

TOPS TECHNOLOGIES

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Software Engineering Assignment Module-1

1)What is software? What is software engineering?

S/W is the language of computer programs and related data that provide the instructions for telling a computer what to do and how to do it

2) Explain types of software

- ☐ **(i) System software/operating system: provide the basic functions for computer usage and helps to run the computer hardware and system.**
- ☐ **Basically OS coordinates the different hardware components of a computer**
- ☐ **Ex. Linux, windows, ios**
- (ii) Application s/w: is the general designation of computer programs for performing user tasks.**
 - Types of application s/w**
 - 1) Mobile app**
 - Application that run on mobile**
 - Ex. Ig, fb, etc...**
 - 2) Desktop app**
 - That run stand-alone in a desktop or laptop computer.**
 - Ex. Ms office suite which includes Word, Excel, Power point.**

-Ex. Outlook for email, Chrome, Mozilla are web browser.

3)Web app:

-That run on a web browser

-ex google.com, facebook.com, etc..

(iii)Programming s/w:

-is the process of designing, writing, testing and maintaining the source code of computer program

-This s/w is written in a programming language.

-This purpose of programming is to create a program that exhibits a certain desired behavior.

-ex.c++,html,java,php, python and visual basic.

3)What is SDLC? Explain each phase of SDLC

❖ Timeline+budget+quality

A step by step approach to develop any products/software high quality,lowest cost with shortest possible time.

Phases:(i)Planning/Requirement

Gathering(what):Establish Customer Needs

(ii)Analysis(How):Model and Specify the requirements- -What ||

(iii)Designing (DFD, Flow chart,ER,Use case):Model And Specify a Solution- -Why ||

(iv)Implementation/Coding/Building:Construct a Solution In Software

(v)Testing(QA):Validate the Solution In Software

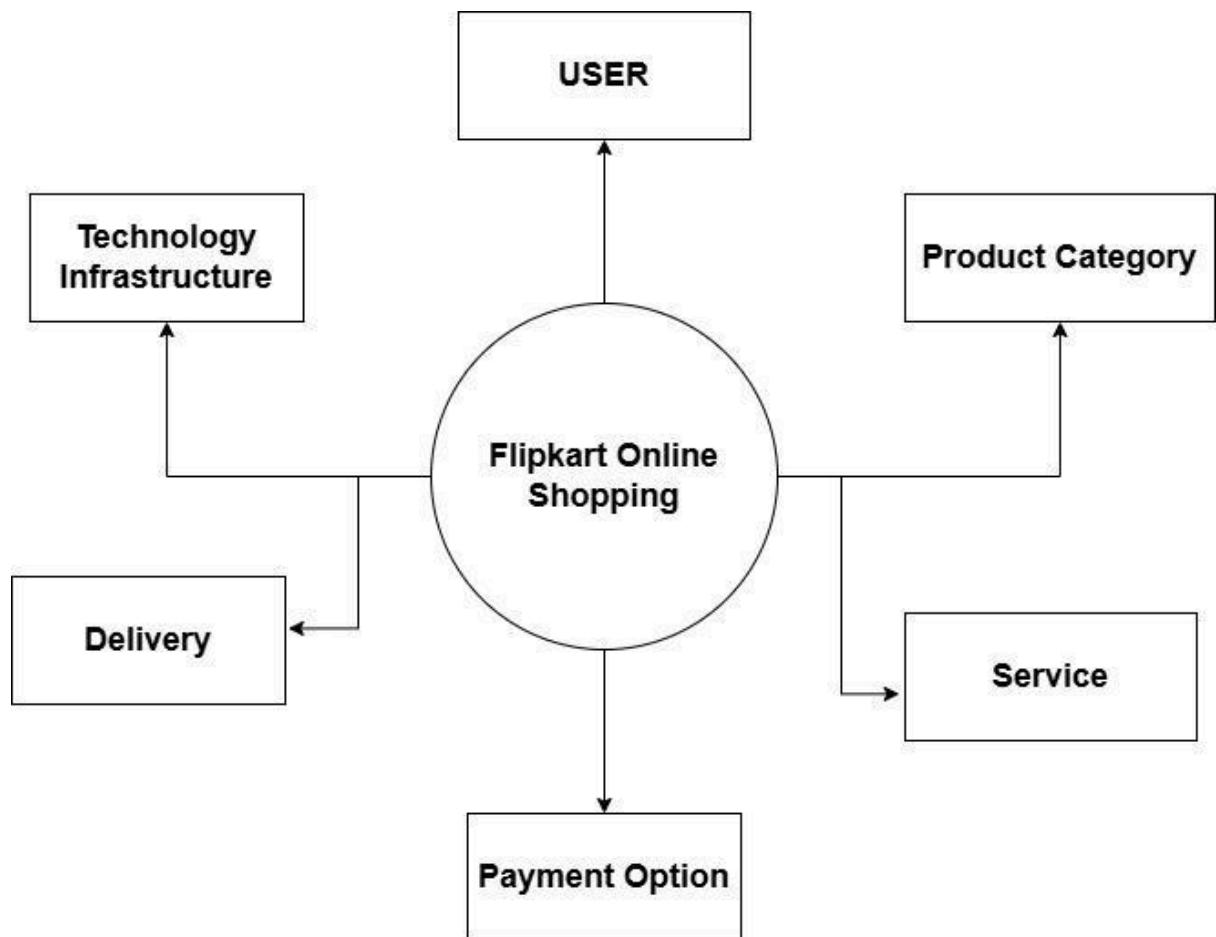
(vi)Maintenance:Repair defects and adapt the solution to the new requirements

