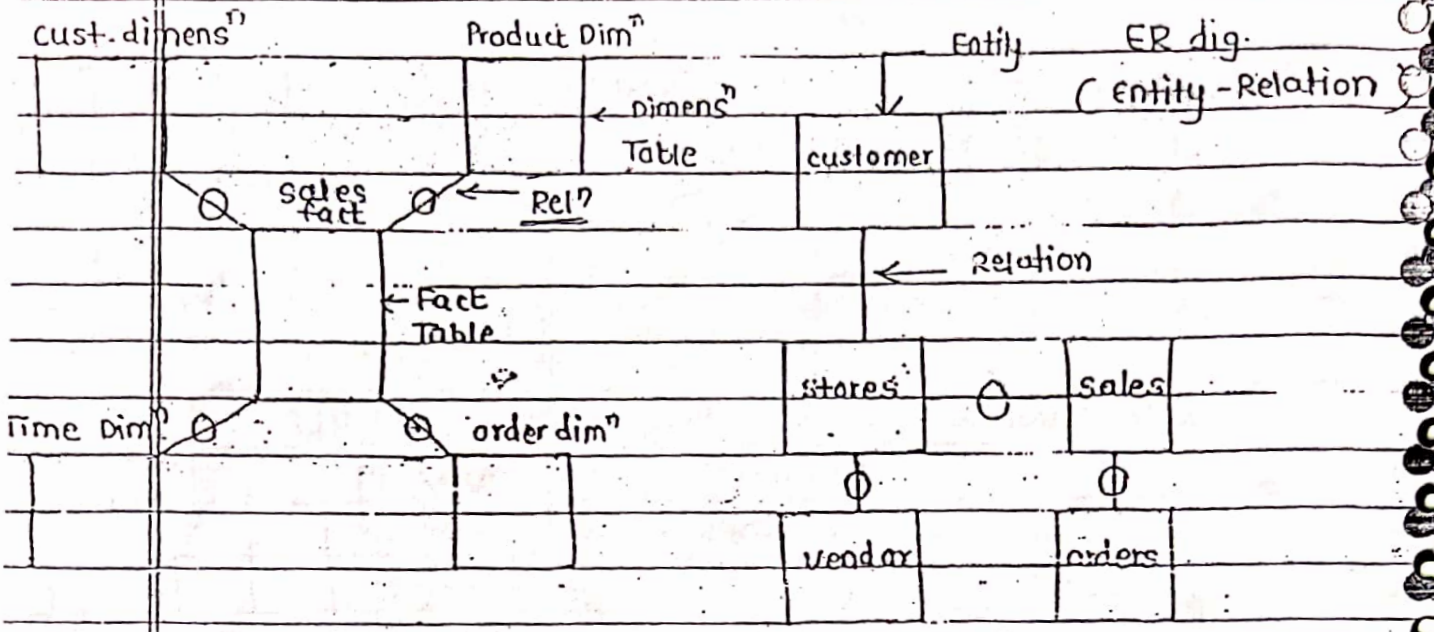


Dimensional	Relational
1. Design of data for business processing. (Analysis)	1. Design of data for Data processing.
2. Captures the fact along with their dimens^{n}.	2. Removes the data redundancy & ensures the data consistency & integrity.



Dimensional

Relational



* Design : Model →

1. conceptual
2. Logical
3. Physical

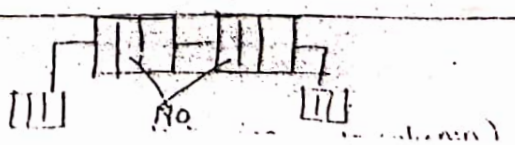
1. conceptual Model —

— 1) Important entities & their relation

↓

— 2) No attributes, No datatype (defined) in entity defined

— 3) High level design of dB



Retesting with diff data

Regretion --

2. Logical Model — 1) It defines the data as much as possible to show & how they can be physically implemented in dB.

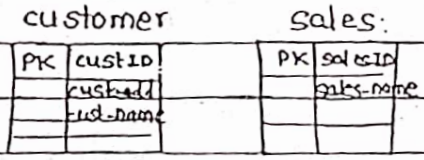
↓

2) Imp. entities & rel^n & their possible Attributes

↓

3) Primary key of each entity is specified.

4) Foreign key may be specified.



3. Physical Model — 1) It defines how the models are physically exists in syst.

2) Displays all the required constraints

3) Data types — also shown.

↓

like int

varchar2 (20)

* Diff. betⁿ —

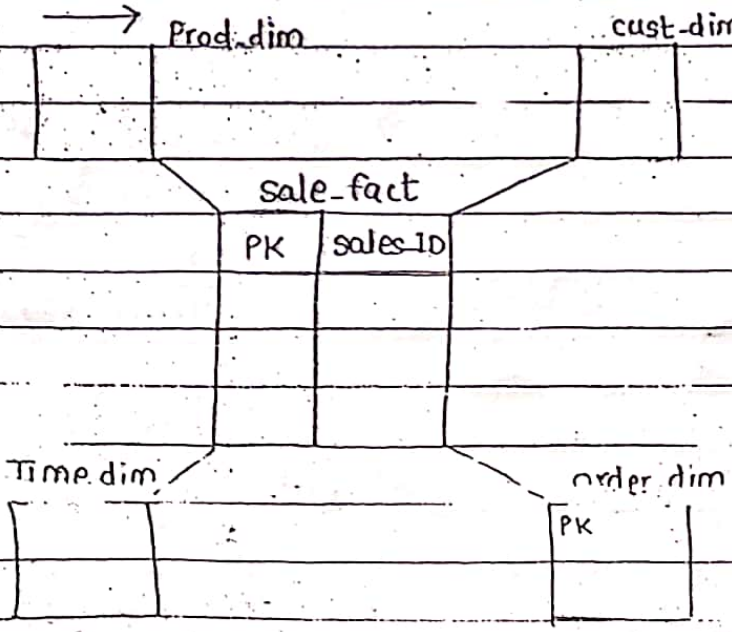
— conceptual model & Logical Model & physical Model

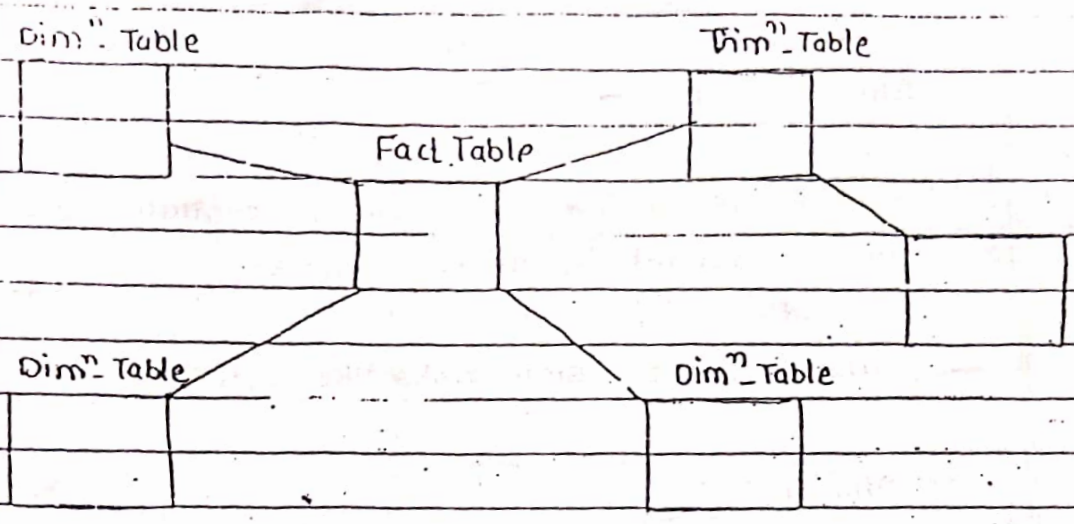
→ 1) conceptual Model ⟶ High level representⁿ of entities which is used as a part of dB design.

2) Logical Model ⟶ It is a next level representⁿ of conceptual model in which entities & attributes are specified & relatⁿ betⁿ entities.

3) Physical Model ⟶ It is a granular level of representⁿ of dB design of all entities, column, constraints present in detail.

* Facts ⟶





Advantages of Star Schema ⟶

1. Easy to understand.
2. Provides Better Performance.
3. Can easily handle future changes.

3. Galaxy Schema ⟶

— Also known as Galaxy or fact constellat" schema.

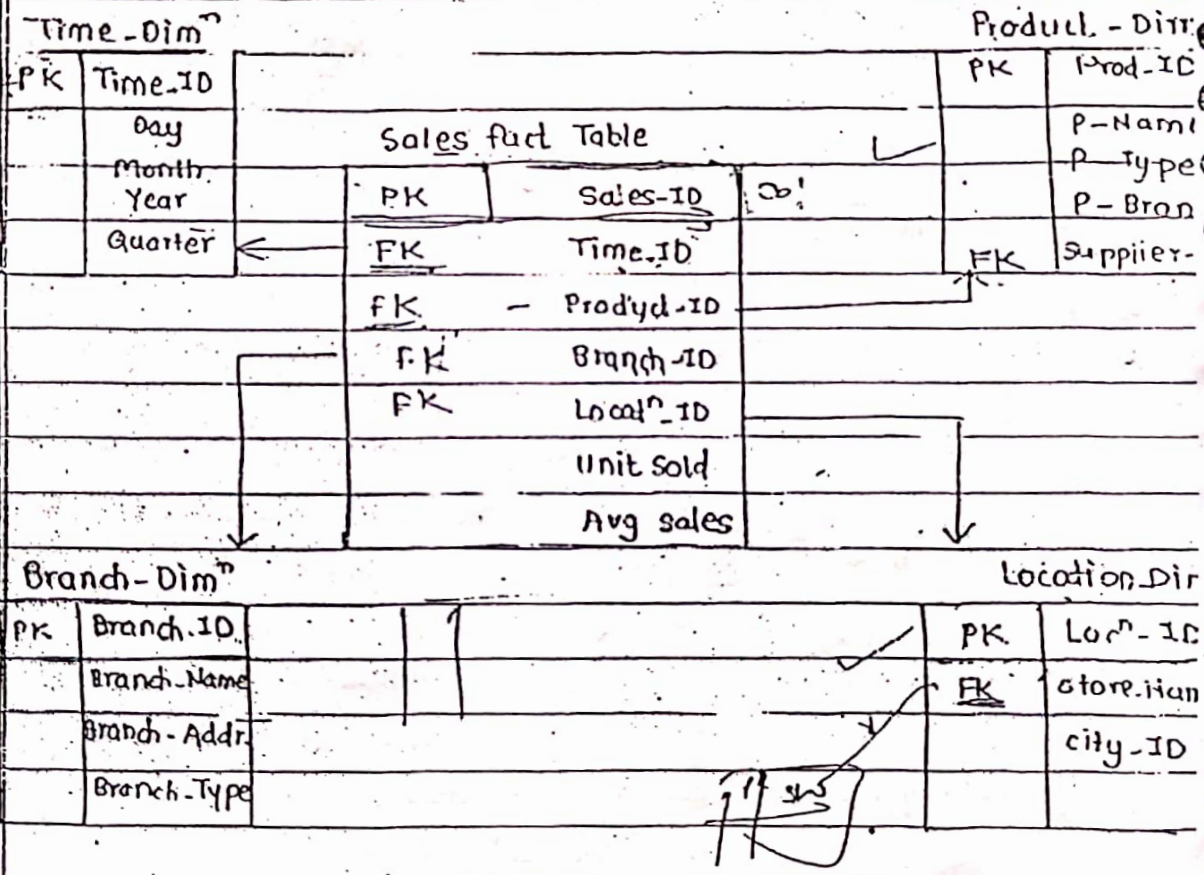
— Multiple fact table share the same dim" table viewed as a mil" of star schema is called as a Galaxy schema or Fact constellation.

1. Star Schema ⟶

design

— It is a dB engine which contains centrally located fact table surrounded by dimension table.

— The database design looks like a STAR.



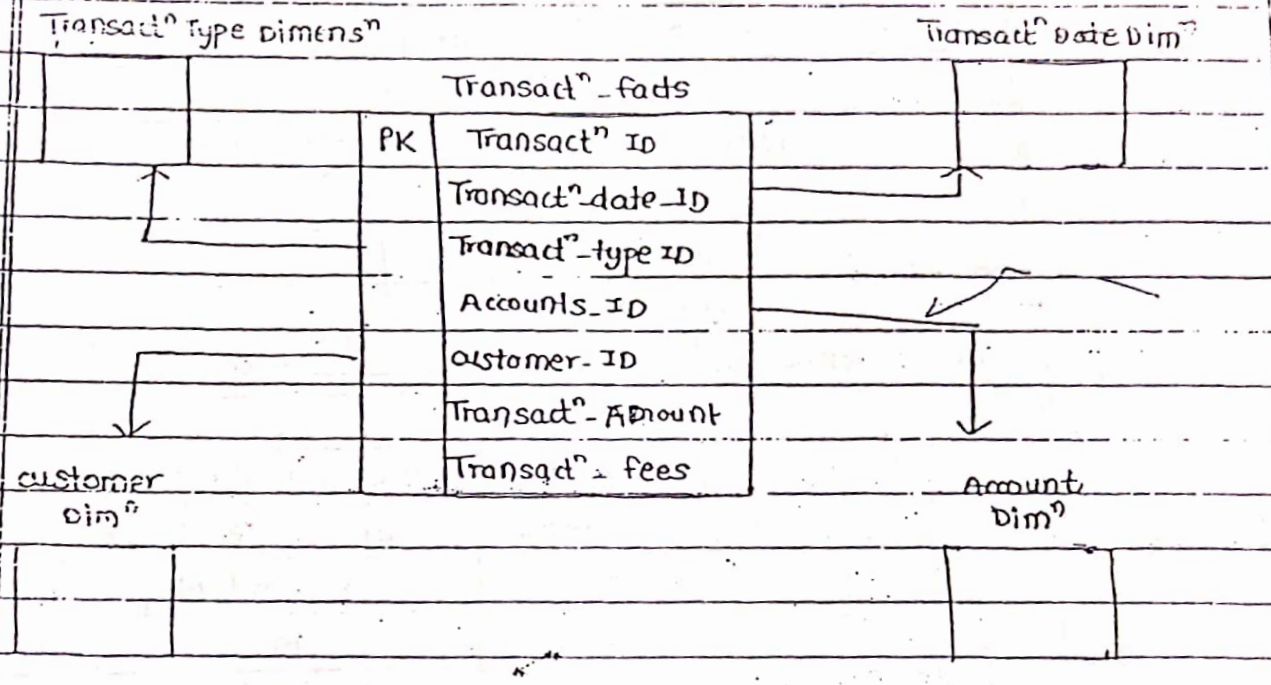
2. Snowflake Schema ⟶

— It is an extension of star schema.

— Dimension Table in snowflake schema are normalized & the process of normalising dim^n table is called Snowflaking

* Transaction fact —

e.g



* How Data is stored in the fact Table ?

ns-ID	Trans. DateID	Trans-Type	Acc-ID	Cust-ID	Trans-Amt	Trans-Fees
1	25	2	47	51	5000	0.00

* SCHEMA :-

— Skeleton structure that represents logical view of entire database.

— schema defines how the data is organised in database.

* e.g. fact & dimens' Table?

Facts :-

— It is a counted or measured event.

* Dimension → contains referential infn. about fact.

No. of Students	57

Dimension ↑ Facts ↑

* Fact Table → 1) central table in dimens^n model surrounded by dimens^n tables,
contents,
facts,
Measures

2) contains foreign keys of dimens^n tables.

* Dimension Table → 1) Dimension Table contains
Dimens^s keys
& Attributes,
values

* GALAXY SCHEMA *

* Surrogate Key :-

ID(S.K)	Start Date	End Date	Material Rate	Material Name
101	1 Jan 18	12 Feb 18	50	Steel
102	15 Feb 18	28 Feb 18	175	cement
103	1 Jan 18	28 Feb 18	125	Bugash
104	1 Jan 18	30 Aug 18	100	coalash
105	1 March 18	30 Aug 18	175	cement

— For good practice in dB design we have to maintain primary key for each table.

1. Use part of a data in a table as a primary key

2. Use new field with artificially or autogenerated value to specify a primary key in a table.

This key is known as **'Surrogate Key'.**

— This key itself has no meaning & it may not be visible to end user.

Syntax :- 1) col-name identity (start-val, increment val)

primary key (col-name)

e.g. Id identity (100, 1)

Primary key (Id)

SQL server

2) create sequence sq-name
min value = 100
increment by 1
max value = 1000;

Id sq-name (100, 1)

Primary key (Id);

Oracle

Key in fact Table

Date 20-8-17
Page

* Composite key :-

Primary key Primary key

Order_ID	Date	Product_ID	Produd_Name	Price $	Quantity
E101	22/11/17	P125	Modem	50	1
E101	22/11/17	P16	Router	100	5
E102	23/11/17	P125	Modem	100	2
E102	23/11/17	P51	Printer	25	2

— **composite key** refers to case where more than one column is used to specify primary key in a table.

Syntax :-
```
create table table_name
(
  column1 integer
  column2 varchar2 (20)
  column3 varchar2 (20)
  ,
  Primary key (column1, column2)
);
```

IMP

Types of fact :-

(Additive) :

1. Additive
2. Semi-Additive
3. Non Additive

1. Additive →

— Additive facts can summed up across all dim^n in a table.

	Date-ID	Sales Amount
	Store-ID	↓
	Product-ID	Day 1 :- 100 $
Additive →	Sales-Amount	Day 2 :- + 250 $
Non →	Profit-margin	Day 3 :- + 300 $
Additive		650 $

2 Non-Additive →

— cannot summed up with any dim^n in a table.

Profit Margin

↓

Day 1 :- 5%

Day 2 :- + 8%

13% ✗ (not possible)

3. Semi Additive →

— can summed up with some dim^n in a fact table but not with others.

Date_ID
Account_ID
current_Balance

— current balance can summed up with account ID dim^n but not with Date_ID dim^n.

* Types of Fact Tables :-

1- Transactional Fact Table
2. Periodic Snapshot fact Table.
3. Accumulated Fact Table.
4. Factless Fact Table.

1. Transactional Fact Table :-

— Fact Table that represents an event that occured at instantaneous pt. of time.
Mostly Additive facts.

2. Periodic Fact Table ⟶

— Fact Table that describes set of things in a particular instance of time.

— Time period is predictable or regular.

Dimens^{n} Table

Date-ID	Day	Months	Year
1	14	4	2018
2	23	6	2018

* Fact Table *

BatchID	Date-ID	No.of Students

Dimens^{n} Table

Mool	JAVA
Jool	.Net
Nool	Manual

Fact Table

Batch-ID	Date-ID	No.of students
Mool	2	55

3. Accumulated Fact Table ⟶

— used to show activity of process that has well defined beginning & end.

Step 1 –	order Date	NULL	NULL
Step 2 –	order Date	Shipping Date	NULL
Step 3 –	order Date	Shipping Date	Delivery Date

* DIFFERENCE Betⁿ ⟶

	Transactional	Periodic	Accumulated
	Unpredictable	Regular or predictable	Undetermined time span
	Insert	Insert	Insert & Update.
	one Row per Transactⁿ event	one Row per Period.	one Row per life.

Date 21/8/18

* 4. Factless Fact Table →

- It is a fact table which does not contain — Numeric Fact OR Measures & contains only dimension keys.
- It captures an event that happened only at info. level not at calculation level.
- It captures many to many relationships bet^n dim^n table but contains no numeric facts.

