

Requirement

A - Z

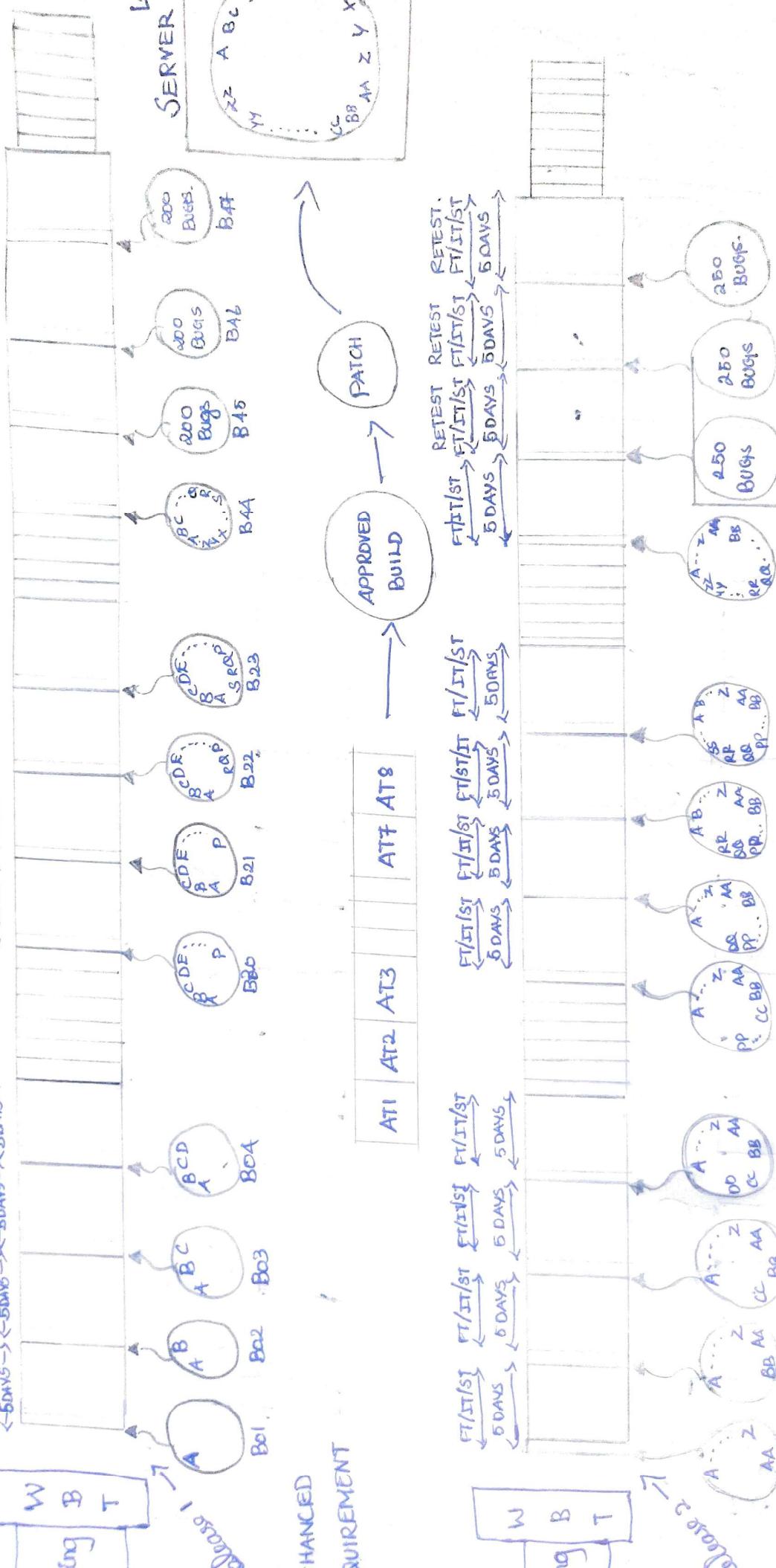
W B T

Requirement

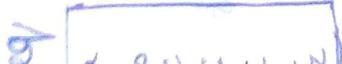
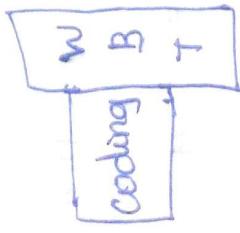
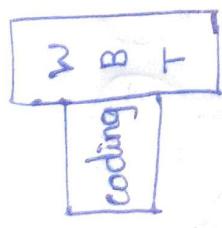
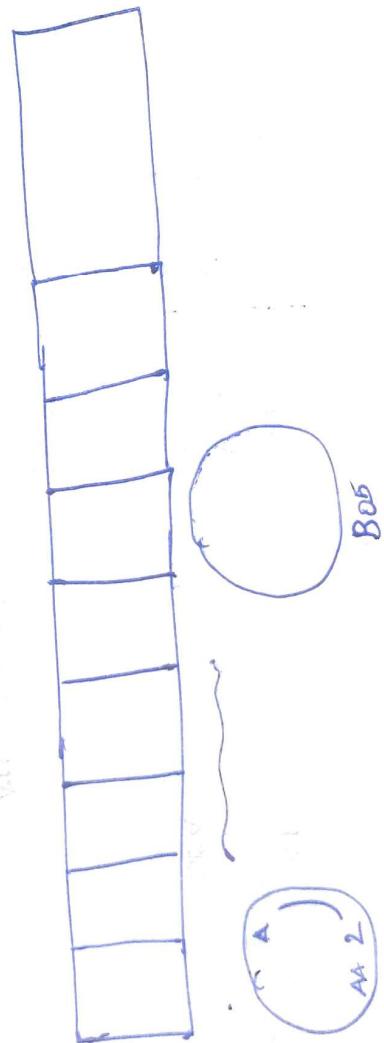
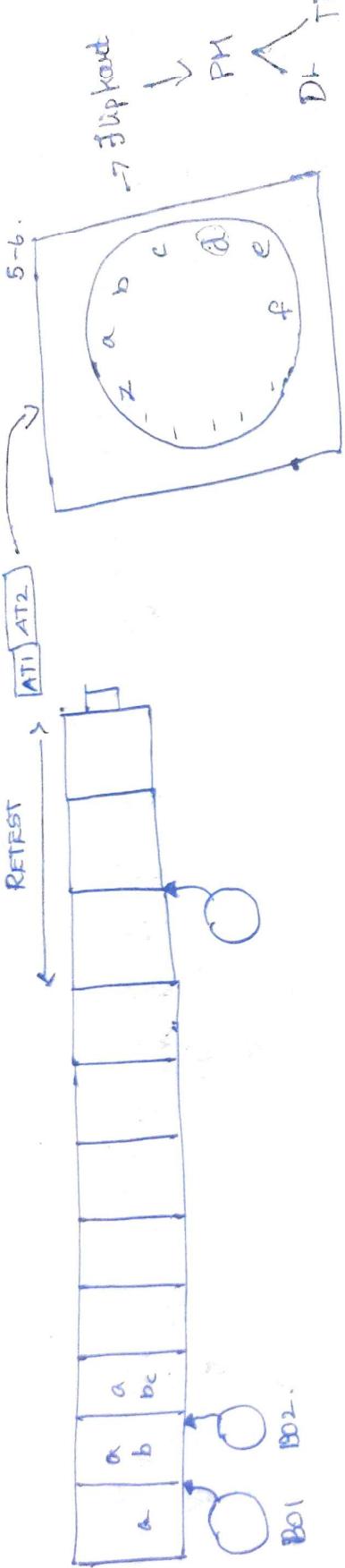
HANCED

Assembly Done For Agile Methodology

| AT1 | AT2 | AT3 | AT4 | AT5 |
|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|-----|



Hot Fix / Incident Management



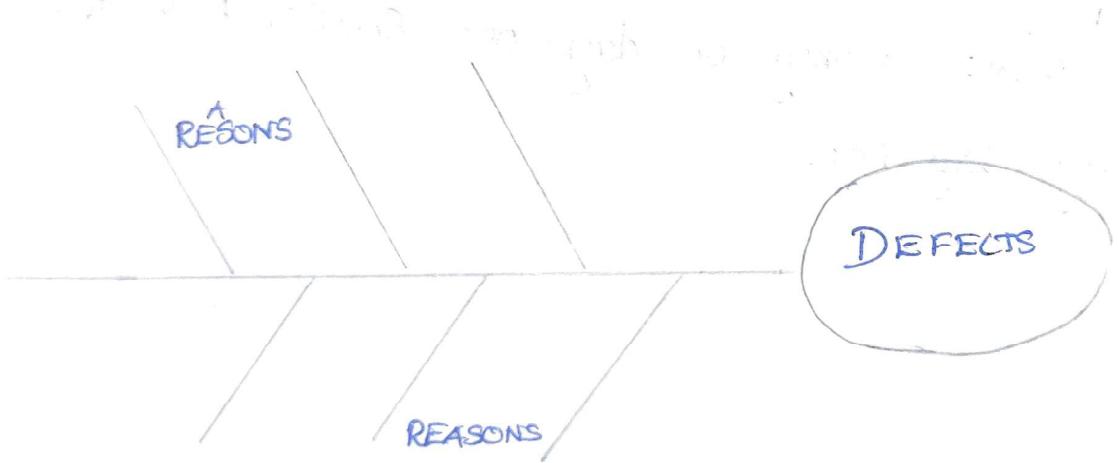
HotFix / INCIDENT MANAGEMENT:

Definition:-

Fixing the bug in the application which is already used by the End Users and fixing the bug immediately is called as Hotfix or Incident Management.

RCA (Root Cause Analysis) :- / Fish Bone Method/

ISHIKAWA METHOD:-



Why do we call it as Ishikawa Method?

A Japanese Guru with Name Ishikawa used it to love fishes after his death they named this method as Ishikawa method.

DRAWBACKS OF TRADITIONAL WAY OF SOFTWARE DEVELOPMENT:-

DRAWBACKS:-

* Customer gave requirement on day one, will not be in touch till the product is delivered.

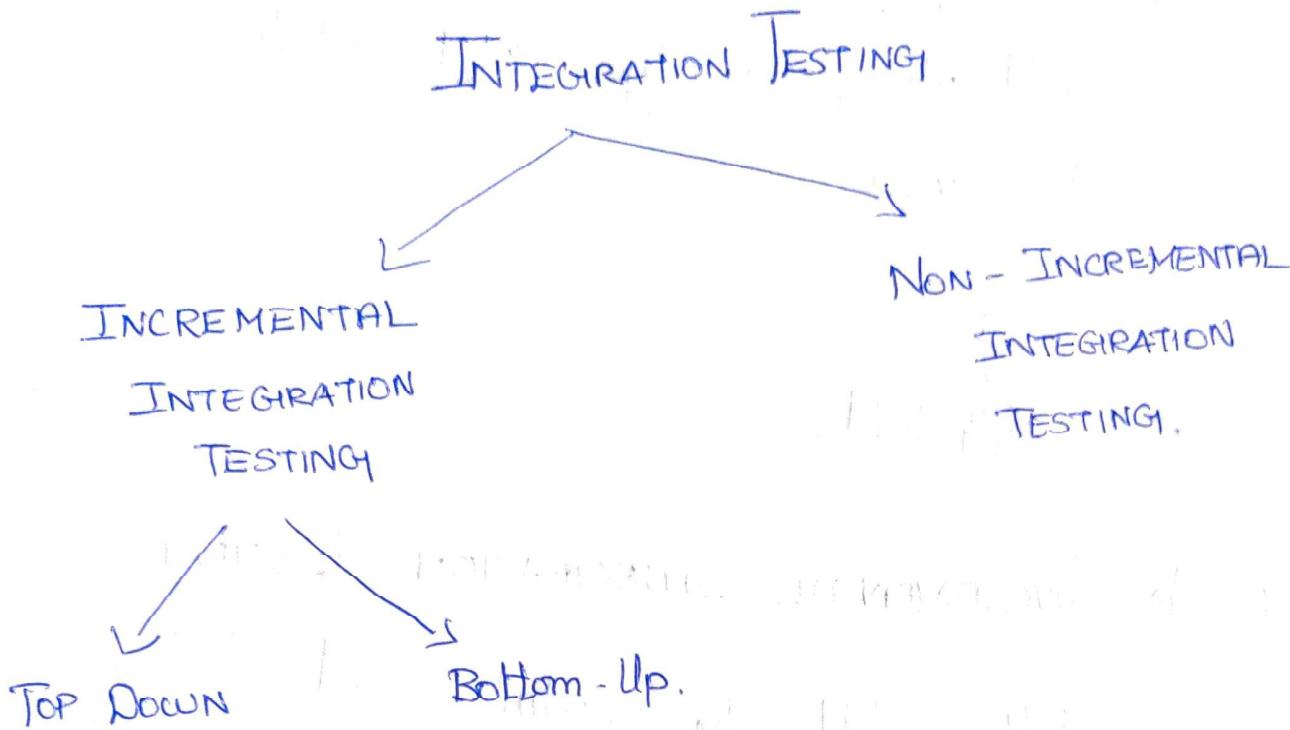
* One release might take anywhere between 10 to 16 months, In this time period customer's business might change.

* Won't make people responsible.

* Customer invest money on day one should wait for return for very long time.

29/09/2020 (12:30pm - 2:30pm)

INTEGRATION TESTING!

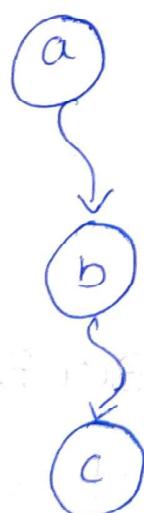


INCREMENTAL INTEGRATION TESTING:

Incrementally Adding the
data flow between modules

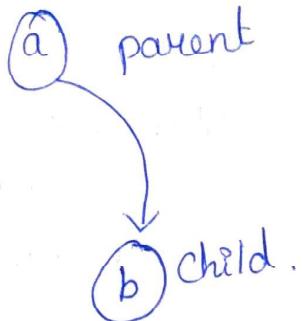
Integration testing

modules, and check the
is called as Incremental



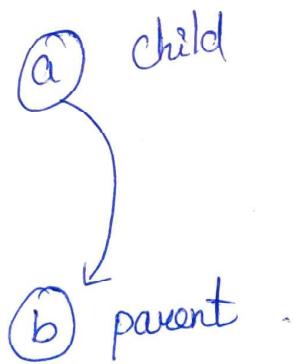
TOP DOWN INCREMENTAL INTEGRATION TESTING.

Incrementally add the modules and check the data flow between modules, make sure that newly added module is child of previously added module.



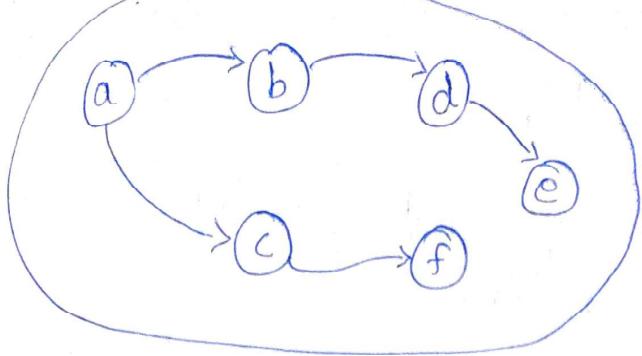
BOTTOM UP INCREMENTAL INTEGRATION TESTING

Incrementally Add the modules and check the data flow between the modules, make sure that newly added module is parent of previously added module.



