Dedicated to

My honorable Spiritual Leader-

Yea Allahu ! Yea Rahmanu !! Yea Rahim !!!

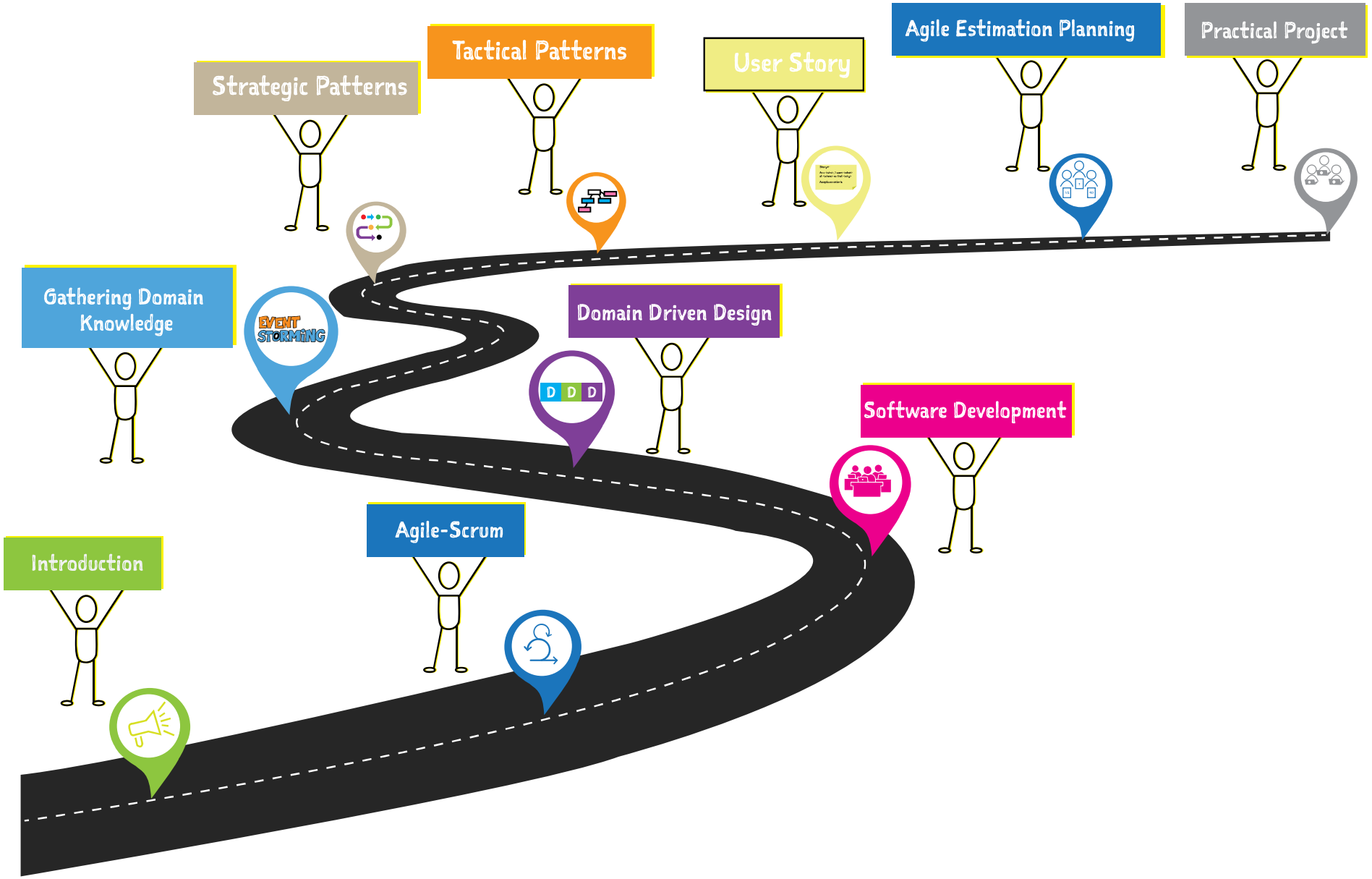
Hazrat Shah Chandrapuri (Naqshabondi-Mozaddedi)

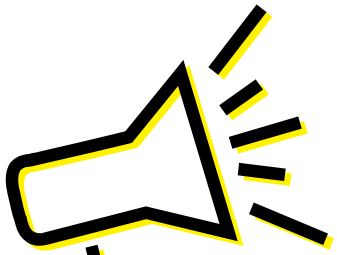
Chandrapara Paak Darbarsharif, Sadarpur, Faridpur, Bangladesh

https://www.chandrapara.com

Purifying soul is the ideal duty (Farz) for every human- Hazrat Shah Chandrapuri (Naqshabondi-Mozaddedi)

Table of Contents





Introduction

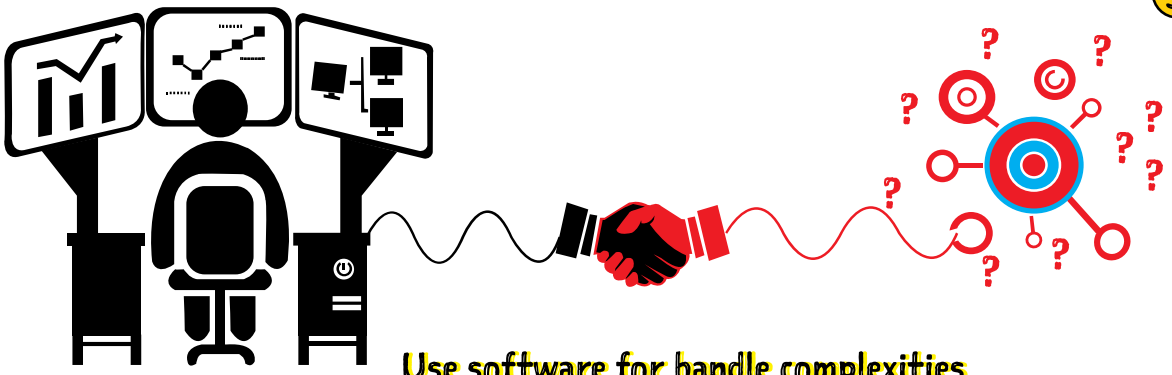
Introduction

① Our modern life is full of complexity

in this complex arena we have to handle lot of responsibilities within very shortest possible time

Complex life with a lot of responsibilities
- Have to complete within shortest time

② We often use software to deal with some of those complexities



Use software for handle complexities

③ Example

We use HR-Payroll software to deal with HR & Payroll related complexities

This book is written by- Md. Mojammel Haque (Mojam)
Sr. Technical Lead, InsightIn Technology (BD) Ltd.

