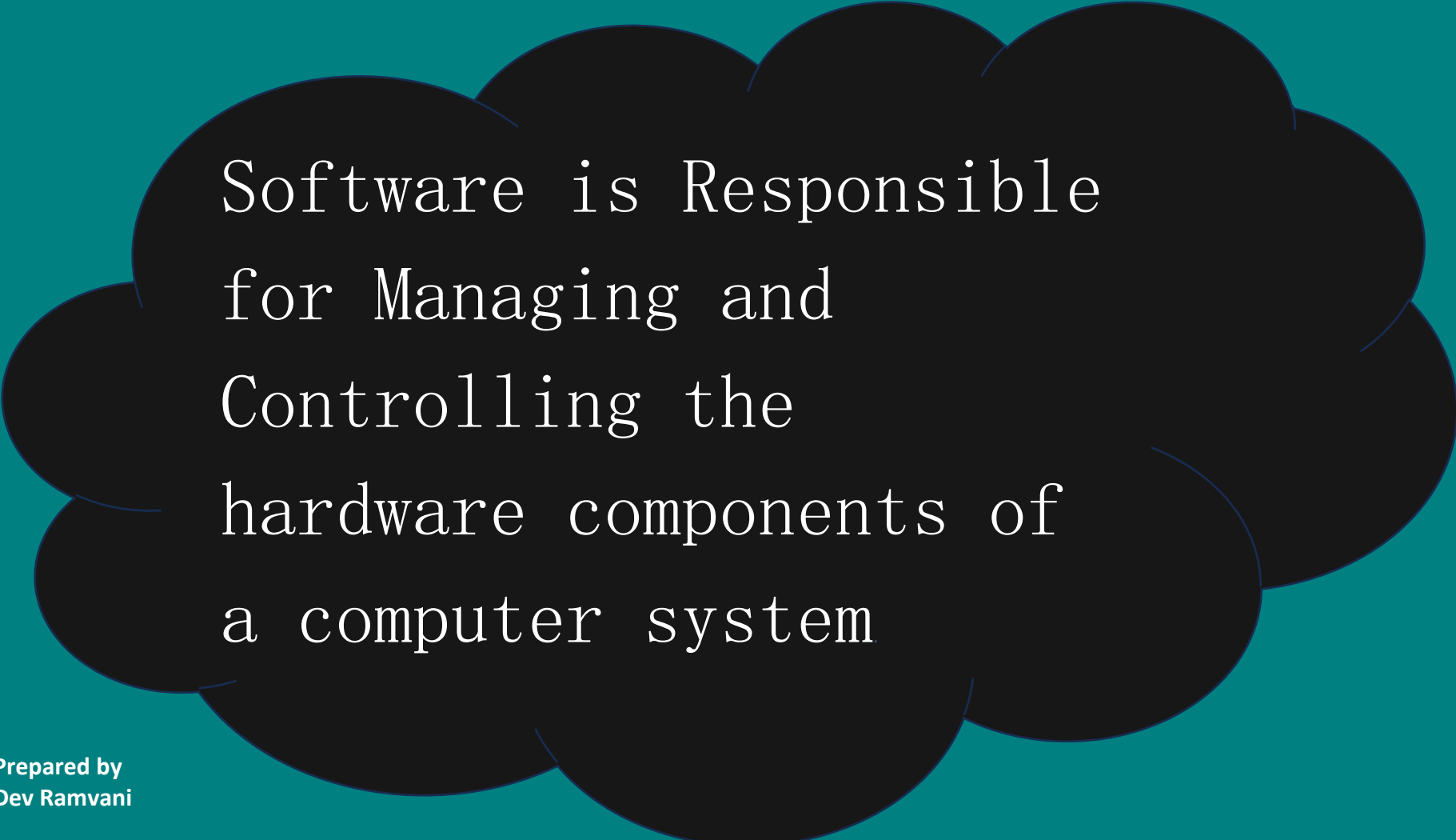


# WHAT IS SOFTWARE

Software is a set of  
Instruction, data or  
Programs used to Operate  
Computers and Execute  
Specific Tasks.