NON - INCREMENTAL INTEGRATION TESTING / BIG BANG METHOD.

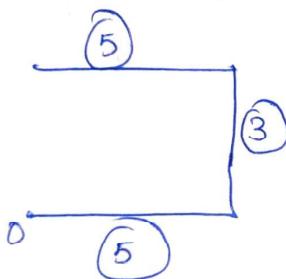
When we are not able to find which is child and parent module then they will go for non-incremental Integration testing.



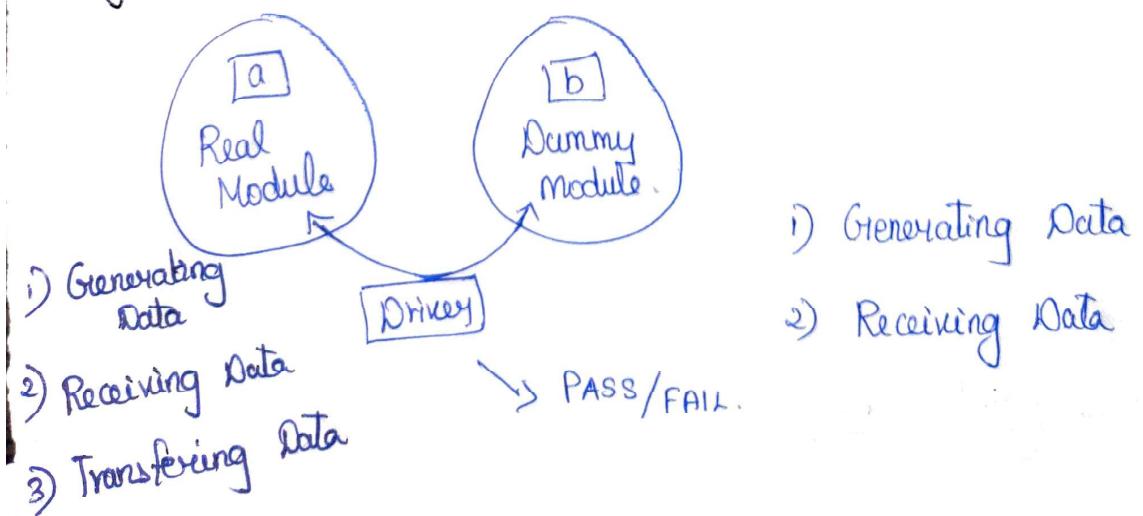
Take All the modules at a time / shot and they will check the data flow between modules

DRAWBACKS Of Non-INCREMENTAL INTEGRATION TESTING:

- * Chances are there we might miss the data flow between we miss lot of bugs.
- * If we find a bug we might not find what is the root cause for that bug.



Q) How will you do Integration testing if Only One module is given ? or Tell me about stub or Driver?

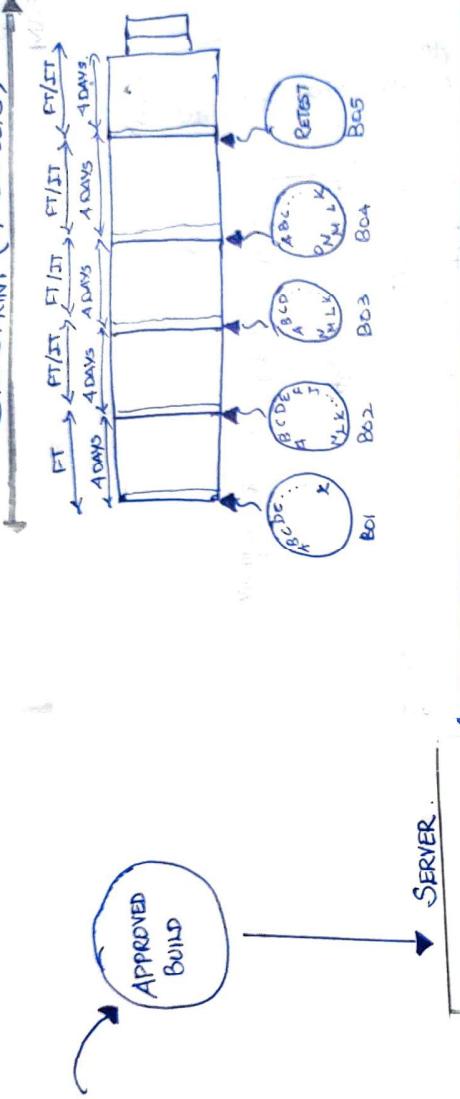
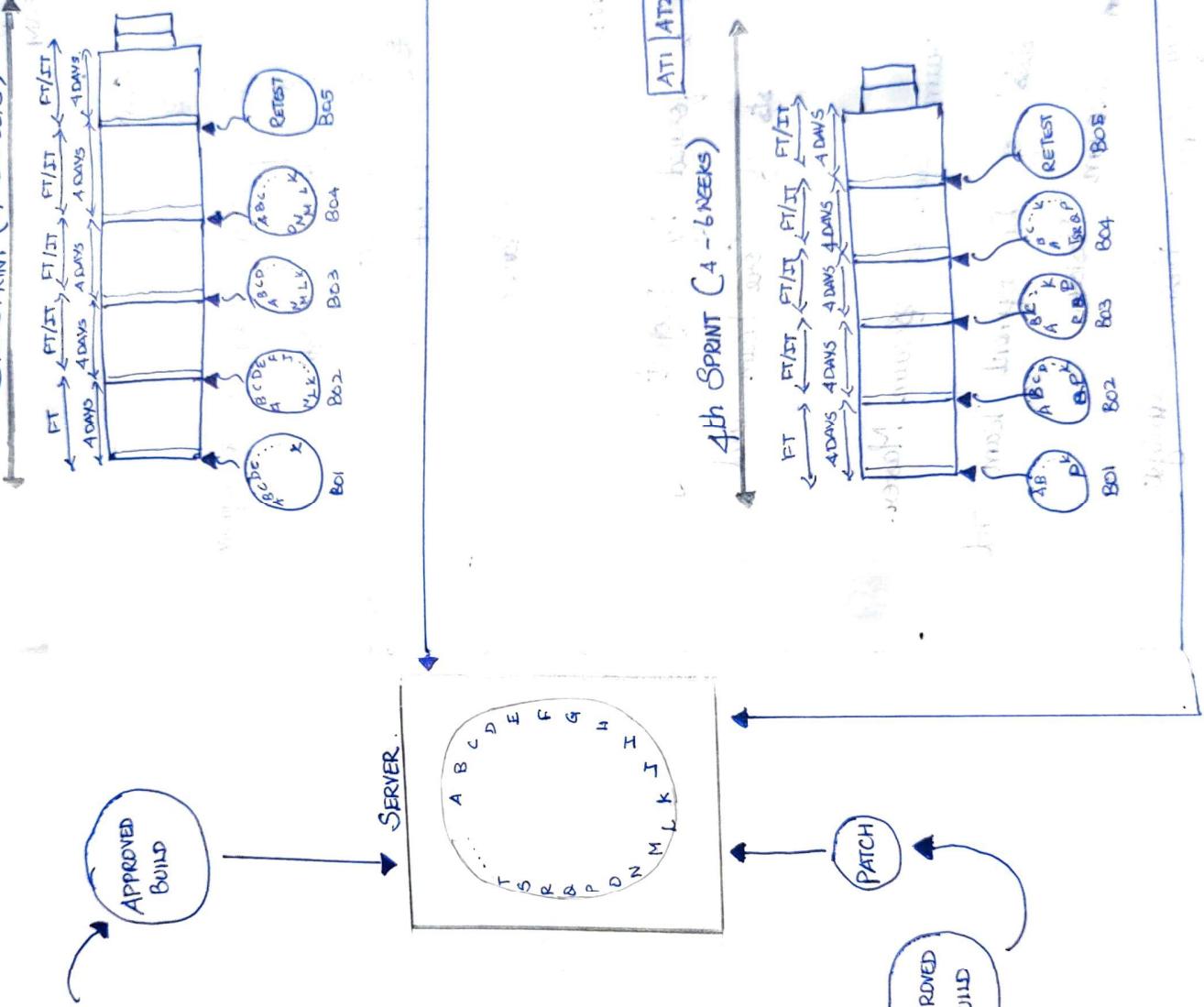
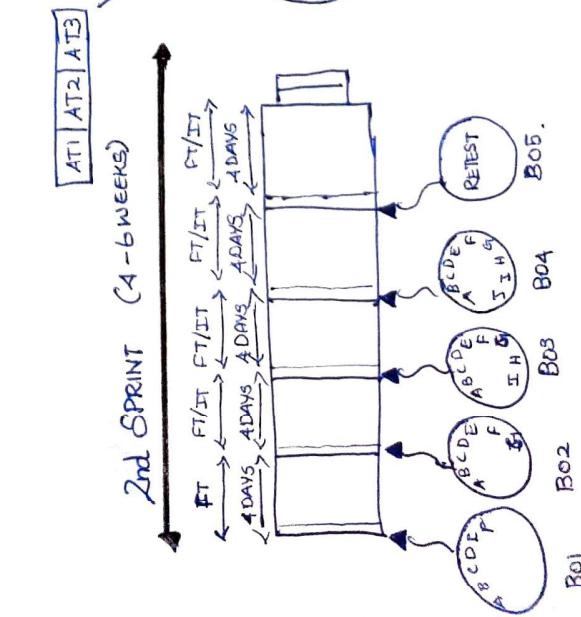
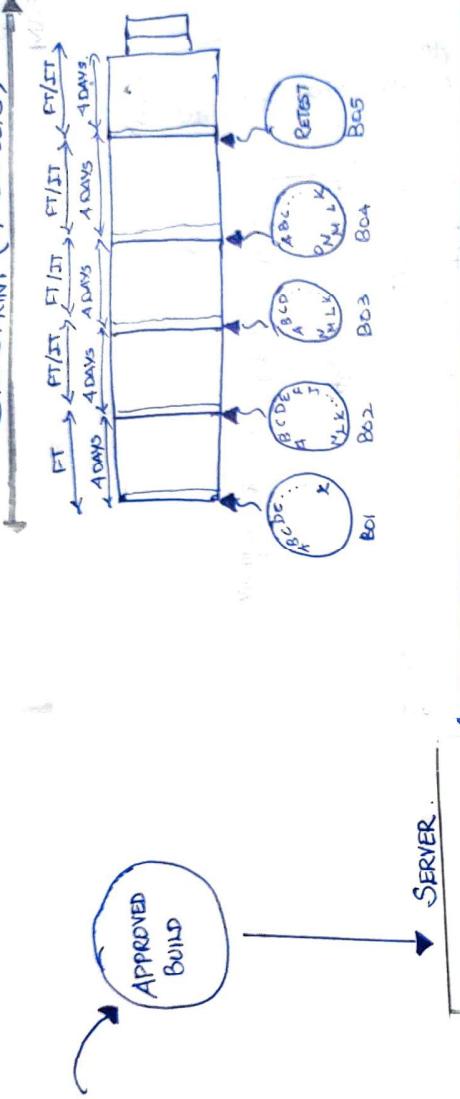
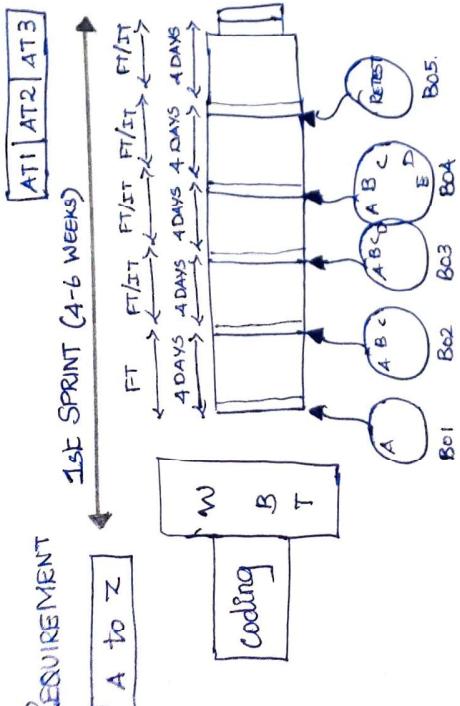


- If it is a dummy module, It is Capable of generating data and receiving the data.
- But real module is Capable of generating the data, receiving data and transferring the data.
- Hence we use driver to transfer the data between real and dummy module. Wherein driver creates environment between real and dummy module and it analyses & give the result as pass or fail.

AGILE

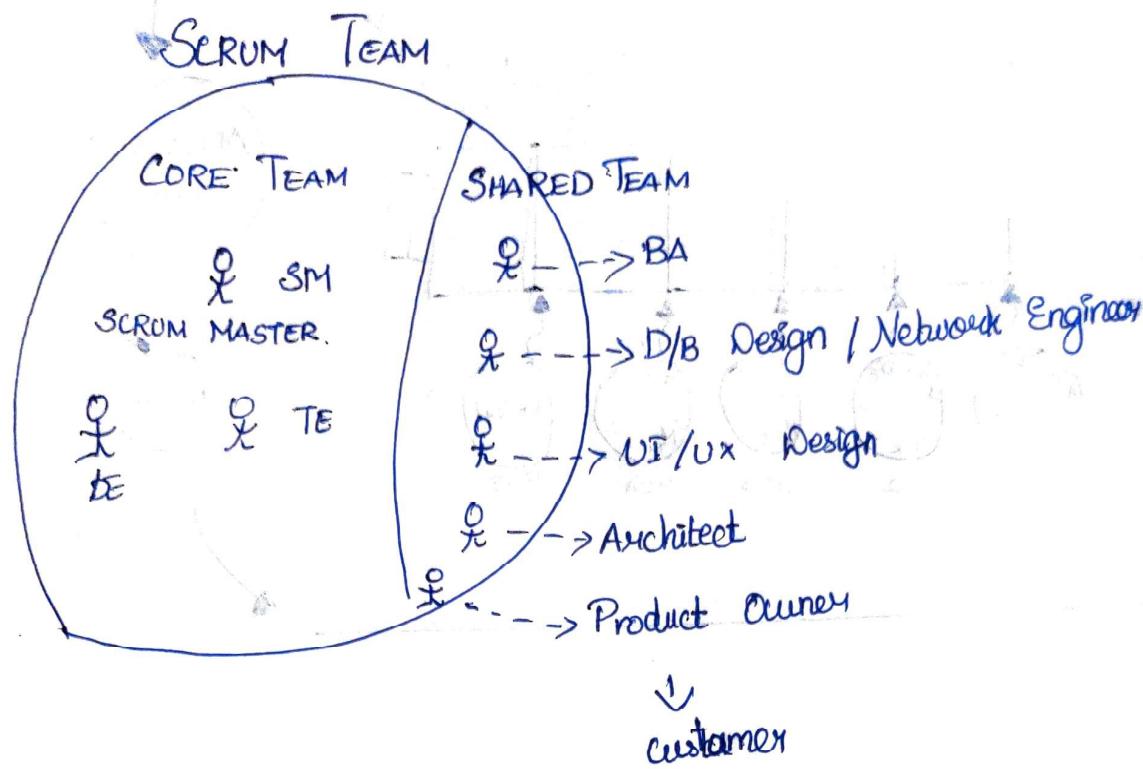
METHODOLOGY

08/2020 (12:40pm - 2:30pm)



SCRUM TEAM

STEP: 1



SCRUM TEAM FORMATION:

- * Scrum Team is formed by Project Manager.
- * Scrum Team consists of Core team and Shared Resource.
- * Head of the Scrum team is Scrum Master.
- * Core team consists of Development Team and Testing team, along with Scrum Master.
- * Shared Resource team consists Business Analyst, Architect, Network admin / DB admin, Product Owner.

