SOFTWARE ENGINEERING

Q1. What is Software? What is Software engineering?

- **Software:**

Ans: software is a set of instructions (Input), to be executed (process), for specific task(output).

- **Software engineering :**

Ans: Software engineering is a process to develop any software based on the engineering principles.

Q2. Explain types of software?

Types of Software

System Software	Application Software	Driver Software	Middleware	Progrmming software

1)System Software :in build system, this software is no need to install or Download. It is already provided by the system itself.

EX: Notes , Web browser , Google etc..

2)Application software : This Software dependent to user or Developers. Need to install or Download in your system to use and it provided by developers.

EX : Instagram , Games , Telegram etc..

3) Driver Software : This Software communication between application and hardware and sharing high software.

EX : Audio Driver , Video Driver , Graphic Card etc..

4) Middleware : communication or mediates between System Software and Application Software.
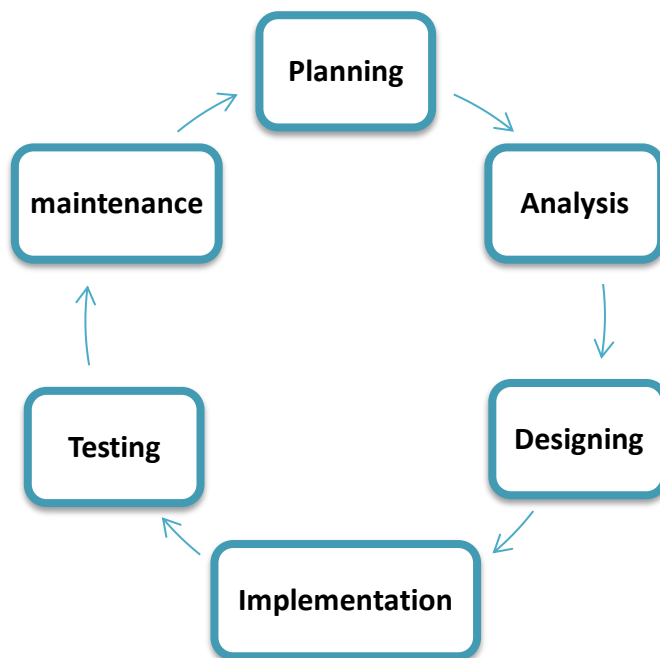
EX : Ms Word , Excel etc..

5) Programming Software : Developers use to this software to write, read and Execute a code .

EX : Visual Studio Code , Dev C++ , Anaconda etc..

Q3.What is SDLC? Explain each phase of SDLC?

