SDLC :- Software Development Life Cycle.

- SDLC model is used for developing software application., It is generalised process.
- Stages of SDLC is as follows:-

1) **Information Gathering :-**
   - BA (Business Analyst) will collect all requirements from the clients.
   - BA will prepare one document called | BRS |
   - BRS stands for Business Required Specifications.

   For eg. Flipkart clients :- Requirements are like search options, categories, notifications, carts, payments etc.
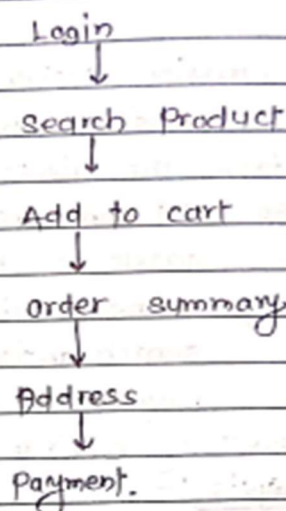   - BRS is having overview of project.

2) **Analysis :-**
   - BA will prepare another document known as | SRS |
   - SRS stands for software Required specifications.
   - SRS is also known as | FRS |, Functional Required specif.
   - SRS contains detailed requirement of project.
   - SRS is prepared with Reference of BRS.
   - Every functionality eloborated in SRS.

   ★ SRS depends upon **3** factors :-
   a) Functional Requirements :- Detailed information of each functionality has been decided in this.

   e.g. Login to page/ Flipkart :- Sign up, Login, Registration, Email, First & last name, submit, clear, cancel, etc.
   - Each functions are specified and well decide.

b) **Functional Flow diagram :-**
  - It is step by step execution of application.

eg. Flipkart client. ⟹ open flipkart.
↓
Login
↓
Search Product
↓
Add to cart
↓
order summary.
↓
Address
↓
Payment.

c) **Screenshot / Snapshot :-**
  - It is Graphical representation of project.
  - it is visualisation of functionality of application.
  - it is an approval taken from clients to proceed further.

IRIS tool is used.

3) **Design :-**
  - focused on design of application. with the help of SRS document.
  - There are two types of Design :-

(i) **High-level Design :-**
  - Architecture is the responsible person.
  - focused on Regularly / continuous used functionality.
  - Main modules should be priorities.

Main modules ⟹ eg. Home page, searchoption, categories, etc.

(ii) Low Level Design:-
- © UI developer is responsible person.
- © Frequently used functionalities will be focused.
- © Submodules functionalities depends on main modules

sub-modules   eg. contact us, about us, setting, etc.

4) Coding / Development :-
- © This is done by Developer.
- © Two stages of development.
- (i) FED :- Front End Development.
  - © This is done by UI developer.
  - © eg. Logo, home page, categories..

- (ii) BED :- Back End Development.
  - © Responsible person DBA (Data Base Administrator)
  - eg. First name, Last name, password etc.

5) Testing :-
- © To check correctness and completeness of software w.r.t. SRS documents.
- © Tester is responsible person.
- © 3 types of Testing.

(i) WBT (White Box Testing):-
performed by developer
  - © Unit level testing.
  - © For ~~WBT~~ performing WBT, coding knowledge is required.
  - © WBT is performed by Developer before approaching testers (one time checked).
  - © Developers will focused on only positive scenarios

(ii) **BBT** (Black Box Testing).
- It is also known as system & functional testing.
- Tester is responsible person.
- All types of testing has been done in this.
- They will focus on positive as well as negative scenarios.
- Check internal functionalities depend on external functionalities.

(iii) **GBT** (Gray Box Testing) :-
- It is combination of WBT + BBT.
- Focused on both +ve & -ve scenarios.
- For performing GBT, coding knowledge is required.
- If any issue found then GBT tester will fixed it at its level.

6) **Maintainance** :-
- It is a part of service delievery.
- It should be techinal / Non-technical.

SDLC

1) Requirements collection

→ ② Analysis

→ ③ Designing

→ ④ Coding / Development.

→ ⑤ Testing

→ ⑥ Maintainance