PRODUCT OWNER :-

- * Product Owner acts as a Customer
- * Product Owner may be from customer's side or someone internally in the team act as a Product Owner
- * Product Owner is the One who sets the acceptance criteria.

SME OR BUSINESS ANALYST :- Subject Matter Expert

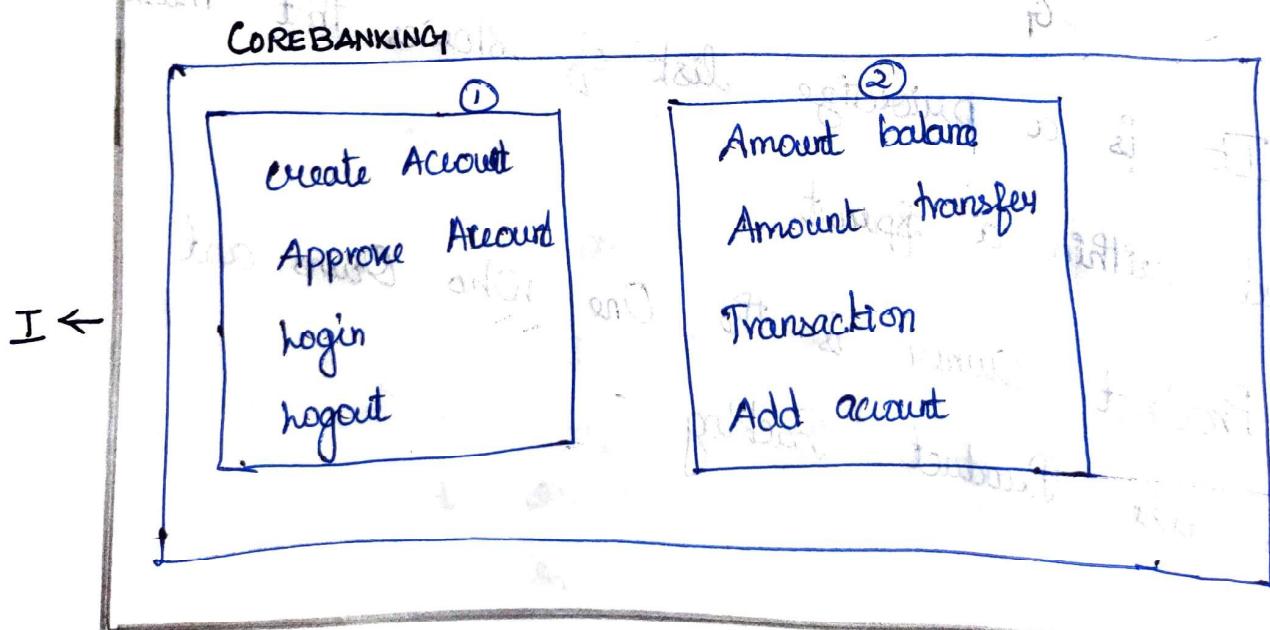
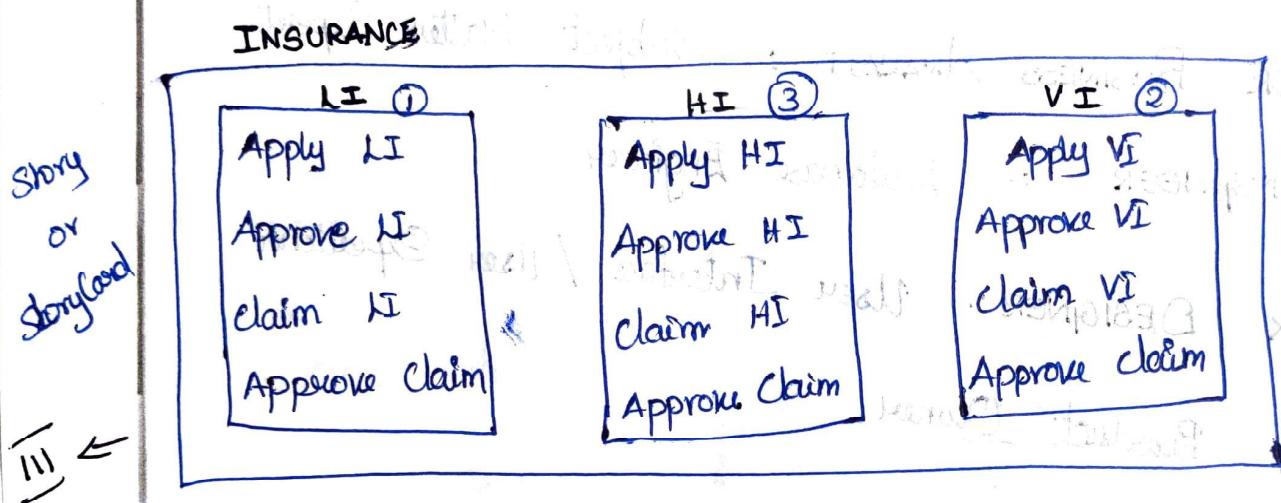
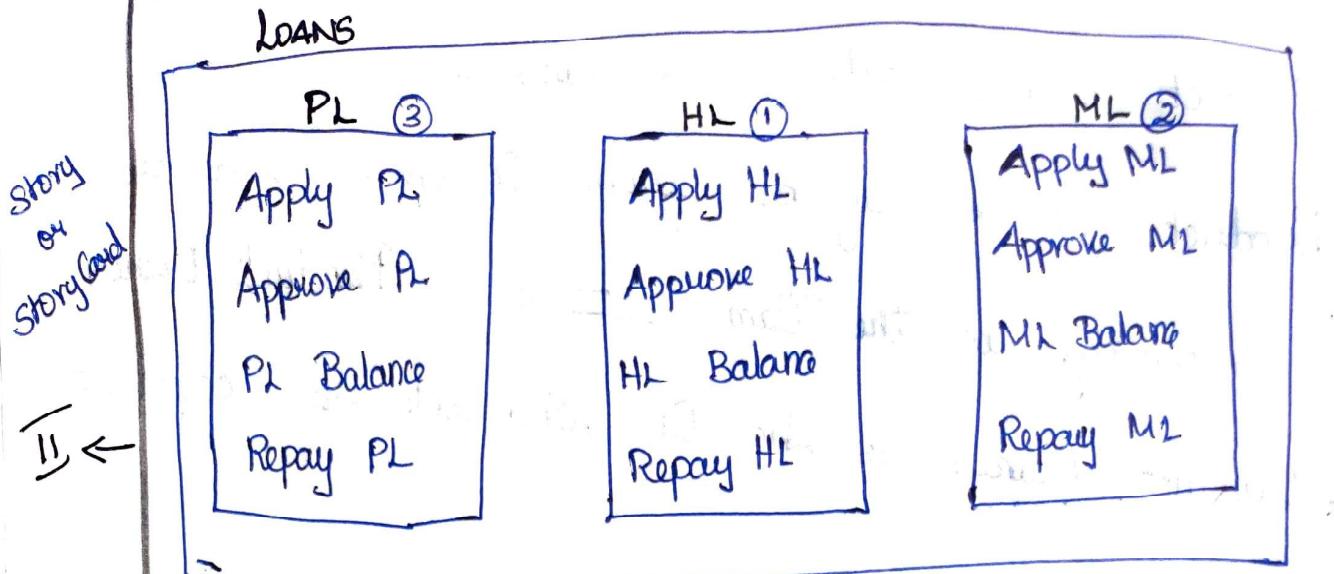
DB ENGINEER :- Database Engineer

UI / UX DESIGNER :- User Interface / User Experience

P.O. :- Product Owner

PRODUCT BACKLOG:- STEP : 2

- ① It is a prioritize list of stories that must be developed within a sprint.
- ② Product Owner is the One who owns and manages the Product Backlog



01/08/2020 (12:45pm - 2:30pm)

Notes Were Not Given But Nam Has Taken Few
Topics Today

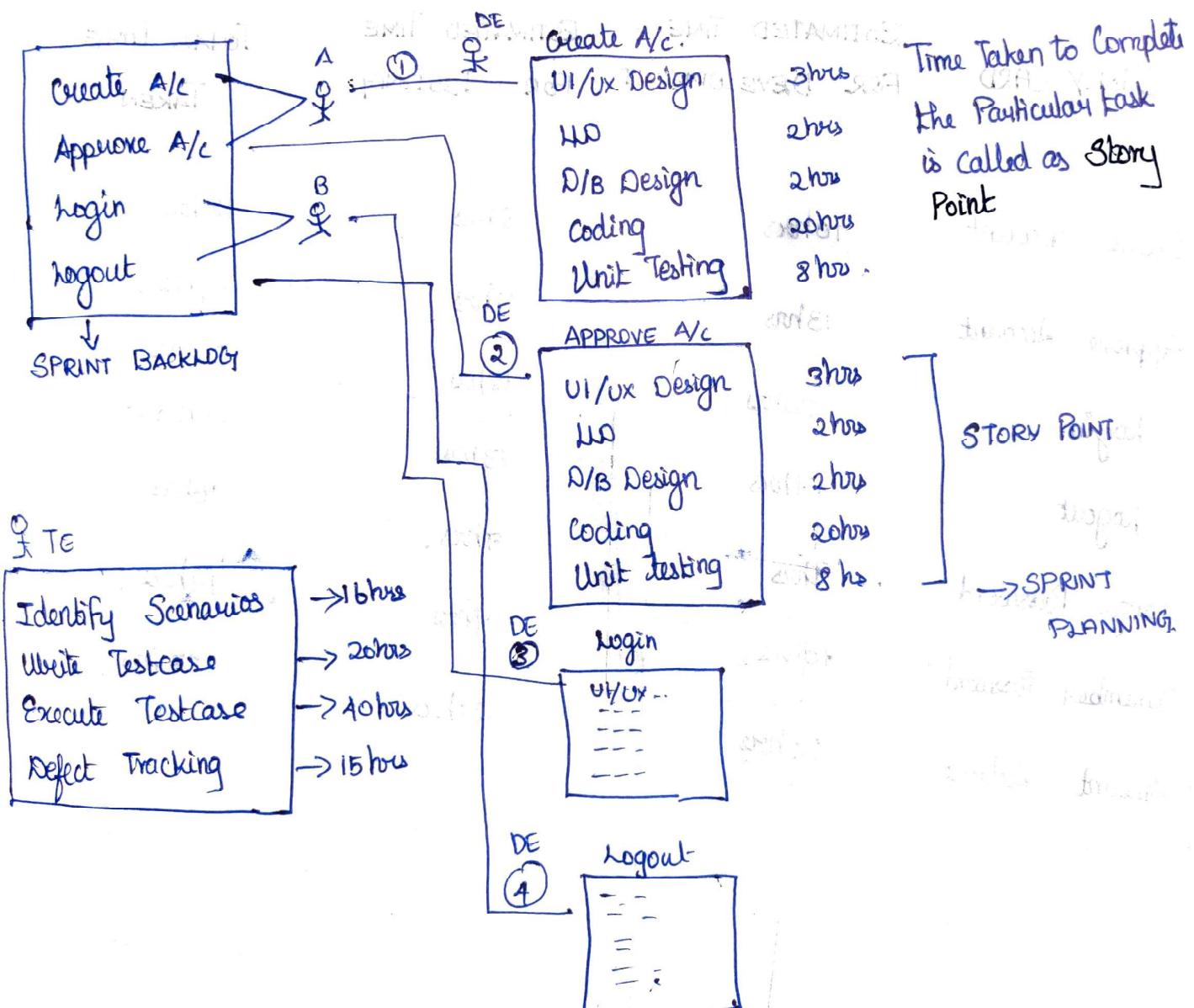
Sprint Planning Meeting

Story Point..

02/08/2020 (12:30pm - 2:30pm)

SPRINT PLANNING MEETING.

Scrum Master Assigns stories to respective Engineers.



SPRINT BACKLOG

- * Sprint Planning is done by Scrum Master, along with development team and testing team (Core Team Members).
- * In Prioritizing the Sprint Backlog, which story card should be developed first, in each build, how many Story Cards need to be developed and tested.