Ans. SDLC full form as a Software Develop life cycle as a step by step approach to Developn any software with Quality , in shortest time and within the estimated budget.
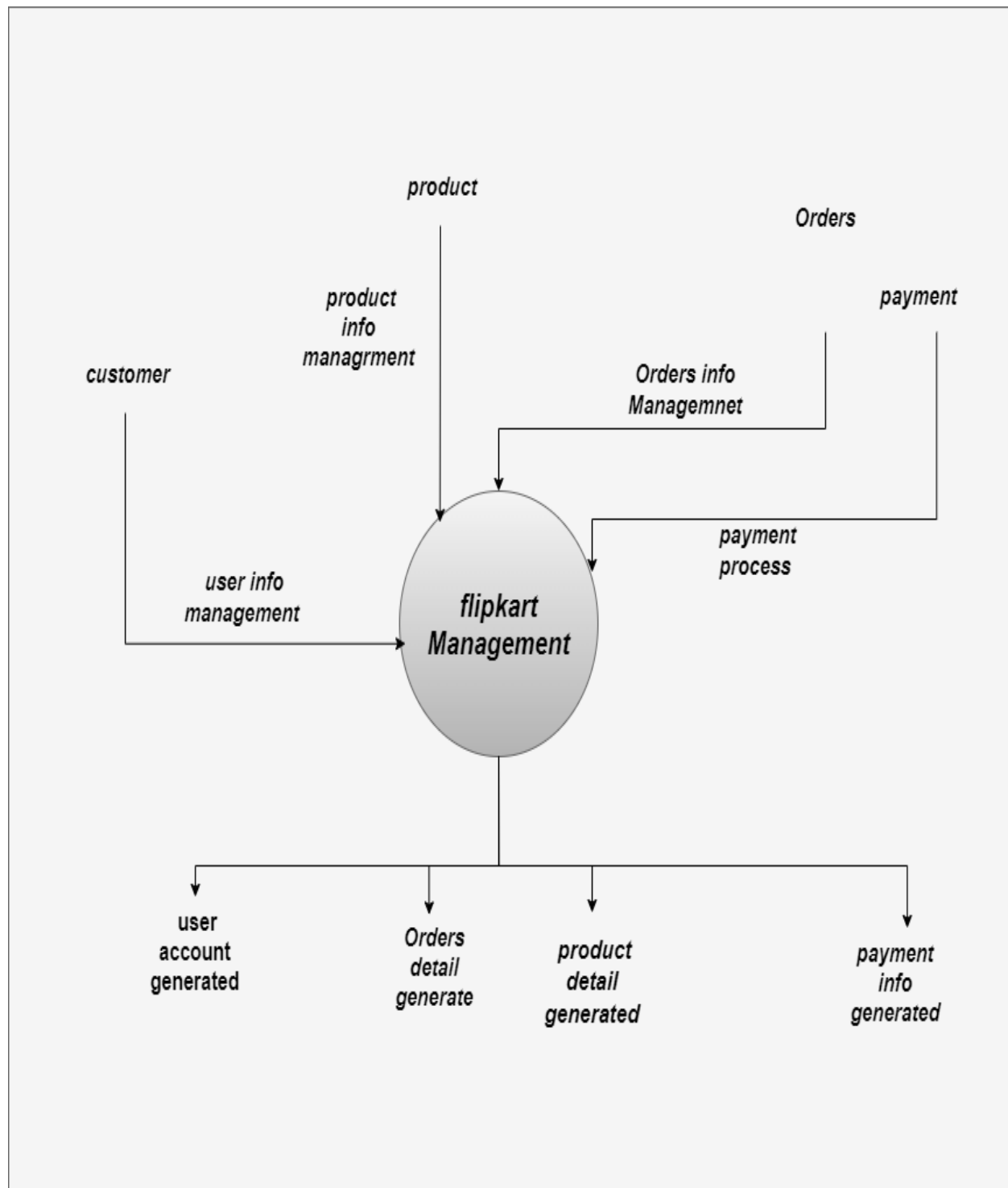
Each Phase of SDLC:

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                    ┌──────────┐
                    │ Planning │
                    └──────────┘
      ┌─────────────┐          ┌──────────┐
      │ maintenance │          │ Analysis │
      └─────────────┘          └──────────┘

      ┌─────────┐              ┌───────────┐
      │ Testing │              │ Designing │
      └─────────┘              └───────────┘
             ┌────────────────┐
             │ Implementation │
             └────────────────┘
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1) planning / requirement gathering : The developer collects Requirements from the client or Company to paln the project.

2) Analysis : Developer Analysis the requirements and creates a Software Requirements (SRC) , ensuring no changes.

3) Designing : developer work from designing , different3d model , ER diagram , User Case diagram , flowchart , data flow diagram etc..

4) Implementation/development/building : developer work from backend side a project implementation or development.

5) Testing : The Developer meets the client to tested the project and client check the work is correctly success.

6)Maintenance : maintain the project according to the developer Time prior.