* Types of Dimensions →

1. Slowly changing Dim^n
2. confirmed dim^n.
3. Degenerated dim^n.
4. Junk Dim^n.
5. Role Playing dim^n.
6. Rapidly changing dim^n.

*** IMP

1. Slowly changing Dim^n →

- Dim^n attribute that changes slowly over a period of time rather than changing regularly.

Date
Page

* Types of Slowly changing Dim^{n} (SCD) →

1. SCD Type 1 :-

e.g.

cust_ID	cust_Name	Year	location
101	XYZ	2005	London

O/P →

cust_ID	cust_Name	Year	Loc^{n}
101	XYZ	2008	Paris

— Type I :- replaces old entry with new one.

:- only new data is present & old data is completely lost.

2. SCD Type 2 :-

cust_ID	cust_Name	Year	Location
101	xyz	2005	London
101	XYZ	2018	Paris

re will
Surrogate key

— Type II :- Stores new data as well as old data.

:- New record & old record present in a same table.

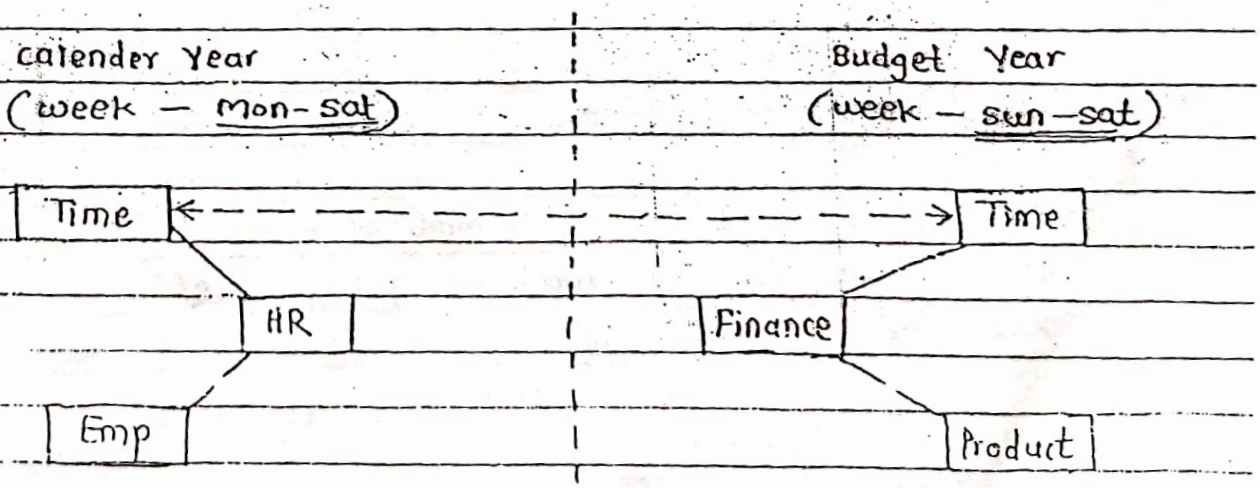
3. SCD Type 3 :-

e.g

Cust-ID	Cust-Name	old Yr	old Loc^n	old New Yr	New Loc^n
101	XYZ	2005	London	2008	Paris

— Type III :- creating new fields in a table & maintain old as well as new data in a same record.

2. Confirmed Dimension →



Date 22-11-19
Page

— We can call Time dim^n as a Confirmed dim^n when it contains same descript^n, same contents of one is a subset of another.

ADVANTAGE :- 1) Less Maintainance cost.

2) Easy development.

3) Efficient ETL Work.

4) It can be reused whenever needed.

3. Degenrated Dim^n ⟶

— It is dim^n and attribute stores as a part of fact table not in a seperate dim^n table.

4. Junk Dimension ⟶

— It is a single table with comb^n of different & unrelated attributes to avoid having large no. of foreign keys in a fact table.

5. Role Playing Dimension ⟶

— It is where the same dim^n key along with its associated attributes, can be joined to more than one foreign key in the fact table.

* Oracle → Information Schema

* Examples → Additive
Non Additive
Semi Additive

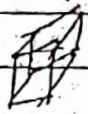
Date 23-8-18
Page

6. Rapidly changing Dimension →

— Dim^n attribute that changes frequently is called as a rapidly changing.

— If you need to track the changes using standard slowly changing dim^n, this tech. can result in a huge inflation of size of the dim^n.

— one sol^n is to move attributes to its own dim^n with a seperate foreign key in a fact table.
This new dim^n is called Rapidly changing Dim^n.

*	DB Testing	ETL Testing
1. Primary Goal	Data validation & Data Integration	Data Extract^{n}, transform & loading for reporting & analysis.
Applicable syst.	Transactional syst where business flow occur.	syst. containing historical data not business flow occur.
Need	Ensuring data integrity from multiple appl^{n}.	Ensured the req. data is moved from source to target.
Modelling	E–R diagram	Multi – Dimensional. 
	Normalised data – More no. of tables	Denormalised data — few no. of tables.

* What is diff. bet^{n} DWH & Data Mining.

— DWH is a huge concept as compared to data mining.

— DWH is a dB & Data mining is a process.

— Data mining involves extracting info. from DWH & interpret it for future predict^{n} (Analysis, Planning, designing, reporting)

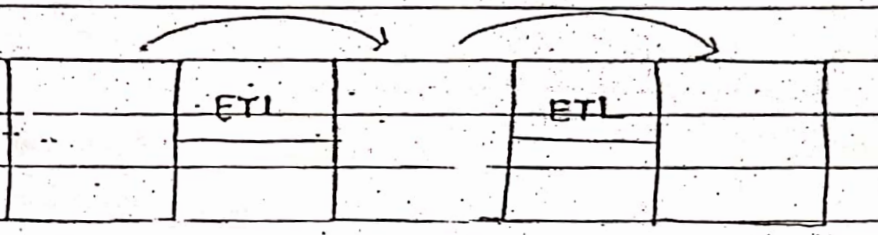
y developer

Date
Page

* Testing :-

* What is ETL ?

→



— ETL defines mechanism of dataflow from source syst. to target syst.

— It is a process of extracting data from source syst, transformed w.r.t. set of rules, after getting req. data data is loaded to target.

* ETL Testing →

defn → ETL Testing is done to ensure that the data that has been loaded from source to target (DWH) after applying set of rules (Business logic) is correct or not.

* (ETL — produd^n Reconcillation)
↳ Table balancing

Data Validation
Table-structure valid^{n} -
Data completeness
Data Duplication
Finding Invalid Data

ETL Testing also involves verifica^{n} of data in various middle stages that has been used bet^{n} source to target.

* Challenging during ETL Testing ⟶ Issues

1. Data loss during ETL process.
2. Incomplete, Incorrect, Invalid, Duplicate data is present at target.
3. DWH contains historical data, data volume is too large.
4. Tough to generate test cases and finding scenarios because the data vol. is large.

* Types of ETL Testing ⟶

1. constraint
2. source to target
3. Source to target data valida^{n}
4. Data integrated Testing
5. Incremental & historical process Testing
6. Data completeness
7. Data Transform^{n} Testing.

Date
Page

1.* Constraint Testing →

— During this testing test ER. identifies whether the data is mapped from source to target or not.

count testing.

- Not NULL
- Default
- Unique
- Check
- Primary key
- Foreign key

} Constraints

1. NOT NULL — ensure that the column cannot have null value.

2. Default — ensure the default value for a column when the none is specified.

3. Unique — ensure that all values in column are different.

4. Check — make sure that all values in column satisfies certain criteria.

5. Primary — used to identify uniquely row in the table.

6. Foreign — used to ensure referential integrity of data.

select count * from lameb-Table

Date 27-8-18

2. * Source to target count Testing —

— During this test ER ensure that count of source & target data is expected or not.

4. * Data Integration syst is same as SIT.

5. * Incremental & Historical Process Testing →

— In this type of testing we are going to verify new data (changed data) or historical data in target syst.

— There are 2 types of loading in ETL process.

1. Incremental Loading → only loads the data that changed in source syst.
2. Full Loading
   ↓
   When It truncates all existing tables and reloads all the data in source syst.

6. * Data completeness Testing —

— Data completeness testing ensures all the desired data is completely loaded to the target.

2. validate parent to child relationship of new field.

5) Data quality —

1) Data format check — 2) (precision value check)

↓

eg. 19.2356

Duplicate Check Testing —

— In this testing we are going to identify duplicate data in target syst.

— Duplicate data may arise
↓ because

1. Primary key not defined.
2. Wrong development.
3. Environmental Issues

— When there is huge amount of duplicate data in target syst. that may results incorrect analysis & reporting.

* Types Of ETL Bugs :-

1. Table str. Issue
2. Issue with data & source syst.
3. Data count not matching bet^{n} source & target.
4. Duplicate data loaded issue.
5. X^{n} rules issue.
6. Data format Issue
7. Index not create after Jobrun.

8. Performance Issue.

* S/w Testing	DWH Testing
1. S/w testing carried out prior to deployment of s/w.	1. DWH Testing carried out post deployment.
2. Source code specific.	2. Content specific.
3. Focussed on Used cases which contains various Test cases.	3. Focussed on querying the test data loaded by ETL Testprocess.

* Mapping Document —

Date 8-9-18
Page

* Mapping Document :-

Source				Target				Xn Logic
S-Name	Tbl-name	col-name	Data type	T-name	Tbl-name	col-name	Data type	
Syst-dB	Material	Materid type	varchar (50)	DM-name	Material	Material -type	varchar (50)	only materi. which is applicable for weight
dB-name	user -details	user -DOB	Date time	DM Name	user details	user age	varchar (50)	sys -DOB / 365

Que. What is Mapping Document ?

— Mapping document describes relationship betn extreme starting pt. & extreme end pt. of ETL process which is used in DWH.

Que. Why tester needs mapping doc. ?

→ 1. Because it contains details about each & every table which is a part of ETL process from source to target.

2. While working on target tables we have to refer tables in source syst. & mapping doc. contains

complete info. about tables in source syst, target syst along with its X^n logic.

** Sr.No.

Serial No. — 1

Test case ID — TC_001

Priority — High

Reference — SRS doc

Title/ Summary — Structure valid^n Table-name

Pre-cond^n — source exists

Test data —

Action / Description — To validate table constraint against com-mapping doc. also validate col-name

Expected Result —

Actual Result

Defect ID

Selete month_between (01/01/2018, 01/01/2018)

Junior Part

PAGE NO
DATE / /

Que. Why Testing?

Customer
- → Robust code
- → Eliminate potential defect

} To get the fine product

so testing is preferred.

Que. Why have you joined as a Testing Engineer?

In the old era the market was absolute monopoly (i.e one man show ex: nokia), But in current era market is absolute oligopoly (multiple companies). That means huge compitition mechanism exists. To survive in the oligopoly market the business /org has to deliver the quality products. Quality product means definite emphasis / focus on quality

In the symbian era Nokia was ruling the world. But when the technology changed to Android, Nokia was unable to sustain. It means this theory suggests adaptability. To survive in the huge competitive market business has to focus on quality. That's why testing.

SQA (software Quality Assurance)
- meet customer requirement (On what purpose)
- Meet customer expectations (customer happiness, privacy performance etc)
- cost of software
- Timely delivery (ontime deliverables)
- Risk management

} Non-Technical

DATE / /

To maintain monitor & measure the strength of derelopement process organization usgu SQA concept

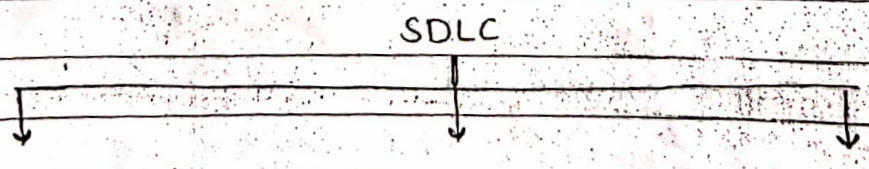
- Software project
  software related issues solved by s/w engineers through a software derelopement process is called a s/w project

- SDLC (s/w development life cycle)
  - → Life cycle derelopement (LCD)
  - → Life cycle Testing (LCT)

LCD + LCT = SDLC
3 : 1 ratio (not always)

	LCD : LCT
for web based appln, telecom, banking	3 : 1
Robotics, Artificial Intelligence (A.I)	1 : 1
Mission critical (satellite program) mission defence (ISRO, DRDO)	1 : 7

SDLC proces consist of 3 dynamic & generic phases



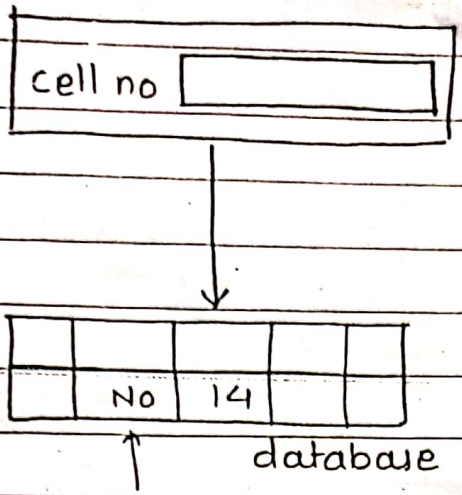
What?	How?	
→ Cust requirement	→ Design	→ Maintenance
→ Analysis	→ Coding	→ correctness
	→ Testing	→ adaptability
		→ re engg
		→ Enhancement

DATE / / /

Global application - If you want to use it globally then country code will change

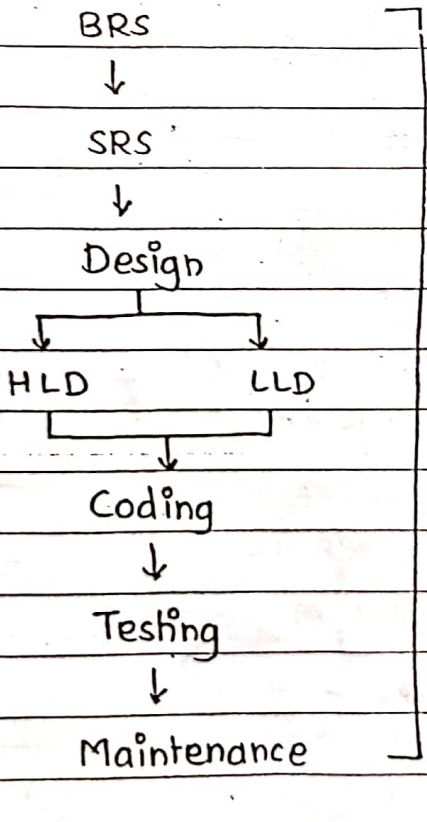
+91 - 10 digit

14 digit (India)



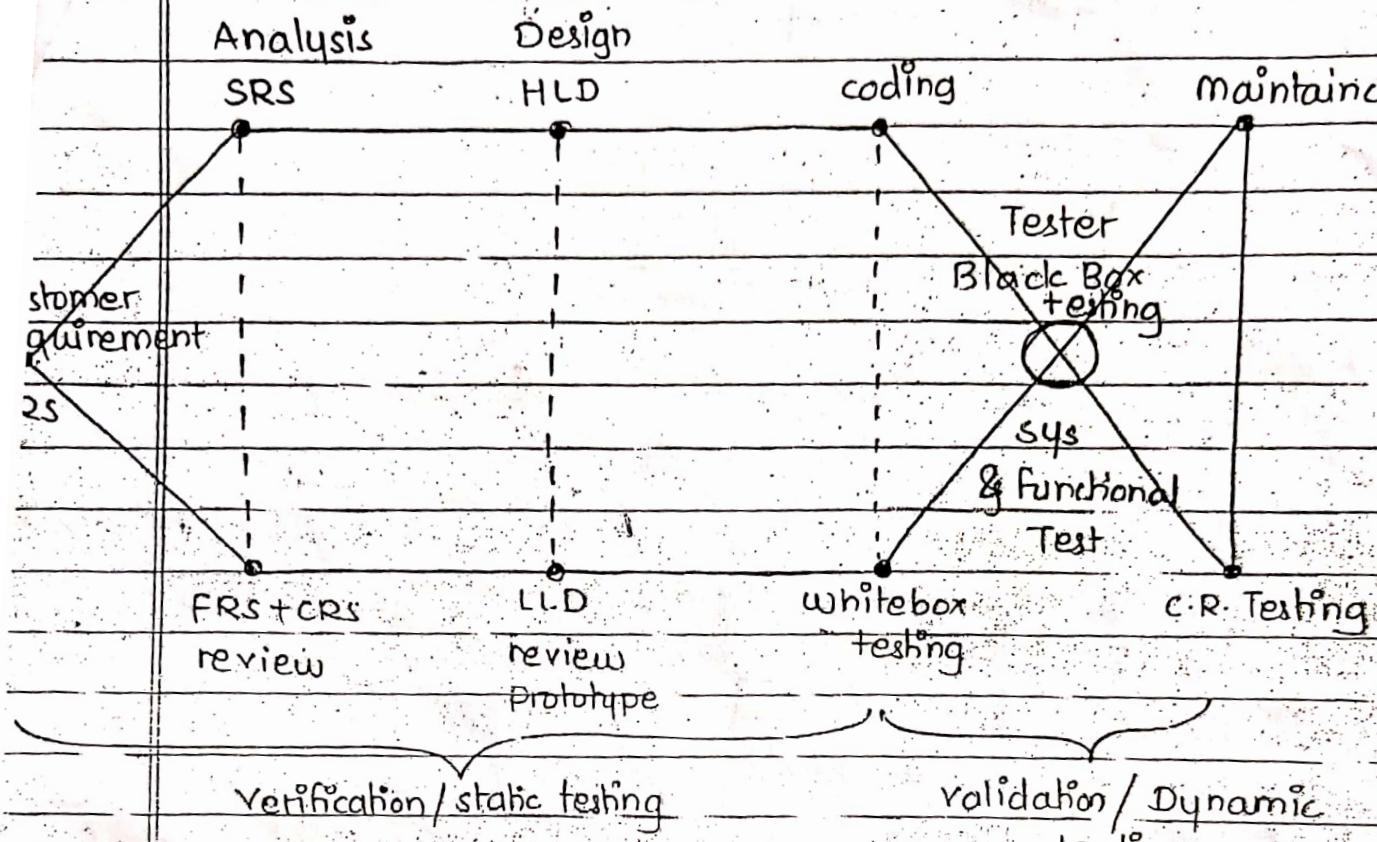
Must be varchar as the country code is having no & character

Que Testing comes before coding or after coding ?



DATE / /

Graphical Representation of SDLC:-



Dia : Fish Model

LCD = Upper angle } is called so as
LCT = lower angle } LCT is dependant on LCD

NOTE: The thoughts of a testing engineer should be according to end user perspective

SDLC = LCD + LCT

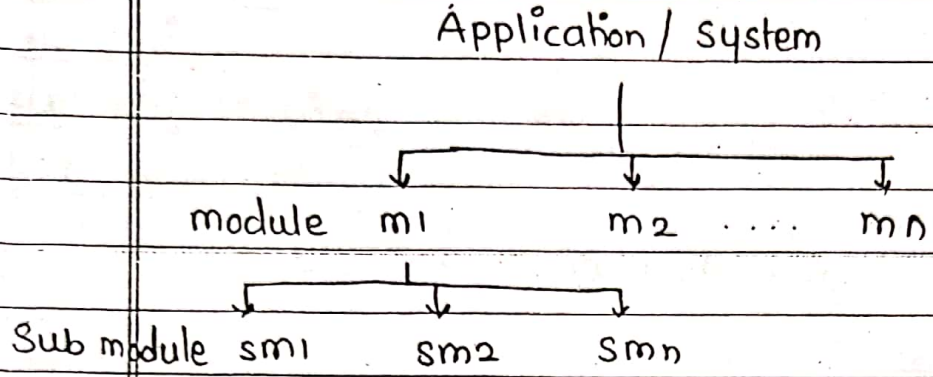
SDLC = verification + validation

DATE / / /

Que. Difference between verification and validation ?