Note: Time taken for completing One task is called as One story Point.

| STORY CARD | ESTIMATED TIME FOR DEVELOPMENT | ESTIMATED TIME FOR TESTING | TOTAL TIME TAKEN |
|-------------------|--------------------------------|----------------------------|------------------|
| Create Account | 10 hrs | 8 hrs | 18 hrs |
| Approve Account | 13 hrs | 11 hrs | 24 hrs |
| Login | 20 hrs | 18 hrs | 38 hrs |
| Logout | 17 hrs | 13 hrs | 30 hrs. |
| Change Password | 9 hrs | 7 hrs. | 16 hrs. |
| Remember Password | 10 hrs | 8 hrs | 18 hrs |
| Amount Balance | 30 hrs | 27 hrs. | 57 hrs. |

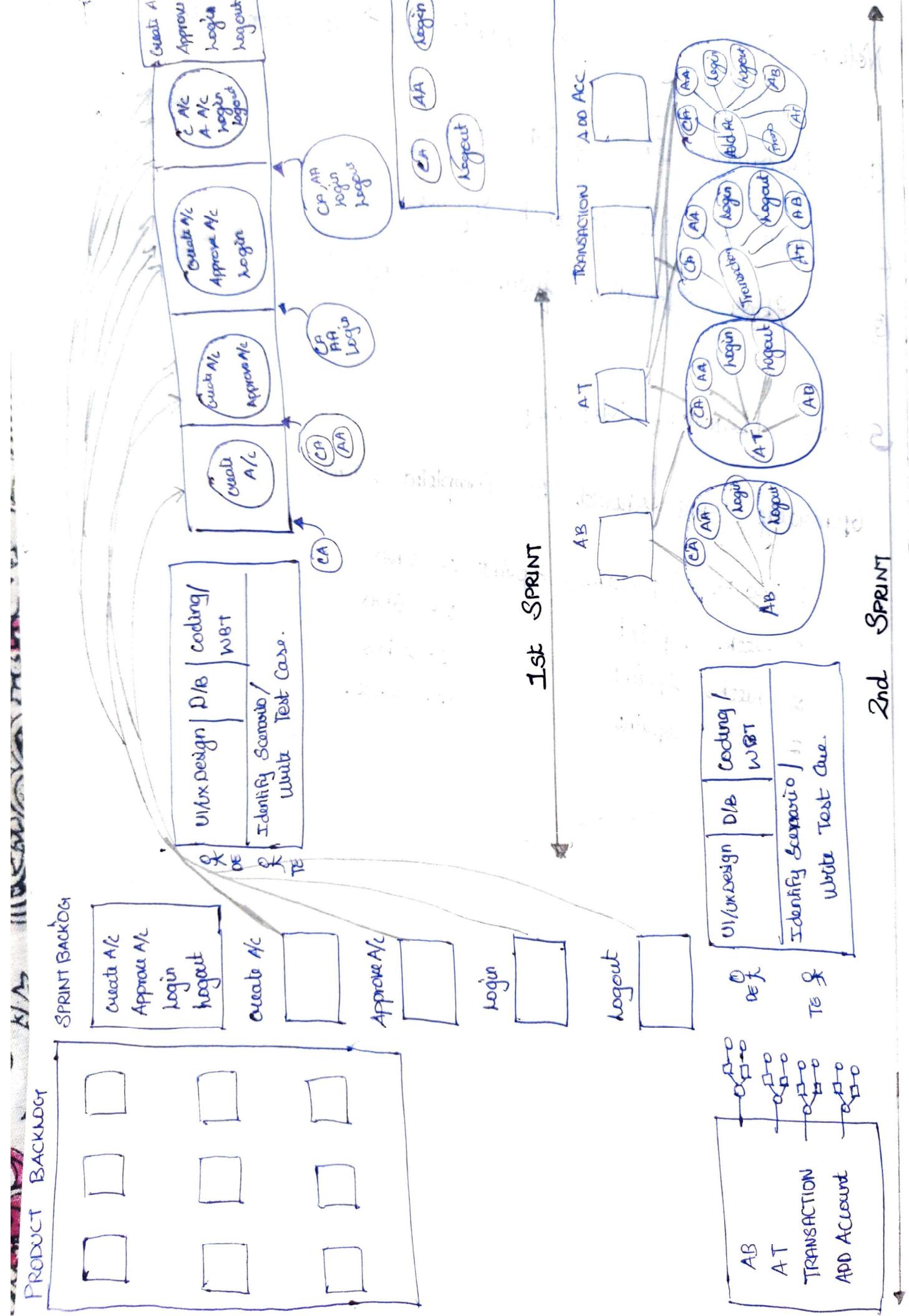
Note :- From the second sprint 1st we open retrospective
DOC

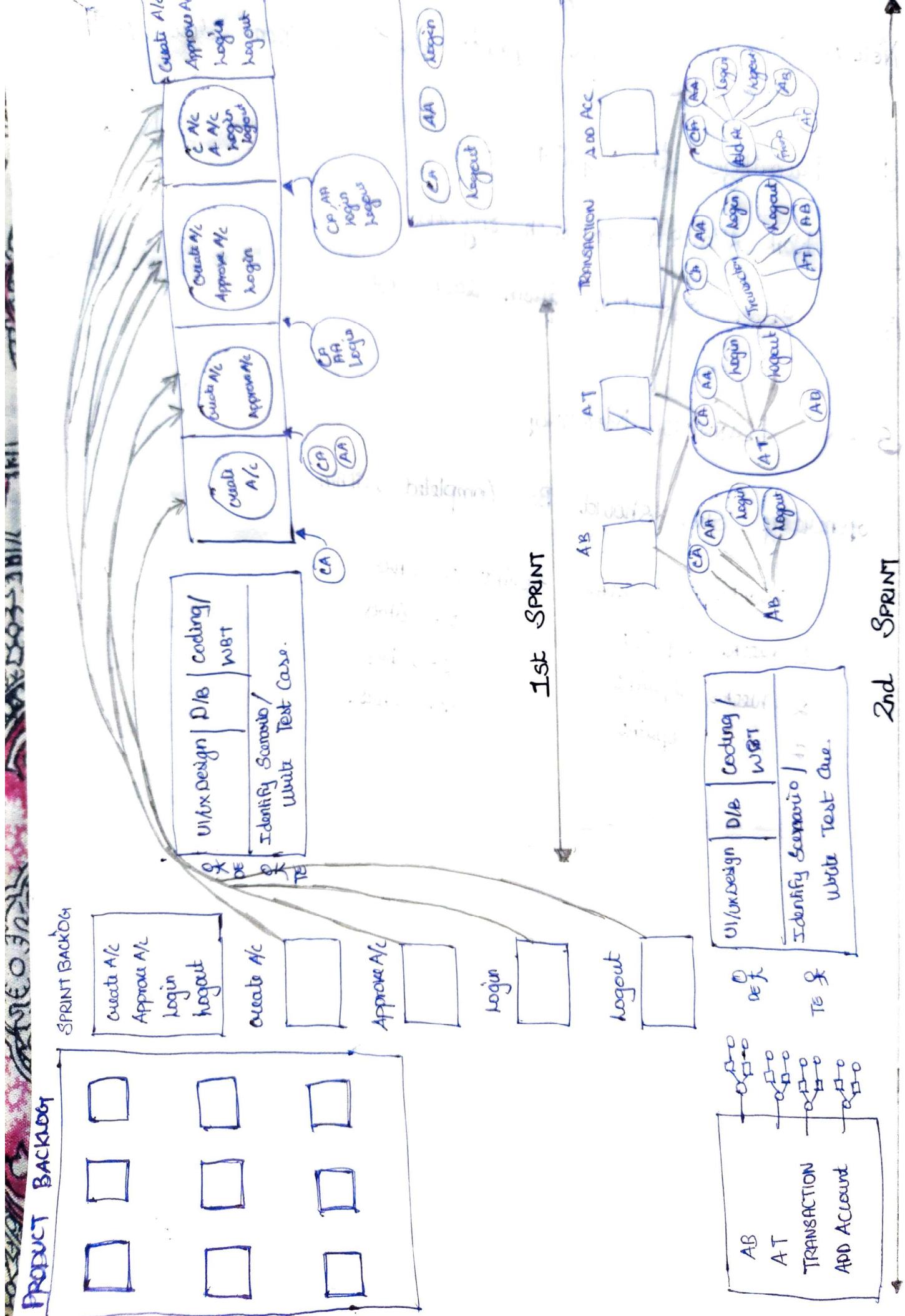
- ① Prioritize the Sprint Backlog.
- ② Work Allocation to each engineer.
- ③ Effort Estimation from each engineer.

SPRINT PLANNING MEETING:-

Generally SPM should be completed within:

| | |
|-------------------|-----------------|
| 1 Month (4 weeks) | Sprint :- 8 hrs |
| 3 weeks Sprint | :- 6 hrs |
| 2 weeks Sprint | :- 4 hrs |
| 1 week Sprint | :- 2 hrs. |

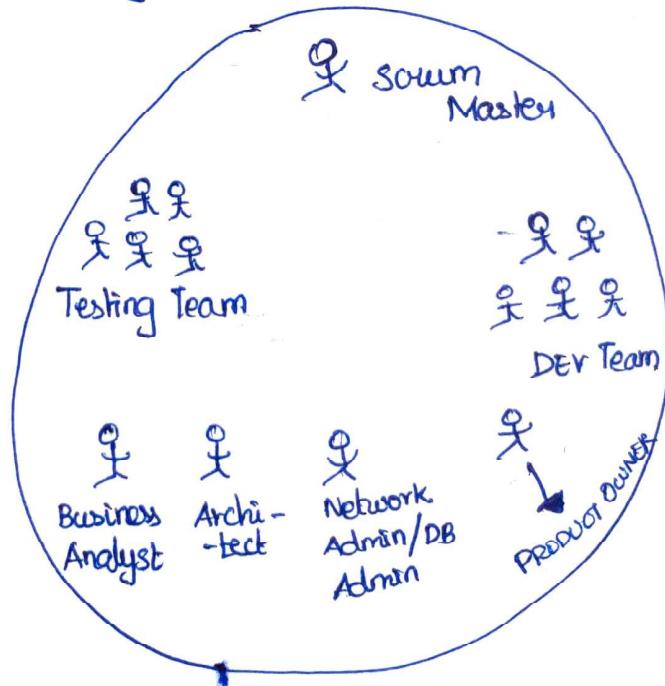




DAILY STAND-UP MEETING

- Daily Stand Up Meeting will be done usually in the morning, Daily stand up meeting will be done 15-20 mins.
- Scrum Master along with development team and Testing Team will be part of this meeting.
- Each Engineers will speak what are the story cards assigned today, what are the impediment's and what are the story card assigned yesterday, what are the impediment's faced.
- Each Engineer will speak for 2 to 3 mins, if the conversation is going longer, Scrum master will interrupt and ask to do after the meeting.
- Scrum master will make a note of all the impediments, will solve it once after meeting.

Note :- Daily Standup



STORY BOARD / WHITE BOARD

- White Board will be hanged on wall where people usually move around.
- It makes people responsible, to finish off the work on time.

| NAME | STORY CARDS PENDING | STORY CARDS IN PROGRESS | STORY CARDS COMPLETED |
|---------|------------------------|----------------------------|--------------------------|
| DINGA | 2 3 4 | 2 | 1 |
| MANGA | 3 4 | 3 | 1 2 |
| LINGA | 2 3 4 | 2 | 1 |
| MALINGA | 4 | 4 | 1 2 3 |

03/09/2020 (12:45pm - 2:30pm)

BURNED Down CHART

Create Account

Approve Account

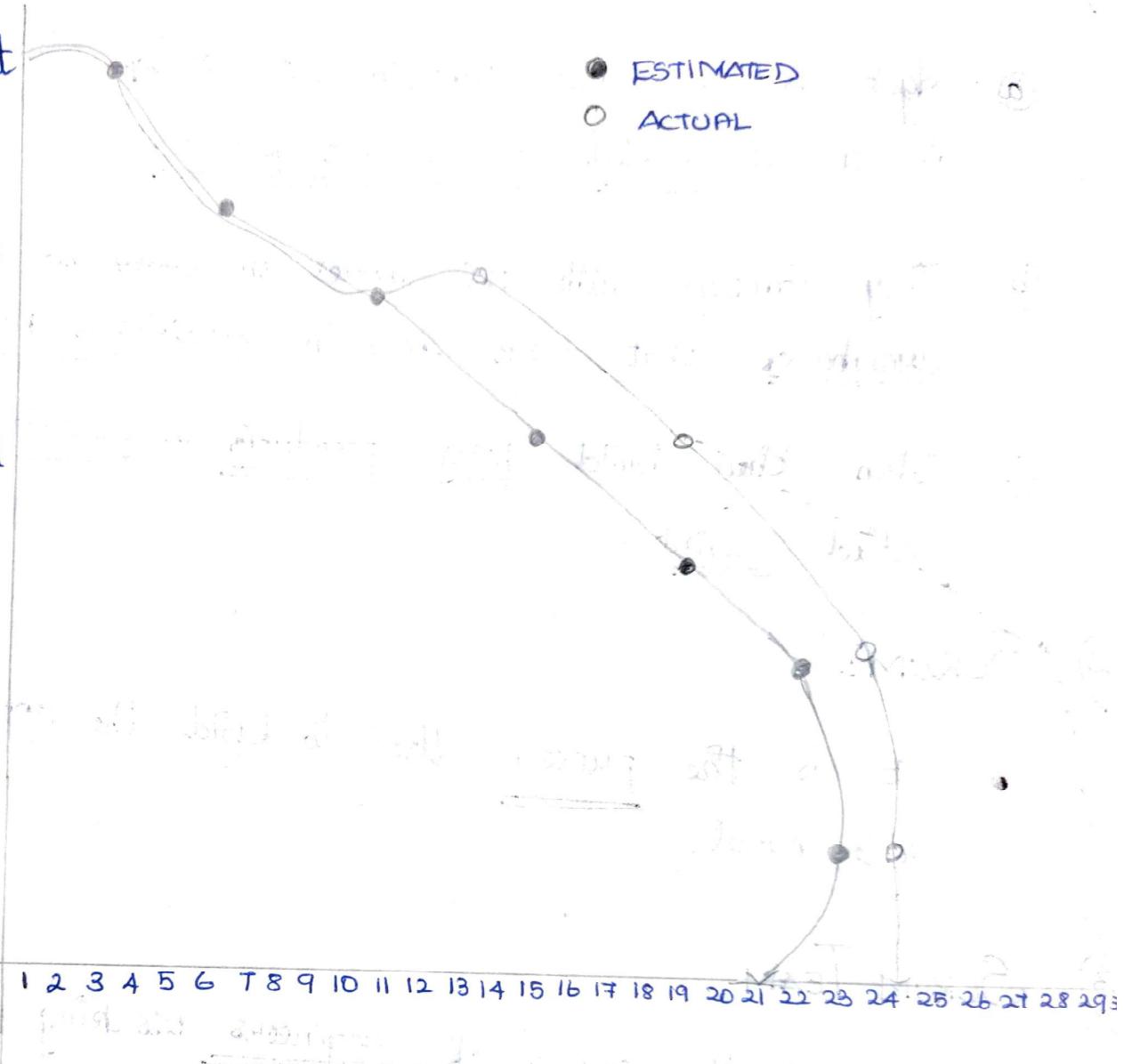
Login

Change Password

Forgot Password

Amount Transfer

Logout



It is a graphical representation of Work left out
versus time.

AGILE MODEL IN DETAIL

1) AGILE MODEL:

- ① Agile is a model wherein we develop the software in a Incremental & iterative process.
- ② They came up with this model in order to overcome that drawbacks that were there in traditional model.
- ③ Then they build large products in shorter cycles called sprints.

2) SCRUM:

- It is the process used to build the application in agile model.

3) SCRUM TEAM

- It is the group of Engineers working towards completing the committed features or stories.
- ① Generally scrum team will have 5-12 people.
 - ② It includes shared team & Core team members.
 - ③ Core team includes Scrum Master, DE, TE.

- (d) Shared team includes Architect, product Owner, DB admin, UI & UX designers, Business Analyst
- (e) Scrum master leads this entire scrum team & no facilitates everyone to complete their tasks.

4) PRODUCT BACKLOG:

- It is prioritised list of stories or requirements that must be developed in complete project.
- (a) Generally product Owners, Customers, BA, Architect, Scrum master will be involved while building it.
- (b) Stories in product backlog need not be in detailed.

5) SPRINT BACKLOG:

- It is the list of stories and the associated tasks committed by Scrum team that must be delivered within One Sprint.
- (a) It is actually committed or agreed by Scrum team.

6) SPRINT PLANNING:-

- (a) Here entire Scrum team sit together and pull the stories from product backlog.
- (b) Scrum master assigns each story to D.E & TE.
- (c) Now each engineer derives the tasks to be completed to build each story.
- (d) Each engineer estimates time taken to complete their each tasks, i.e. they derive story point.
- (e) Generally Sprint Planning Meeting should be completed within 8 hrs (2 hrs / week Sprint).