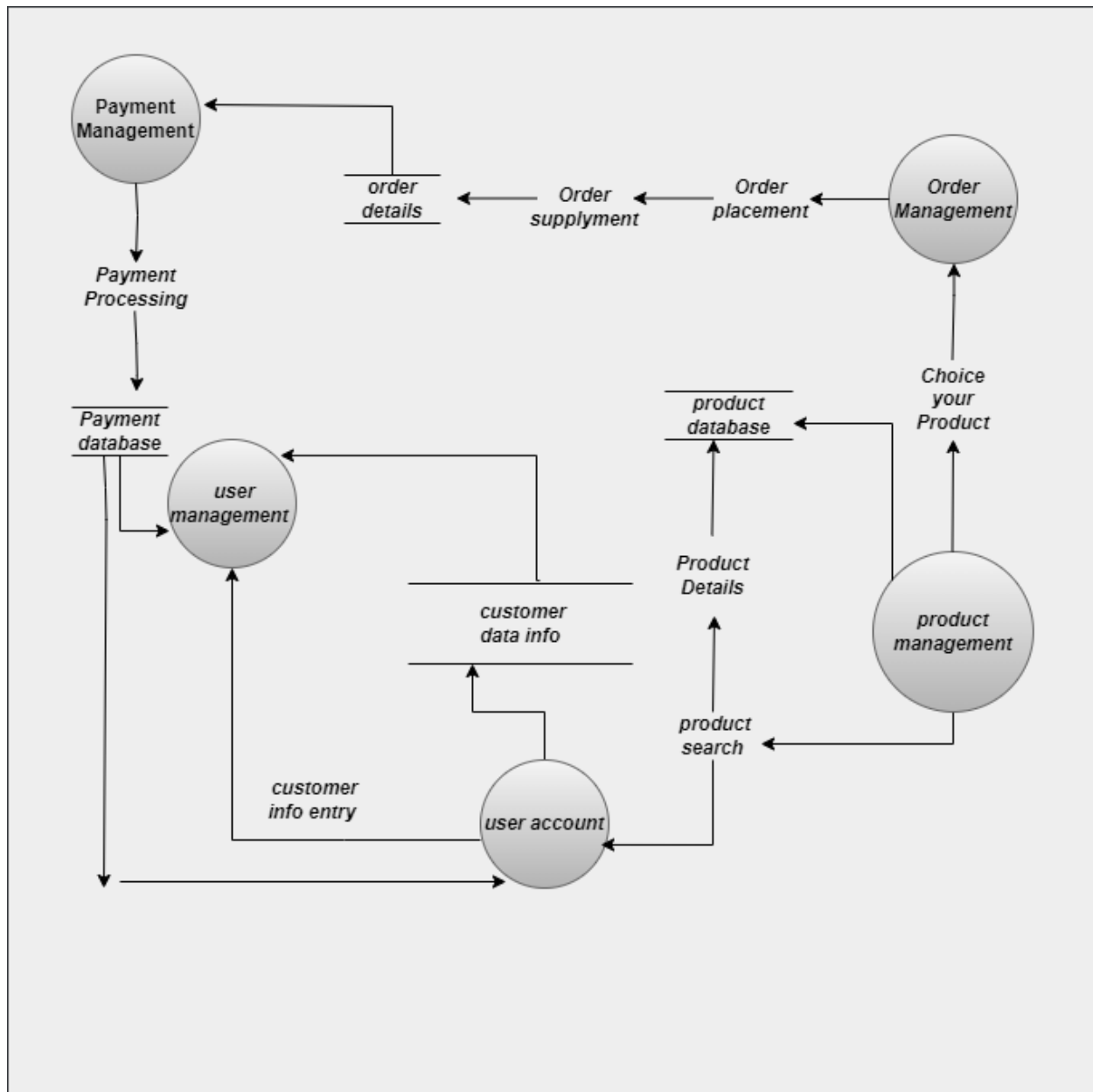**Q4. What is DFD ? Create a DFD Diagram on Flip Kart ?**

- DFD also Know as data flow diagram.
- A graphical tool , useful for communicating with users , managers and other personnel.
- DFD also known as Bubble Chart.