→ Draw fish model and explain with example.

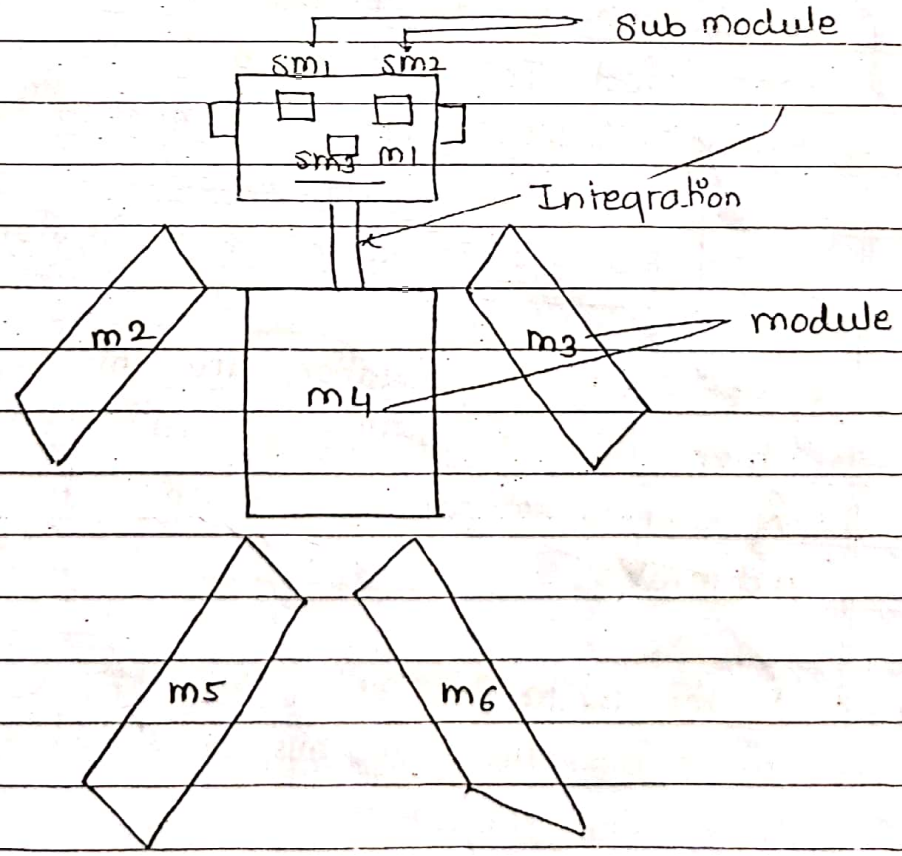
ex.



Similerly, all modules contain sub modules. Tester will check all the modules, sub modules as well as application. This is system & functional testing

e.g. Online purchase application

Ex



Human System

PAGE No.
DATE / /

The fish model denver, there is a review after SRS analysis, there is a review after design & one after code developement i.e. white box testing It means there is a testing process that is implemented. This is called as "verification static testing" also called as "non-execution testing" If any issue occurs during this testing they are responsible to catch it.

During Black box testing we validate the functionality of the whole system. Eloborately we are responsible to catch the defect irrespective of any SDLC zone (i.e. any stage of SDLC process) I mean to say the defect might be due to requirement, due to design or code defed. This is called as "validation or dynamic testing" & also called as "execution testing"

SDLC = verification + validation

* verification & validation are interdependent on each other. without verification, validation is not possible & without validation a quality product is not achievable.

Que. If the white Box testing satisfies the code review mechanism then why busines should spend money for BBT (Black Box testing)?

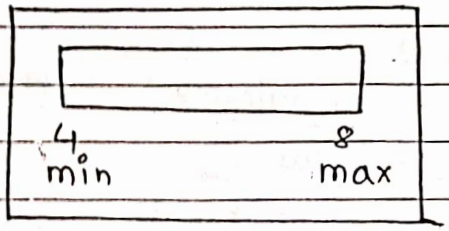
→ White box testing (WBT) covers the presence of the defect in the code, But BBT covers presence of

PAGE No.
DATE / /

defect in the code along with absence of the defect in the code

WBT = Presence of defect in code			
BBT = Presence of defect in code	+	Absence of defect in code	

Ex. customer requirement only in between 4 to 8



condition:
$4 \geq x \leq 8$

- +ve scenario

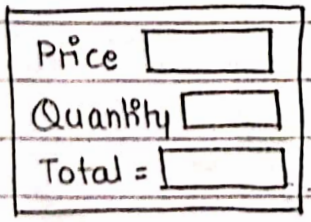
To check if values from 4 to 8 can be put

- -ve scenario

To check all values below 3 & above 9 can't be put

Ex Cell phone purchase application

Total = Price x Quantity (logic)



Test case scenarios

10,000 x 5

-10,000 x 5

price can be -ve, But
Quantity can never be -ve

10,000.00x5

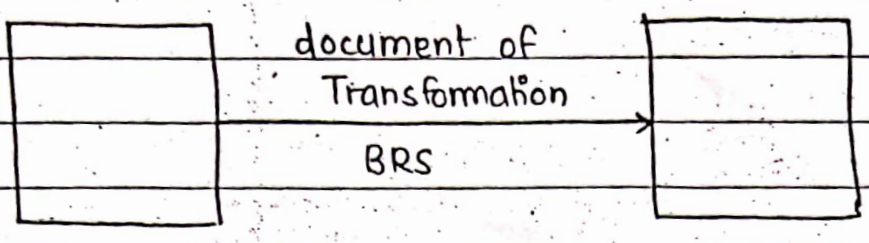
10,000.00 x 5.00 → Quantity can not be float value.

-10,000.00 x5

-10,000 x -5 → critical case scenario

PAGE No.
DATE / /

* BRS (Business requirement specification)



customer language — Technical language/ Terminology

- Designed by B.A.s
- This doc defines requirement of the customer to be developed as a s/w
- This doc acts as a bridge beth customer language & technical terminology

ex.

dual sim ⟶ 2 sims in 1 device

mandatory ⟶ Without filling we can't proceed

Digital watch ⟶ Time should be displayed in digit

Customer requirement — Technical terminology

* SRS → S/w requirement specification
CRS → Customer requirement specification
FRS → Functional requirement specification

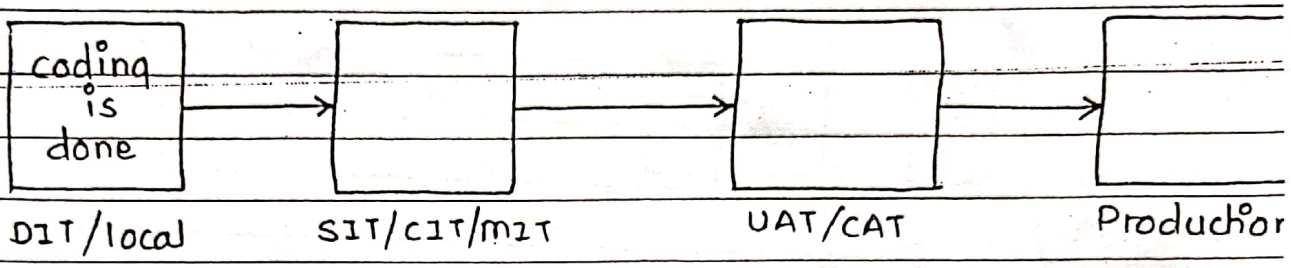
Que. What are the reference doc's you follow for testing ?

1. SRS
2. HLD document
3. LLD document (DB testing carried out here)

PAGE No.
DATE / /

- SRS defines the functional requirement to devlop & system requirement to be used. It means that this document is described wrt BRS.

Que. What are the entry & exit criteria ?

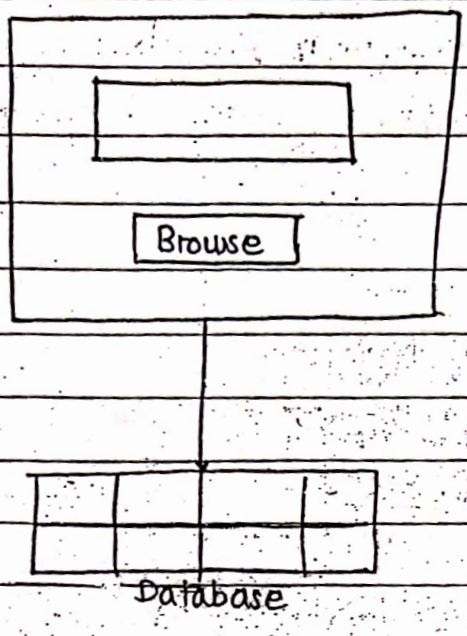


MIT → Module integration test
UAT → User acceptance test
CAT → Cast acceptance test
DIT → Devlopement integration test / local
SIT → System integration test
CIT → Component integration test

- Entry criteria of code design is the exit criteria of design
- Exit criteria of code design is entry criteria of WBT
- Exit criteria of WBT is entry criteria for SIT
- Completion of SIT is exit criteria for SIT
- Exit criteria of SIT is entry criteria for UAT
- Completion of UAT is exit criteria for UAT
- Exit criteria of UAT is entry criteria for production & so on ...

PAGE No.
DATE / /

Ex.



Cust requirement (BRS)
- End user must able to store the file
- If success then application acknowledges with a succes msg else, failed

Application supports various types of file

- PDF
  - = 3mb — Pass - [Red / Green] } file stored
  - < 3mb — Pass - [Red / Green] } file stored
  - > 3mb — fail - [Red / Green] } file does not stored
- XLS
- Flat
- Doc
- JPEG ×
- JPG ×
- PNG ×

Similer test cases applicable for remaining conditions

Que. What does SRS consist of ?

→ Cust requirement :- Sending an e-mail

- Compose
- Forword
- Reply
- Reply to all

PAGE No
DATE / /

Compose:
- To → min / max → 1 / 0 — seperator :
- CC (Carbon copy)
- Bcc (Blind carbon copy)
- subject
- Text body

SRS

To	Cc	Bcc
✓	✓	✓
×	✓	✓
✓	×	✓
✓	✓	×
×	×	✓
✓	×	×
×	✓	×
×	×	×

Characteristic

Bcc → Should be hidden for the receiver

Sub :- min / max → filled / Blank

Text body :- Filled → 250 words – Pass; <250 words – Pass; >250 words – fail
Blank

Attachment :- PDF (4mb, >4mb, <4mb), XLS, XLSX, DOC, PNG, JPEG, JPG — commen for all

Textbody	attachment
✓	✓
✓	×
×	✓
×	×

- Have you ever seen a SRS?

→ Obviously, Yes

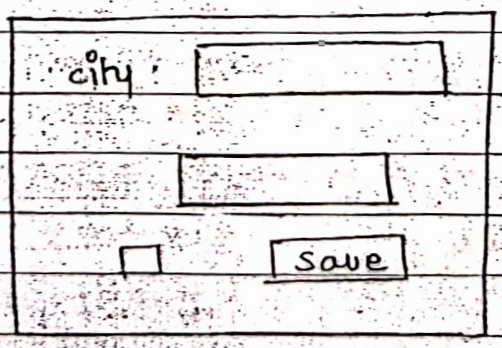
- Apart from SRS what are the other related doc you require?

→ - HLD
- LLD
- functional flow diagram
- Schema and object relationship

Que: How are the users going to design the screen snapshot?

1. HTML code (Normal HTML coding)
2. Idoc software (Accenture product)

Ex.



PAGE NO.
DATE / /

* HLD (High level design)
- Is known as External design. It is designed by solution designer / project architect
- HLD defines hierarchy of all possible functionalities to be developed as a module

* LLD (low level design)
- Is purely done by developer only
- Known as internal design
- It defines the static logic of every subject module
- ER diagram (Entity relationship), class dia, object dia.

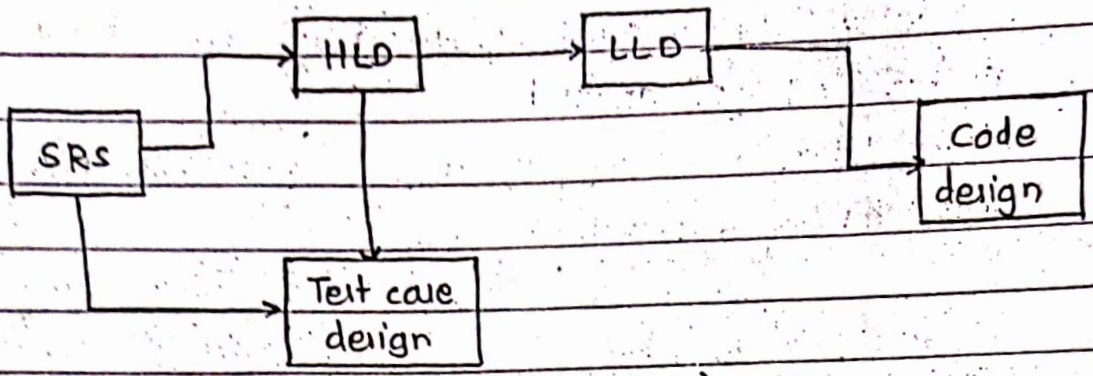
. Database structure analysis
- Every element has certain parameters which defines its character

. Review
- Is a static testing technique to check completeness & correctness of a doc
- Basically we involve in test case review defect analysis review

. Review Prototype / Review design
- It defines a sample model of the application without functionality
- It just like a user manual to understand the appln
- we have prototype model which is required in many stages
    1. KT provided to customer
    2. when test engg receives the KT

PAGE No.
DATE / /

- Code design

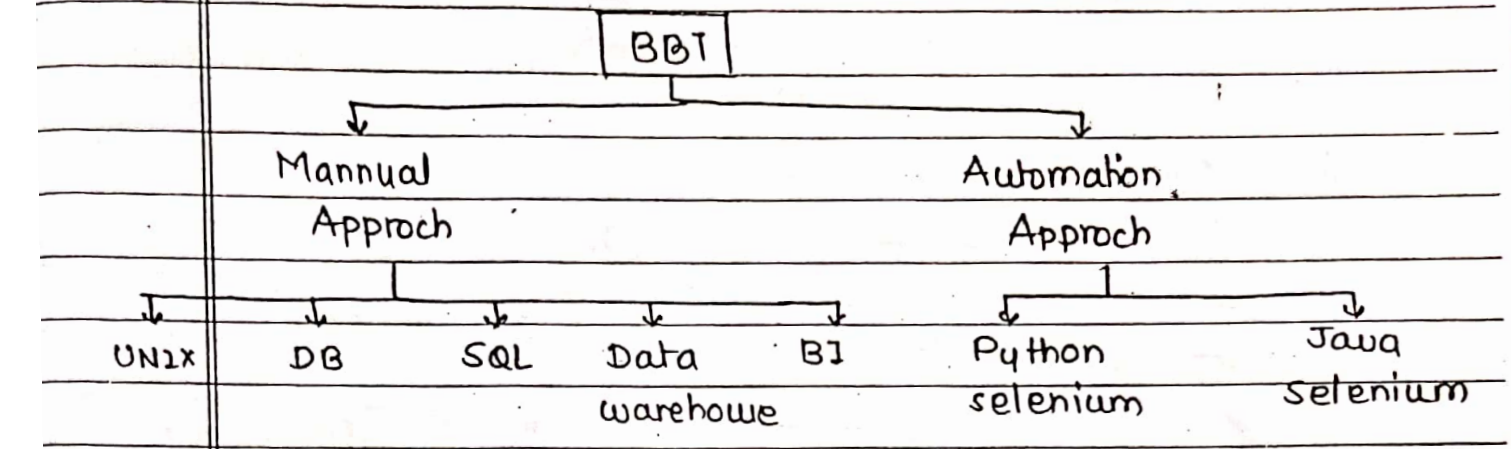


(reference doc for Tester)

After completion of design & review developer writes the program to physically construct a s/w by using the language like java, .net etc

- Code design review / white box testing / Clear Box testing
  - It's called WBT as theres is transparency in the code as the developer knows the flaws in the system
  - It is done by developer. After completion of code design developer starts WBT to check the completeness & correctness of the code
  - It is coding testing technique that is done by dev end (derelopement end) to ensure whether the code logic works fine or not.

- Black Box testing
  - Testers don't need to find from which module the error occurs They have to check whether actual Functionality is working or not. so its called as black box testing (BBT is concept has been derived from Aeroplanes black box example)
  - It is build level testing technique



- During this text we validate the funchionality of the application or system
- Elaboratly, it means we check wheather internal funchionality depends on external interface or not
- When data inflow happens (ie. data moves from one DB to another DB) then environmental defects may occur.

Ex:
User withdraws money from SBI debit card from HDFC ATM machine. Apply to aboue DB inflow mechanism

- I mean to say during BBT we have to test the funchionality of the system with respect to customer requirement or busines logic. During this validation we concentrate on 3 major areas
1. Front end engg (FE)
2. Back End engg (BE)
3. logical Engg (LE) (90%. defects occur here only)
   ↳ defines Business intelligence

PAGE No.
DATE / /

- Grey Box testing
  A Black box tester who knows / understand internal part of coding.

