

**CS 1003**

**20CS4103**

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**Advance Software Engineering**

**Document**

**Version: (1.0)**

**Date: (29/10/2020)**

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# *Student Registration System Requirement Specification*

## 1.1 Introduction

NIT Durgapur wants to automate the Student Registration System and seek for intranet based solution. The Candidates need to register for some specific semester may go online with the system and provide the necessary data(roll no., name, department, course, semester and last semester grade point etc.) as input data. The system must be able to check the input data entered by student from the pre-existing student database and then automatically generate the registration slip for the specific semester as student copy. The system also will restrict any duplicate registration. System Administration can view and generate report of the list of registered student and list of unregistered students.

## 1.2 System Scope




If the student chooses to go online, then in online system, the scope of Student Registration System is quite broad in comparison to manual system as:

- (1) Since the system is going to be web based, the students can register themselves from any part of the world and would be same for the System Administrator too.
- (2) This system would also streamline the process of checking the no of registered and unregistered candidates for the System Administrator. Hence reduce the hectic task of tallying the list again and again.
- (3) At the time of registration, it is definitely checked that the student is already registered or not. The system has the access of the pre-existing database of the students, hence the checking process can be performed using the database. Which would in turn help the system to check duplicate registrations.

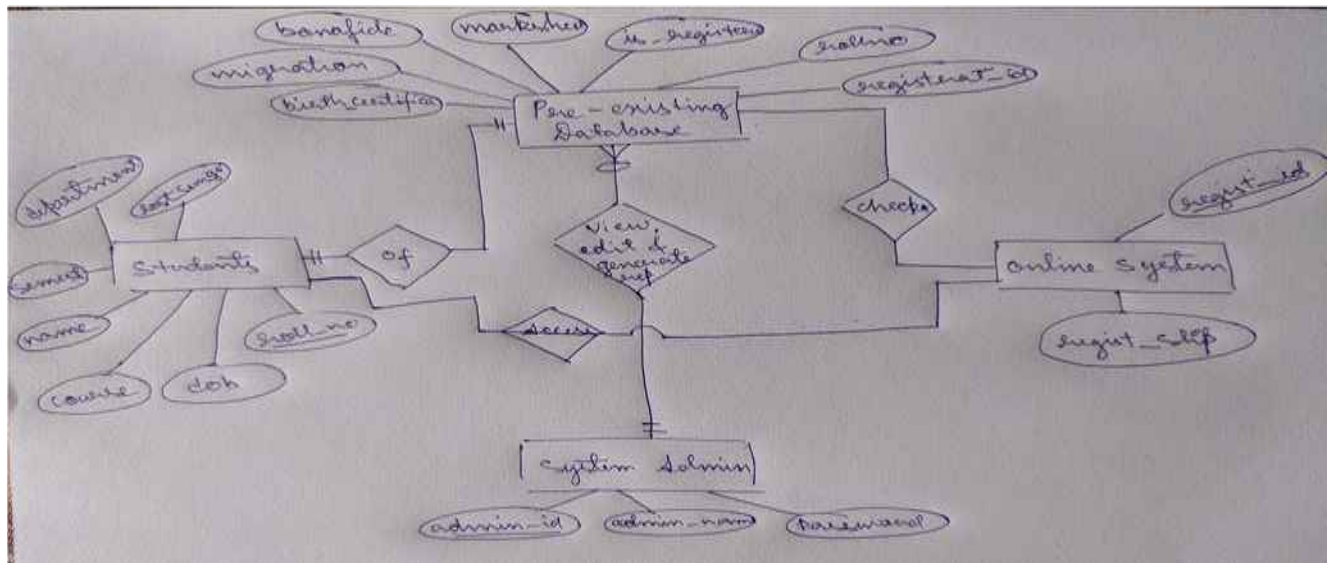
## 1.3 System Assumptions

1. Whenever the student accesses the portal, he/she would be asked for the following details like, roll no., name, department, course, semester and last semester grade point etc. then the system will match the data provided with those fetched from the pre-existing database. If matched, check for registration already done or not. If not, provide the registration slip to the candidate and declare him/her as registered.
2. Pre-existing database also has a field of registered and unregistered students as a boolean field. It is assumed that all the students having details in the pre-existing database have already paid the fees, and are eligible to register themselves in the online portal, if not registered yet.
3. The database of students is only available to the Students Administration.
4. The Students Administrator has the authority to view and edit the database according to the need of the situation.