*. Some images are collected by random search in Google
This is not like traditional book, consider it as note book

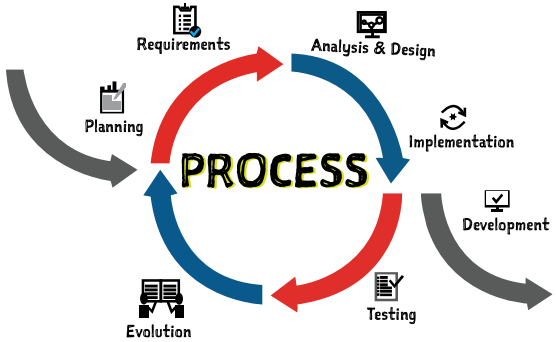
Software

- Software is the end result of a successful process
- That process is executted by Development peoples

SOFTWARE

end result of

successfully executted

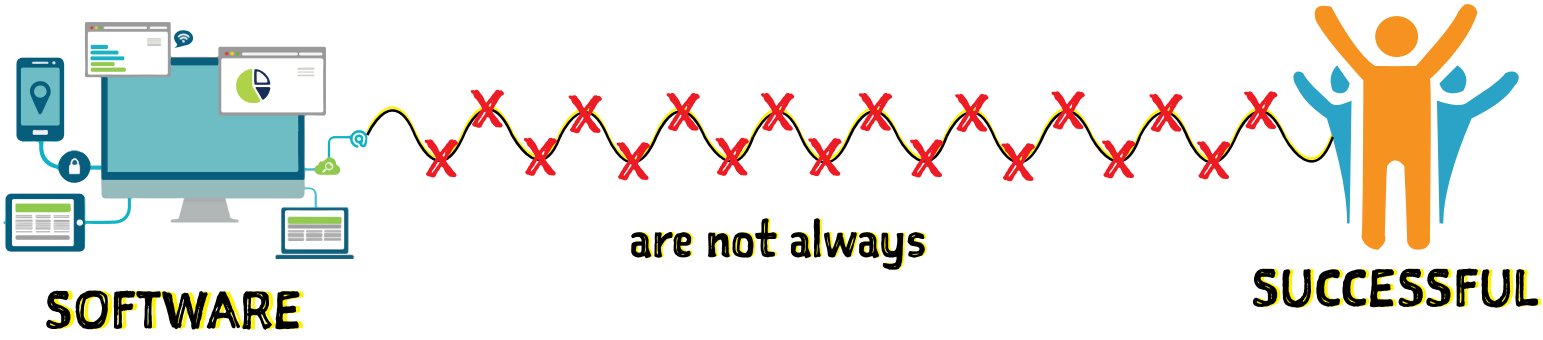


executted by

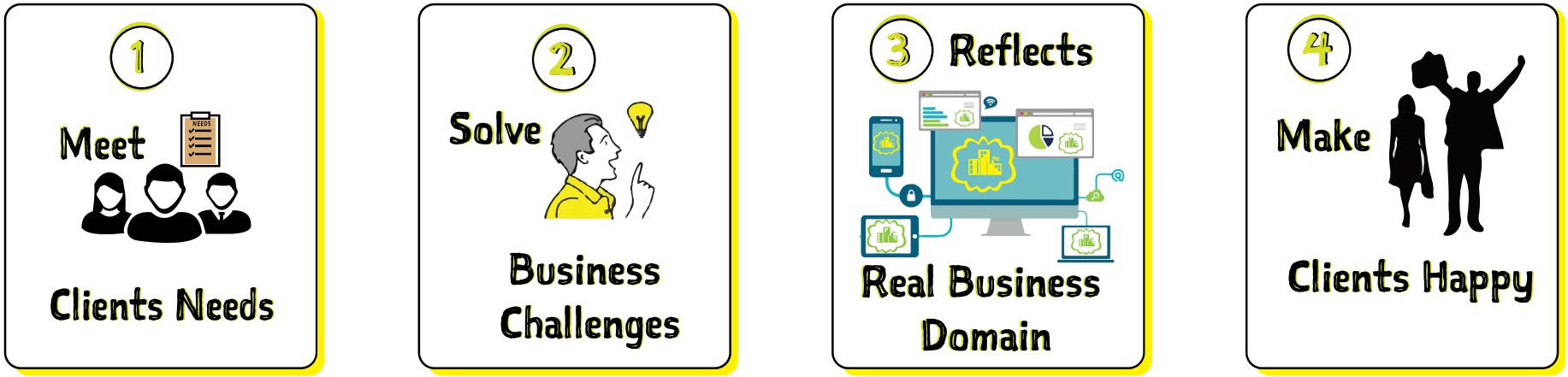
DEVELOPMENT PEOPLES

Software

Although process executes successfully but not all software are successful



Successful software must



This book is written by- Md. Mojammel Haque (Mojam)
Sr. Technical Lead, InsightIn Technology (BD) Ltd.

*. Some images are collected by random search in Google
This is not like traditional book, consider it as note book

Successful vs. Unsuccessful Software

Successful software are always useful and perfect

Successful Software

are always

- useful
- and
- perfect

Unsuccessful software are loss of time, money and effort

Failed Software

causes the loss of

- time
- money and
- efforts

Resulting- of unsuccessful software also includes-

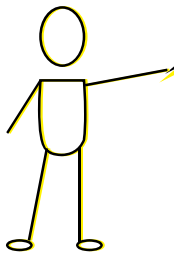
- clients disappointment
- developers frustration

disappointed clients

and

furstrated developers

Software crisis



Developing Successful Software is very challenging

Successful Software

Development is

THE STANDISH GROUP

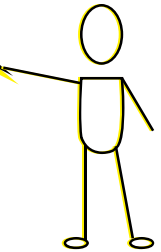
REPORT SAYS

- Passed = 16%
- Failed = 31%
- Challenged = 53%

Reference: https://www.javiergarzas.com

According to Standish Group

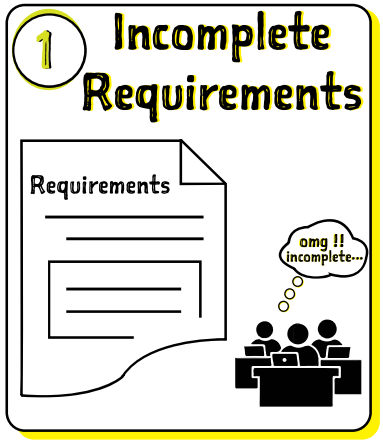
"Only 16% software are considered as successful and rest 84% are fails due to different reasons"

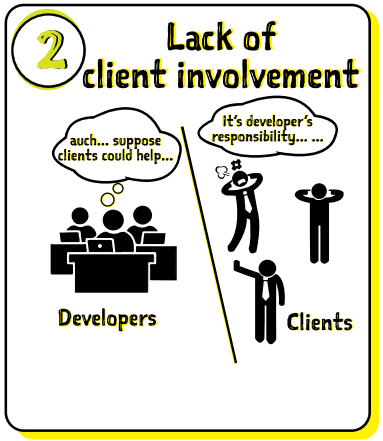


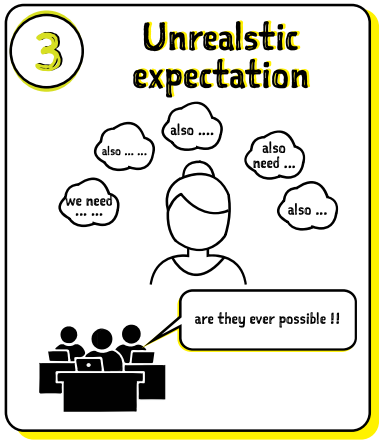
This is calls the crisis of successful software development