4)What is DFD?Create a DFD diagram on Flipkart

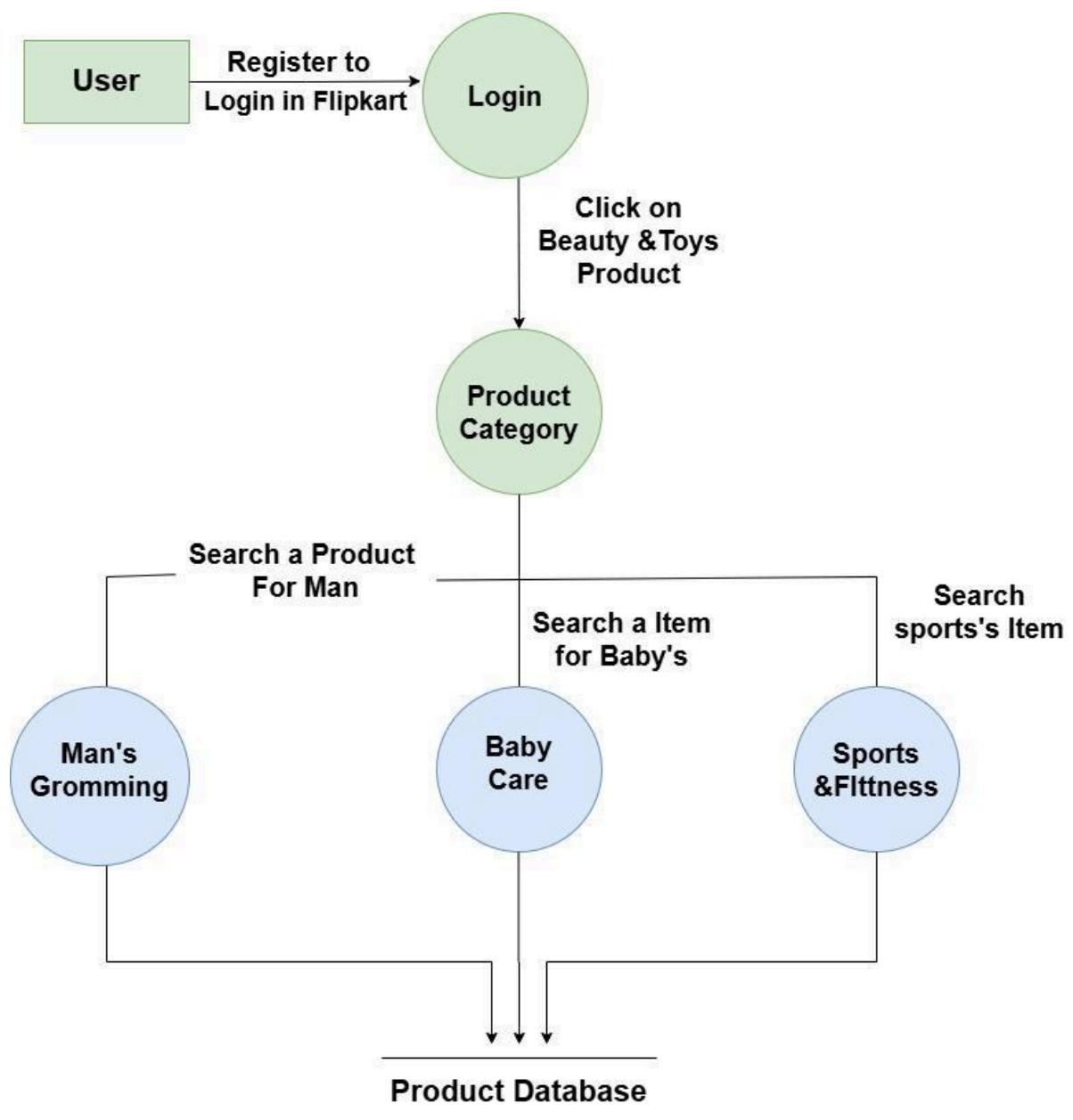
A Data Flow Diagram is a traditional way to visualized the information flows within a system. A neat and clear DFD can depict a good amount of the system requirements graphically. It can be manual, automated,or a combination of both.