## 1.4 Notations for ER Diagram

1.  *Represent An Entity*
2.  *Relationship among Entity*
3.  *Attribute of an Entity*

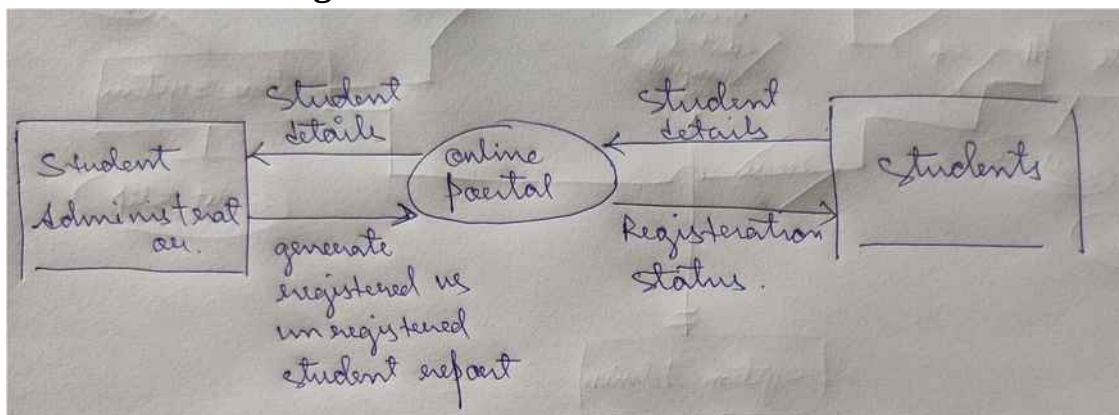
## 1.5 ER Diagram



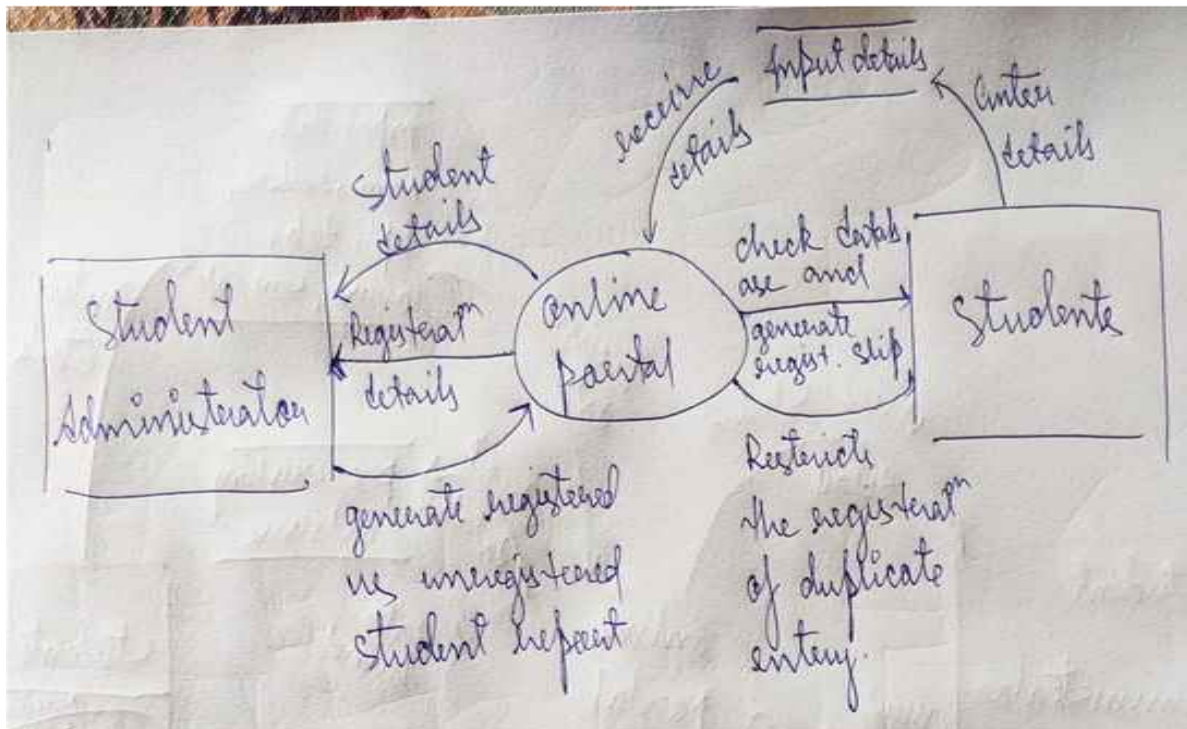
## 1.6 Notation for DFD

1.  Source, Destination, External entity, Interface
2.  Processes
3.  Data Flow
4.  Data Store

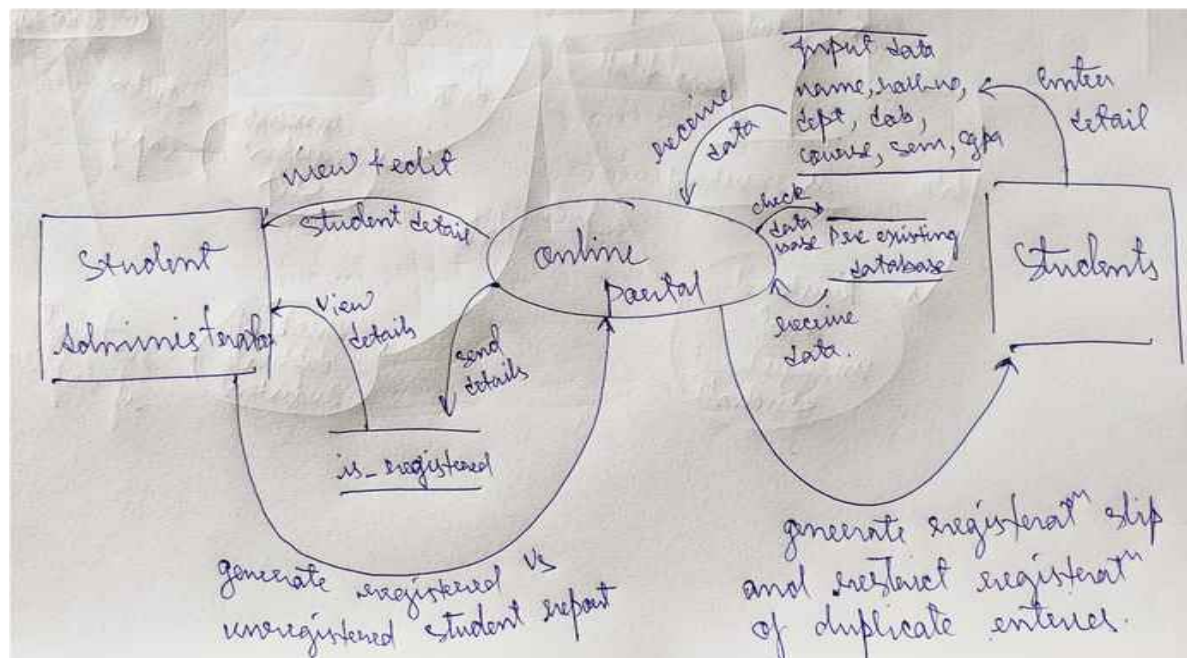
## 1.7 Control flow diagram



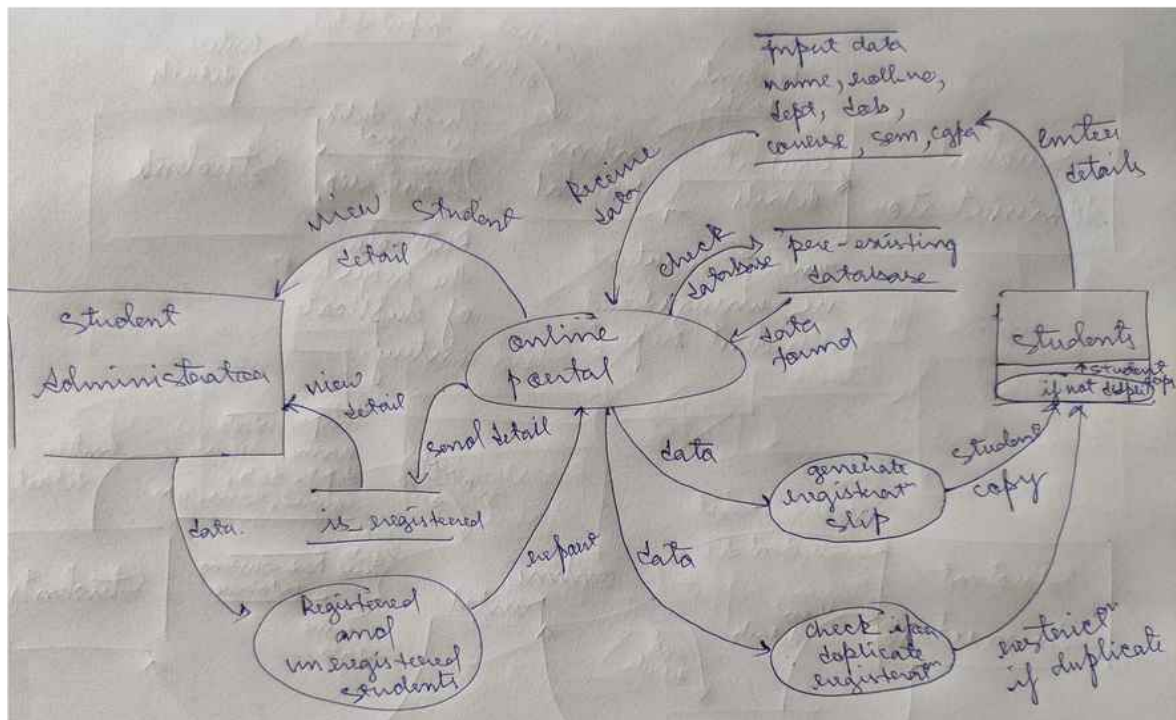
### 1.8 Level-0 Data Flow Diagram



### 1.9 Level-1 Data Flow Diagram



## 1.10 Level-2 Data Flow Diagram



## 1.11 Justification

As shown in the DFD and CFG whenever the student needs to register himself in a particular semester he/she has to go to online portal and fill the form which asks for roll no, date of birth and other details required to ascertain authenticity and after taking all