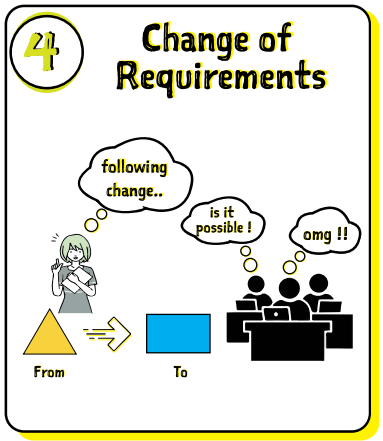
Reasons of crisis

Important factors those are closely related to software failure are the reasons of such crisis. Those factors are

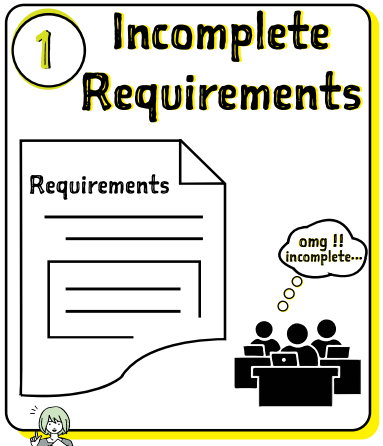








Reasons of crisis



Clients are confuse

- What they need?
- What they want?
- What are not needed?
- What are nice to have?

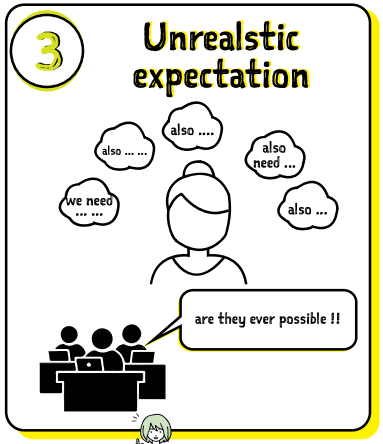
Clients

- Often think Only developers are responsible for make software successful & They don't have any responsibility in that regard
- Thinks involving with software development is actually waste of time
- Ego
- Fear
  - of change
  - of Technology
  - of Joblessness
  - of Fraud detection
  - of automation
- Office politics
- Many more ....

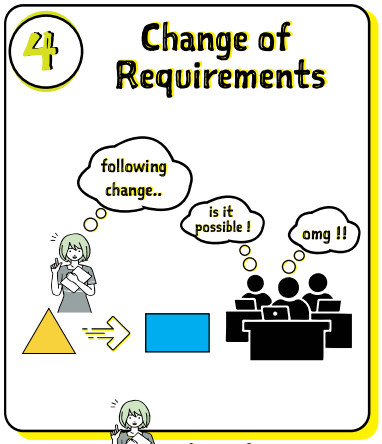
This book is written by- Md. Mojammel Haque (Mojam)
Sr. Technical Lead, InsightIn Technology (BD) Ltd.

*. Some images are collected by random search in Google
This is not like traditional book, consider it as note book

Reasons of crisis



Often have unrealstic expectations those are quite impossible to meet in reality

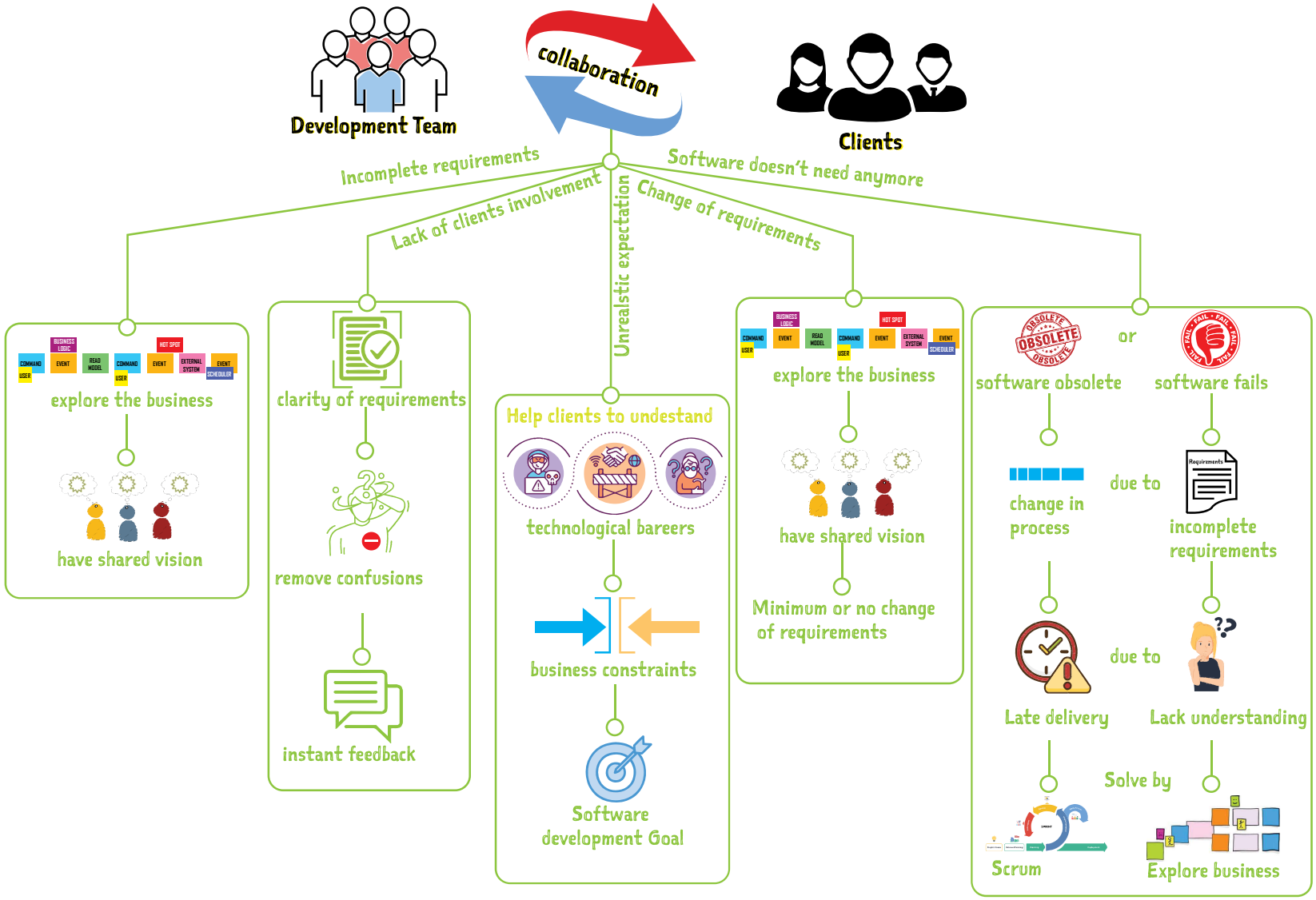


Often change requirements that is 180 degree angular than previous one also that is difficult to achieve

Often change requirements that is 180 degree angular than previous one also that is difficult to achieve