- Red Box testing
  Black box tester who deals with telecom networks

- Test productivity / test efficiency / defect removel efficiency / defect deficiency

Environment

Dev Integration team | SIT: | UAT | host//BOA/

DIT: Host://BOA/DIT/8080 | host//BOA/SIT/8081 | host//BOA/UAT/8082 | produ/liveCopy

$$\text{DRE (defect removel Efficiency)} = \frac{A}{A+B}$$

A → No of defect dueing SIT
B → Defect from dueing UAT

SIT defect > UAT defect

The logic describe the numerator will always less than the denominator i.e. the output would be always in terms of fractions. If its is 0.8 to 0.9 it is known as nice productivity

PAGE No.
DATE / /

* 0 Bug density mechanism

If A = 50

B = 0

$$DRE = \frac{50}{50+0} = \boxed{1}$$

It is very difficult but it is not impossible

eg. microsoft

* Review during analysis

Review of SRS would be done by busines analyst During this review they concentrate on diff points

① Are they meet customer requirement / Busines logic ?
② Are they complete ?
③ Are they achievable ? (with respect to technology)
④ Are they reasonable ? (with respect to cost & time)
⑤ Are they Testeble ?
⑥ Are they understandble ?
⑦ Are they able to handle errors ?
⑧ Are the followable ? (able to break the logic in simplification)

* UNIT TESTING

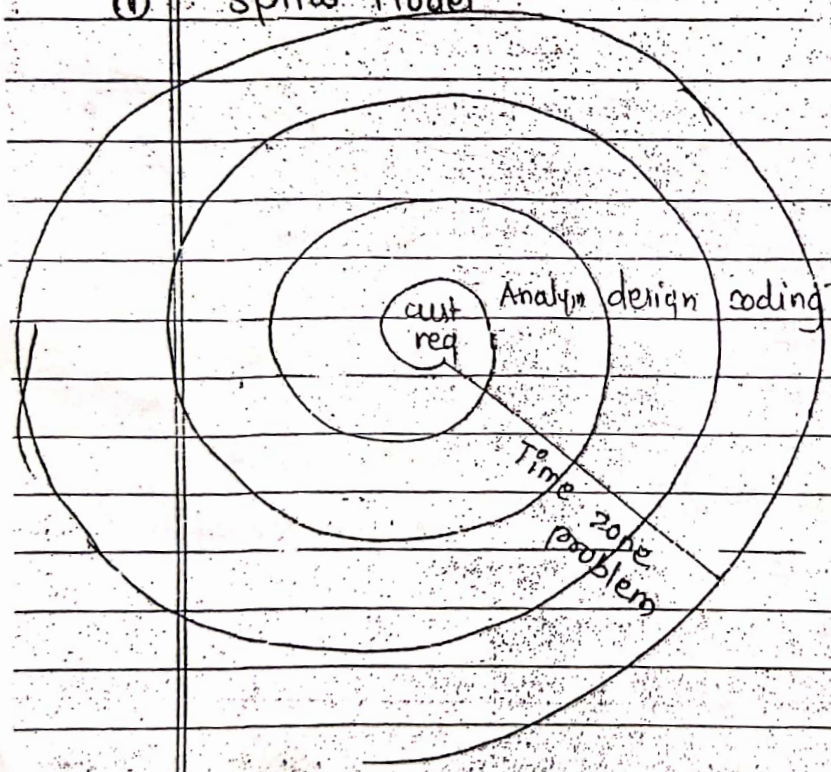
After completion of code design and review developer writes a programme to physically construct a software. After completion of this code design they perform the unit testing to (It is a part of white box testing) check completeness and correctness of the code, called as unit testing. It is also called as micro-testing. It is also called as micro-Testin or structural testing, component testing, programmable testing

PAGE No.
DATE / /

IMPLEMENTATION OF SDLC

1. RAD model
2. SPIRAL model
3. V-model
4. Waterfall model
5. PET model
6. Agile methodology

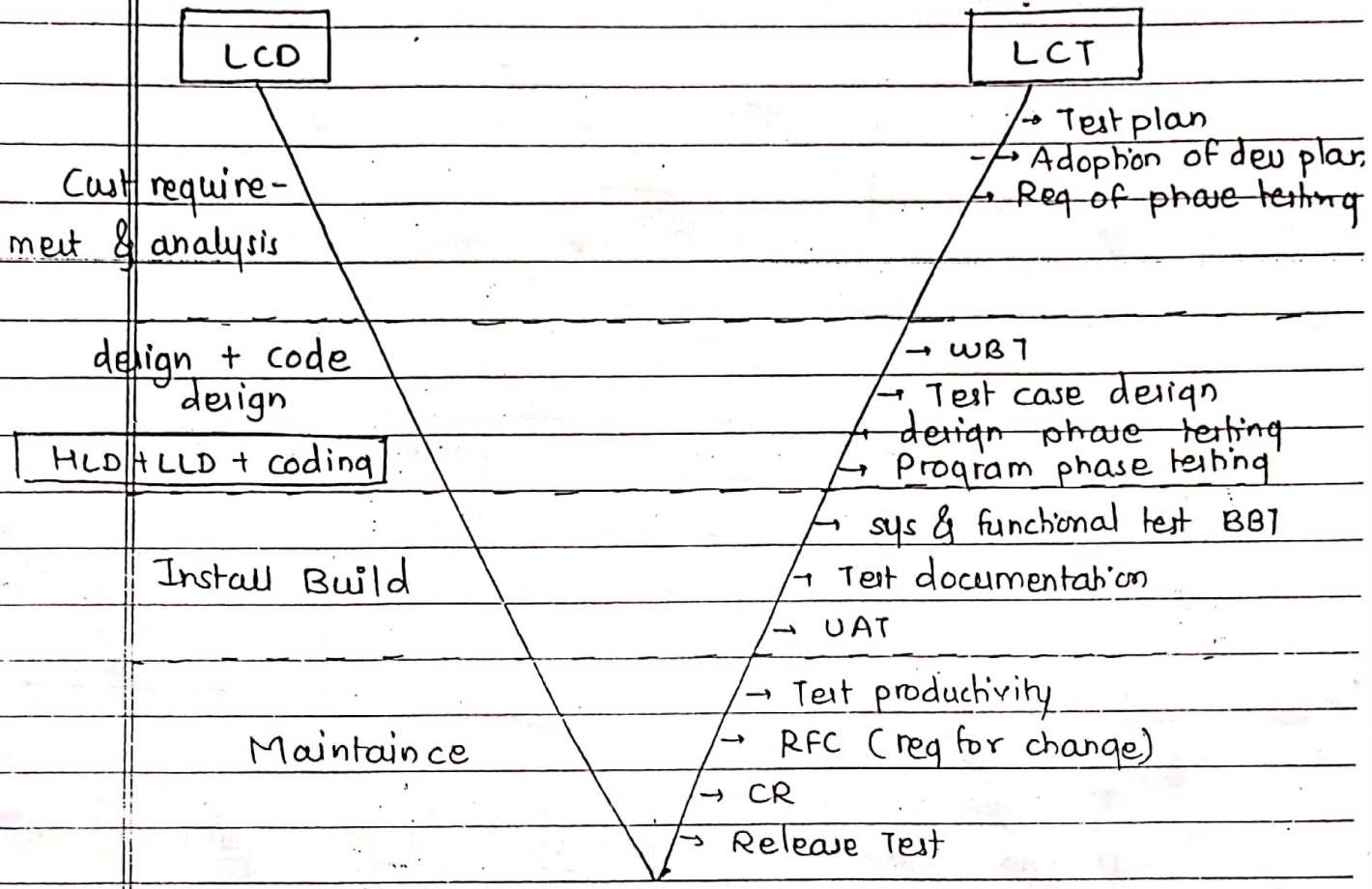
(1) Spiral Model



Time zone problem :-
until analysis is done no other stage can proced. i.e. they are waiting ideally for their turn to come. This is time & cost consuming. This is time zone problem

PAGE No
DATE / /

* V- MODEL



Advantages

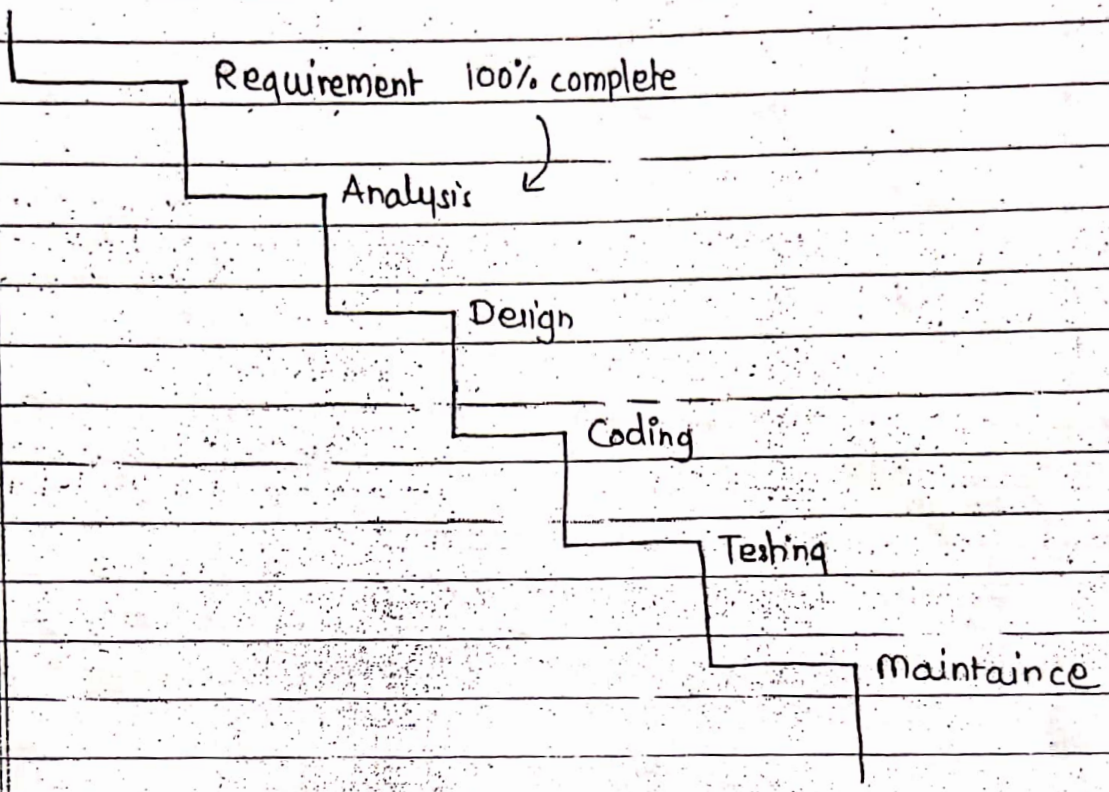
1. development & testing phase runs parallelly
2. Test planning is done in 1st phase itself

Disadvantages

1. It is very costely eloborately customer spends money during multiple stages of V-model. Hence Big organisation us V-model.

PAGE No.
DATE / /

Waterfall model



Advantage

- It is very strict process
- If the current stage is going on rest of the stages would be ideal / suspended. The exit criteria of current stage is entry criteria of another stage
- Let us assume, we got a defect in testing. The reason/ defect belongs to the requirement. Requirement would be modified, the design would be changed, coding would be modified & then testing. Hence this is absolutely time consuming process hence it is costely
- The conclusion point is if the activity is going in stage 'n' then stage (n+1), (n+2)... would be remain ideal

Disadvantage

- Time consuming
- Costely

AGILE

PAGE No
DATE / /

Agile is a phylosophy, it is not plan driven it is absolute value driven. It is very much flexible model

* various types of agile
  1. scrum
  2. Extreme programming
  3. Lean
  4. KANBAN — used by google as requirements are changing daily.
  5. DSDM (Dynamic soft dev method) — Healthcare companies requirement change according season
  6. FDD (feature driven dev)
  7. PP (Pragmetic programming)
  8. crystel

* Agile terminology

V/ waterfall model		Agile
~~Account manager~~ (Client)	←	Solution owner (Client)
SPM DM PM		stake Holder
Busines analyst / company sided people	←	Product owner
customer requirement	←	Product backlogs
Estimation		Estimation
Modules / Subpart of main application	←	sprint
Module features / Actual requirements		Sprint backlogs
SRS / Detail of the sprint is called as stories	←	stories
we cases		Acceptance criteria
Every day status call		scrum meeting
Project manager	←	scrum master

PAGE No.
DATE / /

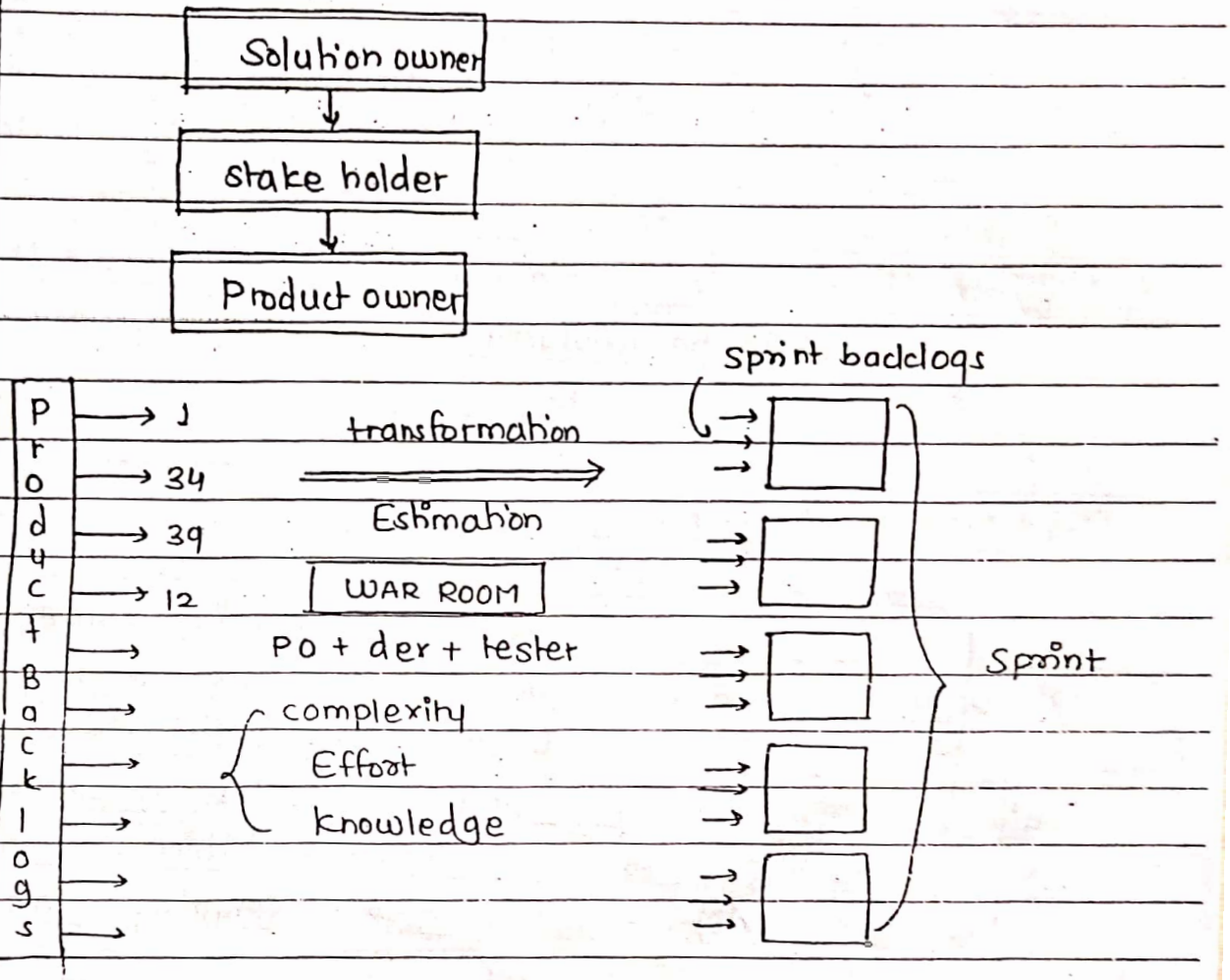
The behaiviour of agile describes the requirement is absolute dynamic (frequently change) frequent changes does not have any impact on testing or developement The conclusion point is irrespective of any process of SDLC process customer requirement can be implemented

* Release Architect / mechanism

V, waterfall	Agile
3 months = 90 days	4 weeks → 1 month
R1.0, R2.0, R3.0, R4.0	
Q1 Q2 Q3 Q4	

* Agile meeting
① Agile velocity
② Agile grooming
③ Burndown chart
④ Scrum meeting

* Agile Architect / workflow / framework.



* Agile velocity

It is a guessing mechanism is used to ensure total number of sprint backlogs to be deliver for the coresponding agile product. I mean to say total number sprint backlog deliver in very first sprint × total number of sprint. Let us assume 10 sprint backlogs in sprint 1 to tal number of sprint is 6 Hence

AY = 10×6 = 60

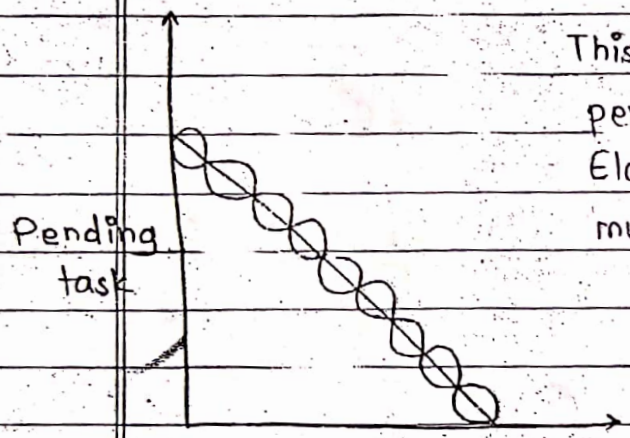
Agile velocity = No of sprint backlogs in First sprint × Total no of sprints in project

PAGE No.
DATE / /

* Agile grooming

This meeting is attended by product owner, dev & tester. This meeting is basically perform just before start of any sprint. In this meeting the team analyse the existing product backlogs to ensure everything is clean & clear & they concentrate on if any modification is there. Elaborately the list of sprint backlogs to be delivered for the current sprint would be analysed to know weather any modification is there or not.

* Burn down chart



This graph is graphical representation of pending task to iteration time. This illustrate in a specific time period how much task we have to perform

Red → Something is wrong

Blue → Everything is ok

* Scrum meeting

Everyday standup or status call

- chairperson is scrum master
- Duration is 1 hr to 1:30 hr
- USA → 5:30 to 6:30 pm

  Europe → 12:30 to 1:30 pm
- Every working day
- discussion point ① What we did in previous session?

  ② What we are going to do next?

PAGE No
DATE / /

③ What are the road blocks ?

This meeting is attended by everybody belongs to project.

Scrum Architecture

Solution owner — Solution owner is responsible for defining cost

stake holder
PM DM SPM — They are responsible to management catogory responsible to deliver the project in terms of technology & in handle the project with tech implementation along with operational activiti

Product owner

- Product owner is responsible to collect the product backlogs
- lead the agile grooming meeting
- Estimation proces
- Sprint module planning
- Design the stories (SRS) + Acceptance criteria & control, monitor the operational proces

Estimation. — It is a mechanism is used for transforming product backlogs into sprint backlogs I mean to say estimation proces. it will be decided how much requirement can be deliver for corresponding agile project. This project is governed by

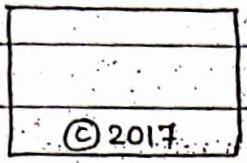
① Effort
② knowledge
③ Complexity

PAGE No.
DATE / /

Eshimation

① Efforts

change: copyright from 2017 to 2018



Here efforts req by developer will be 2 minutes but tester will require a lots of time to check each & every page of appl^{n}.

In this case efforts of developer & tester engg are different.

② Knowledge

3

③ Complexity

Complexity with respect to behaviour & nature of the project. I mean to say the functionality obeys the computal analysis mechanism.

What is stories?