the details from the student, It is checked for authenticity and whether the student is already registered or not, if not then do register him/her in the system and provide the registration slip as student copy.

Whereas the Student administrator when goes to the portal and provides his or her admin id and password, can view and edit the database of the students, get the report of registered vs unregistered students.

# *Bank Problem System Requirement Specification*

## **2.1 Introduction**



XYZ Bank is a facilitator for public banking system with many branches in different region. They would like to automate the banking Processing System. The bank facilitates deposit, withdrawal and fixed deposit system from its saving accounts. Customer may have joint account as well as many account in any branch of the bank. Withdrawal or deposit can be done from any branch of the bank. The bank also has facility of ATM. On any transaction, the system will be able to maintain the transaction record in some log. Using which, system administrator can generate report for account wise transaction per day.

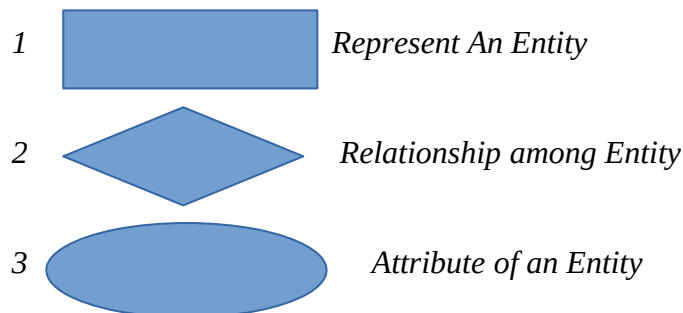
### 2.2 System Scope

1. This system provides security with the use of customer's signature and ATM pin number, so that any unauthorized customer cannot access bank accounts. Only the authorized one will have the proper access authority.
2. This system is designed keeping in mind the requirements of the branch administrator and the processing system; and is defined to be used for the different bank branches.
3. This system is customer friendly because the retrieval and storing of the data in the database is fast and the data is maintained efficiently.