It shows how information enters and leaves the system, what changes the information and where information is stored. The purpose of a DFD is to show the scope and boundaries of a system as a whole. It may be used as a communications tool between a systems analyst and any person who plays a part in the system that acts as the starting point for redesigning a system.

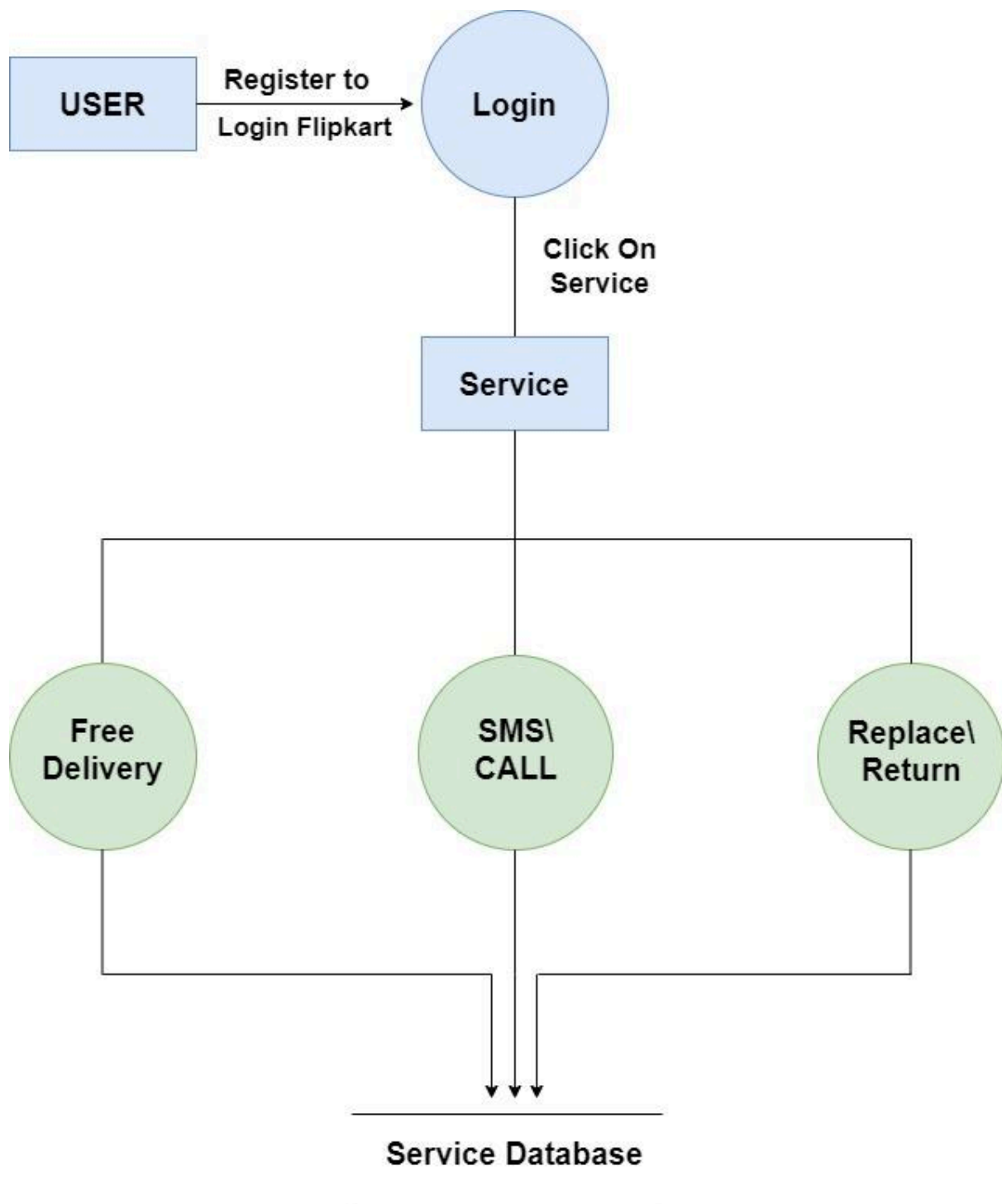
o 0 level DFD diagram:

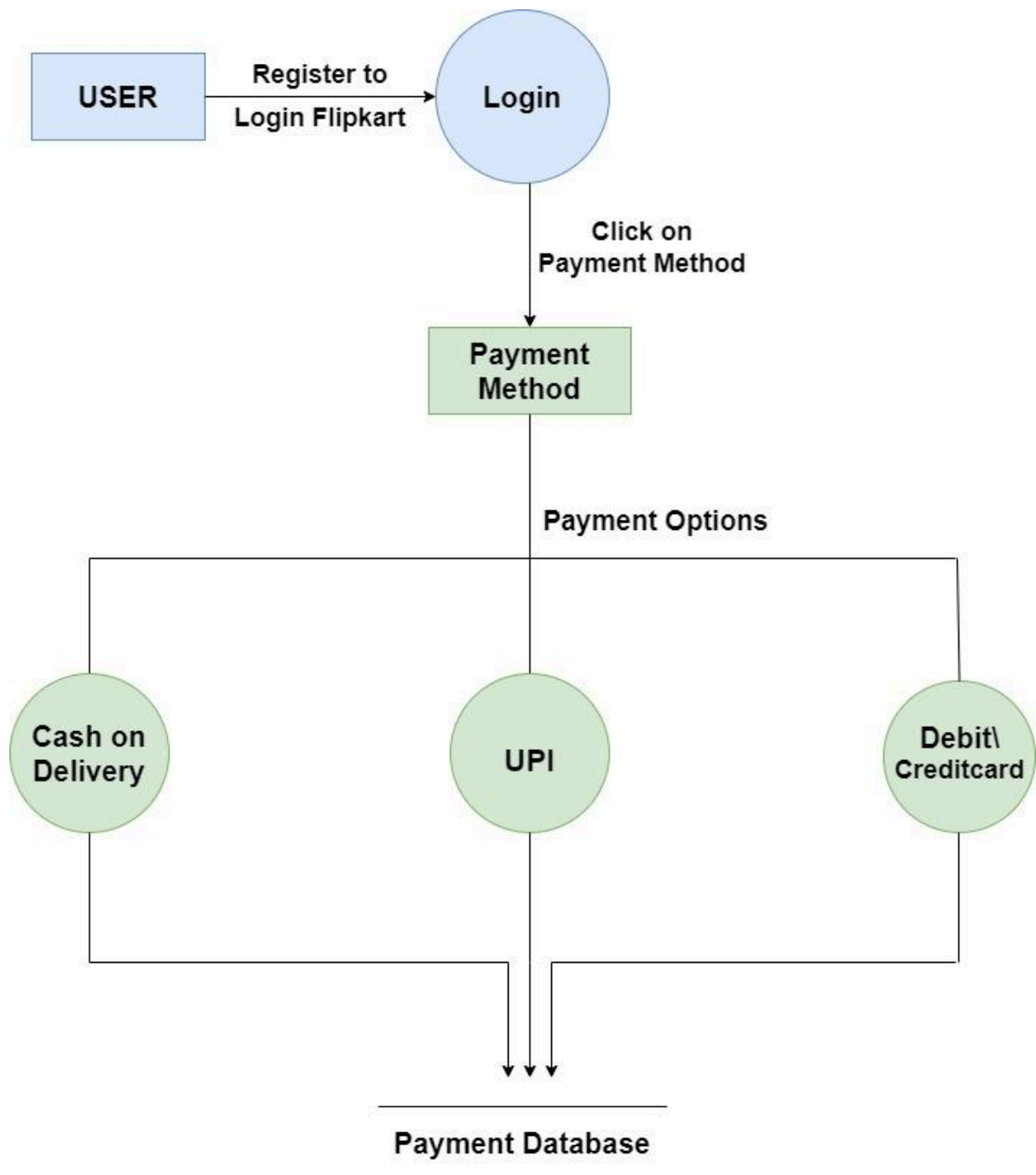