It is nothing but the customer requirement

It describes the functional requirement to derlope and system requirement to be used

Basically it consist of description, reference & system re acceptance criteria

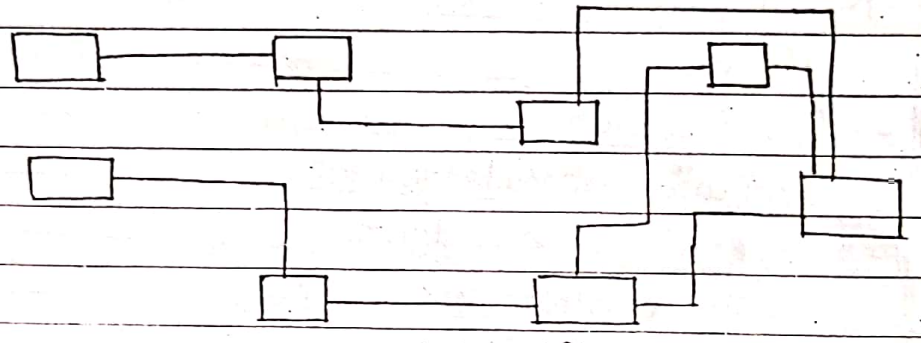
PAGE No.
DATE / /

* Acceptance criteria

It is present inside stories & is considered as a vital element. It defines a conditional point or functionality in terms of input, output & process

* Drawback of agile

If the project architect or behaiviour is complex then it is difficult to implement the agile



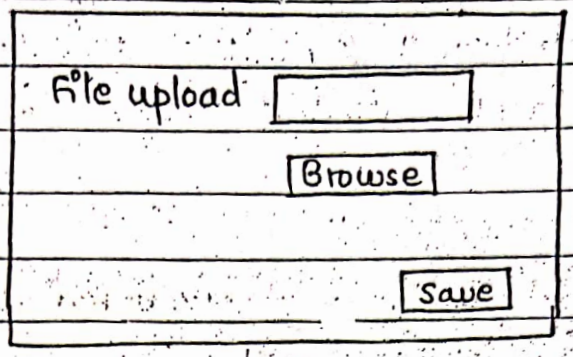
complex architecture

Agile architecture is not possible because of multidependent Complex means application having lots of dependent modeile or system

e-g. OTP creation

PAGE No.
DATE / /

* Live implementation of Agile



Product-/script backlogs
- click event
- File insertion
- Application acknowledgement
- Color of acknowledgement
- Failure response from server

Stories
click-event-stories-001

discription
User must be able to upload the file by using 'Browse' button. The file would be stored in the DB

Reference
SB_103_MAT
↓ ↓ ↓
sprint backlog — SB No — Proj name

Acceptance criteria
AC-001 → As an user able to upload the file using 'file uploading' text box

PAGE No.
DATE / /

AC-002 → As an user various types of files uploaded could be PDF, XLS, Doc, flat

AC-003 → As as user will be able to click 'Browse'

AC-004 → If uploading the file is successful the appl acknowledges with a success msg "file upload successful"

AC-005 → If succes
Color : Green

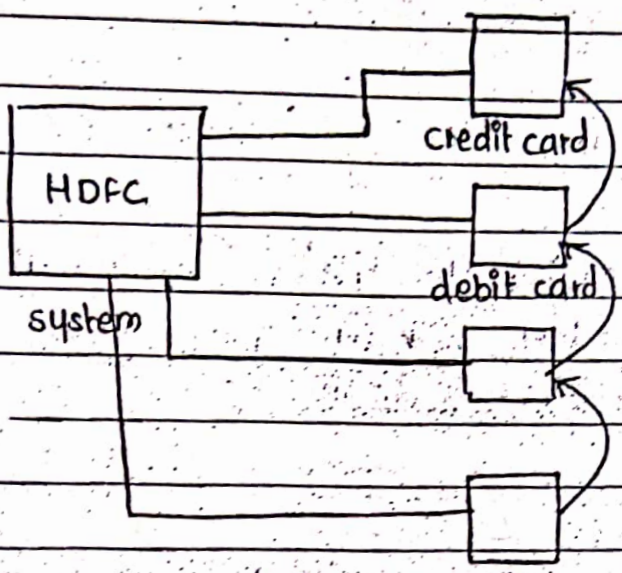
AC-006 → If failed, unsuccessful acknowledgement would be reported by appln

AC-007 → If failed color of msg = Red

* PET (Process Expert tools & techniques)
- Is designed by HCL
- This model is designed only for small & medium level orgs
- Is also called as refined form of V-model
- In this model instead of multiple stages of testing single stage is derived.
- It is recognised by QA item of India & developed by HCL

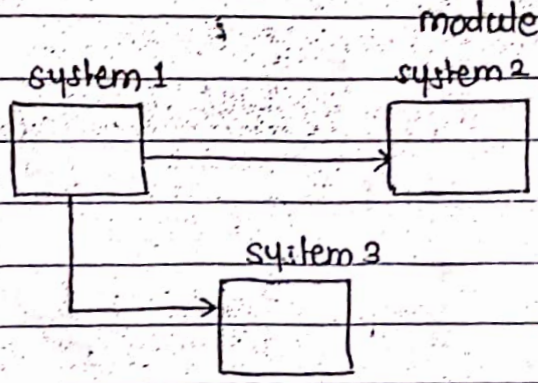
DATE / /

INTEGRATION TEST



module Integration

Integration of all module is called "module Integration".



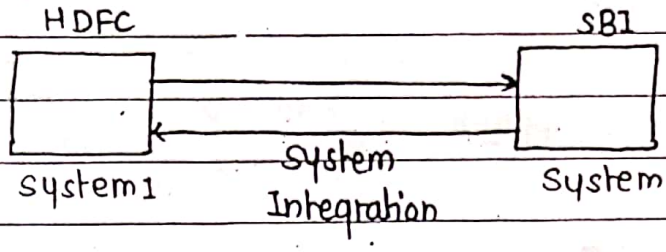
System Integration

System integration with respect to functional dependency

During implementation of file processing chmod 777 is used Ex. Whenever you want to transfer file to server you use 777 mode.

PAGE No.
DATE / /

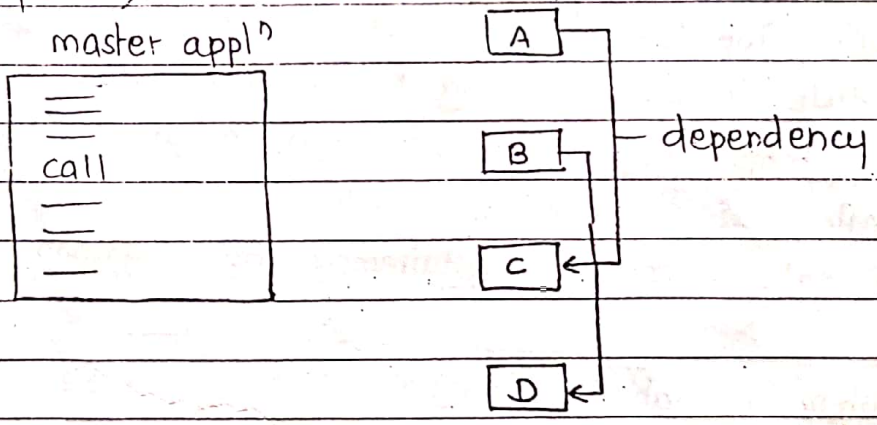
* Stream dependencies



To check if server 2 is working fine we have to check if server 1 is working fine. This is off stream dependencies

* Developers task

After completion of UBT and independent module design developers club all module code into a master file. In this master file they we 'call' function wrt HLD & LLD (Dev integration)



Modules are integrated in master appl^n using "call" function

* Testing task

- Once the integration get completed from dev. end test engg starts the validation of integration test
- Integration test is being performed on the coupled module (Two module integrated based on functionality) with respect to HLD & LLD
- During integration various approches are implemented

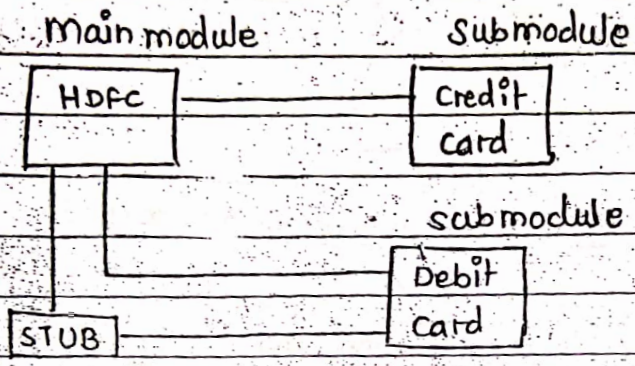
DATE / /

Tier app

*** Approch :-

1. Top down Approch (we test main module)
2. Bottom up Approch (we test sub module)
3. Bi-directional Approch (Hybrid approch / sandwich)

1* Top down Approch

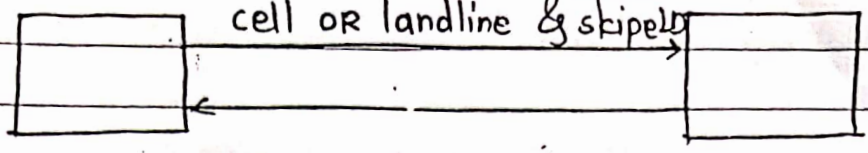


During Top down approch we conduct the test on main module instead of coming to the sub module we we one temporary program which is called as 'STUB' also called as "called program"

Test data is most imp requirement for integration testing

System integration validation

1. Test data validation
2. Request file validation
   You will check
   - If request is generated or not
   - Request value is correct or not i.e values manipulation
3. Response file validation
   You will check
   - Status (i.e. success or failure)
   - Parameter validation



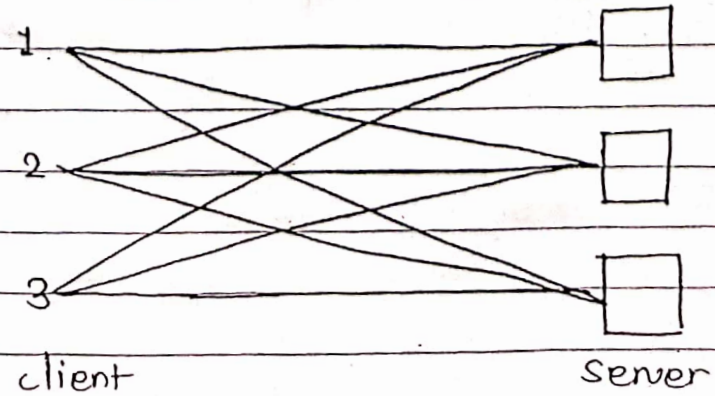
condition is :- cell or landline & skipe ID

Here if you give only cell & landline, server will give +ve response but send only cell no as response landline won't be given as response because condition is landline & skype ID, as we had given only — condition 2 fail

	cell	landline	Skype ID	Output / Server respo
	✓	✓	✓	Pass
	X	✓	✓	Pass
	✓	X	✓	Pass fail
Analytics	✓	✓	X	Pass fail
	X	X	✓	fail
	✓	X	X	fail
	X	✓	X	fail
	X	X	X	fail

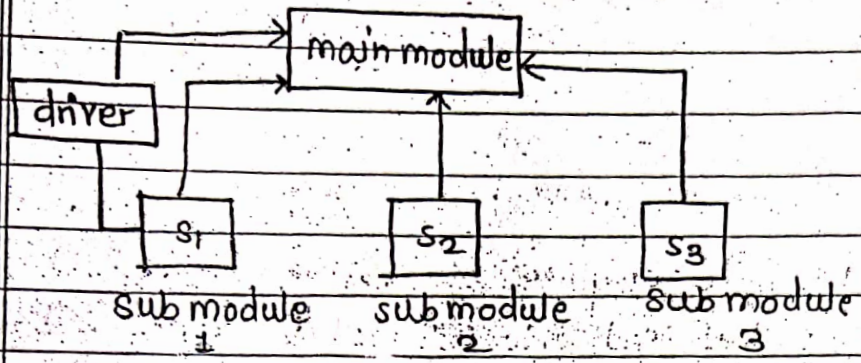
XML parsing

Nothing but the graphical representation between request XML and response XML.

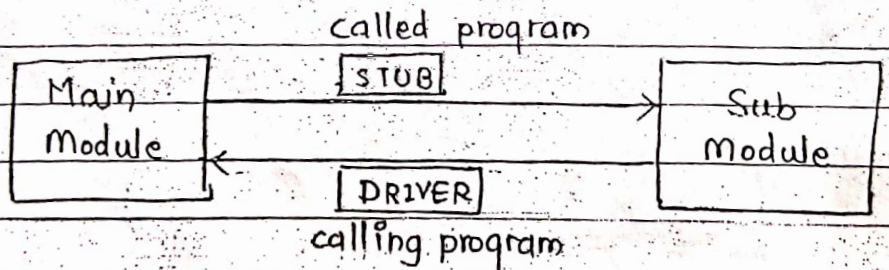


graphical representation

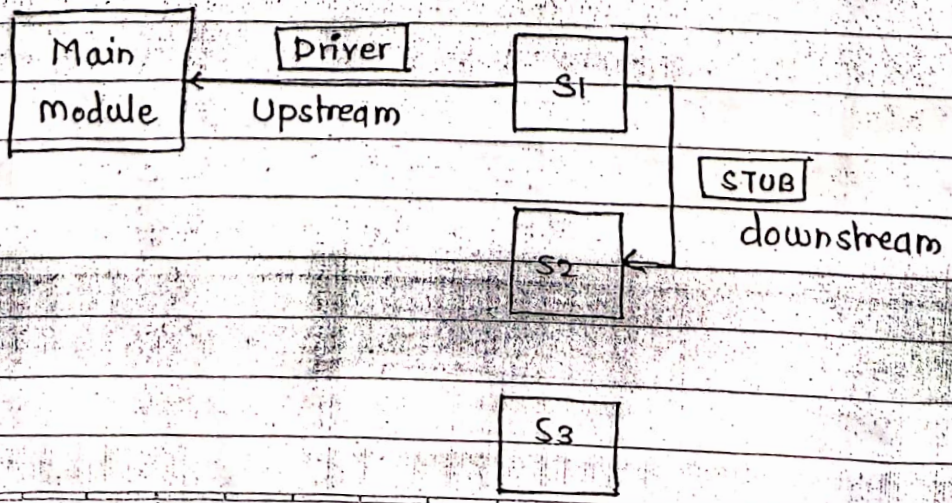
2. Bottom up Approch



- In Bottom-up approch we conduct the test on sub module instead of coming to main module
- 'Driver' is the temperory program that is wed dueing bottom up approch. It is also called as "calling program"



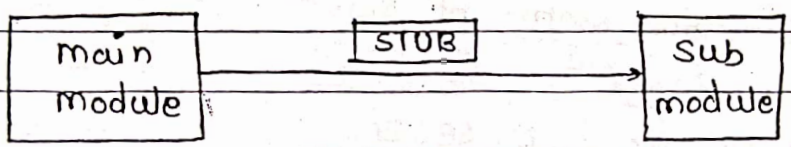
3. Bidirectional Approch



When the system works as module as well as submodule, I mean to say to validate the upstream & downstream dependencies in other words integration of one appl^{n} with determinant & dependencies component or system That means implementation of STUB & DRIVER

*** IMPLEMENTATION OF INTEGRATION

* STUB implementation



- Stub is designed in XML format, written in notepad (i.e. stub file)
- XML = eXtension (Extensive) markup language
- XML is considered as a universal language that can be understood by any system
- Developers design STUB
- In one release we implement one STUB
- XML format is not editable
  Edit it using Notepad++ ⇒ developed by microsoft
- XML consist of tags & values

Naming mechanism for files:

- It is purely based/governed with folder principle
  Ex. R3.0 – SIT – AT&T – Ykings – 001
- file saved & stored
- The sending of file to server will always require UN or it can be achieved by using FTP

DATE / /

- Name of the response file is same as that of the requested file with extension as '.resp'
- The response file is stored in 'Repository' which is replica of DB

Que. Where do you use UNIX in your project?

1. Sending the file to server
2. During searching & identification of response log file from repository
3. Checking status of server → server status validation
4. Job Run (Imp for ETL)
5. Data upload on server

All commands written on 'Putty'

Commands used to send files to server:-

```
cd
cd..
cal
chmod 777
```

Que. Where we write db queries?

1. sql developer (Product of oracle)
2. Toad (Product of Dell)

Que. How will you search your response file from server?

Response file stored in repository. We have to search them using UNIX command.

PAGE No.
DATE / /

XML Parsing

- It is mapping between request XML & response XML

> All XML related defects must be considered hyper critical

Ex

Req XML

```
<price> 250
</price>
```

```
<price>
25000
</price>
```

Hyper critical ⇒ floating value is received

WHITE BOX TESTING

- It is basically done by the developer
- It is classified into
  - → Execution test
  - → Operation test
  - → Mutation test

1. Execution test
- Basis path coverage
- Execution of all possible blocks
- Debugging mechanism is used

Loop coverage.
- Termination of loop
  Ex for (i=0, i≤500, i++)
- Loop coverage means termination of loops

Program technique coverage
- Means program should be written such that it must take less CPU cycle & less memory blocks
- If appl^n takes more time to search them its performance issue. Raise a defect.

2. Operation test
- During this test developer tests whether the code runs on customer expected performs

cust Expected platforms (CEP)

Browser | OS | Compiler

PAGE No
DATE / /

3. Mutation Test

- Intentionally change in code is done by the developer

Ex. $a = d+b$ → Expected

$a = d*b$ } changes are done

$a = b-d$ } in code intentionally

- Mutation stands for change
- The devloper intentionally changes the logic to estimate test coverages during code design

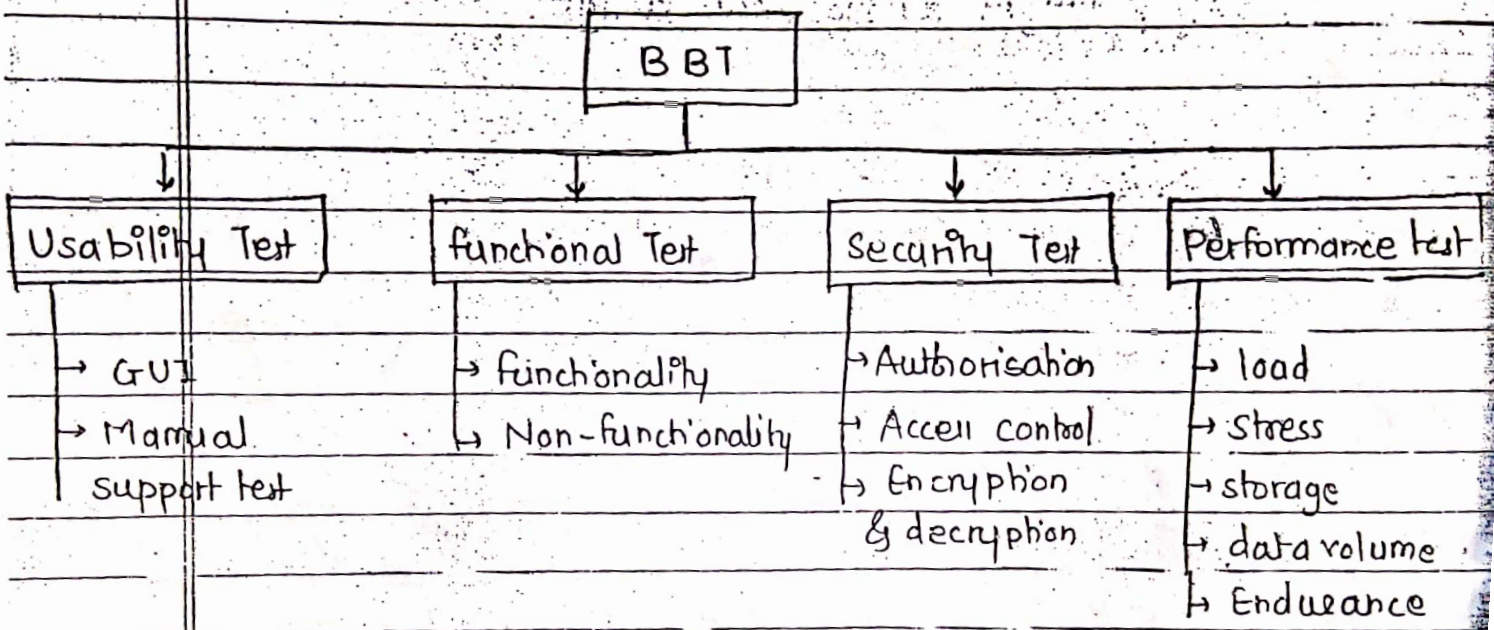
Developers reviews their own codes, whether they are generating the exact o/p or not.