FOLLOWING ARE THE ROLES PLAYED BY DIFFERENT PEOPLE
IN SPRINT PLANNING MEETING:-

① SCRUM MASTER:-

- (a) This complete meeting is driven by Scrum Master.
- (b) His prime role is to facilitate the complete meeting & co-ordinate between all stakeholders (relevant people).

EXAMPLE:-

- Ⓐ Getting Architects Support to the developers.
- Ⓑ Getting Product Owner's support to testers to understand the requirement.

VI

II PRODUCT OWNER:-

- Ⓐ He classifies if any questions are there related to stories or requirement stories.
- Ⓑ He will set Acceptance Criteria for Every Story.

DEVELOPMENT ENGINEER:-

- Ⅲ Ⓐ He should derive the task for building every story.
- Ⓑ He prioritises which story to be build first & which story to be build later in the sprint.
- Ⓒ He prioritises the tasks.
- Ⓓ He derives the Story Points (Estimate for each task)

VII

IV

- ④ He will derive the task to be completed to test each feature.

EXAMPLE :

Create A/c → Write test Cases

Review test Cases

Prepare traceability Matrix

Execute the test Case

Defect tracking.

7) ACCEPTANCE CRITERIA:

- It is a Criteria which should be met in order to move the product to the production or to the customer.
- ④ It is generally set by product owner or customer.
- ④ Generally they set this in the begining of the sprint planning Meeting.

③ RETROSPECT MEETING:-

- ① Here Entire Scrum team meets, sometimes Customer also joins & discuss about all achievements (good process followed) & mistakes (wrong activities performed) & we document it and that document is called as retrospect document.
- ② When next release or next sprint starts while doing sprint planning we refer this document & we plan it in such a way that old mistakes have not repeated & good activities are once again adopted.

④ STANDUP MEETING / SCRUM MEETING / DAILY SCRUM / ROLL CALL MEETING:-

ROLL CALL MEETING:-

- ① Here Entire Scrum team meets.
- ② This meeting is completely done by Scrum master.
- ③ Here Every Engineer should Explain:
 - a) What they have done yesterday
 - b) What were the impediments or hurdles faced yesterday.
 - c) What are the activities that he is planning to do today.
 - d) What are the impediments he is expecting in order to complete today's job.

- ④ Scrum master has some small impediments right there in the meeting, if it takes too much of time, then scrum master notes it down & implied in impediment backlog & solves it later.
- ⑤ Generally this meeting should be completed within 10-15 mins.
- ⑥ This Meeting Should be Conducted in the beginning of the day.
- ⑦ Here Everybody should stand up in meeting so the people Only talk to the point.

10) BURN - DOWN CHART :-

- It is a Graphical representation of work left out Verses time.
(write graph)

11) STORY BOARD :-

- Contains list of tasks over stories

- a) In progress
- b) Completed
- c) Pending.

12) CHICKEN:

- Chicken is the One who observes and try to understand how sprint is going on & how he will not be doing any task.

13) STROY

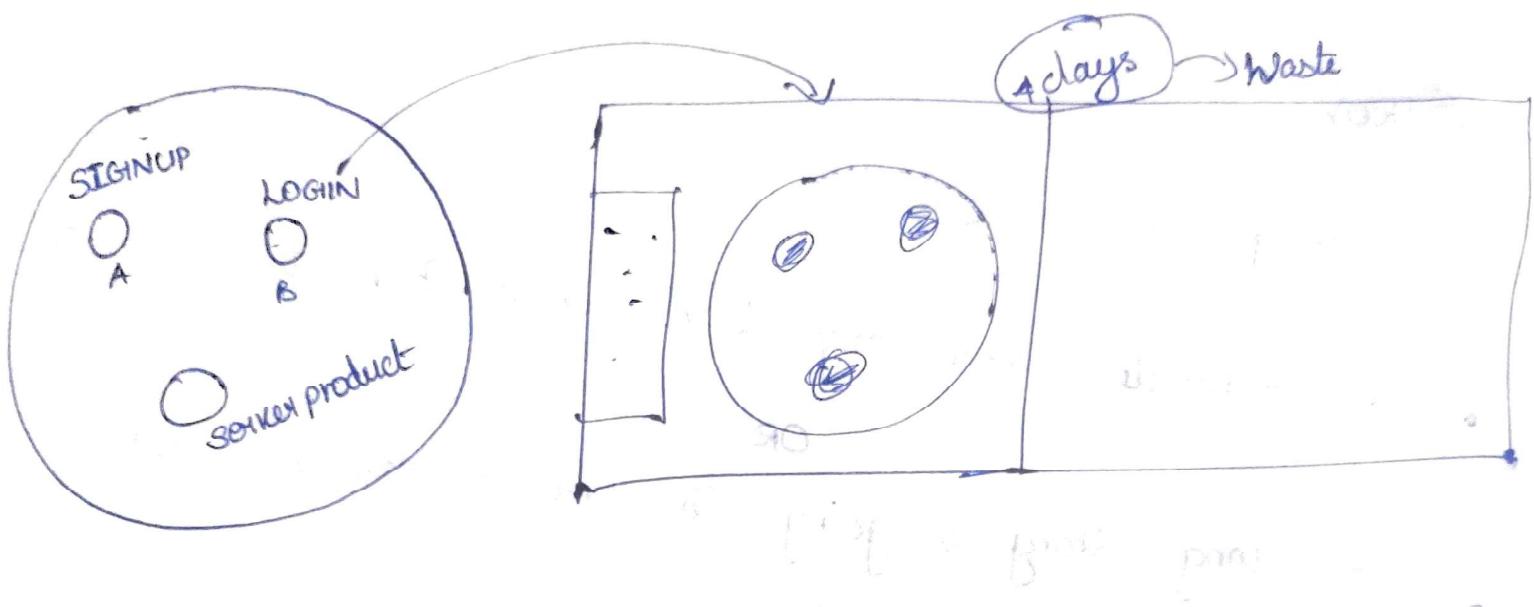
13) STORY POINT:

- It Estimates how long task would take to complete.
- (OR)
- How long story is going to take to develop & test.

SMOKE TESTING | BUILD VERIFICATION TESTING | CONFIDENCE TESTING | SANITY TESTING :-

thorough testing - EK/IT/st

Testing the basic or Critical feature of an application before doing thorough testing we call it as Smoke testing.



INSTAGRAM :-

CRITICAL

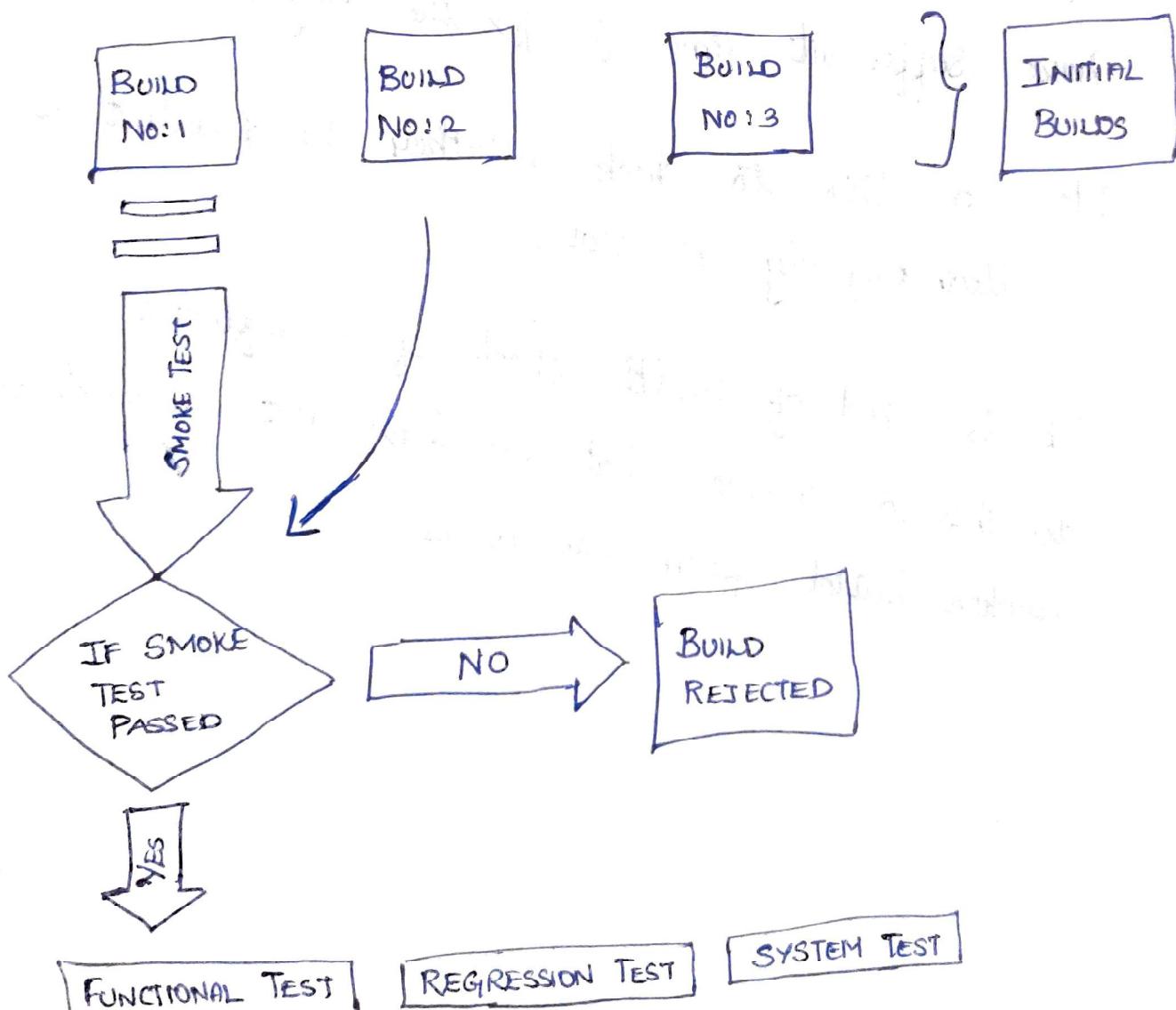
- Sign Up
- Login
- Search
- Follow
- Piracy
- chat
- like

NOT SO CRITICAL

- Help
- Report
- About U
- Ads
- QR Code
- Filter
- Archive
- Saved.

GMAIL

| CRITICAL | NOT SO CRITICAL |
|------------|-----------------|
| Compose | Help |
| Signup | Notes |
| Login | Feedback |
| Inbox | Report |
| Drafts | Calender |
| Trash | Schedule |
| Forgot Pwd | Contacts |
| All mails | |



04/09/2020 (12:30pm - 2:30pm)

WHY WE DO SMOKE TESTING ???

- ① To check whether the product is testable or not,
In begining itself if we find too many bugs
that shows that the product is not eligible for
further testing so better stop testing and spend all
the remaining time in identifying the scenarios.
- ② Test the basic or critical features and find the bugs,
send it to development team so that developers will
have sufficient time to fix the bugs.
- ③ We do this to check whether the product is
installed properly or not.
- ④ It is kind of health check of a software and we
do this to ensure that we have not received any
broken build from developers.

WHEN DO WE DO SMOKE TESTING

- ① Whenever new build comes we should start with some testing because developers are giving new build means they would have done some changes, these changes might affect the basic feature to find that in early stage we do smoke testing.
- ② Customer before he starts acceptance testing he should first finish with his smoke testing. To ensure that he has received complete build or to ensure that installation happened properly.
- ③ One who installs the product in the production also does smoke testing to confirm that the installation happened properly.
- ④ In some of the projects developer will also do smoke testing before giving the product to the testing team.

How To Do SMOKE TESTING:

① Manually

② Automation.

MANUALLY :

TEST CASES.

SIGNUP



Login



search



all the smoke
They will Execute, Test Case
manually .

AUTOMATION :

AUTOMATION TEST SCRIPTS



They will execute all
the smoke automation
scripts.

SMOKE TESTING

- It is Wide and Shallow Testing Approach.
- It is Scripted

↓
Testcase

SANITY TESTING

- It is deep and narrow testing Approach
- It is Not Scripted

↓
No Testcases

07/09/2020 (12:45pm - 2:20pm)

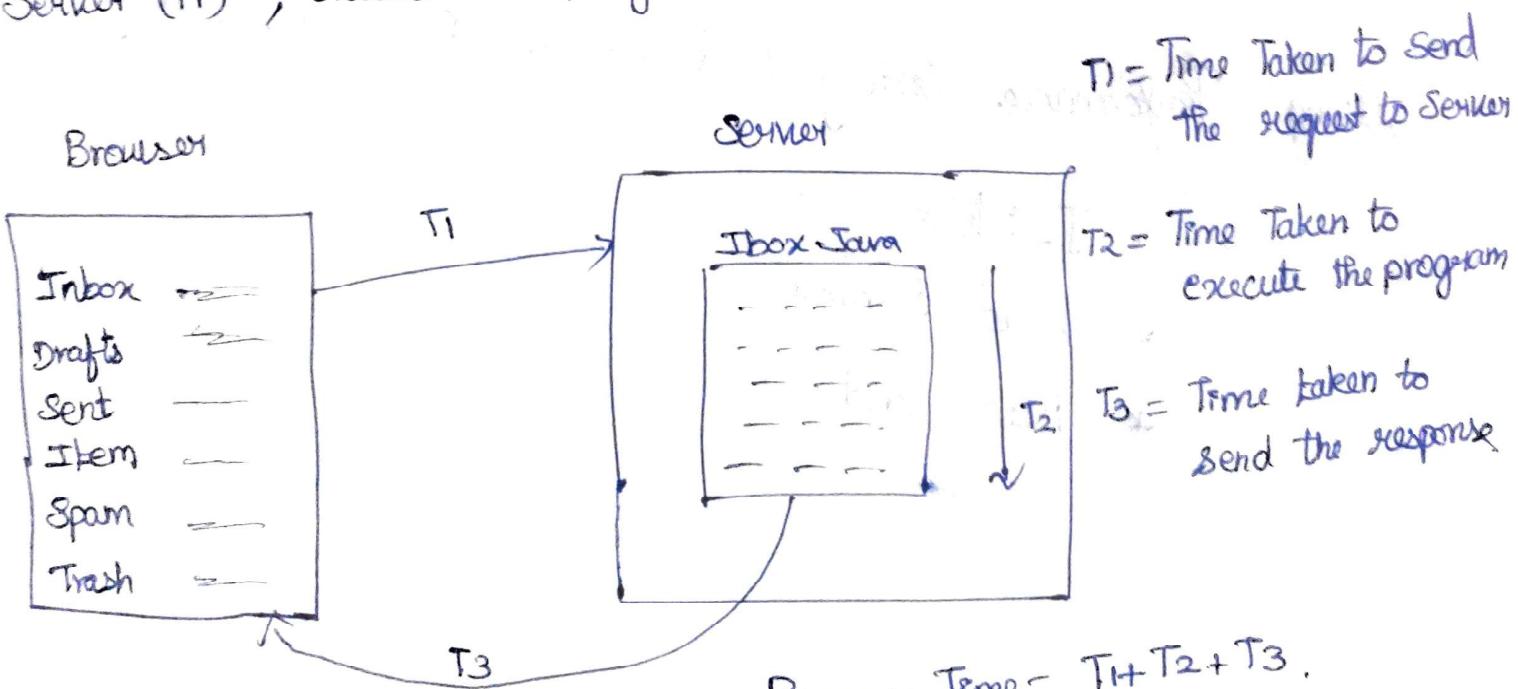
PERFORMANCE TESTING:

Testing the Stability and response time of an application

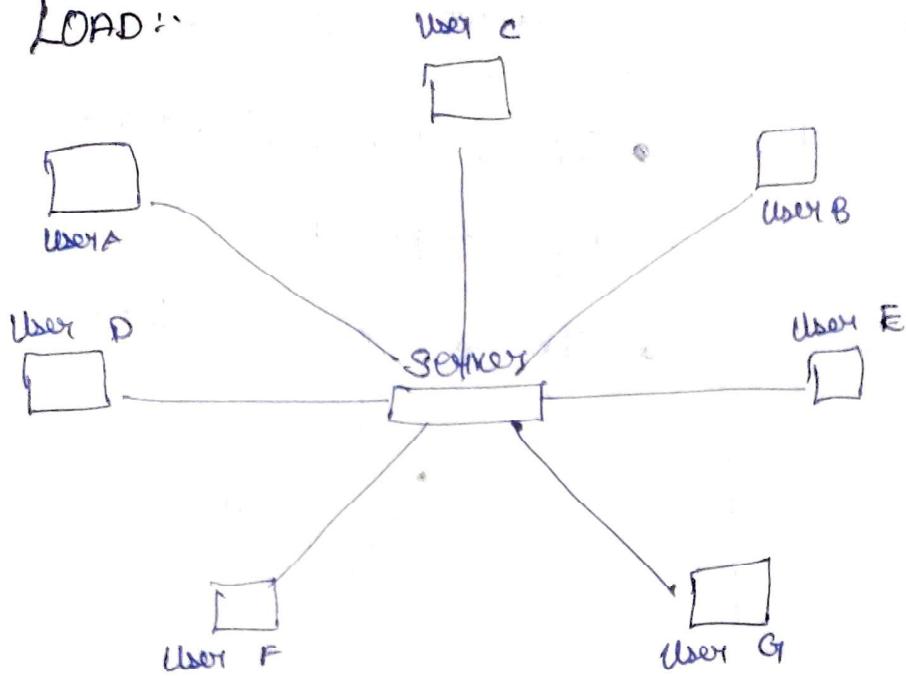
RESPONSE TIME: by adding load is called performance testing.

RESPONSE TIME:

It is a total time taken to send request to Server (T_1) , execute the program (T_2) and send the response (T_3).



LOAD:-



- Load is nothing but number of users.

STABILITY:-

- It is ability of an application to withstand the designed number of users.

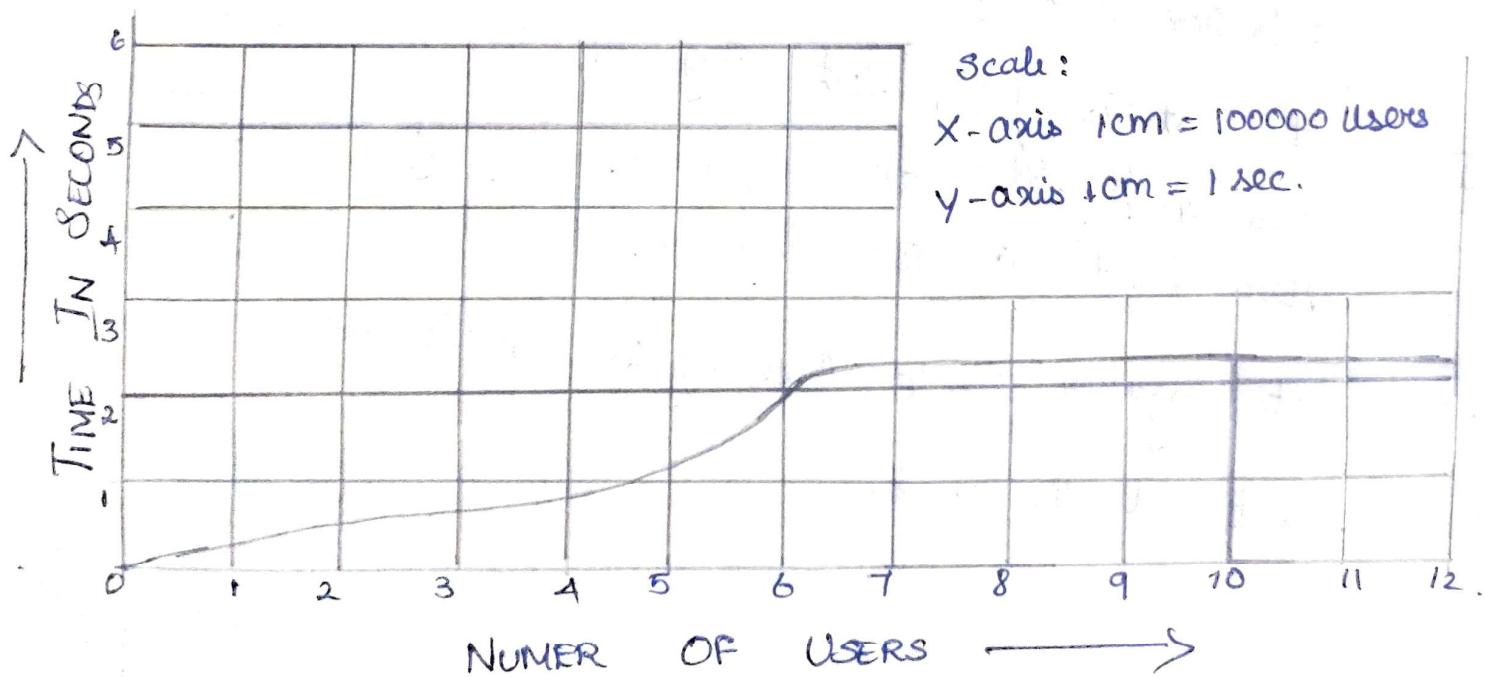
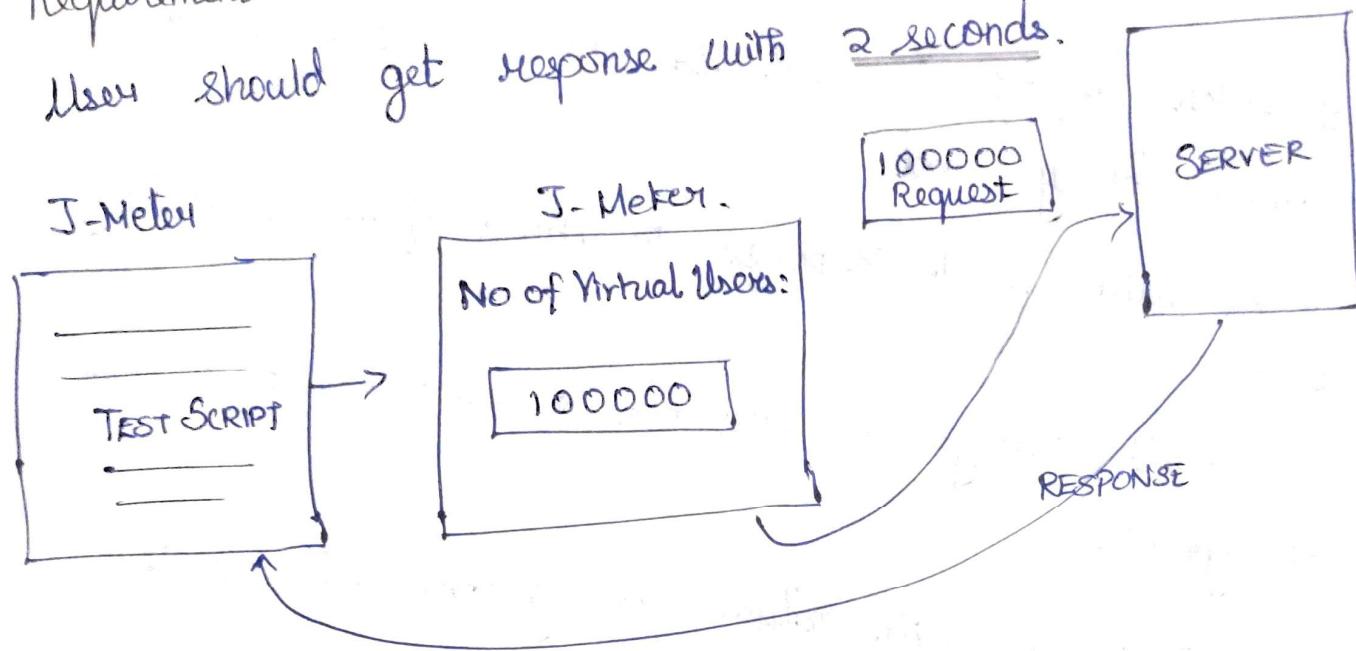
How to do performance testing?

Using Performance testing tool we do Performance Testing.

- * J-Meter
- * Load Runner
- * Neo-load.

How to do Performance testing Using Performance testing tool?

Requirement: When 1 lakh user click on "Inbox" link, the user should get response with 2 seconds.



- ① Take Performance testing tool & write test scripts.
- ② Click on Run, it will ask number of Virtual Users.
(ex: enter 1 Latch) & click on run.
- ③ Under heavy load 1 latch request is send to the server & server is send response to the performance testing tool.
- ④ Server will send response to the performance testing tool.
- ⑤ Tool will analyse the response & give results in form of graph.
- ⑥ Test Engineers will analyse the graph and decide whether test pass / fail.
- ⑦ If test is fail, test engineer will send it to developer, developer will do performance tuning and give new build to test engineer.
- ⑧ Test engineer should once again run the test script.
- ⑨ Repeat all the steps.

TYPES OF PERFORMANCE TESTING:

- ↳ Load Testing
- ↳ Stress Testing
- ↳ Volume Testing
- ↳ Soak Testing.

LOAD TESTING:

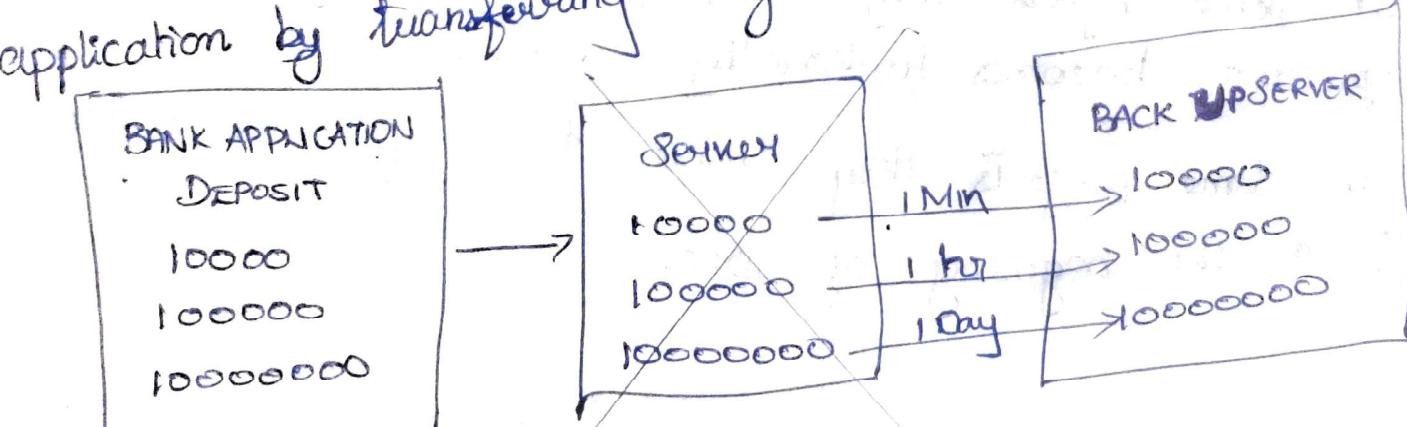
Testing the stability and the response time of an application by applying load less than or equal to designed number of user

STRESS TESTING:

Testing the stability and the response time of an application by applying load more than designed number of users.

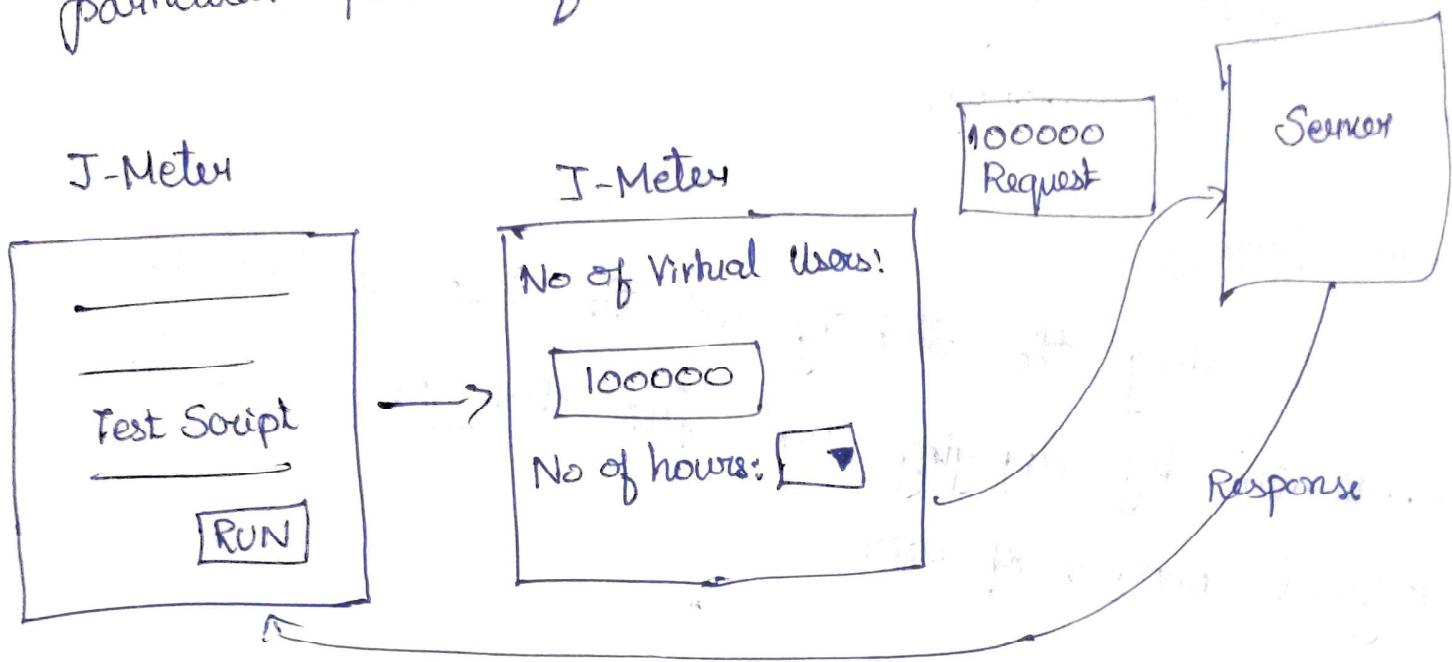
VOLUME TESTING:

Testing the stability and response time of an application by transferring huge volume of data.