Solution

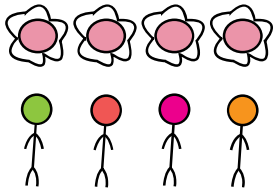
Both Developers & Domain Experts will work in collaboration with each other



During business exploration we usually identify

- Business process
- Activities within process
- Actions to execute activities
- Driving force behind action
- Policies related to activities
- External involvement in process
- Opportunities within process
- Language uses in business

Result

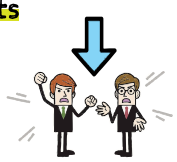


Shared Understanding of the business

Solution

But clients may not willingly wants to get involved in software development

In some cases clients may disagree to get involved



Try to convince clients

If fail to convince Get help from Influentials of the Organization

To convince them

During convince

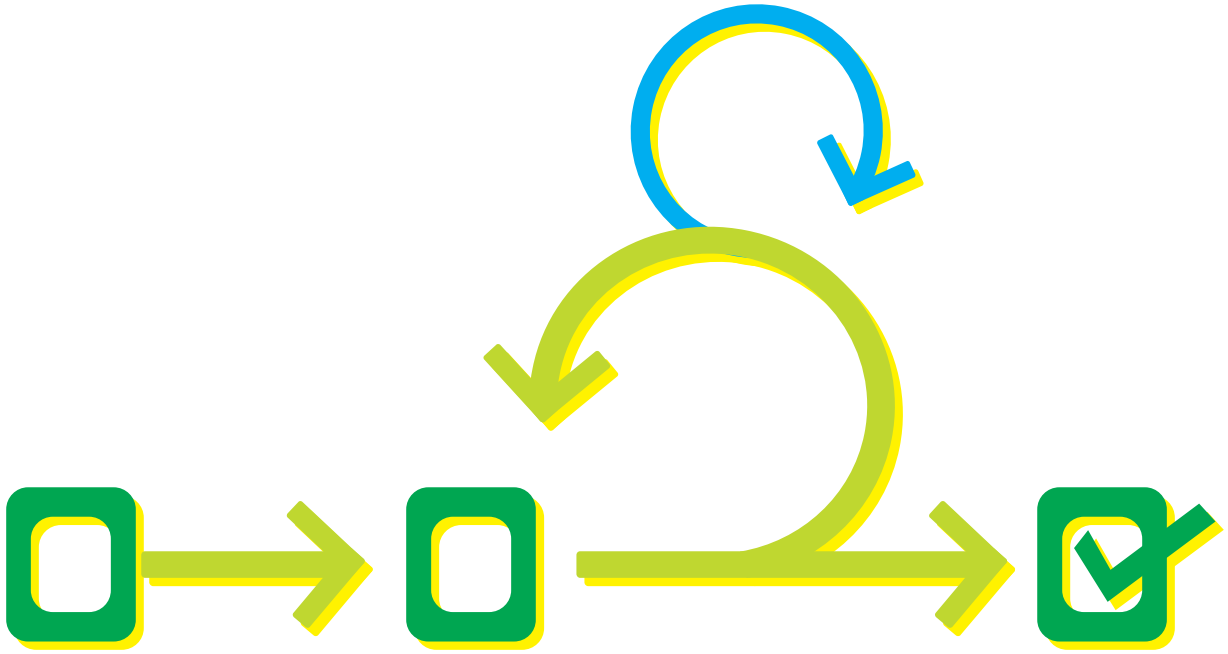
Development Team will give realization to Clients that

Helping Development Team means actually helping Clients themsalves

Once Clients realizes that, they will willingly get involved

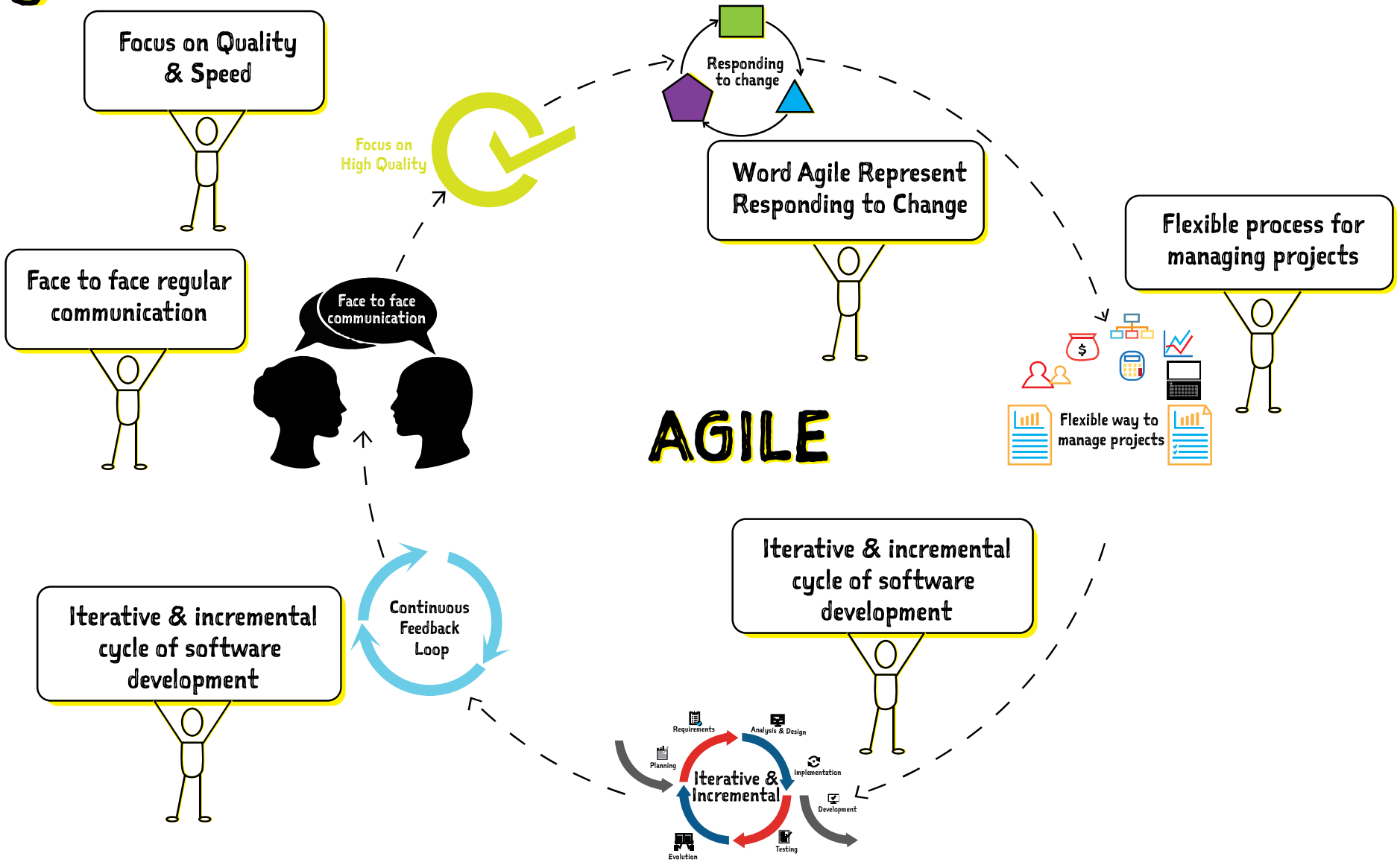
Help us

Help you

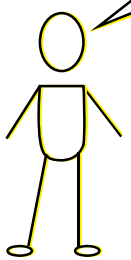


Agile-Scrum

Agile

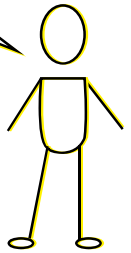

Focus on Quality & Speed
Face to face regular communication
Iterative & incremental cycle of software development
Focus on High Quality
Face to face communication
Continuous Feedback Loop
Responding to change
Word Agile Represent Responding to Change
AGILE
Flexible process for managing projects
Flexible way to manage projects
Iterative & incremental cycle of software development
Requirements
Analysis & Design
Planning
Implementation
Iterative & Incremental
Development
Evolution
Testing