Components of DFD:

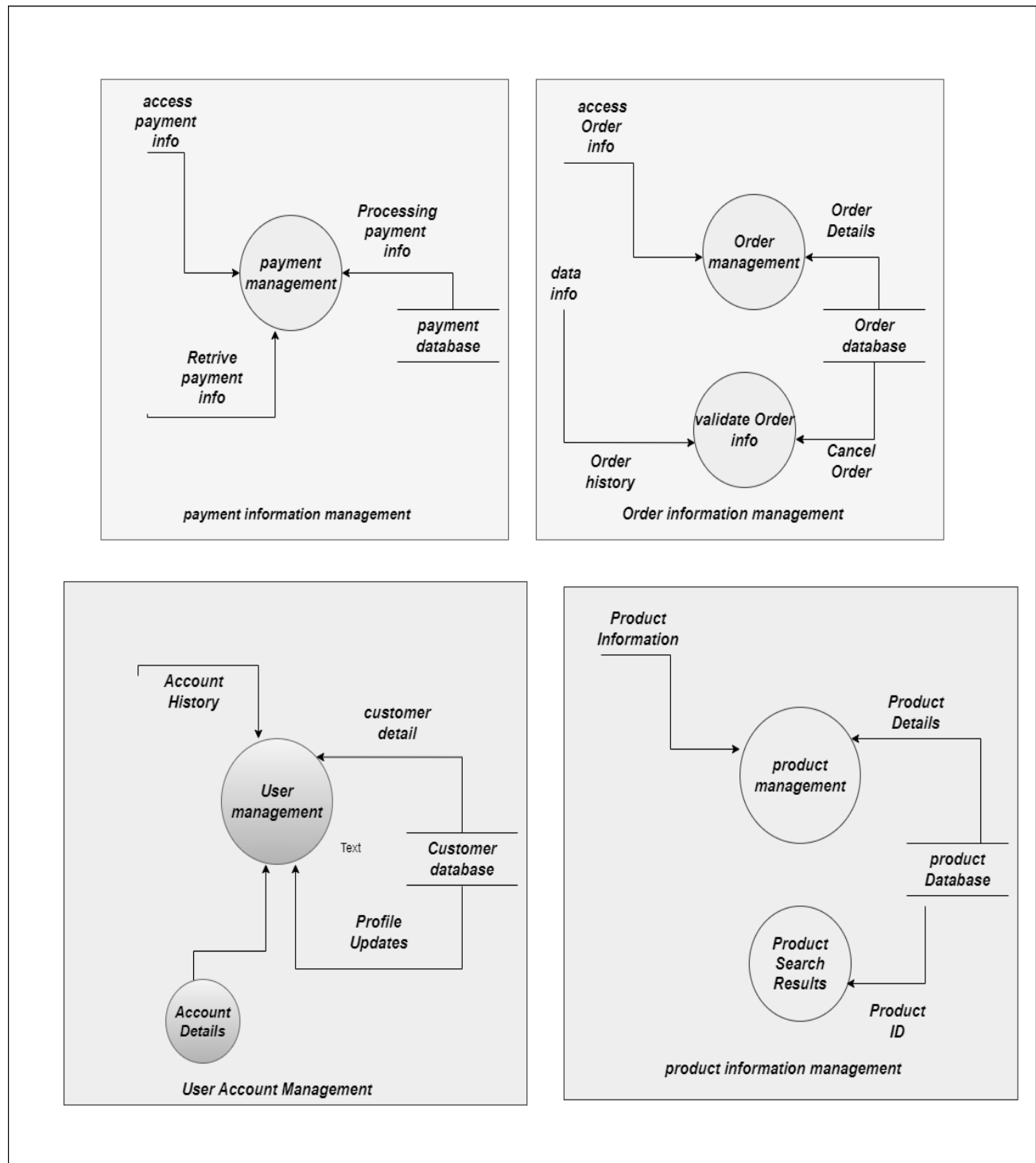- Process
- Data Flow
- Data Store
- External Entity