PAGE No.
DATE / /

*** BLACK BOX TESTING

System & functional test

After completion of WBT and their review we conduct system and functional test through a set of Black box testing Techniques wrt HLD & LLD.
It is classified into



① USABILITY TEST

GUI Test — Manual support test

① GUI Test (Features of usability testing)

→ look & feel
→ Ease of use
→ Speed of processing data (Ease of operate)

PAGE No.
DATE / /

Defects related to GUI :-

- Fonts
- Size
- Color
- label name [contact no → Expected
  contact number → defect]
- formats (like date, time)
- logo color
- Accuracy of data with respect to busines logic

Basically all GUI related defects are considered as medium / lower priority

- Microsoft 6 rules for GUI

1. Controls are Initcap
2. Controls are aligned
3. Controls are visible
4. Controls should not be overlaped
5. System menu existence
6. Ok, cancel existence

3 types of testing

1. GUI
2. Functional
3. DB

Que Are you involved in GUI Testing ?

We cover it during functional test.

PAGE No.
DATE / /

② Manual Support Test :- Regular expressions (R·E)

Context sensitiveness of user manuals

Ex. Regular expressions (RE)

Ex. on/off Button of TV

Sometimes some application object is having same logical name & same physical description. In this case we use R·E. mechanism to ensure user defined mapping with machine level language.

Ex. START

STOP

RE :- [S] [T] [A-Z]*

Initial build
- GUI test
- Remaining part of function test
- Manual support test

PAGE No.
DATE / /

FUNCTIONAL TEST

- After completion of WBT developers deliver the code into the QA invironment. After this we start with functional test of application. It is a major part of BBT technique (Black Box Testing)
- During this test we check the functionality of the application with respect to customer requirement

Functionality — Non-functionality

① Functionality Test

- During this test we concentrate on the functionality of the application with respect busines logic interms of various coverages

1. Behaivioural coverage
2. i/p domain coverage
3. Error handling coverage
4. Back end coverage coverage
5. service level coverage
6. Calculation based coverage

1. Behaivioural coverage

- To check the objects, property

Object		Property
- textbox	[ ]	focus, Unfocus
- dropdown	[▽]	(choose 1 parameter enable, disabled)
- Radio button	◉ ○	on/off
- Checkbox		

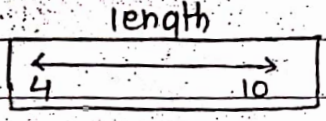
PAGE No.
DATE / /

2. Input domain coverage

- To chede the size & type of i/p objects
- It is applicable for only textbox
- To validate the textbox we use a special structure
  1. BVA (Boundary value analysis)
  2. ECP (Equivalance class partition)

2.1. BVA (Boundary value analysis)

- 6 conditions always



min = 4 ⟶ Pass
max = 10 ⟶ Pass
min +1 ⟶ Pass
min -1 ⟶ fail
max +1 ⟶ fail
max -1 ⟶ Pass

x ✓ ✓ ✓ ✓ x
3 4 5 9 10 11

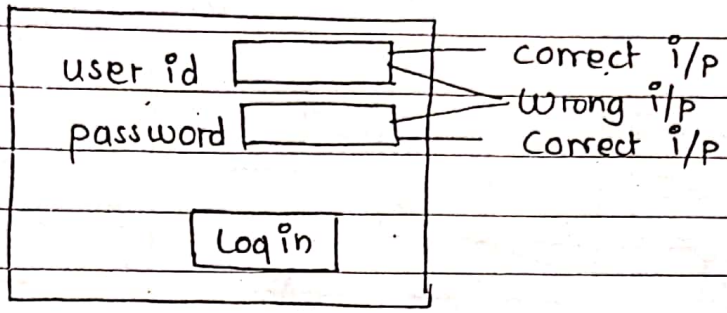
2.2. ECP (Equivalence class partition)

valid	Invalid
Numeric 0-9	$, !, #, *
Uppercase A-Z	space
lower case a-z	

- 5 conditions always

PAGE No.
DATE / /

3. Error Handling coverage



4. Back end coverage

- i.e. DB testing
- Impact of content operations means you have to validate DB

① Data manipulation
② Table str validation

4.1. Data Manipulation

If order is placed from GUI then in DB str should be (i.e. order placed)

4.2 Table str (→ structure.) Manipulation

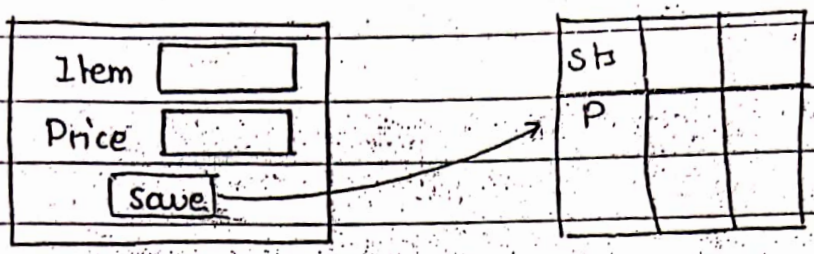
We have to ~~ma~~ validate all these things

Object name	Datatype	length	Mendatory	constraint	Null
Cell No	int	10	Y	P.K	N
Address	varchar2	20	Y	–	N

DATE / / /

5. Service level coverage

Order of functionality i.e. functionality should be in proper order



The msg/info received both placing order & updating in DB

6. Calculation Coverage (Arithmetical Testing)

Defining arithmetic logic

failure % = 25%
transaction % = 100%

↳ failure % = 100 - 25 = 75 %.

NON-FUNCTIONAL TEXT

	Involvement
1. Recovery testing	Yes
2. Compatibility testing	Yes
3. configuration testing	Yes (If telecom domain)
4. Inter system testing	Yes
5. installation testing	No
6. Parallel testing	No
7. Psanitation testing	Yes
8. Globalization testing	Yes
9. localization testing	Yes
10. Internationalization testing	Yes

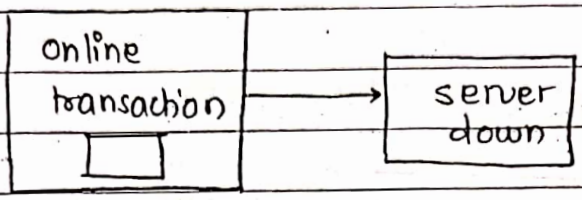
PAGE No.
DATE / /

1. Recovery test (Reliable testing)

- Recovery of application from abnormal situation to normal situation

Que. Are you involved in recovery test?

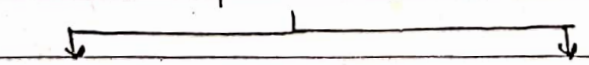
→ Yes



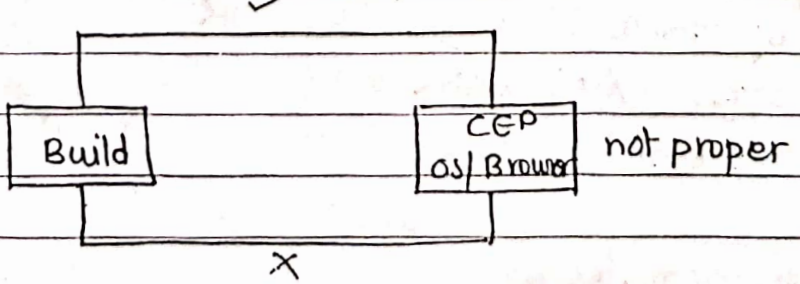
- If server is down, then recovery would be done later by either transaction successful or money will be refunded
- Recovery testing is also known as 'reliable testing' During this test we check recovery of our appl^{n} from abnormal situation to normal situation (Rollback mechanism)

2. Compatability test

- It is also known as 'portability test'
- During this test we validate whether our application supports customer expected platforms or not
- Customer expected platforms (CEP) means: OS, Browser



2.1. Forward compatability

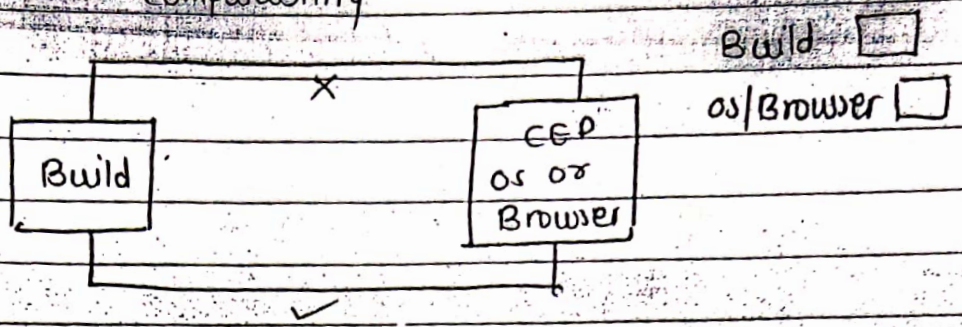


forward compatability Build ✓

OS/Browser X

DATE / /

2.2. Backward compatability



* Practically during Backward compatability we get max defect

Note: Involved in browser compatability test
There is no dB test during compatability

- During this test we cover
  1. Core Functionality → Functional testing
  2. GUI validation
  3. Page navigation (Service Level correctness)
  4. All hyperlinks accessibility (Behavioral testing)
  5. Performance
  6. security
  7. sessions
  8. cookies

3. Configuration Testing / Hardware compatability test

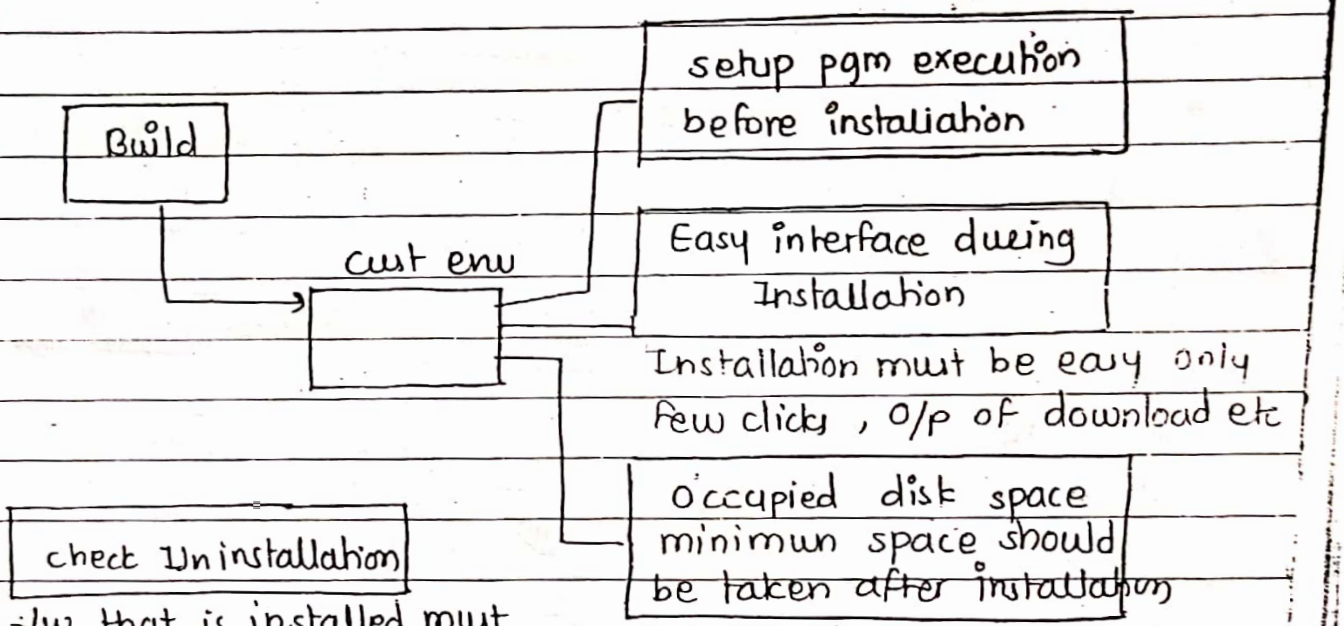
- During this test we validate whether our application supports various types of H/w devices
- Topologies, LAN, WAN, MAN
  - ↳ star, standalone, Ring, tree, mesh, bus

4. Intersystem Testing

- System integration & testing

During this test we validate co-existence of our application along with other existing s/w to share the information or resources.

5. Installation Testing
- Not involved
- This testing is being performed in customer environment only



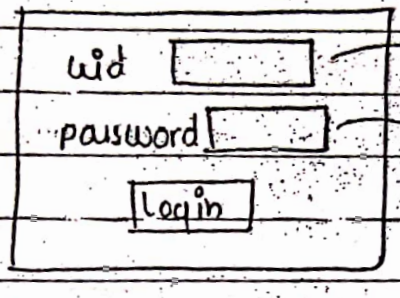
6. Parallel Testing
- absolute no involvement
- Also known as 'comparison test'
- comparison with existing product
- It is applicable for product only

Application	Product
Designed for specific client with specific feature or functionality	When it is designed for multiple client

DATE / /

7. Sanitation Testing (Garbage testing)

- Remove extra things from application
- During this test we will try to remove extra feature present in application



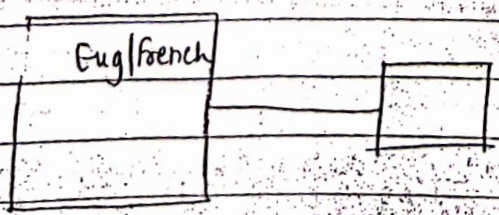
Anything is wrong out of two error msg is " You have entered wrong uid or pswd"

This is done so that when in the near future if cust face difficulty we can ask for more revenue. The intension is to generate revenue.

8 Globalization Test / localization test / Internationalization test (language compatability test)

- In globalization testing there is no validation for DB testing is not acceptable, data will be present in English only
- only GUI Testing
- During this test we concentrate on language compatibility
- Here we validate whether application support multilanguastic character

Globalization



(Requirement
Application should be compatible with french)

Req: 1. In the home page french would be hyperlinked by default (means English would be displayed)

Req2. 'Copyright 2018' should be displayed in English

Req3 : For any calender in french = YYYY/mm/DD
for English = mm/DD/YYY

Req4 : Price value should be in English
You will validate all these points while testing

III PERFORMANCE TESTING

This is an advanced testing technique in which we validate the speed of processing To conduct this test organisation requires huge env

Performance issues occur due to fell

front end wrong logic	Backend wrong logic	no. of user is maximum
can be done manually		Can't be done manually (only automation)

1. FE wrong logic

Package	schema
class	procedure
derived class	Relationship
Object	
Attribute	
ER	

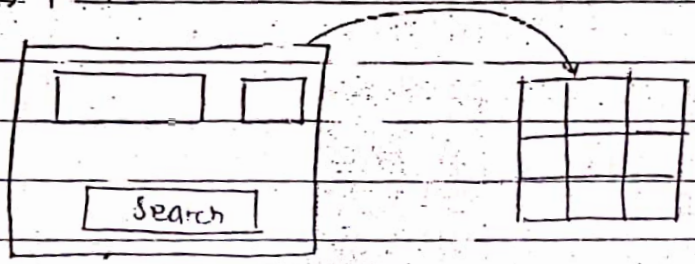
PAGE No.
DATE / /

Every performance issue is considered as logical issue highly critical

further you will have to check busines logic also like Hyderabad will be as a city of AD & Telegram also

2. BE wrong logic

Procedure or queries must be properly written with valid & proper conditions



Ex. searching a person on FB using filters

Performance tuning
- This does not done to enhance the performance of the script (or application)
- i.e enhance the query to get required results only

No of users
- The more the number of users greater will be performance issue
- due to the no. of users the appln will be impacted with performance time severely
- Hence, it requires a massive env. to reduce the issue, thus manual implementation is totally zero
only automization is done here no entry zone for manual.

I mean to say automation is used to resolve the issue

It is categorised into 5 types

① load testing
② Stress testing
③ Storage testing
④ Data volume test
⑤ Endurance test

} Load runner tool

Performance testing issues

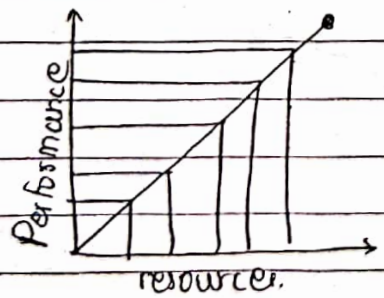
- Front end wrong logic
- Back end wrong logic
- No. of users

① LOAD TESTING

Execution of our appln under ustomer expected configuration and cut expected load to estimate performance is called load testing

② stress testing

Main objective is to find break event point / threshhoad point



The main objective of stress testing is to identify the break event point or threshhold point.

- Practically | Stress testing is = max of load

That means, execution of our application under wrt expected configuration and customer expected load

load & peak load to estimate the performance is called stress testing

ex. If load runner satisfies the customer requirement then what is the need of stress testing?

→

Load runner satisfies the cust requirement. during enhancement situation no of users might increase hence identifying the threshhold points is the supreme objective

3. Endurance testing
- (To check how long the system can sustain load)
Endurance testing = Load testing
- During this test we have to check the time span that the application beats the load

4. Storage testing
What is storage capacity is storage testing
- the execution of our application from the custmer expected configuration and huge amount of resources to estimate the pieak limit of storage capacity is called as a storage testing

5. Odta volume system
Number of records present in your application
- During this test we valided the execution of our application under custmer expected configuration to estimate peak limit of data.

- If any DB performance occurs we have to register the defect.