Agile Manifesto



Eearly 2001 some industry experts met togather and outlined some values and principles that would allow software teams to develop quickly and respond to change

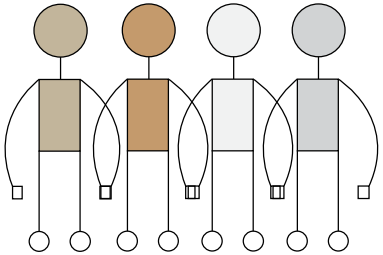
Then they worked next several months and created a statement of values. This is known as "The Manifesto of the Agile Alliance"



THE MANIFESTO OF AGILE ALLIANCE

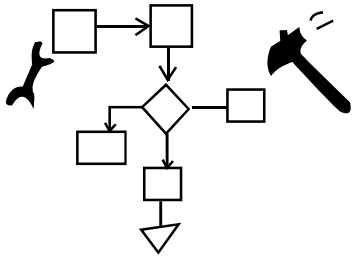
We are uncovering better ways of developing software by doing it and helping others to do it. Through this work we have come to value:

Agile Manifesto



People & Interaction

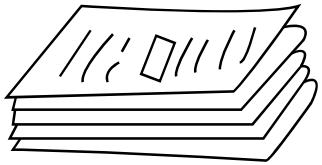
Over



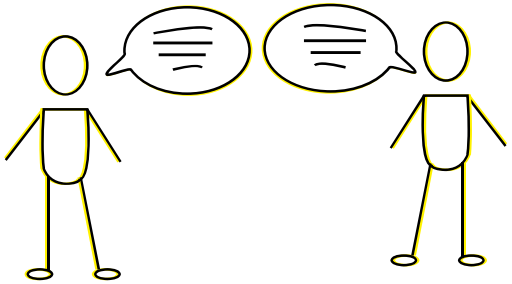
Processes & Tools

Working Software

Over

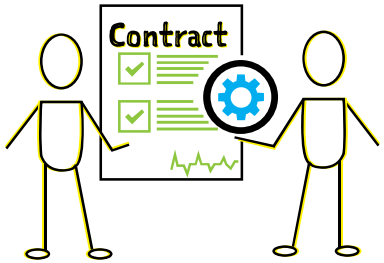


Comprehensive Documentation

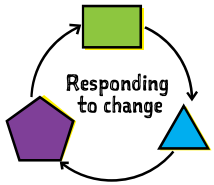


Customer Collaboration

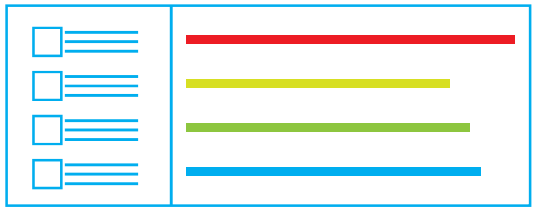
Over



Contract Negotiation



Responding to Change



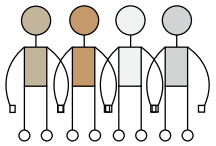
Following a plan

This book is written by- Md. Mojammel Haque (Mojam)
Sr. Technical Lead, InsightIn Technology (BD) Ltd.

*. Some images are collected by random search in Google
This is not like traditional book, consider it as note book

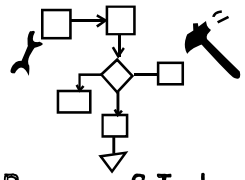
Agile Manifesto

1



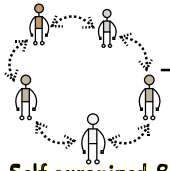
People & Interaction

Over



Processes & Tools

First of all build

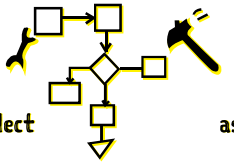


Self organized & Cross functional Team

Then let the team to configure the

environment

Finally team will select



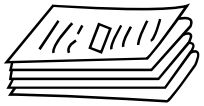
process & tools

as per their needs

2

Working software

Over



Comprehensive documentation

working software

makes

clients happy

Team will keep highest focus on building working software

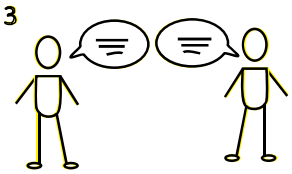
Produce no

documents

unless it's need is immediate & significant

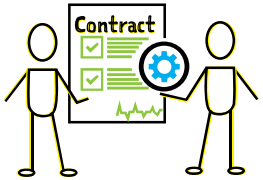
Agile Manifesto

3



Customer Collaboration

Over



Contract Negotiation

3.1

will be the highest priority

3.2 To achieve

need to develop

successful software

3.3 Regular & Frequent

client's feedback

is important for

software success

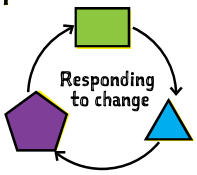
3.4 So highly recommended to

work in collaboration with each other

instead of relying on

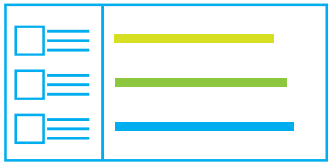
Client & Developer's

4



Responding to change

over



following a plan

4.1 Don't go for

long term plan

because

Clients Requirements

can change at any time

4.2

in such way so that any futher changes can be adapt easily & quickly without breaking existing good features