# Software in another Words



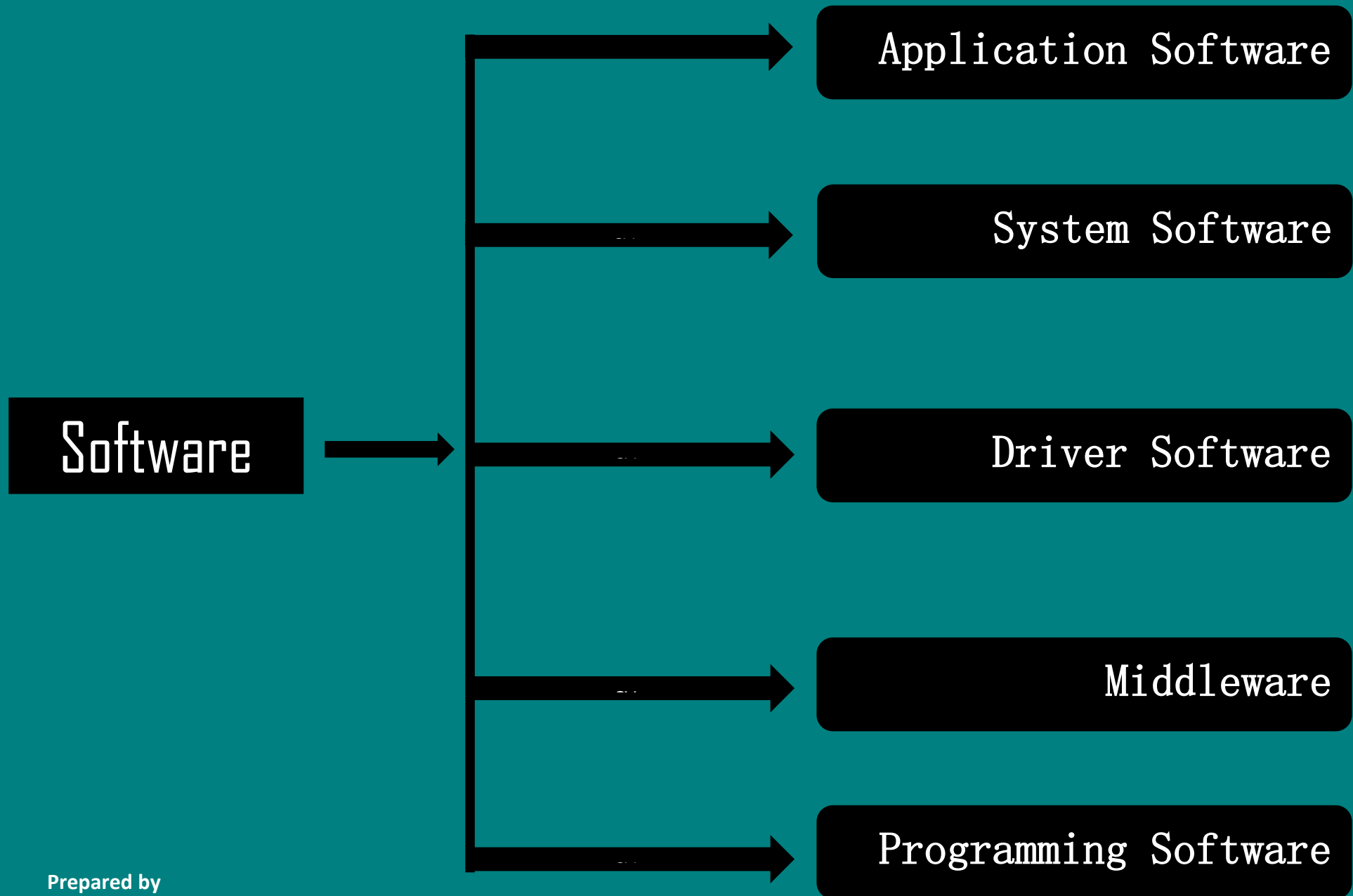
Software is Responsible  
for Managing and  
Controlling the  
hardware components of  
a computer system

# What is Software Engineering

It is a Systematic and Disciplined approach to software development that aims to create high-quality, reliable, and Maintainable Software.

# What is Software Engineering in Simple Words:

Based on the requirements, software Engineers create a high-level design that outlines the overall architecture and structure of the software system.



Application Software	System Software	MiddleWare Software
<p>The computer program that Performs a Specific Personal, Educational, and Business Function.</p> <p>TYPES OF APPLICATION SOFTWARE:</p> <ul style="list-style-type: none"> <li>• Productivity Software</li> <li>• Web Browsers Software</li> <li>• Graphics &amp; Design Software</li> <li>• Gaming Software</li> <li>• Communication Software</li> <li>• Business Software</li> </ul>	<p>The computer program that is designed to run a computer's hardware and application programs</p> <p>TYPES OF SYSTEM SOFTWARE:</p> <ul style="list-style-type: none"> <li>• Operating System</li> <li>• Device Drivers</li> </ul>	<p>The software that lies between an operating system and the applications running on it.</p> <p>TYPES OF MIDDLEWARE SOFTWARE</p> <ul style="list-style-type: none"> <li>• Database Management Systems</li> <li>• Web Servers</li> <li>• Middleware for Integration</li> </ul>

