Note: We are freezing requirement after feasibility analysis or study because of which customer cannot ask for changes. 60
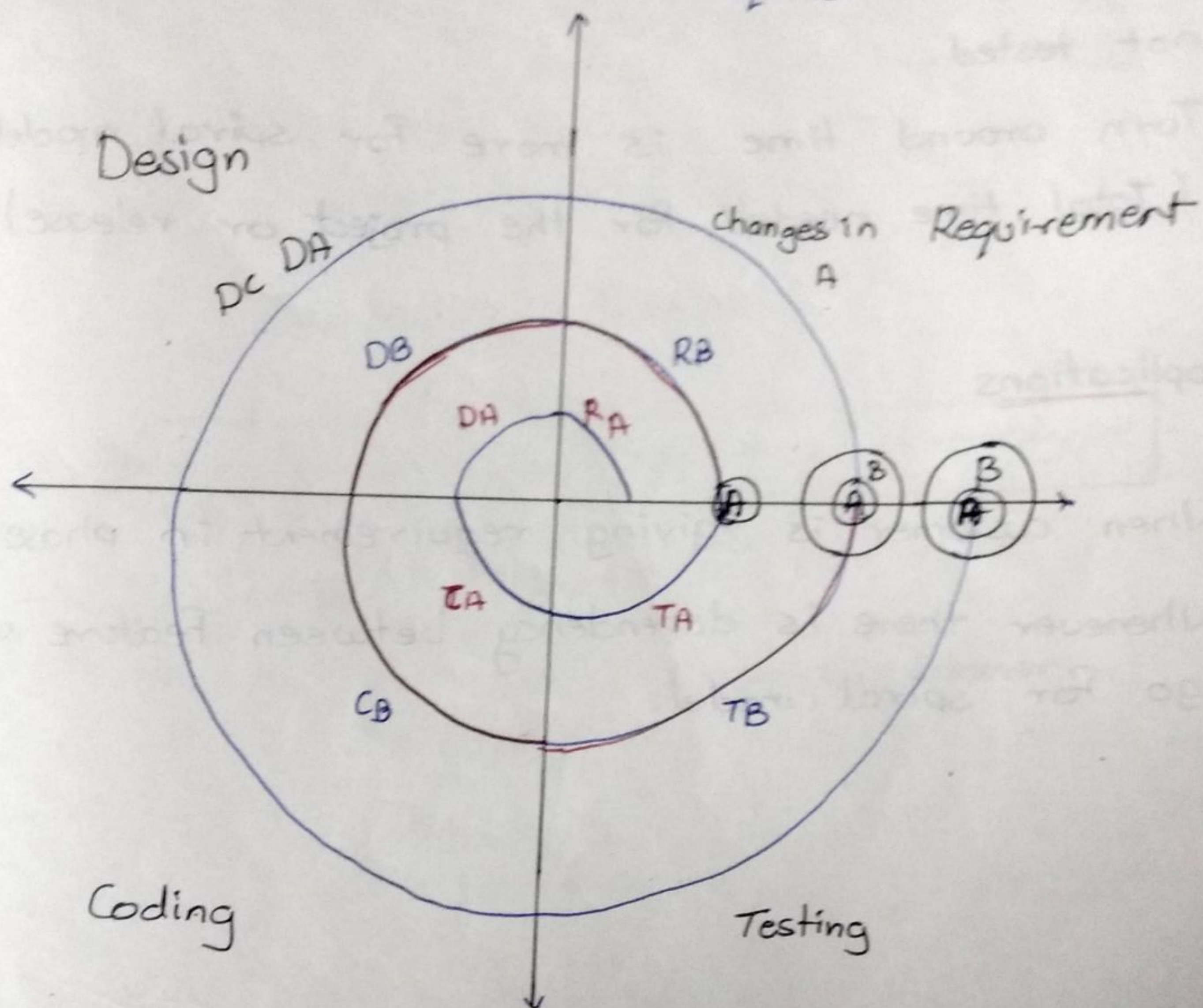
Spiral Model (Dependency & customer is giving requirement in phases).

Design

Dc DA

DB

DA   RA   RB

changes in Requirement

A

A   A   B   B

A

TA   TA

CB   TB

Testing

Coding

Advantages:

1. We first design a module code it, test it then only add new module.

2. It is a Flexible modfel where customer can ask for changes whenever they ask

Initiall investment is less.