SOAK TESTING:-

Testing stability and response time of an application by applying load continuously for a particular period of time.



FOR WHAT KIND OF APPLICATION WE DO PERFORMANCE TESTING?

- ① Any application which generates lots of traffic.
- ② Any application where Multi Users Use.

WHEN WE SHOULD DO PERFORMANCE TESTING? :

- ① In some Projects they do performance testing when product becomes functionally stable.
- ② In some projects they Implement performance testing from the begining of SDLC.

ADHOC TESTING / MONKEY TESTING / RANDOM TESTING /

INFORMAL TESTING / GORILLA TESTING..

Testing the Application Randomly is called as Adhoc testing.

Here we don't refer any kind of formal documents such as test cases, test scenarios or Test Scripts.

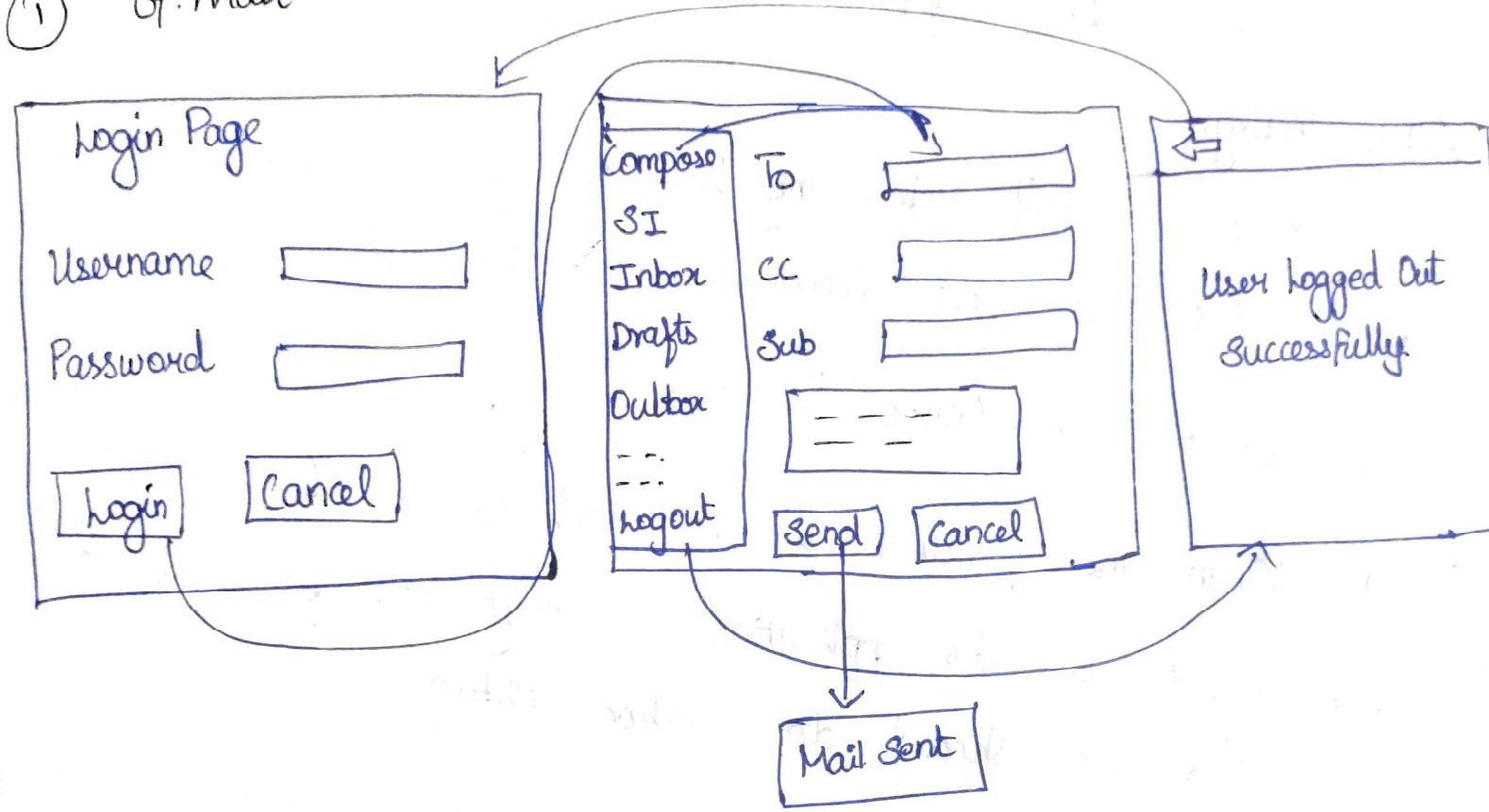
WHY SHOULD WE DO ADHOC TESTING?

- ① When the product is launched to the customer the end user might use the application randomly and find defects to avoid this we should do adhoc testing.
- ② To Refer the requirement and test the software the number of bugs that we catch is very less, (so do not refer the requirement) Think out of the requirement to come up with creative scenarios and test the application.
- ③ To somehow break the product
- ④ To Increase the BugCount.
- ⑤ To Somehow Improve your Test Coverage
- ⑥ To Check if the product works according to the implicit requirement.

09/09/2020 (12.40pm 2-3-19)

How To Do ADHOC TESTING ?

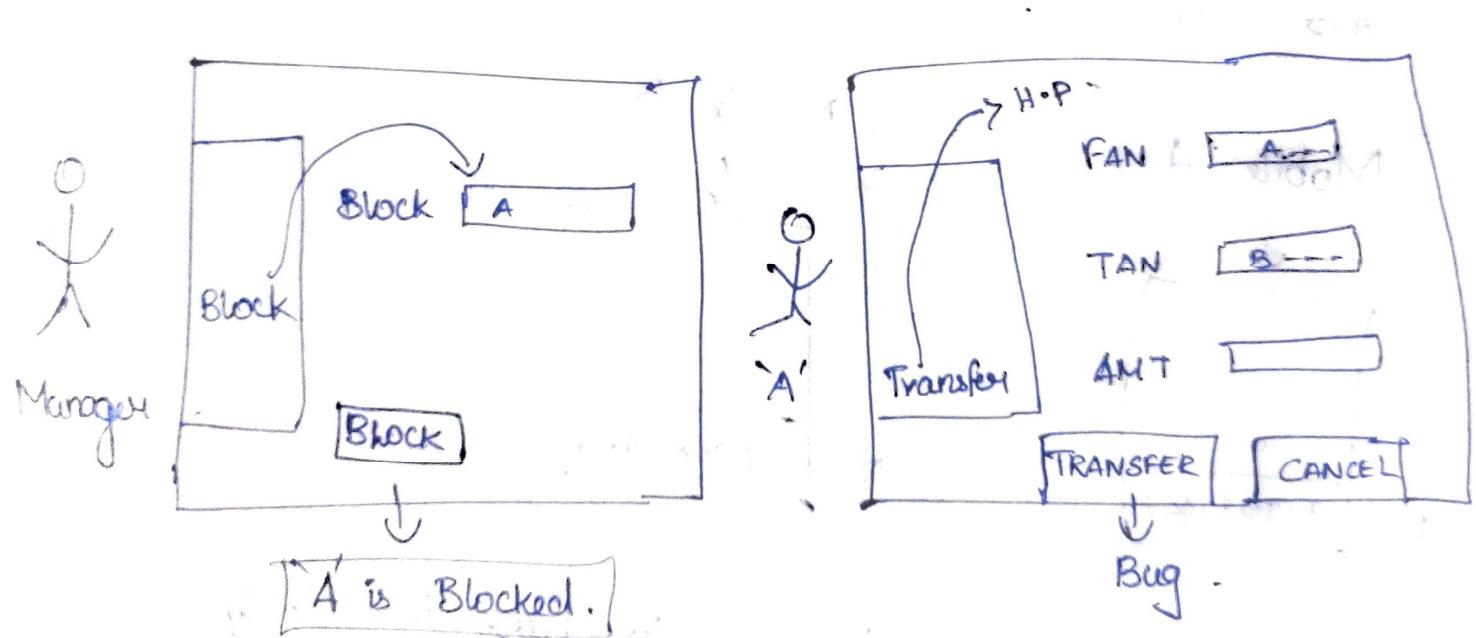
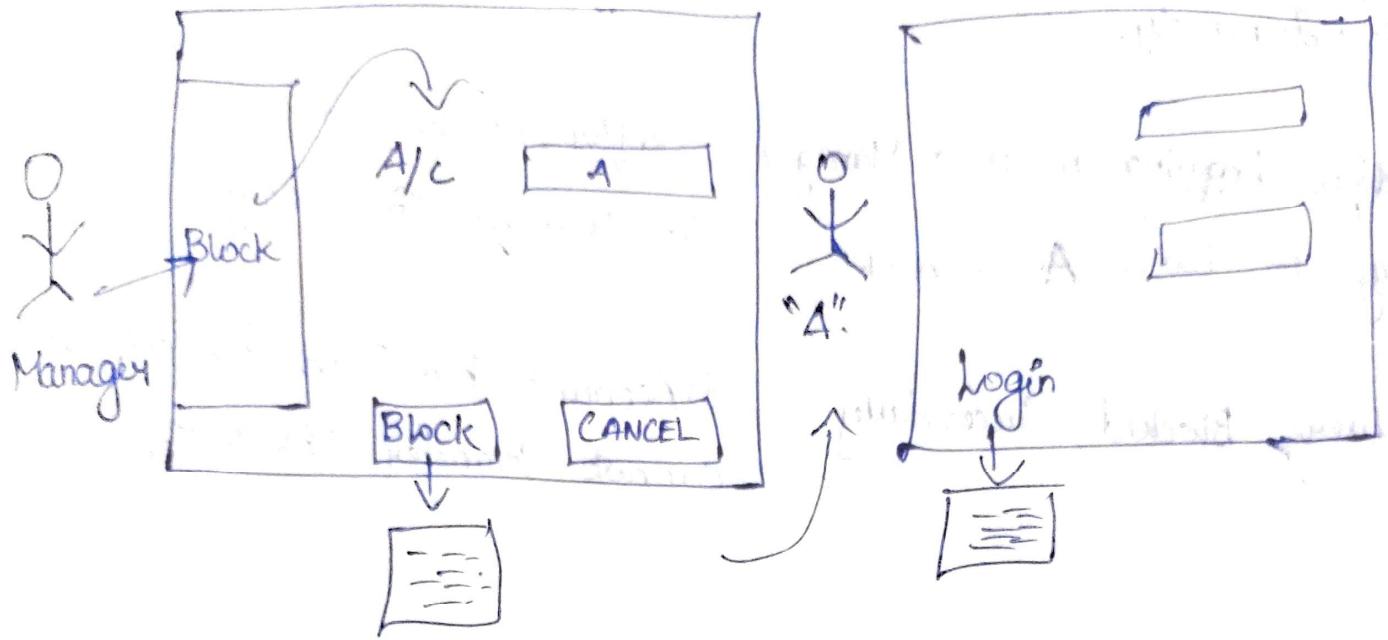
① G.mail.com



- ① login to Gmail Application by Entering Correct Username and the Password.
- ② Compose a mail , click on send.
- ③ click on logout , You will get a Confirmation message.
- ④ On the same logout Screen Click on back browser button.
- ⑤ It has to take you to the login page .

Requirement :- Whenever Manager Blocks an account you should not be able to login.

[If you test 'A' To the Requirement]



① Login As Manager and User-A Simultaneously.

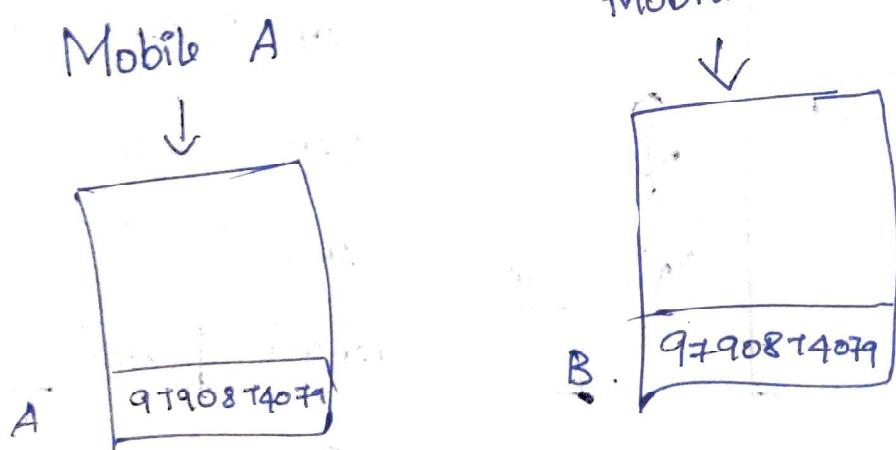
② After logging in as a Manager try to block 'A' account.

③ User Blocked Successfully.

② After logging in as User try to transfer the money.

③ Account has been blocked. You cannot transfer the money.

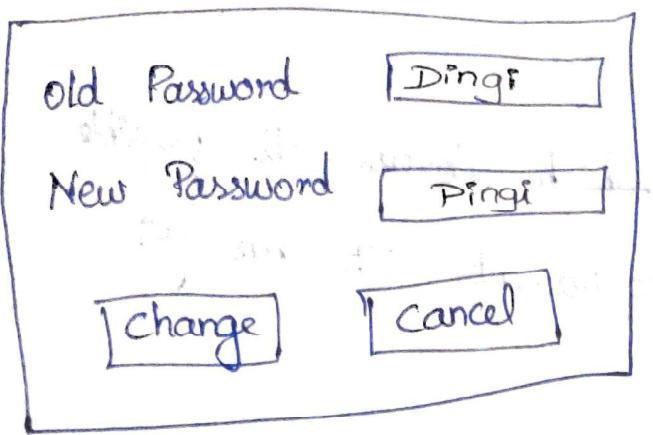
③ WHATS APP :-



- ① Install WhatsApp In Two Mobiles Parallelly
- ② Then try to register the WhatsApp in Both the Mobiles Using a Same mobile number.

④ G-Mail Settings:

Email → settings → change Password.



WHEN To Do ADHOC TESTING:

- ① When the Product / Features are functionally stable, then we think of doing Adhoc testing.
- ② While doing Smoke testing Never do Adhoc testing.
- ③ After testing the Product. According to the Requirement, and if the time is left out then do Adhoc testing.
- ④ When we are doing FT, IT, ST inbetween if we get any creative scenario you can pause your regular testing and perform adhoc testing.
- ⑤ If you getting to many Adhoc scenarios then document (Record it) and suffer that document and do adhoc testing whenever you are free.