Design the system

4.3-

Recommended to make-

Detailed plan from 1 to 4 weeks

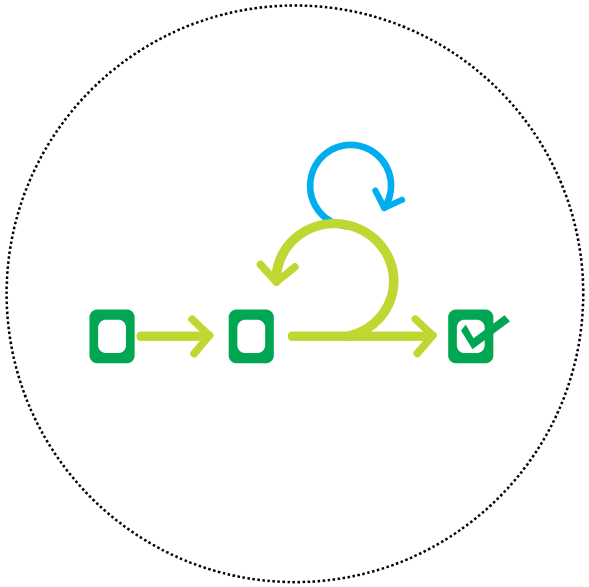
Rough plan for next 03 months

1-4 weeks detailed plan

Three months rough plan

Scrum- Introduction

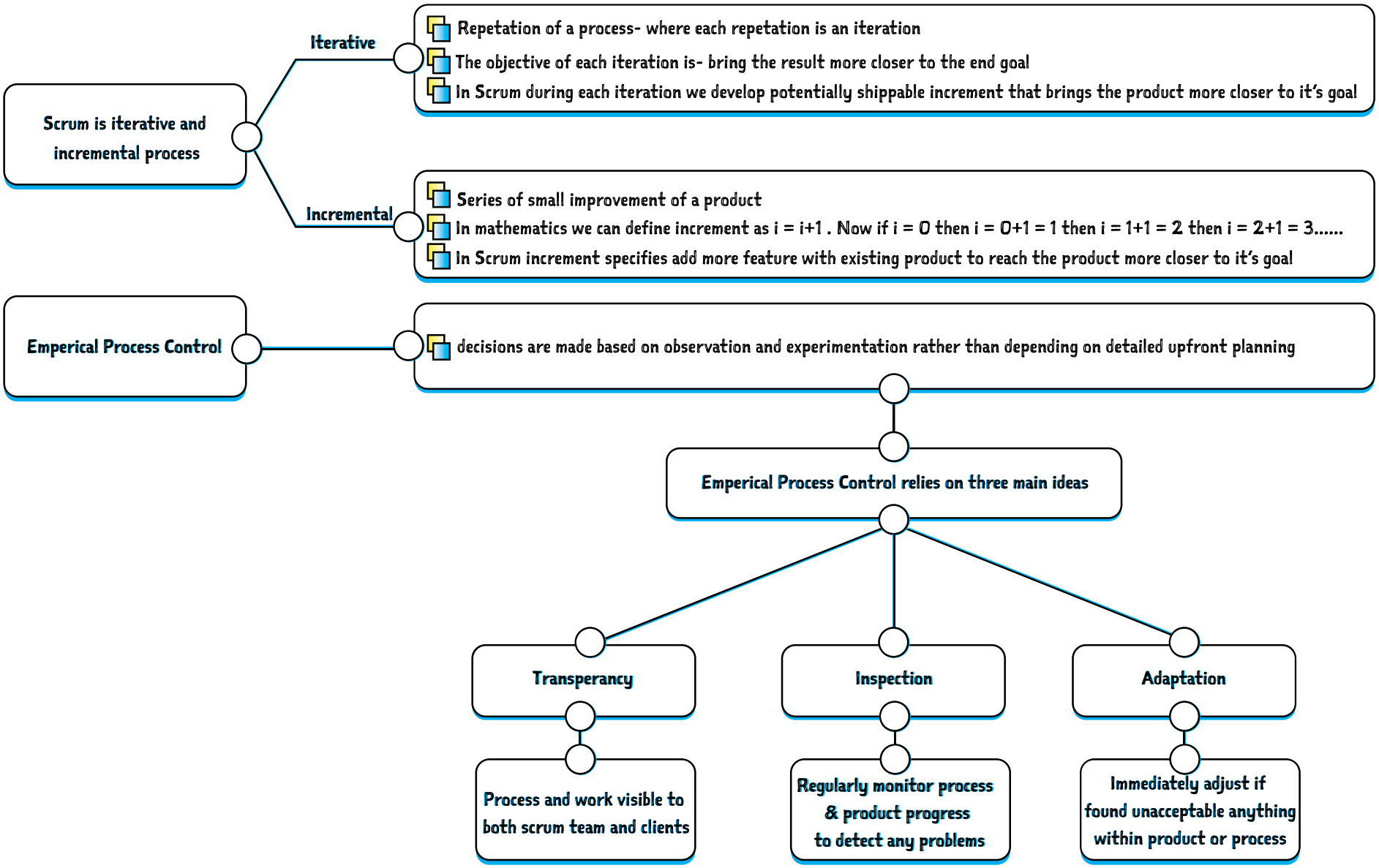
1. Lightweight Agile framework for Software Development
2. Scrum is iterative and incremental process
3. Scrum follows empirical process that relies on Transperancy, Inspectation and Adaptation
4. Success of Scrum depends on team's 5 values- Commitment, Courage, Focus, Openness, respect
5. Scrum team has 03 roles- Product Owner, Scrum Master & Development Team
6. Scrum has 05 events- Sprint Plan, Sprint, Daily Scrum Sprint Review, Retrospective
7. Scrum has 03 artifacts- Product Backlog, Sprint Backlog Increment
8. In each sprint we have to set- Sprint Goal and Set definition of Done to achieve Goal



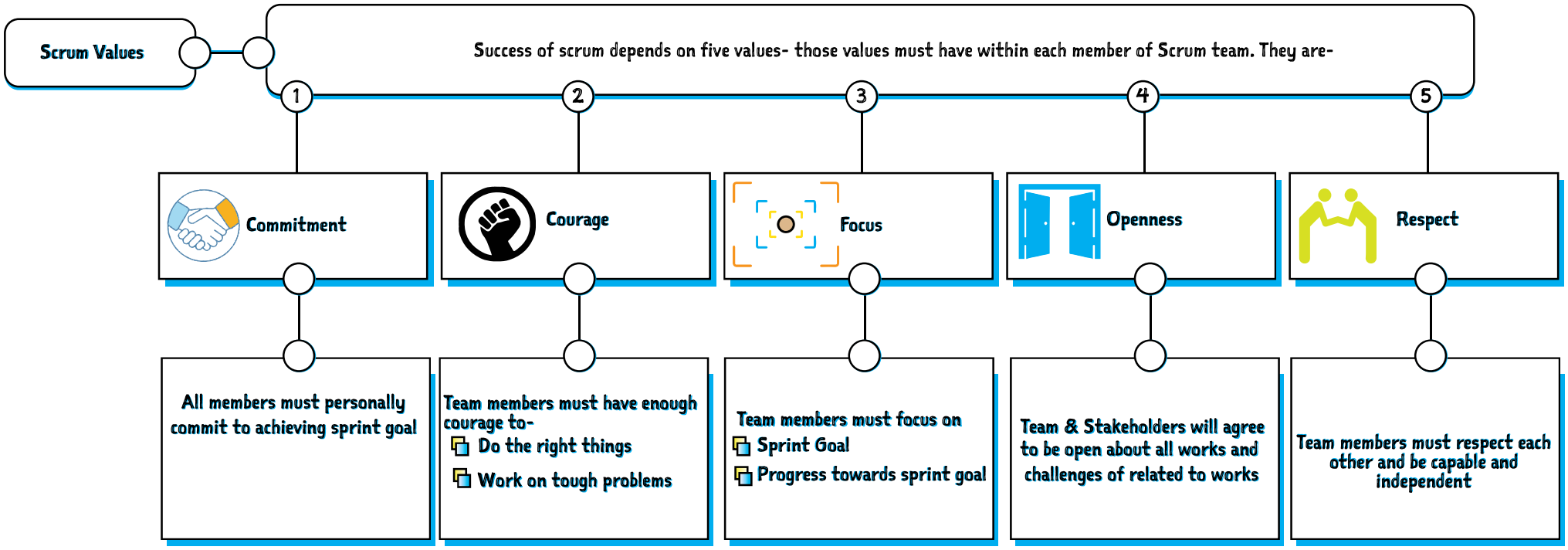
This book is written by- Md. Mojammel Haque (Mojam)
Sr. Technical Lead, InsightIn Technology (BD) Ltd.