Level-0 DFD of Flip Kart Management system

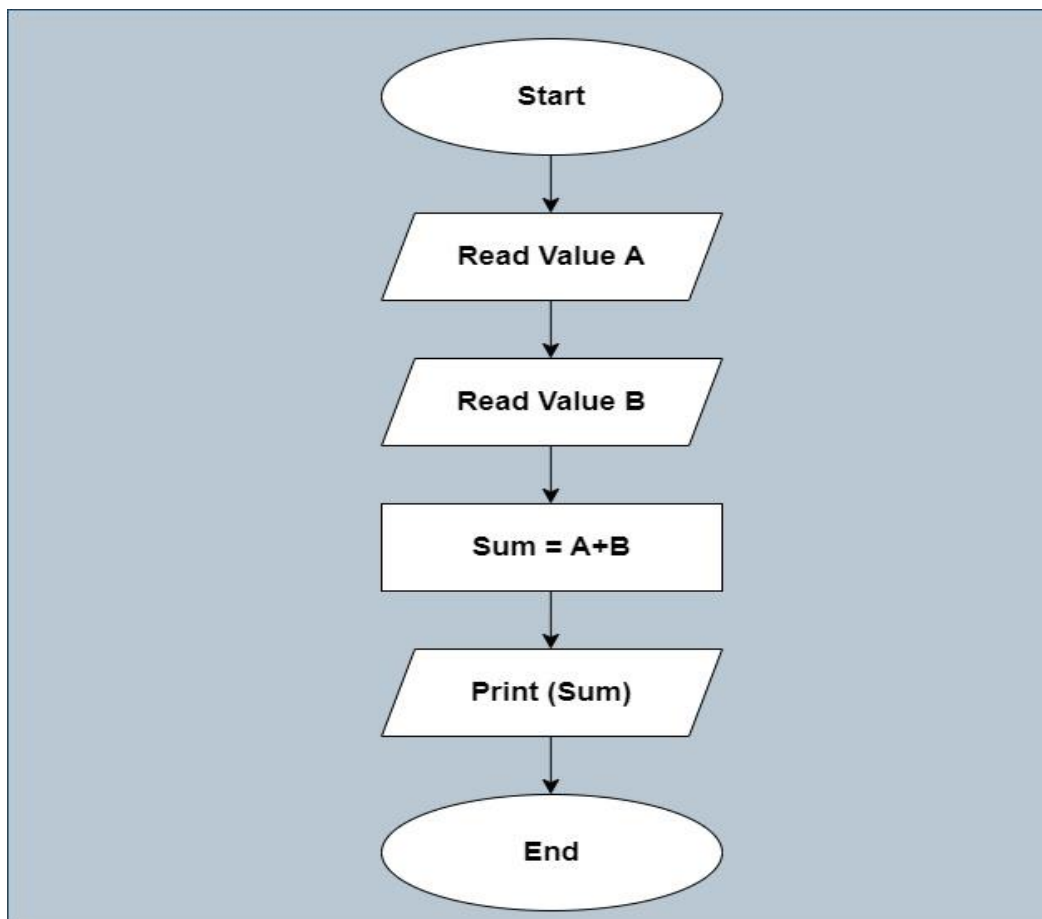**Level-1 DFD of Flip Kart Management system**

Level-2 DFD of Flip Kart Management system

Q5. What is Flow Chart? Create a Flow Chart to make addition of two Numbers ?

Ans. A Flow Chart is a Diagram that Graphical representation of algoritham.

- A Flow Chart is use to symbols , Shapes and Arrows in process.

- Flow chart is step by step process and solve a task to easily understand and make a decision.

Q6.What is Use Case Diagram ? Create a use case diagram On Bill payment on paytm ?

Ans. Use Case diagram is a Seqaunce of Actions Performed by the Actors.

- Use Case Diagram is use to how process is solve in Sequnace of steps in your task.
- Mainly 3 types of components:
  - ➢ Actor
  - ➢ Use Case
  - ➢ Association