Drawback's

1. As it is a traditional model developer is only involved in testing.

2. Even in this model testing is done after coding. i.e requirements are not tested, design is also not tested.

3. Turn around time is more for spiral model. (Total time needed for the project or release).

Applications

1. When customer is giving requirement in phase.

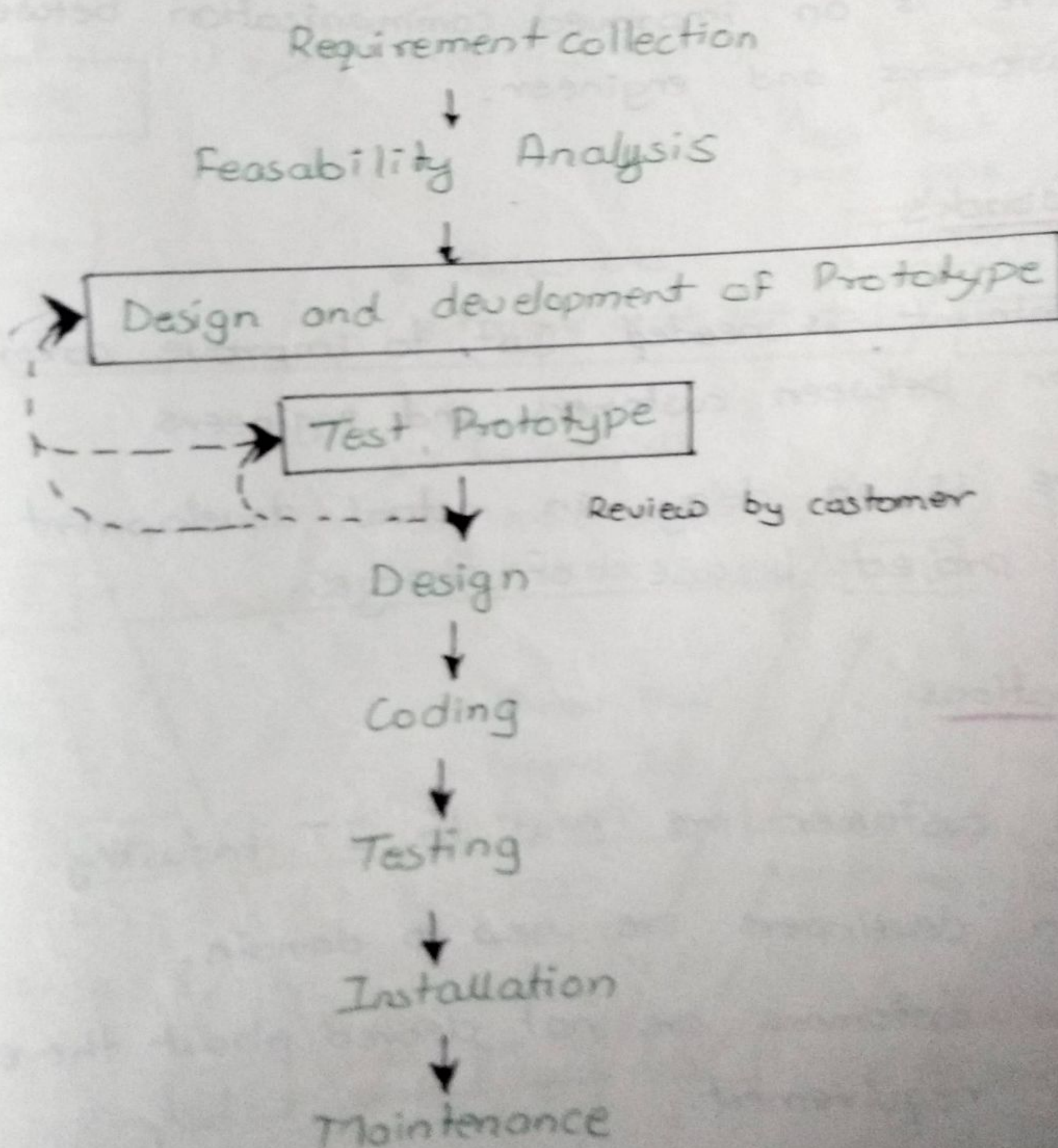2. Whenever there is dependency between feature we go for spiral model.

Prototype Model

Note   In this use build mock screens or mocks
          which only represents the UIA of the s/w.