*. Some images are collected by random search in Google
This is not like traditional book, consider it as note book

Scrum- Introduction



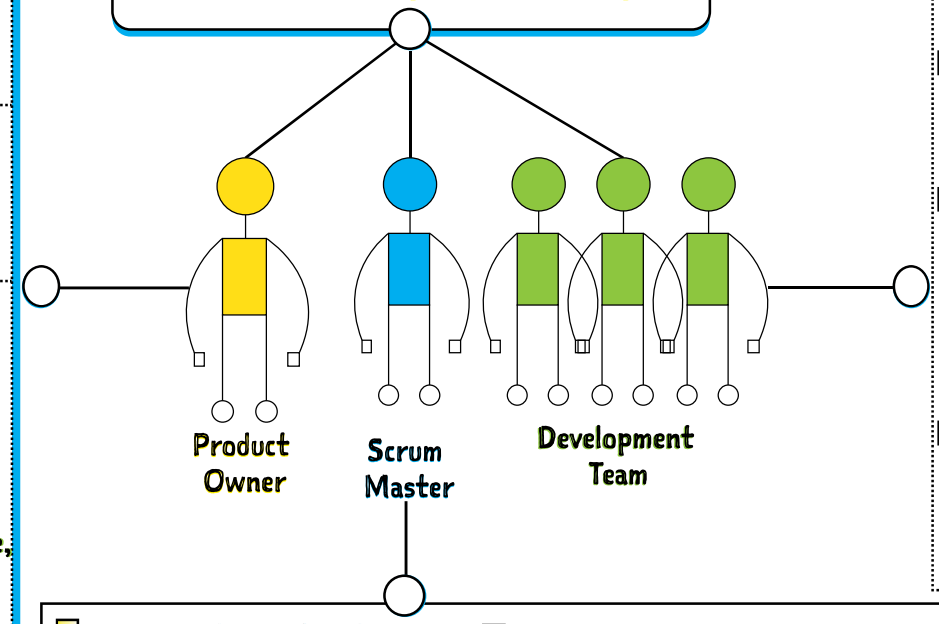
Scrum- Introduction



Scrum- Introduction

Scrum Team

Scrum Team is build by three roles. They are



Responsible for.....

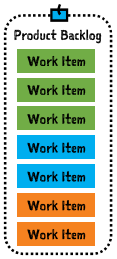
- Overall product vision and goal

product vision and
product goal

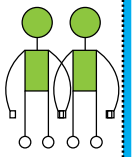
- Managing project roi vs. risk

project roi vs.
project risk

- Managing product backlog



- Clearly express the product backlog items
- Ordering backlog items based on their priorities
- Ensures backlog items visible, transparent and clear to all
- Ensures development team understands the items of backlog to the level as needed



- Participates actively in Sprint Planning and Sprint Review meetings, and is available to team throughout the Sprint
- Determines release plan and communicates it to upper management and the customer

- Responsible for delivering a potentially releasable increments of "Done" product at the end of the sprint
- Self Organizing :
  Team manages itself to achieve the Sprint commitment
- Cross Functional :
  All the skills as a team necessary to create a product Increment
  Team takes on tasks based on skills, not just official "role"
- Size should be of 6 persons, + or -3
  - Can be shared with other teams (better when not)
  - Can change between Sprints (better when don't)
  - Can be distributed (better when co-located)

Servant-leader for the team

Does everything to help the team achieve success including-

1- Serving the Team

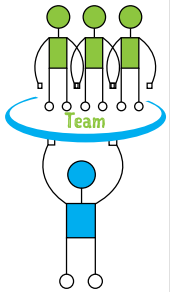
- Remove impediments to the team's effectiveness
- Facilitates the team's group interactions, to help the team achieve its full potential
- Coaches the team, to help them improve their practices

2-Protecting the team

- Protects the team from anything that threatens its effectiveness, such as outside interference or disruption
- Deal with uncomfortable issues, both inside and outside the team

3- Guiding the team's use of SCRUM

- Teaches Scrum to the team and organization
- Ensures that all standard Scrum rules and practices are followed
- Organizes all Scrum-related practices