# Programming Software

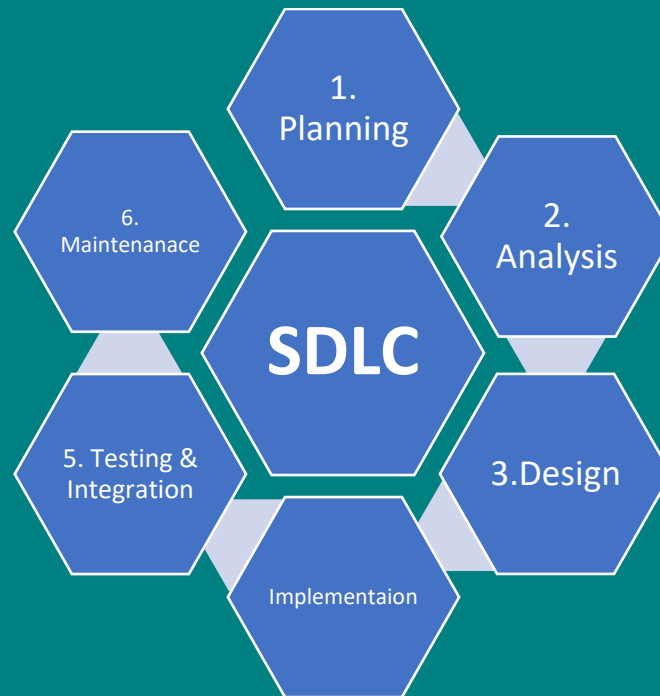
**Programming Software is a Program or set of Progress which helps the Software developers by assisting them in creating , debugging and maintaining other Programs.**

Types of Programming Software:

- Visual Studio Code
- Eclipse
- PyCharm
- Node.js      etc.....

# SDLC

- The Software Development Life Cycle means It is a Methodology with defined processes for Creating High-Quality Software.





## PLANNING:

**GOAL:** Develop a Plan outlining the Project scope, timeline, resources, and budget.

**ACTIVITIES:** Define Project Goals, Create a Project Schedule, allocate resources, and identify potential risk, Develop a Project Management Plan.

## ANALYSIS:

**GOAL:** Understand and document the Project's Objective user requirements, and Constraints.

**ACTIVITIES:** Conduct interviews, Surveys, & Meetings with stakeholders to gather information. Analyze and document functional and non-functional requirements.

## DESIGN:

**GOAL:** Create a blueprint for the System based on the gathered requirements.

**ACTIVITIES:** Design the architecture of the systems, including high-level and Low-level design Specifications. Define data structures, modules, Interfaces, and algorithms.

## IMPLEMENTATION:

**GOAL:** Transform the design into executable code.

**ACTIVITIES:** Write, Compile, and test the Code according to the design specification. Developers work on creating the software based on the design documents.

## TESTING & INTEGRATION:

**GOAL:** Ensure that the software meets the specified requirements and is free of defects.

**ACTIVITIES:** Conduct various levels, including unit testing, Integration testing, System testing, and acceptance testing.