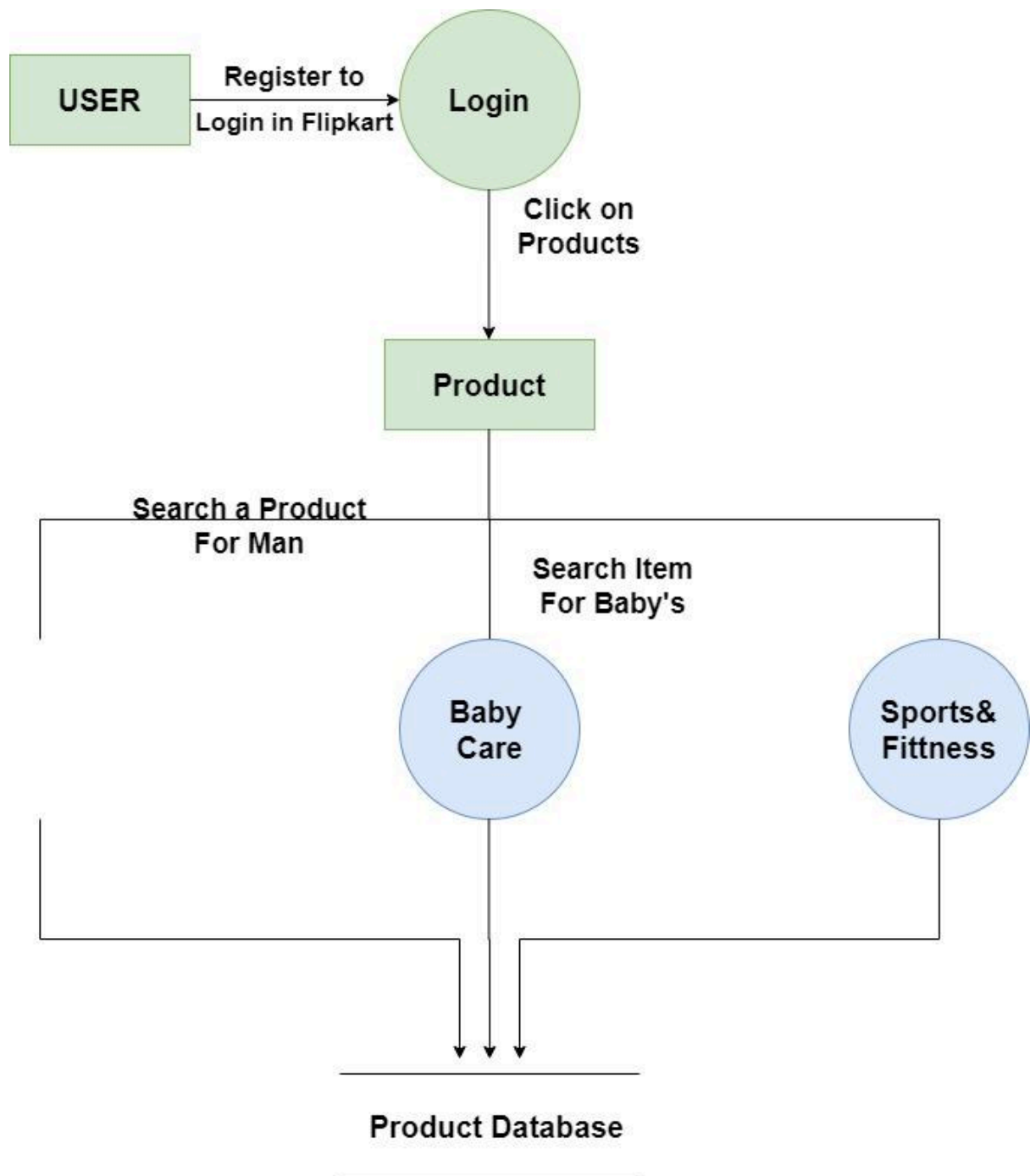
Level 1 DFD diagram:



o Level 2 DFD diagram:

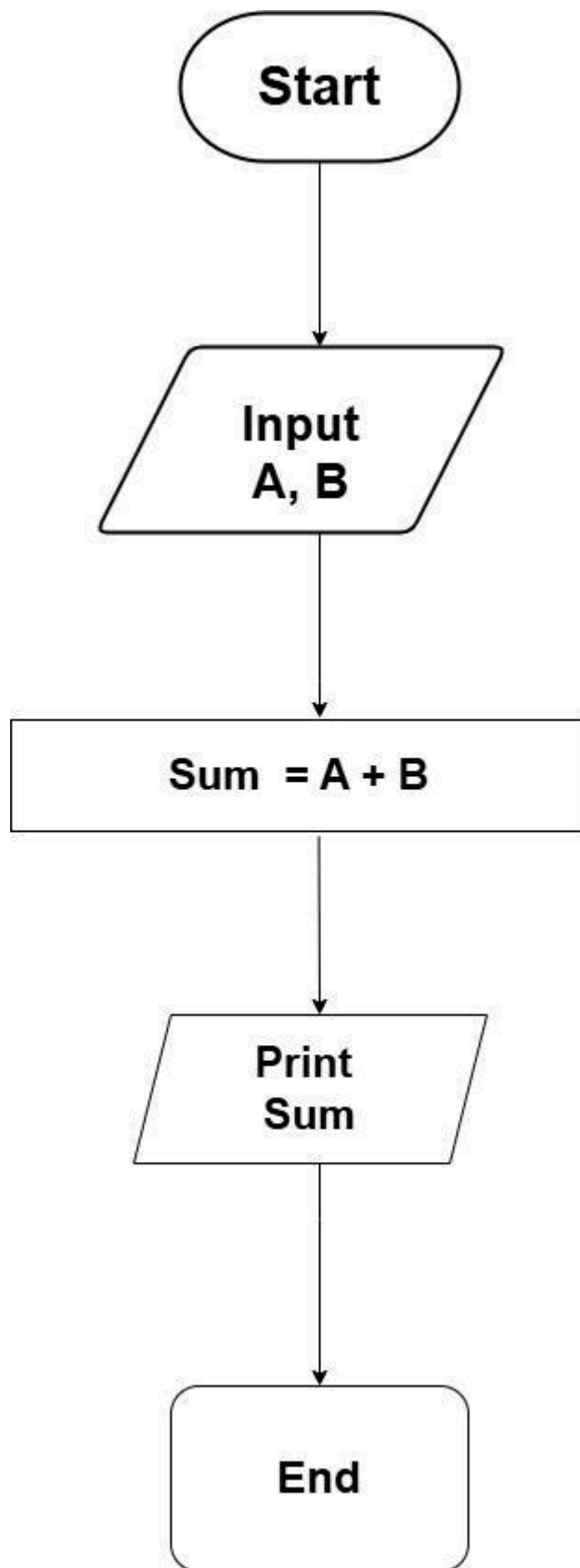






5.) What is Flow Chart? Create a flowchart to make addition of two numbers

A flowchart is a graphical representation of the operations involved in a data processing system.



6.) What is Use case Diagram?

Create a use-case on bill payment on paytm.

- **There are lots of use-case for robotic hardware, from helping disabled users to automating factories.**

Mobile Banking Application