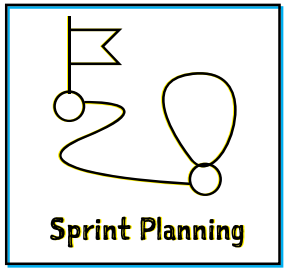


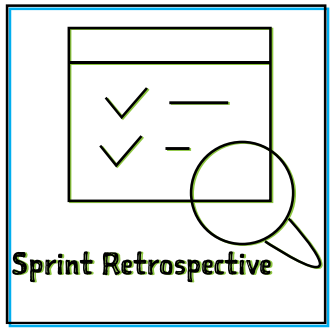
The Servant Leader

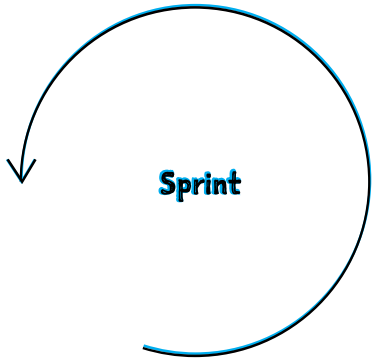
Scrum- Introduction

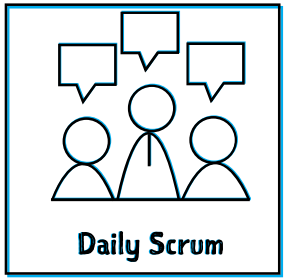
Scrum Events

Events are activities of Scrum process those we executes to achieve the goal

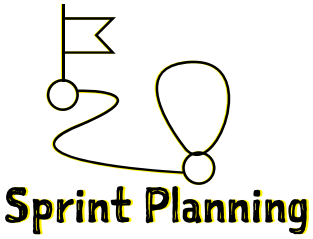




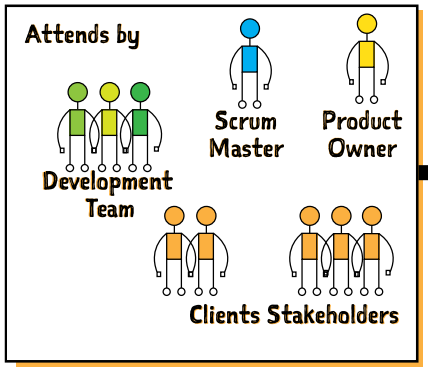


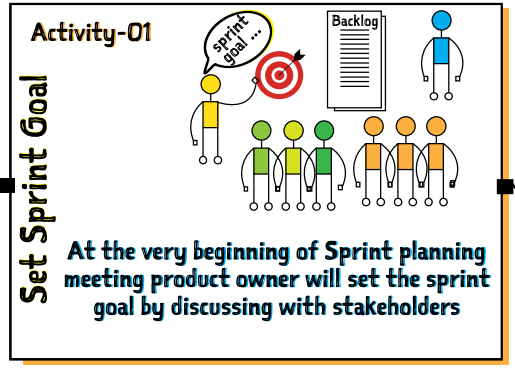


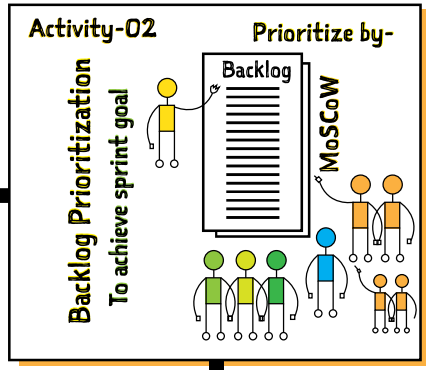
Scrum- Introduction

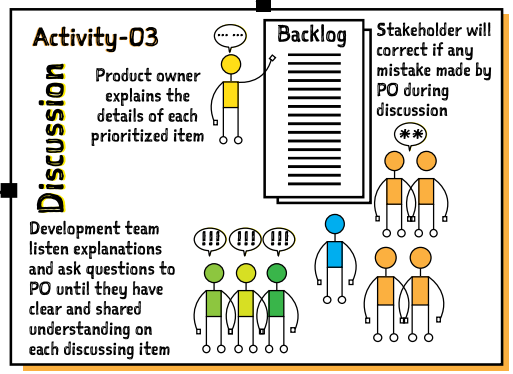


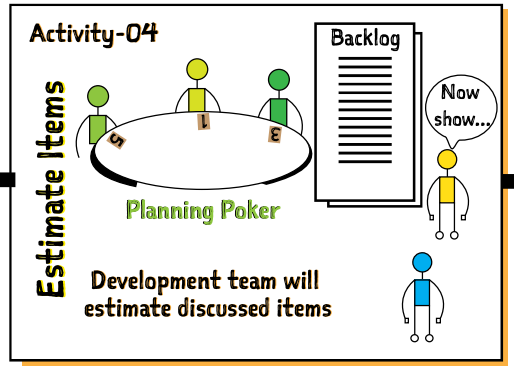
Sprint Planning

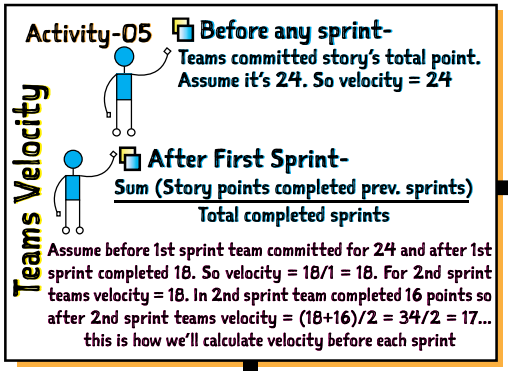


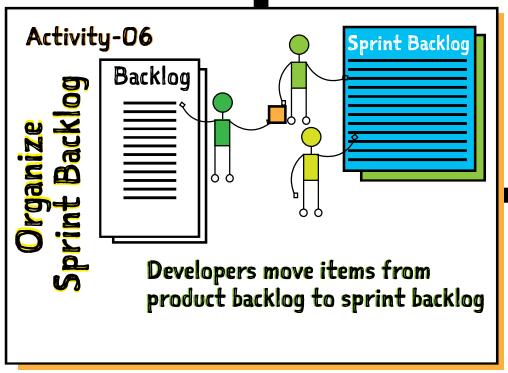


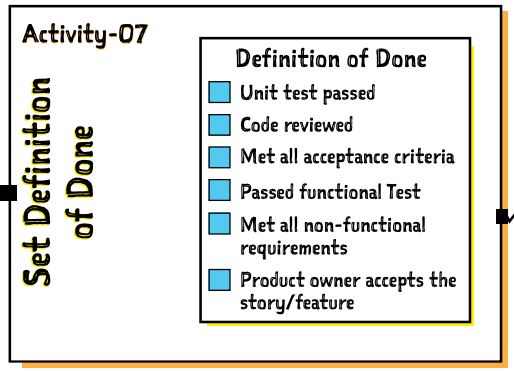


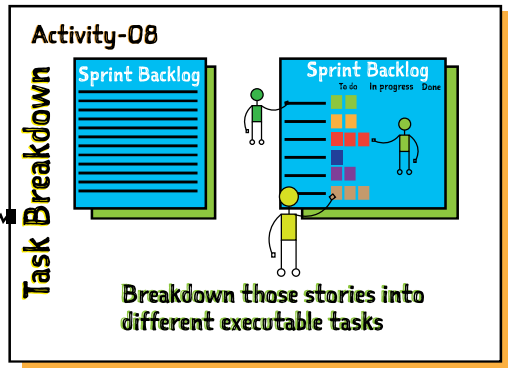












This book is written by- Md. Mojammel Haque (Mojam)
Sr. Technical Lead, InsightIn Technology (BD) Ltd.

*. Some images are collected by random search in Google
This is not like traditional book, consider it as note book

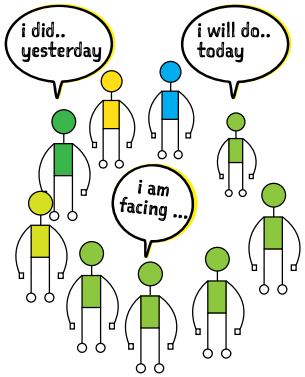
Scrum- Introduction

Sprint

- Heart of Scrum
- This is the place where ideas turned into values
- Sprint is time boxed, fixed length- usually one month or less- this short duration ensures consistency
- A new sprint starts immediately after the conclusion of previous sprint
- During sprint duration everything we do is to achieve the sprint goal
- Sprint Planning, Daily Scrum, Sprint Review and Retrospective happens within the sprint
- To convert requirement to product we design, develop and test all features during sprint duration
- No changes allowed during sprint duration - that can endanger the sprint goal

Daily Scrum

- All members will stand in a circle facing each other
- Each development member one after another will answer following three questions-
  1. What he / she did yesterday
  2. What he / she will do today
  3. Is there any obstacles or impediments facing- that prevents progress towards sprint goal
- Duration of the meeting is 15 minutes



Daily Scrum

- Scrum Master will facilitate the meeting
- Entire Development team will join the meeting
- Presence of Product owner into this meeting is optional- if he/she willing to join can join, else not- entirely depends on his/her willingness
- No other discussion allowed except answering those three questions

- If anyone needed help for removing impediment then- after the meeting scrum master will assign right person for helping- but not during the meeting