10/09/2020 (12.40pm - 2.30pm)

TEST CASES:-

Definition:-

It is a document which covers all possible scenarios for a specific requirement. It has got different section like-

- 1) Step Number
- 2) Description
- 3) Input
- 4) Expected Result
- 5) Actual Result
- 6) Status
- 7) Comments

WHAT ARE THE DRAWBACKS OF NOT WRITING THE SCENARIO??

- ① There will be no consistency in testing.
- ② Quality of testing varies from person to person.
- ③ Quality of testing varies from mood of a test engineer.
- ④ Quality of testing varies from memory of a test engineer.

HOW TO OVERCOME THESE DRAWBACKS ???

1. By documenting the scenarios --- testcases.

WHEN DO WE WRITE TESTCASES ??? 

- 1) When development team is busy in building the product, we testing team will be busy in building the test cases.
- 2) When developers are adding new features means we test engineers will be adding new test cases.
- 3) When development team is modifying some features, we test engineers will be modifying the testcases.

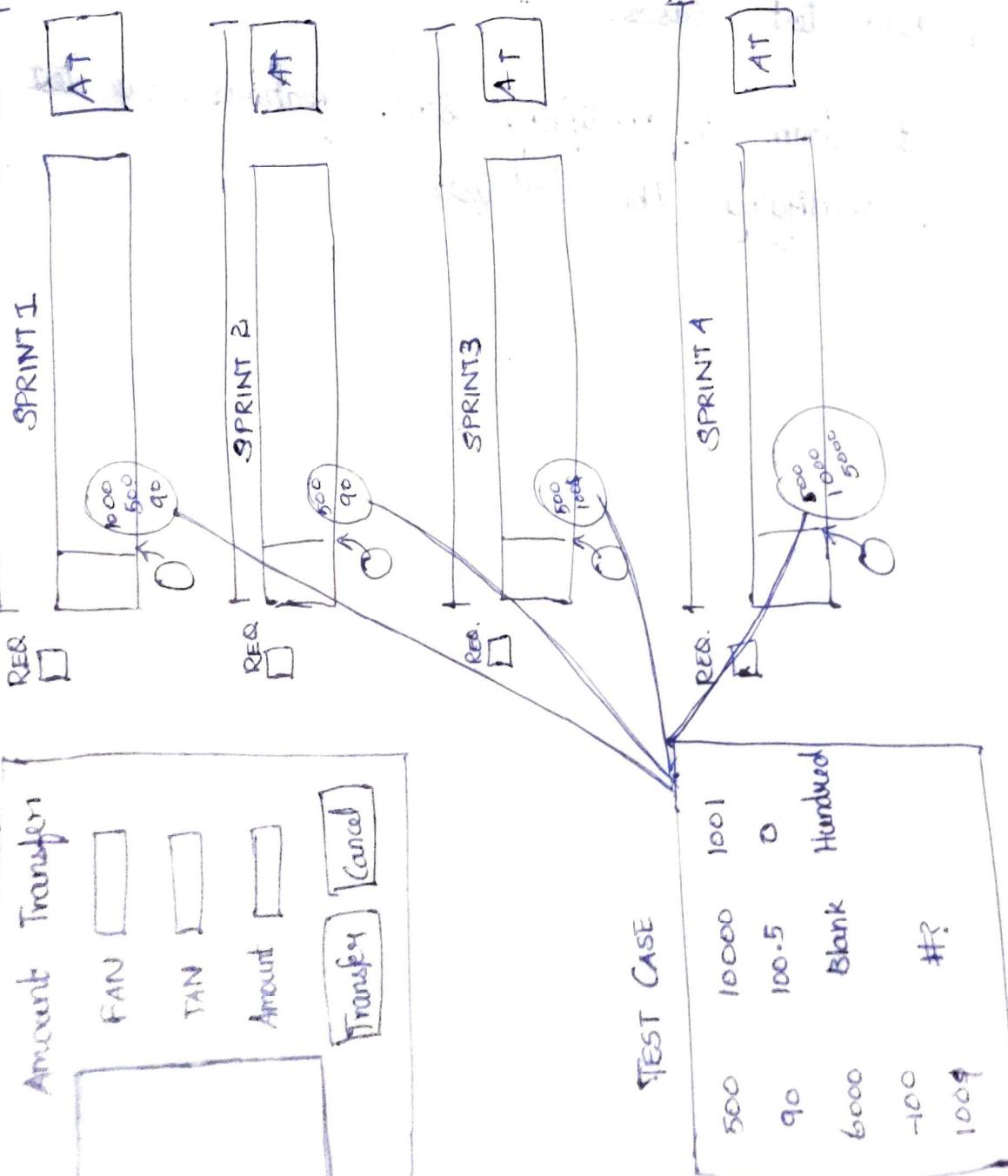
CBO - SRS.

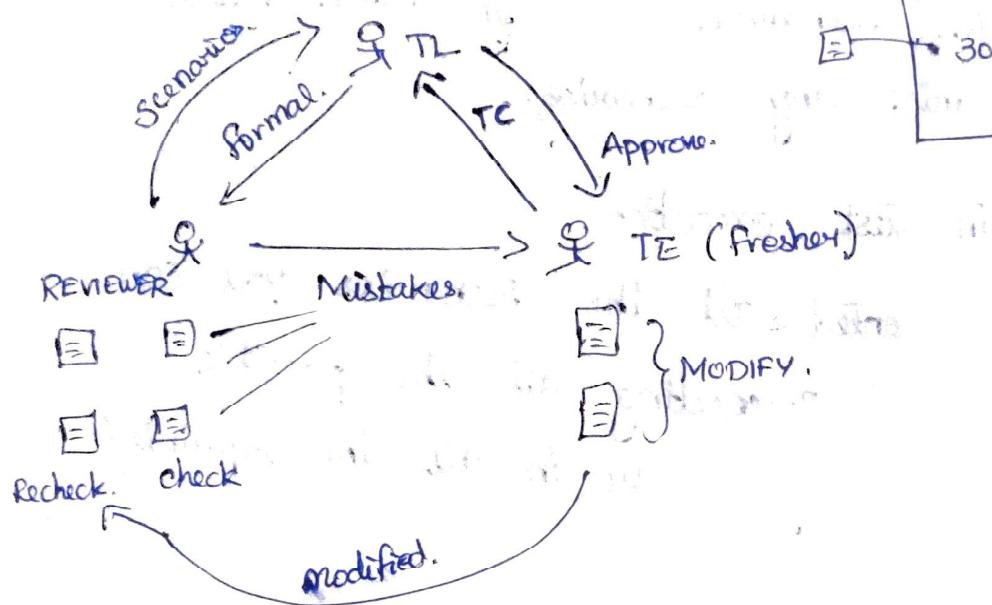
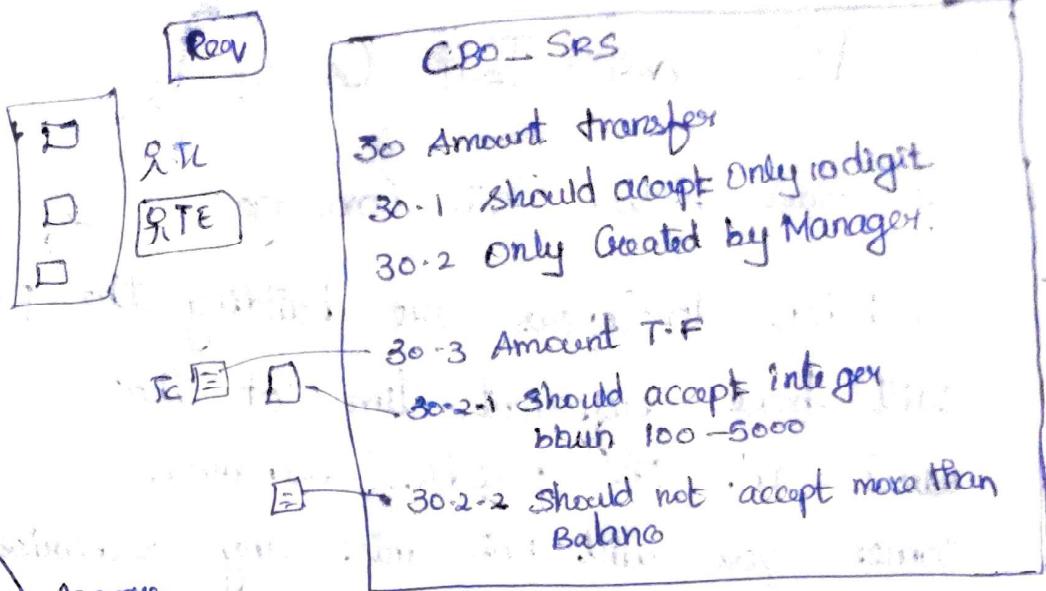
- 30. Amount transfer
- 30.1 TAN Text field
- 30.1.1 Should Accept only 10 digit
30.1.2 Should Accept this as no which
is created by manager.

30.2 TAN, TF

- 30.2.1
- 30.2.2

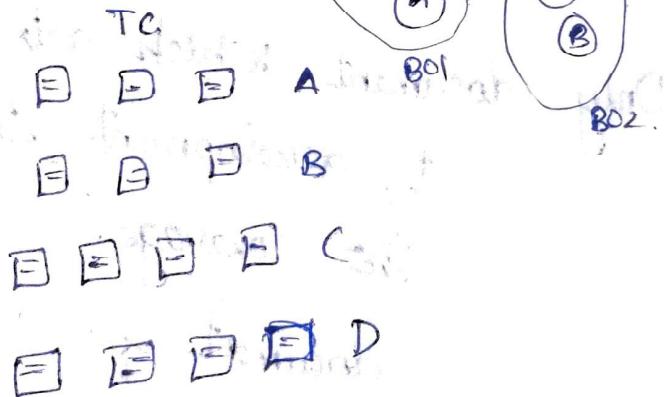
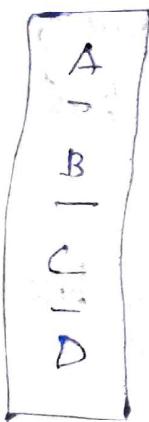
- 30.3 AMOUNT TRANSFER
- 30.3.1 Should Accept Only integer
between 100-5000





SPRINT:
BACKLOG

| UI/Uk | LP. | | (A) (B) | | |
|--------|------|-----|---------|--|-----------|
| Update | Test | (A) | | | published |



WHY WE WRITE TEST CASES?

1. To Have Better Test Coverage.

(When developers are building the product test engineers will have sufficient time at that stage they should write all the possible scenarios so that when build comes you will not miss any scenarios).

2. To Have Consistency in test execution.

(If you have documented all the scenarios you can make sure that you are executing all the possible scenarios in all the test cycles or in all the sprints, releases).

3. To depend on process rather than on the person.

To avoid training to every new engineer on the product or on the requirement.

4. Test Case is the Only document which acts as proof to the customer, management, development team that we have got the better test coverage.

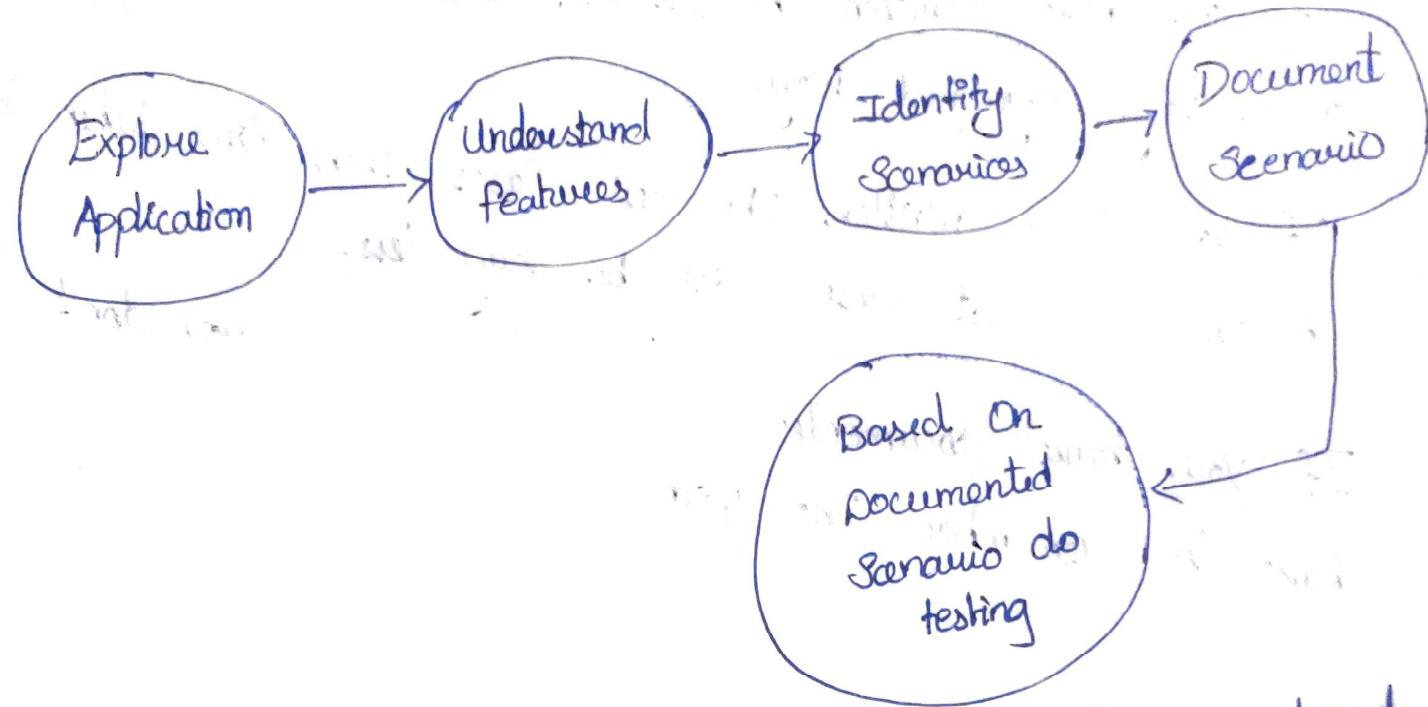
5. Test Cases acts as a base document for writing the automation scripts.

(if you write the automation scripts by referring the

test cases you can ensure that same test coverage will be there even in the automation scripts.

- 7) If you have written the test cases then execution happens in a very organized way.
- 8) If you have written the test cases then time taken to execute the test cases will be very less.
- 9) If you have documented the Scenarios, then you don't have to remember the Scenarios.

EXPLORATORY TESTING



Explore the application, understand the features, based on understanding identify scenarios, document it, refer the scenarios and perform testing.

WHY OR WHEN WE DO EXPLORATORY TESTING ??

- * Whenever there is no requirement
- * Whenever requirement is there but not understandable
- * Whenever requirement and it is understandable but there is not time to read and understand the requirement.