Prototype In this model ore designed by UI UX
          engineers

Requirement collection
↓
Feasability Analysis
↓
Design and development of Prototype
↓
Test Prototype
↓   Review by customer
Design
↓
Coding
↓
Testing
↓
Installation
↓
Maintenance

Advantages :-

1. Customer gets to know what they will receive in the begining of the project.

2. Customer con ask for the changes in the begining itself

3. Developer get know what they have to code.

4. There is an improved communication between customers and engineer.

Drawback's

1. Investment is needed just to improve communication between customers and engineers.

2. There is an delay in actual development of the project. because of changes.
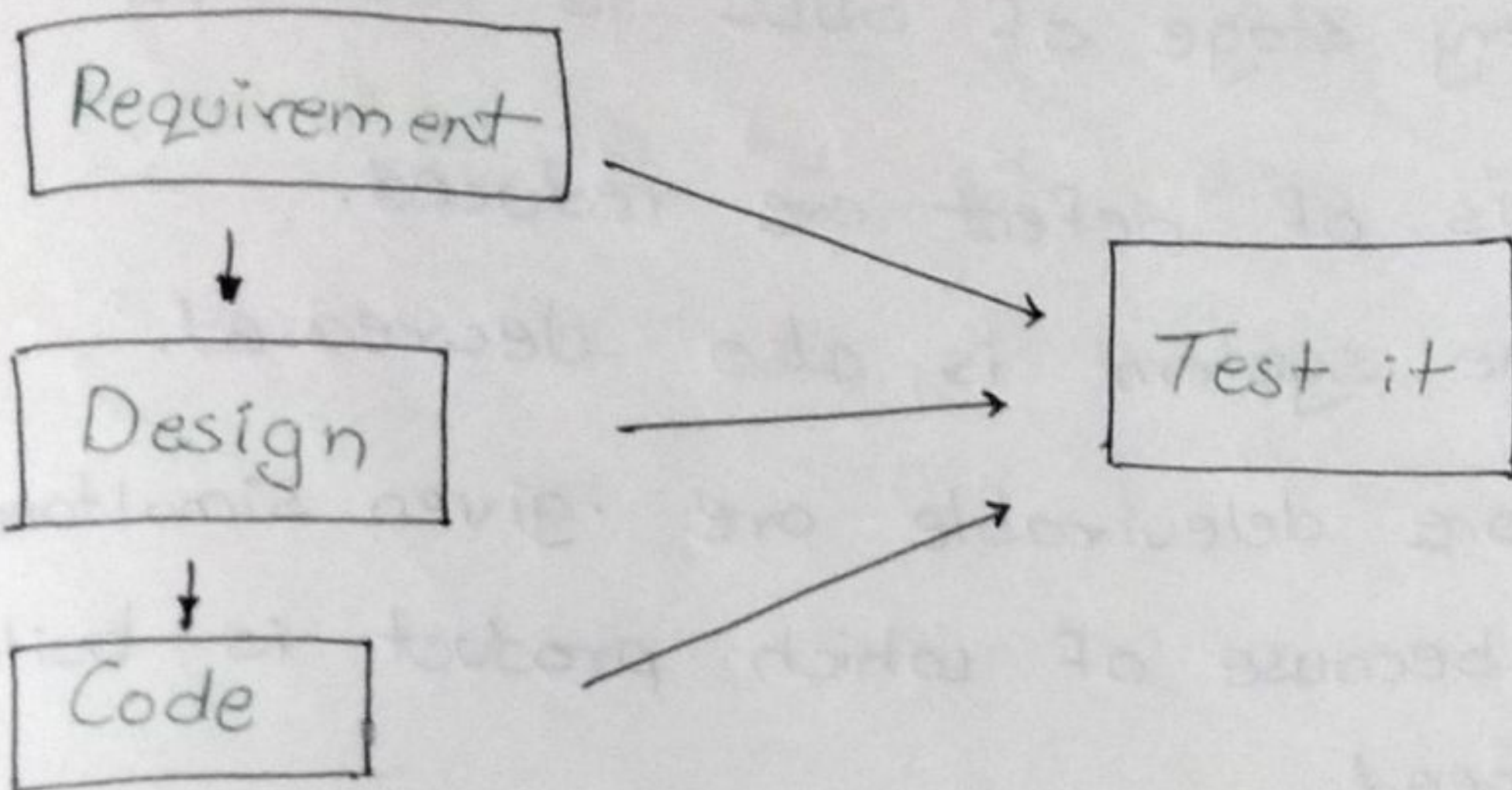
Applications