Step 1 - we request the platform team to take the strace file (trace file)

- Trace file STR is just like Notepad
- In the trace file we are trying to identify the output after execution of the application
- Once we receive the trace file we send it to the developer for analysis the main focal element is the elapsed time
- Elapsed time = Event / object response time

9v) SECURITY TESTING

During this test validate the privacy to user operation

It is designed into various catagory

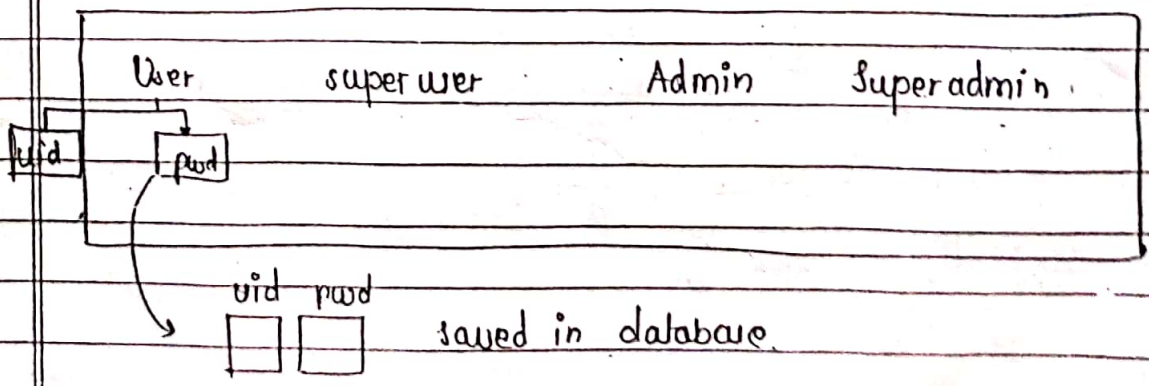
① Authorisation

② Access control

③ Encryption & decryption

① Authorisation

- The user is valied or not



PAGE No.
DATE / /

2. Access control : (Involved here)
Whether the user is valid for specific service application or not
- ex. whatsapps new feature for group
'only admin can send message

	User	admin
Send msg	✓	✓
Rew msg	✓	✓
Add participent	X	✓
Remove ~~+~~	X	✓

Also called as 'Role based access security control system

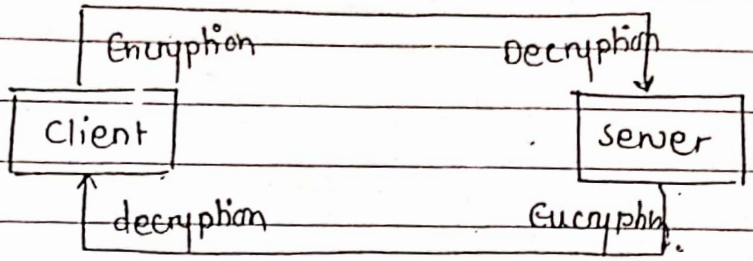
Step1. collect the credential report for every user

Step2. Validate the accessibility of every user in FE

Step3. check the flag value in DB

Step4. Take the snapshot of each execution process & share it via report

3. Encryption & decryption
- This is an advanced testing procedure thats why in some situations or conditions developer take 100% responsibility
- The data conversion between the client & the server is called encryption & decryption mechanism

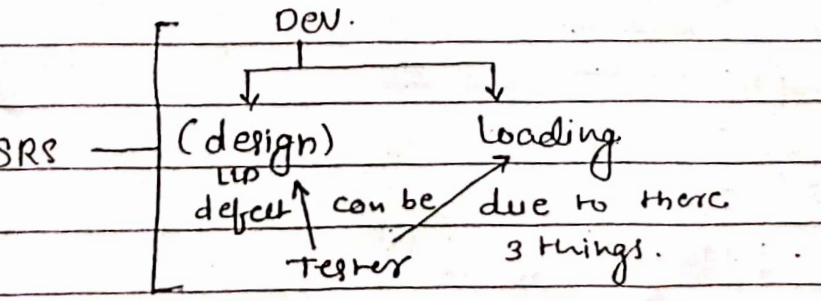


* Difference between defect, issue and bugs ?
- A mistake in the code is called an error.
due to this error missmatch occurs.
due to this mismatch we find defect.

- When this defect is accepted by developer is called the 'bugs'

- Sometimes some defects can be considered as issue
- Defect not accepted by developer is called an issue.

* New defects = defect leakage
- defect leakage means defects identified in UAT.
Some can be new while some can be existing.
The new defects are called as defect leakage.



This Mechanism is known as 'gap analysis.'
e.g. 3 ppl will do it (Higher authority)
Manager + Lead + Senior DxT

PAGE No.
DATE / /

gap analysis is the mechanism to identify the loop holes for understanding the requirement for developer as well as tester.

* UAT (User acceptance test)

UAT is classified into two types.

1. α (alpha)
2. β (beta)

Difference between α & β

α	β
- Used for application test	- Used for product test
- Tested by real custmer	- Tested by custmer side like people.
- Tested at organizations development & environment	- Tested at custmer side like requirements
- known as primary	- known as Secondary

Que P Are you involved in GUI Testing?

Yes, testing during functional testing

SIT → UAT

Involved here
- GUI 100%
- final 100%
- DB 100%

Never got chance to work here (Tester + customer involvement (BA work on cust end))
- GUI 100%
- final 100%
- DB 70-80% done

PAGE No.
DATE / /

* final regression / Post mortam test / critical functionality test
- After completion of UAT organisation concentrates on release testing
- To conduct release testing a release team is formed. This release team consists of some H/W Engg, S/W engg & BAs & developers & testers
- This team is responsible to concentrate on critical functionalities of the application

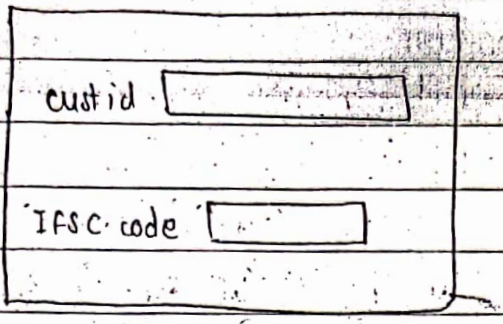
** What is critical functionality or Risk factor?
→ Integration zone of every application is initial zone.

1. Integration factors system integration, module integration, request & response xml)
2. Performance issue
3. Security testing

- During this test we are going to concentrate on critical functionality. There are risk factors involved in project

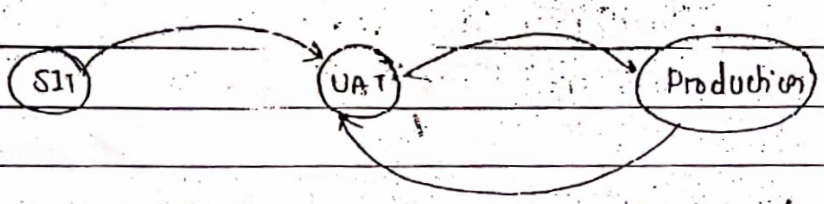
- During this test we concentrate on various factors :-
1. Overall functionality
2. Input device handling (keboard)
3. Output device handling (monitor)
4. Secondery storage device handling
5. Operating sys handling / Brouser handling
6. H/W device handling

After this release test we provide KT session to the customer (we'll design test case doc for providing KT to customer)



Then the build goes to production the sign off proces begin pre production

x Production issue



if Issue from production / cust end

change request / Request for change
(CCR) (RFC)

- If issue from our end its 'production issue'
- Once build goes to production, if any issue is identified that can be due to 2 reasons
  1. From test engineers missing, functionality - production issue
  2. Customers missing, functionality - change request (CCR)
     Request for change (RFC)

1. Production issue
- If any issue is identified after build goes to production & the reason is missing functionality from testing end then it a production issue.

PAGE No.
DATE / /

Production issue workflow

Production issue

↓

Missing functionality — very critical, critical, High, medium, low

↓

Impact analysis

↓

modify the code

↓

Test the change req

missing functionality from cust end

Change request / RFC

↓

enhancement

↓

Impact analysis

↓

modify the code

↓

Test the software change

CCB (change control Board)

(Dev + tester + BA)

CCB comes under configuration management

Configuration management

To handle the CR / RFC during test execution

PAGE No.
DATE / /

*** TESTING TERMINOLOGY

1. Monkey testing

Ex. if delivery of appln is tommorow & we need to test the application then monkey testing is done in this case for this prioritize the test cases & test the very critical & critical test cases

- Basically monkey testing means we have to execute max no of test cases with less time. Hence, in this situation we prioritize the test cases in terms of high, medium, low & critical
- I mean to say conduct the test with basic core / high importance test cases if availability of time is very less

2. Adhoc testing

- You don't have sufficient test data for testing then perform adhoc testing
- In some situations the client doesn't provide sufficient info (Bcoz he doesn't have it) or we don't receive sufficient test data from the client. In this condition we are going to perform the test with the help of all past experiences i.e adhoc testing

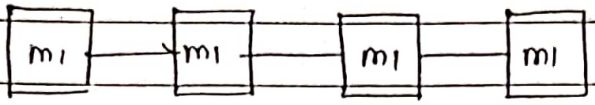
3. Exploratory testing

- Test data is present but we don't have any knowledge about appln
- If we have sufficient test data but we are not aware of the application then we can implement exploratory testing

PAGE No.
DATE / /

4. Gorilla testing (Frustration testing)

- Is a testing technique that is used to ensure all the defect of the corresponding module are clear



Tested 100 times until all defects are removed (Both developer & tester work together)

- I mean to say we have to the module with repeated approch even 100 times

PAGE No.
DATE / /

Que How will you find out the current Build line of your application?

Select * from Build-version order by Build line desc 2;

Date	Build line
	21.0
	2.0
	26.0

If this Build is not complied by developer from then raise a very critical defect (This defect is called build version defect)

* Defect age

Time of defect closure is calculated from the time the defect is raised from fix to close or reppen

- Practically if we get defect in n^{th} version the testing would be done in $n+1^{th}$ or $n+2^{nd}$ version

* Blocker defect

- It is a defect in which the whole functionality is not working Then in this case fix is given on priority This is the special case

- If the defect is blocker the dereloper has the authority to fix the defect & then move the code to the QA environment, This is a special case.

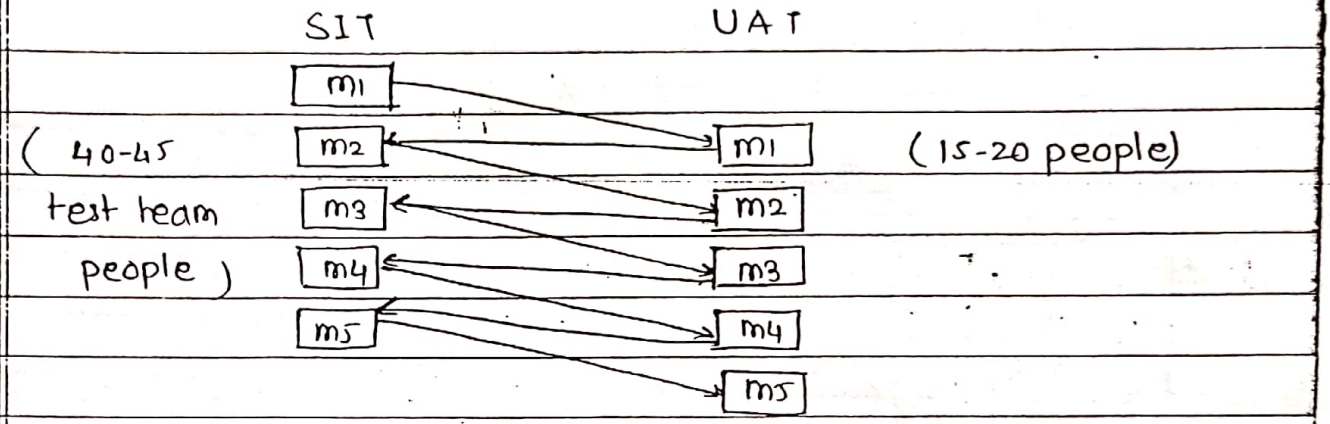
- without fixing this defect we can't go ahead with other testing activity

PAGE NO.
DATE / /

Blocker defect :

① Order id is not getting generated

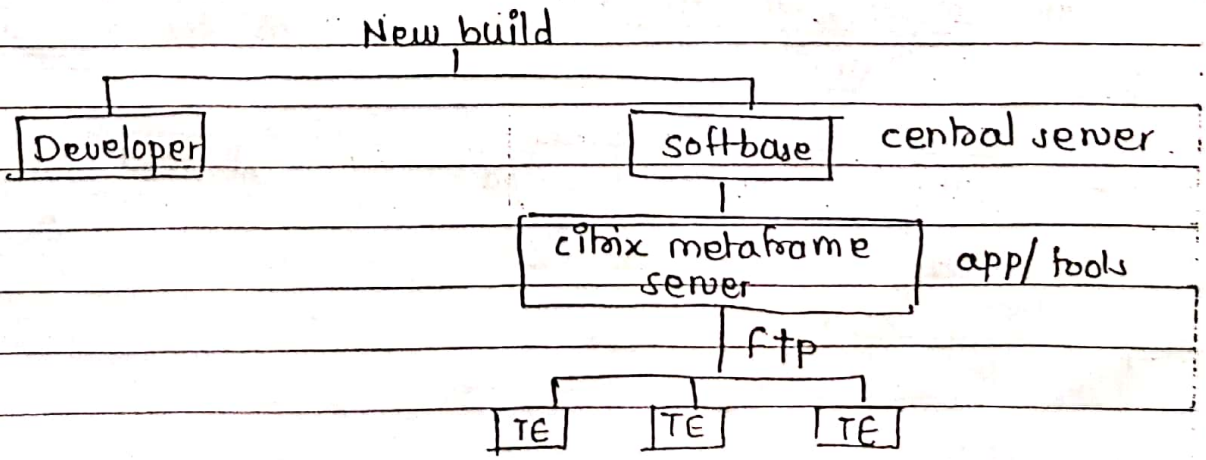
② Response xml is not generated from server



* Build Upgradation activity

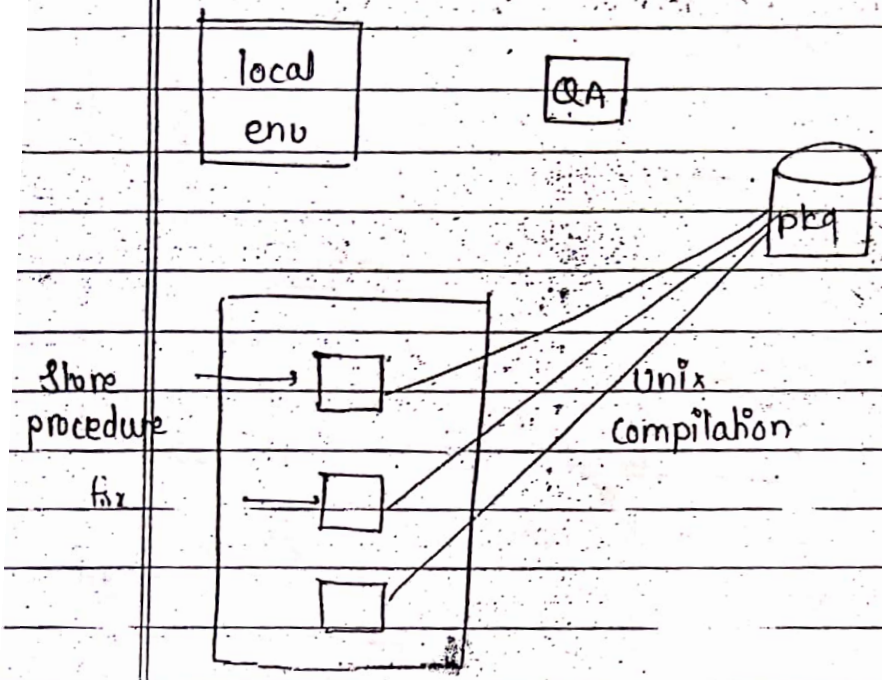
- It is a mechanism to upgrade the build from nth to n+1th version i.e 26.0 to 27.0
  ↳ new + defect fix

- Once the developer puts the build at central server i.e. softbase /172.21.23.24 we request the platform team for upgradation activity
- During this time they compile all the object by creating package mechanism (done by platform team



PAGE No.
DATE / /

*** Packages



- Package is a schema object which is responsible to club all the (PL/SQL i.e. relational DB) tables, variables, constants, schema, cursor

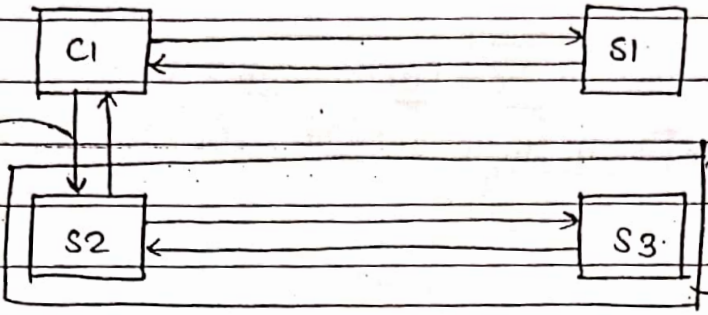
- Platform team compile all the packages using UNIX commands

- After compilation some valid as we as invalied object are created. After this the platform team share those file with us

- We have to analyze the log file of 'Invalied object'

Traditional project → dev + testing at one end & all other SDLC phases

off the shelf project → testing only at one end, remaining SDLC at some either end.



Pkg 1 though I am testing S2, S3 but pkg 1 is precondition for testing S2

If this is not compiled then we must ask platform team to recompile

- If it needs to be validated we request the platform team for recompilation.

The focal point is we have to identify which package needs to be valid and which needs to skipped.

* ~~SANITY~~ Smoke TEST

It is also called as 'level zero test' or 'tester acceptance test' (i.e. we should accept that this test is eligible for testing) or 'testability test' or 'Build verification test' or 'Health checkup test' or 'octangle test' or 'Initial test'

Testing	Testability
DB is accessing slow	DB is not connected (i.e. it must be capable for testing.

PAGE No.
DATE / /

~~Sanity~~ Smoke

- During this test we validate the stability of the build
- I mean to say whether the appln or the build is ready for testing or not
- duration ≡ one buiness day

ear
mouth
Brain
Heart

→ all there functionalities will be tested using a single question This is nothing but sanity.

- Sanity will be performed only when new build comes. In case if any build release is done throght the week done to blocker defect the sanity is not done in this case
- all core facilities are absolutely static
- During sanity test we concentrate on basic / core - functionalities of the appln

Que. Do you write test case during sanity?