## MAINTENANCE:

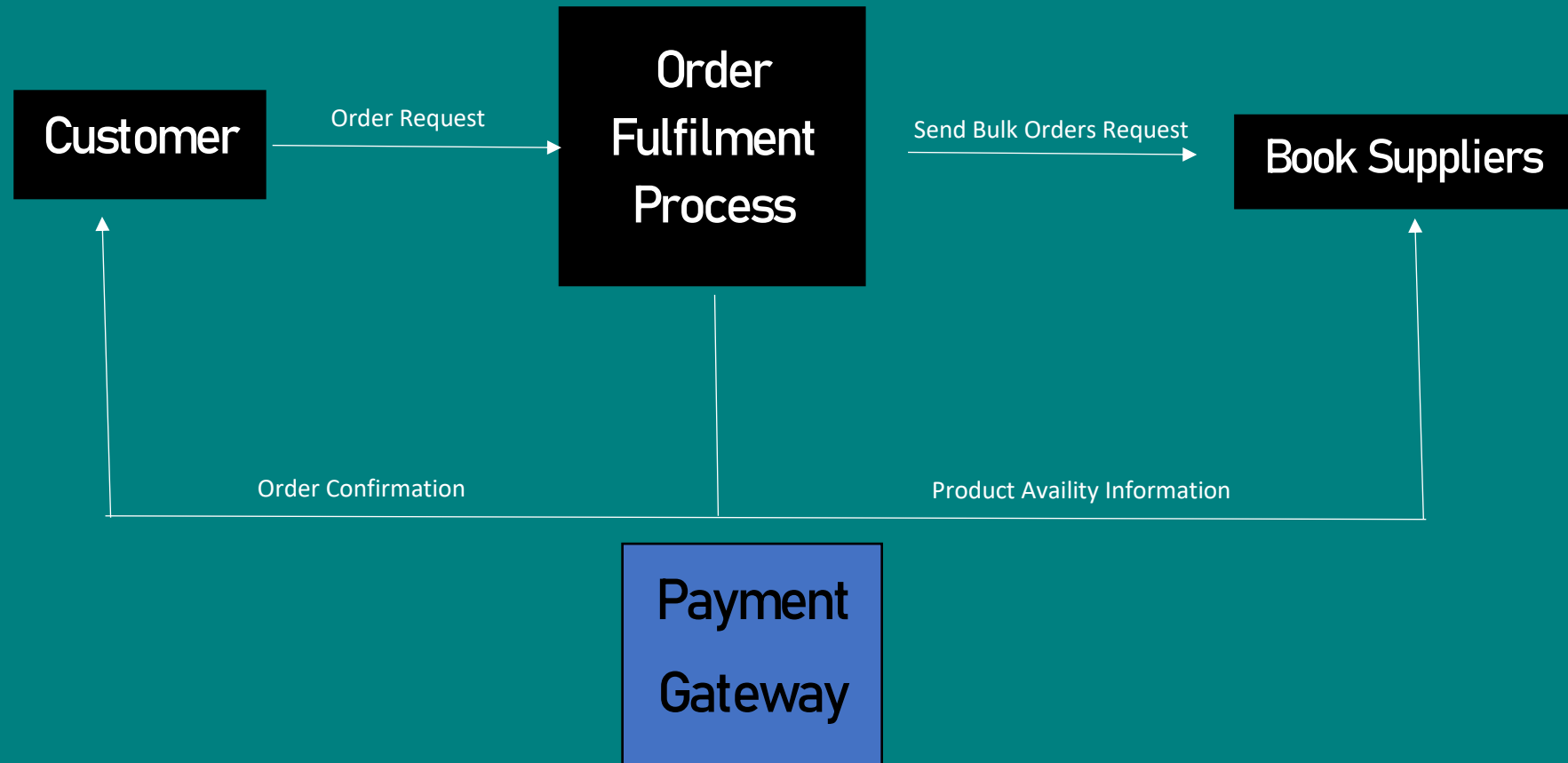
**GOAL:** Address Issue, add new features, and adapt the software to changing requirements.

**ACTIVITIES:** Monitor the Systems Performance, fix bugs, and make updates as needed. Provide ongoing to users and address maintenance requests.

# What is DFD

DFD stands for Data Flow Diagram. It is a graphical representation of the flow of data within a system, illustrating how inputs are processed and transformed into outputs

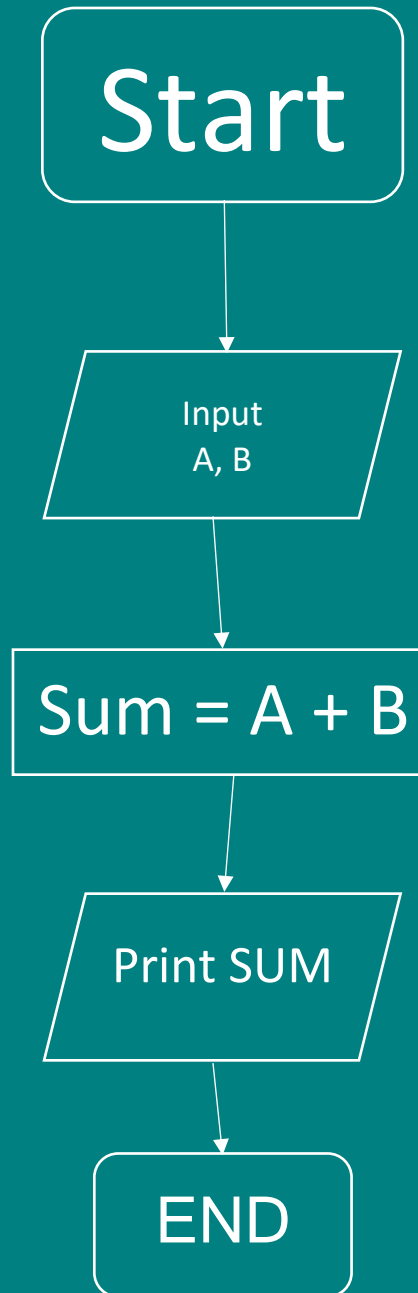
## DFD diagram of Flipkart



# What is Flow Chart?

A Flow Chart is a Graphical Representation of a Process or Algorithm, typically consisting of Various Symbols, Shapes, arrows to illustrate the steps involved and the Flow of Information or activities within the Process.

FLOWCHART TO MAKE  
ADDITION OF TWO  
NUMBERS



# Use Case Diagram

A USE CASE Diagram is a type of Unified Modeling Language (UML) diagram that represents the Interaction between different actors and a System, showcasing how the System Responds to Various actions or events. It Provides a high-level view of the system's Functionality and the ways in which external entities interact with it.