1. When customer are new to IT industry.

2. When developers are new to domain.

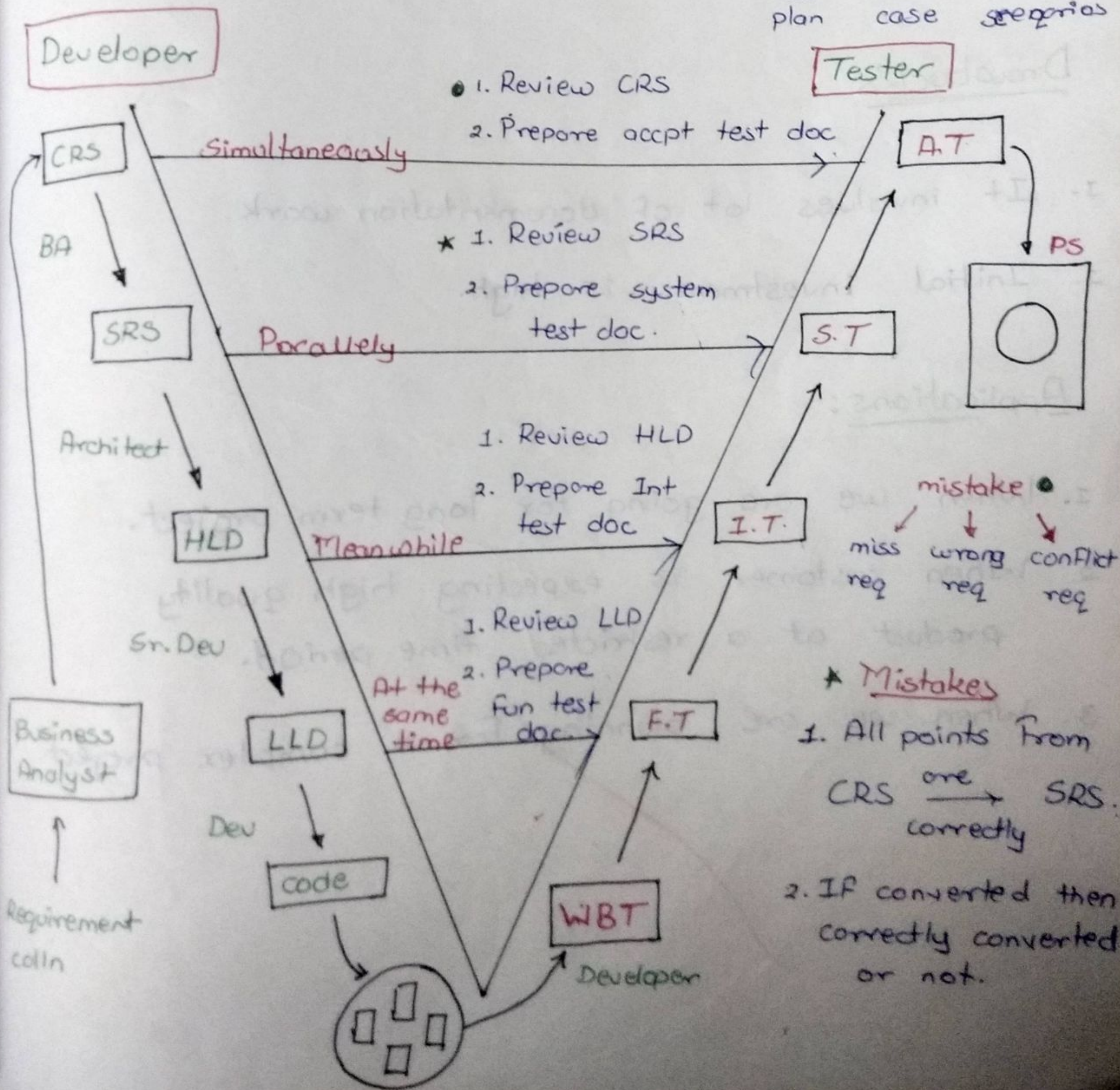3. When customers are not cleared about there own requirement.

V model (V & V model)

```
Requirement ──┐
     │         │
     ↓         ↓
   Design ──────→  ┌─────────┐
     │         ↗   │ Test it │
     ↓       ↗     └─────────┘
   Code ───┘
```

Developer

Tester

test doc
test ← test ↓ test ↗
plan   case scegonios

1. Review CRS
2. Prepare accpt test doc

CRS ──── simultaneously ────→ A.T

BA

1. Review SRS
2. Prepare system test doc.

SRS ──── Parallely ────→ S.T   PS
                                               ○

Architect

1. Review HLD
2. Prepare Int test doc

HLD ──── Meanwhile ────→ I.T.

mistake
miss wrong conflict
req   req   req

Sr. Dev

1. Review LLD
2. Prepare fun test doc

At the same time

LLD ────→ F.T

★ Mistakes

1. All points from CRS ──one──→ SRS. correctly

Business Analyst

Dev

code

Requirement colln

WBT

Developer

2. If converted then correctly converted or not.

Advantages

1. Total investment is less.

2. Each and every stage of SDLC is verified.

3. Downward flows of defect are reduced.

4. Rework in the system is also decreased.

5. The outputs are delevirable are given simultaneously or parallely because of which product is build at a high speed.

Drawback's

1. It involves lot of documentation work.

2. Initial investment is high.

Applications:

1. When we are going for long term project.

2. When customer is expecting high quality product at a restricted time period.

3. When we are planning for a complex project.