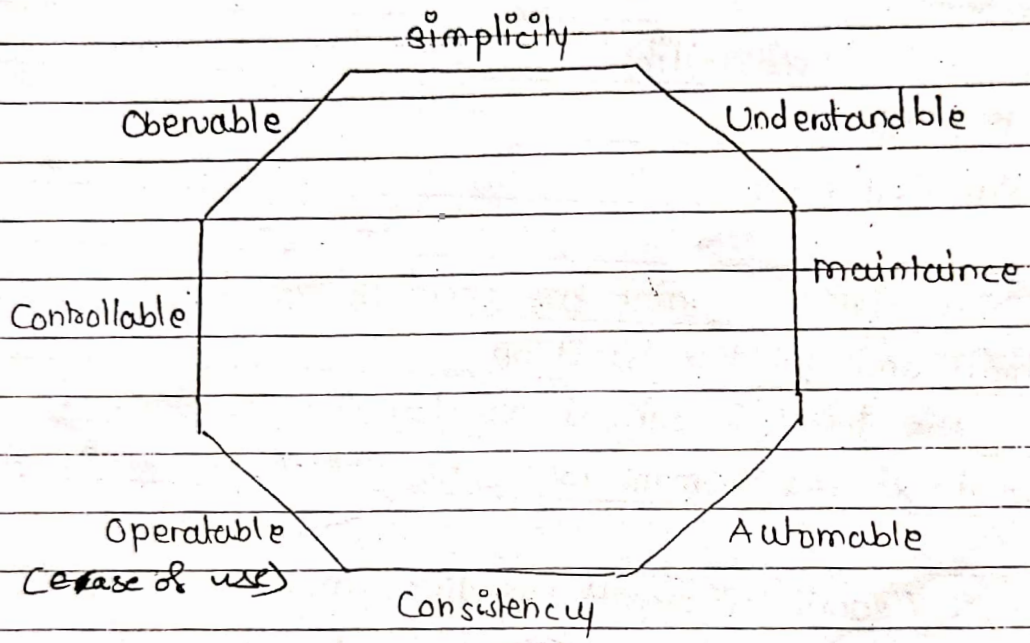
→ Practically the answer is 'no' Due to time contraint it is not possible to perform both the activities TCD & TCE
only we perform the test execution
(test cases are not written every time as the core functionality is absolutely static)

As the core functionality of any application is absolutely static (it is not dynamic) hence we design the test case during initial phase of the application

PAGE No.
DATE / /

I mean to say we only concentrate on test case execution But share the test case as well as execution report to the client

* Octangle testing
8 angles are there in this testing



* Prime testing done during SANITY
1. Interface validation
2. Core priority functionality
3. All page navigations
4. All hyperlink accessibility
5. Security
6. performance
7. System integration / component integration

PAGE No.
DATE / /

Que Do you register the defects related to sanity?
Basically during sanity testing we get environmental defects as maximum
As build moves from one env to another env, defect is considerable effect

Environmental defects
1. Hyperlink accessibility
2. DLL file missing
3. Run time error

due to time constraint we circulate the defect via email and get the fix done
- if the defect is critical we log the the defect in the defect management tool (Ex: HPALM, MTM, Bugzilla)

Report (sanity test report) (sending email to the client)

To:- client, test PM, dev PM, BA, DM, SPM
cc:- test Team, Dev team

Sub: Sanity test report of R 3.0_BOA_NEFT_29.Oct-2018

Hi all,
Please find sanity test report of R 3.0-BOA, NEFT-29-Oct-2018
during the test we have covered
→ Interface validation
→ All hyperlink accessibility
→ performance
→ security

→ core / basic functionality
→ component Integration
→ Tab validation
→ Page navigation

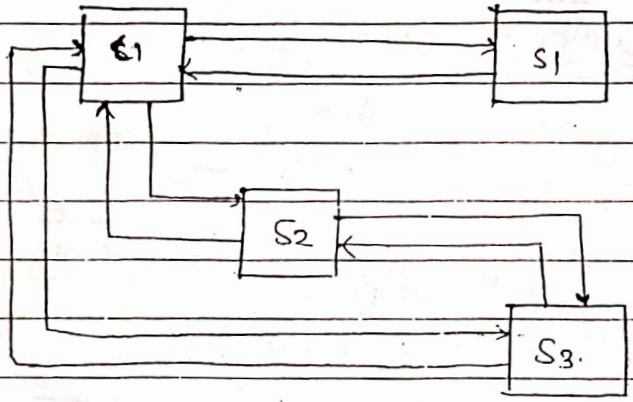
During the test we identified 3 defect

defect id : 226, 228, 231

226 : major

228 : medium

231 : lower



C1 - S1 ⇒ Request
S1 - C1 ⇒ Response

C1 - S2 ⇒ Request
S2 - C1 ⇒ Response

S2 - S3 ⇒ Request
S3 - S2 ⇒ Response

S2 - C1 ⇒ Request
C1 - S3 ⇒ Response

If any one of this is not working then sanity is suspended

PAGE No.
DATE / /

please find the log file for system integration

Thanks & Regards,
Priyanka Chavan
mob no

Attach log file of xml request & response

1** ~~Smoke~~ Sanity TESTING (identify the issue)

Que. What is the diff bet^n the smoke & sanity testing?

Smoke = Sanity + Troubleshoot

- During this test we try to troubleshoot when one build would not work
- I mean to say if we face any issue during execution we have to identify that the object belong to which language Package
- Elaborately the package validation is the core objective of smoke test

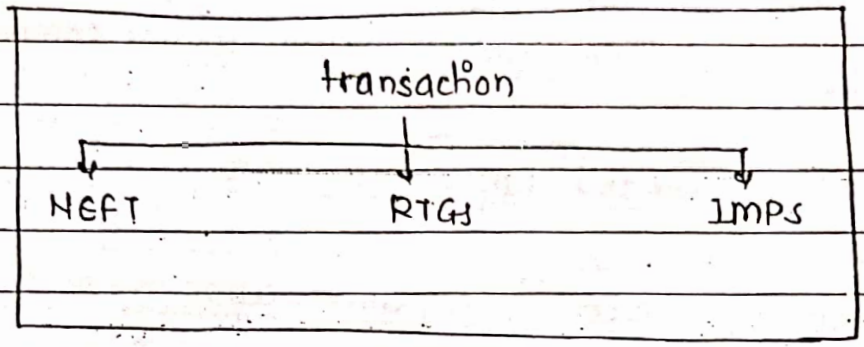
1* BIG BANG TESTING / INSPECTION / INFORMAL / WALKTHROUGH

- One big shot from start to end is tested critical functionality is tested
- It is also called as 'Informal testing'
- Big bang testing means one big task from start to (Bottom) end.
- This testing is basically conducted after the completion of entire system development (dev - testing)

PAGE No.
DATE / /

- One big task means one major or critical functionality to be covered from start to end

Ex. Banking appln



Account creation
↓
Add beneficiary
↓
View Beneficiary
↓
IMPS transaction
↓
acknowledge

End to end Big Bang testing is done by test engg only

we are involved in this.

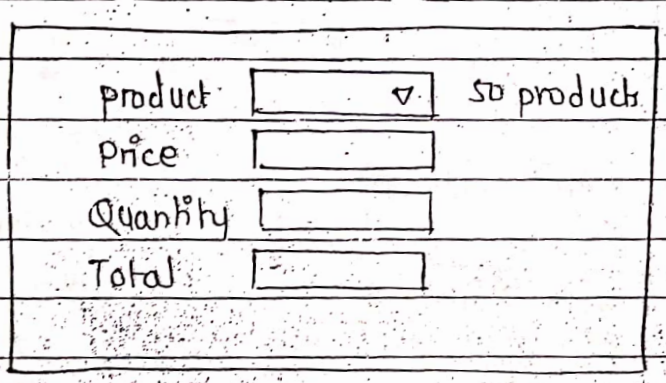
- This is also called as 'Formal testing'
- This testing is performed from unit level to system level

PAGE No.
DATE / /

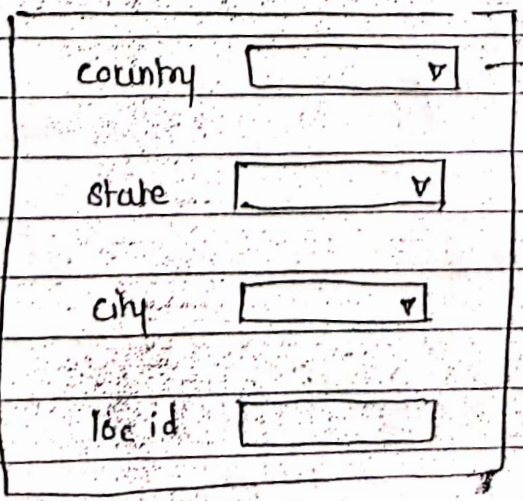
Manual Vs Automation

Que Why have you preferred automation ?

→ - In common testing practice we prefer to automize the appln wrt test impact and criticality
- Impact means repetition and criticality means complex to apply manually
- Whenever the repeated approch is there then only we can apply automation
- In the retesting process & regression approch, re-execution is common factor



- Hence during retesting & regression automation is a very suitable approch.
- data driven test or parameterization



Here for automization Put all data in exel sheet

A	B	C	D
country	state	city	loc id

Write query :

If A = B and B = C & C = D

pass

else

fail

- Silk is fastest automation tool (Javabased)
- catalon studio

The script which is written on automation tool is known as 'test script'

Selenium - java script

min runner - c script

Script

```
Select - item (country)
'country' = x
check - select - item (state)
    State = y
    if y = Enabled
    test is passed
    else failed

Edit - text (city)
'city' = z
```

← Text script languag (TCL script)

PAGE No.
DATE / /

```
Edit_text (Locid)
    locid = A

if  A=B
    text is passed
    else
    fail
```

event - response
Event - response } Check points
Event - Response

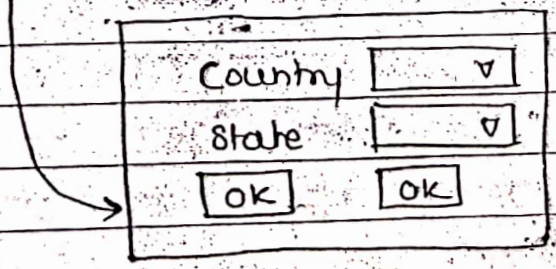
Que. Sometimes some objects are not recognizible by the script then what do you do?

→ Then we write a script for that object and that script assumes that object as dropdown

DOJ [ ] [cal] → object

Que. How the system recognize two or button?

→ ms WID (microsoft id no) is used for each ok button



PAGE No.
DATE / /

- Advantages
  1. less resource utilization
  2. to avoid human errors
  3. save time
  4. less cost

- Disadvantages :-
  1. No entry zone for DB
     (No authority to access DB)
  2. Appln should support the script
  3. System integration can't be done
     (automation only supports ID appln i.e standalone appl's)

Que: What is diff beth the 9i, 10g, 12c ?

→

Orade	9i	10g	12c
	internet	grid	cloud

Que. Http & Https diffs

→

http:// www. BOA. com

https:// www. BOA. com → domain
secure ↓ ↘ company name/org code
world wide web

Que What is sql injection ?

→ - it is used for hacking purpose
- Multiple i/ps to the DB will be there
- One condition obeys true and rest of the conditions are considered as false

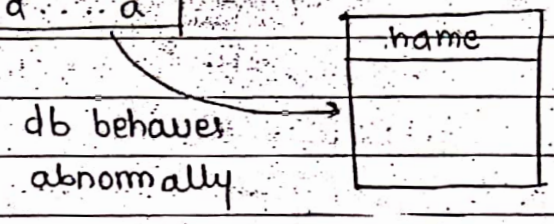
- This true condition has the authority to access the DB

sql buffers overflow

- The space in the DB for objects would be defined in FE

size must be 5:

Name ; aaaaa....a

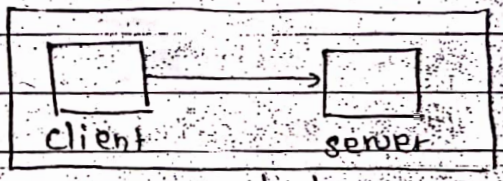


If end user enters huge amt of data it might hit the DB.

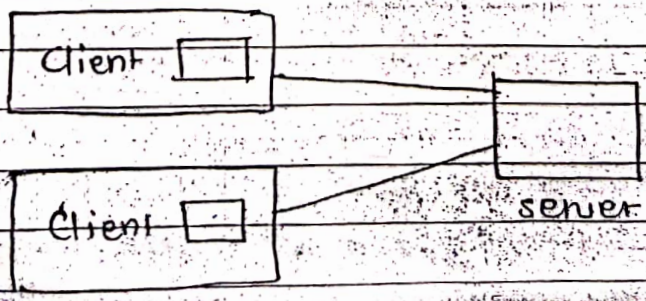
Application Architect / Frameworks

① Stand alone architect

client and server is in the same system



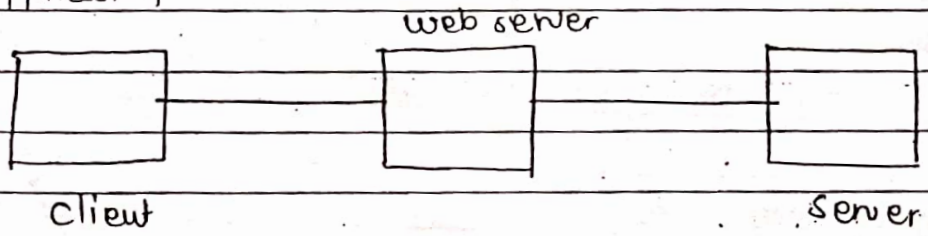
② One tier application



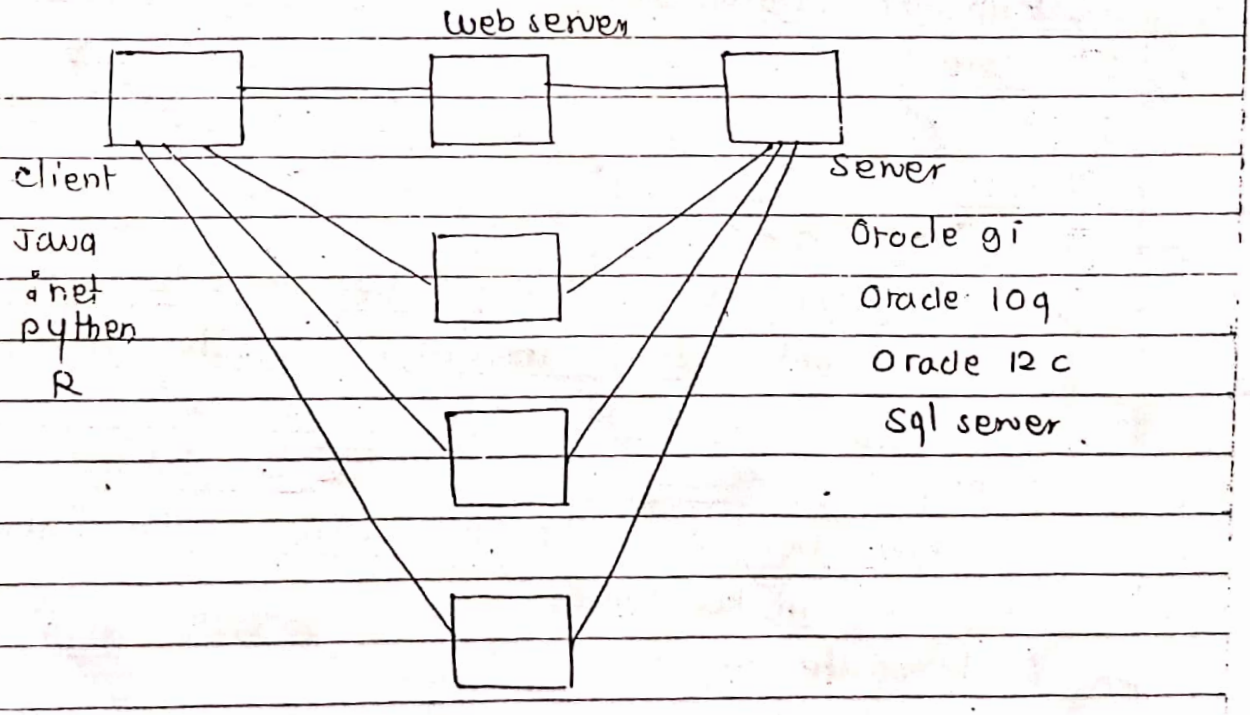
When client & server is diff appln then its 1 tier application

③ Two tier application

Client and server at diff physical location then its 2 tier application



④ n - tier application



Que Which webserver are you using?

→ web logic , Apache Tomcat

→ SAAS cloud

When there are multiple web server then it n-tier architecture

Web testing (API Testing)

- Web based appln obeys 3-tier or n-tier architecture
- Performance is im (of application)

1. Performance
2. Security
3. Overall functionality
4. Hyperlink accessibility
5. Session
6. Cookies

Que What is session?

The time span for which appln becomes idle without user intervention of any web appln is called session

Cookies :-

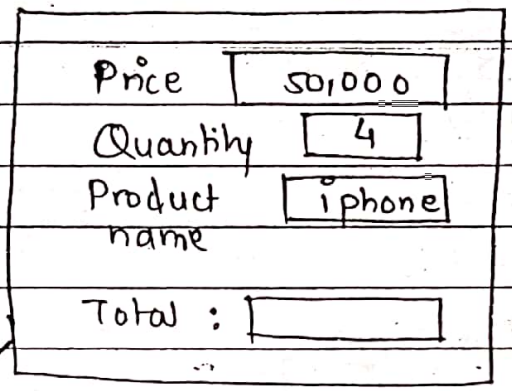
- Whenever we access the web applns the data gets stored in two places
  i. temporary server
  ii. permanent server
  This temp data is known as cookies

PAGE No.
DATE / /

RETESTING

Ex Engg backlog paper = retesting

- Test a functionality multiple times with multiple i/p data to check original character functionality (through multiple angles)



BE Total = Quantity x Price

Test data :-

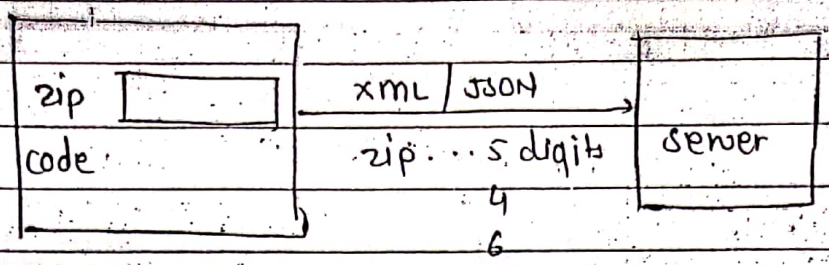
50000 x 4	+ve x +ve	
-50000 x 4	-ve x +ve	
5000 x -4	+ve x -ve	} critical defect
-5000 x -4	-ve x -ve	

- Re execution of the application on the same build or appln with multiple test data. to validate the functionality of the application is called as retesting

- I mean to say, the main objective of retesting is to identify the behaviour of the appln

Ex. System integration
zip cod (5 digits)

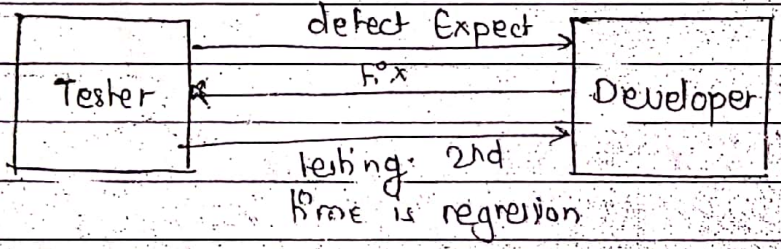
Ex.



test data
- <zip> 11111 <zip> - succes
- <zip> 234 <zip> - failure
- <zip> 123456 <zip> - failure

** REGRESSION

Regret + Action

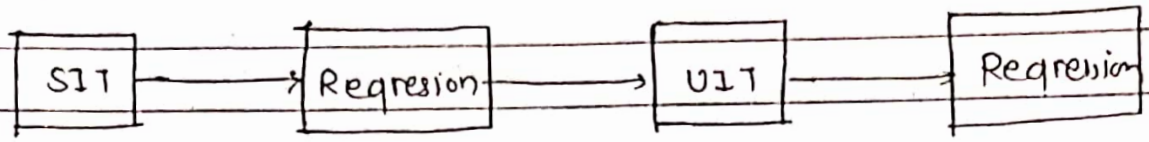


- Re-execution of the appln on the modified build to check bug fix work and occurances of side effects

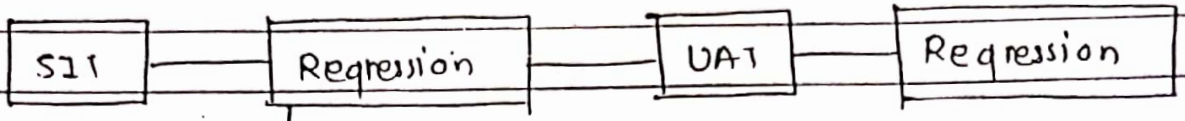
- I mean to say during execution if find any defect we send it to developer. Developer will fix the defect once the fix get done they send us the modified build

- Once we receive the modified build we re execute that modified build to check bug fix work and occurances of side effects

- In general regression testing is done twice in every testing life cycle



- One is dueing comprehensive test and other is after SIT completion



→ Test cases are not written here
→ only there defects found in SIT are Tested by taking test case from SIT team
→ High priority test cases
→ Newly added scenario
→ Dependent test cases (if time permits)

Regression team collect the failed test cases from SIT they concentrate on below factors

1. SIT failed test cases
2. High priority test cases
3. Newly added scenario (if time permit)
4. dependent test cases

Regression team never writes test cases, they only collect test cases.