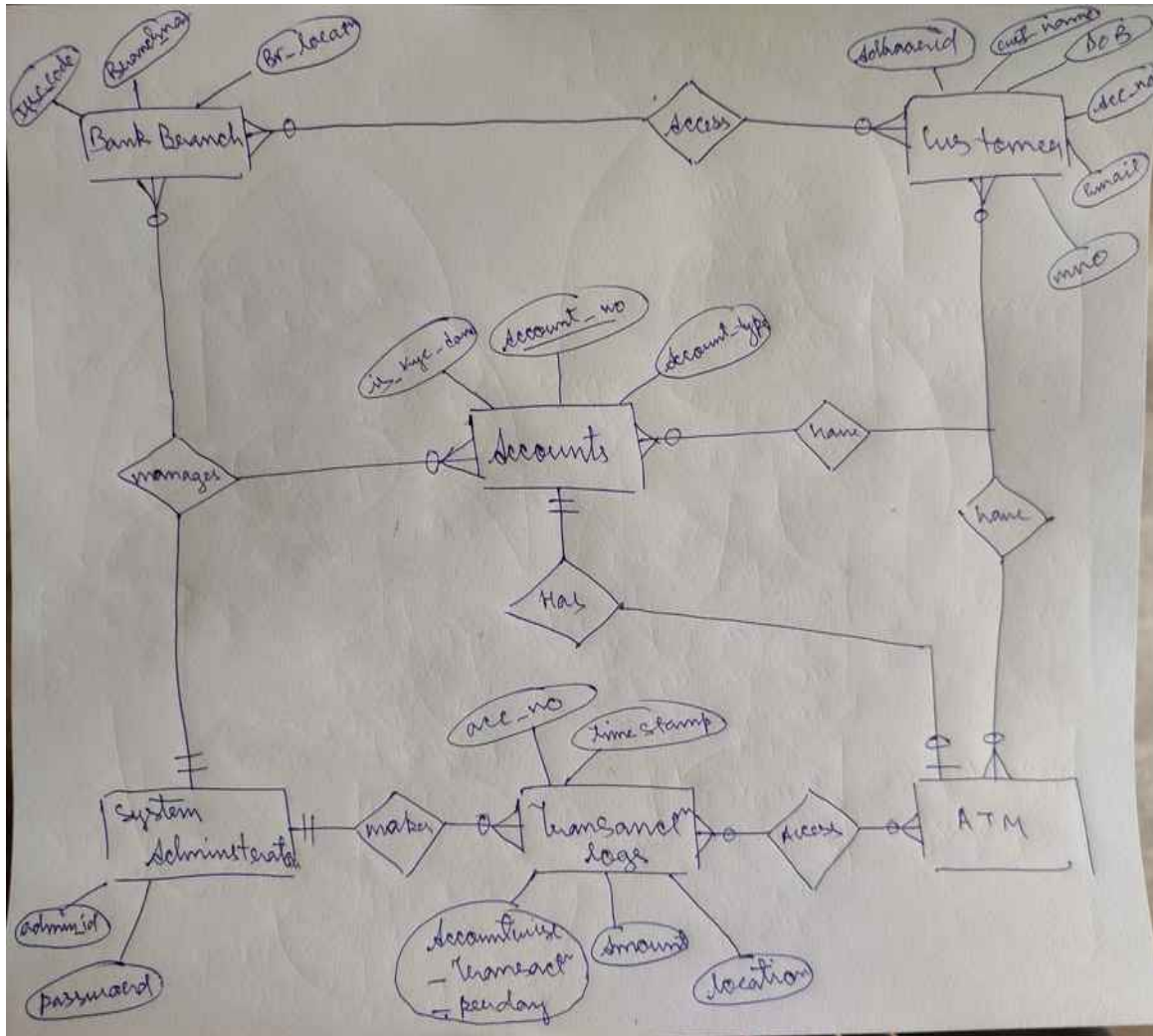
### 2.3 System Assumptions

1. It is assumed that the customer who have the bank account and the aadhaar card as ID Proof will only access the Branch Processing System.
2. The second assumption is that all the customer details needed in banking sector is already stored in the Customer Database.
3. The credentials for the Branch Processing System is provided by the Branch authority after proper authentication and background checking. And hence no unauthorized person would be allowed to access the portal.
4. The resources and the databases of the customer details are highly confidential.




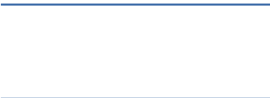
### 2.4 Notations for ER Diagram



### 2.5 ER Diagram

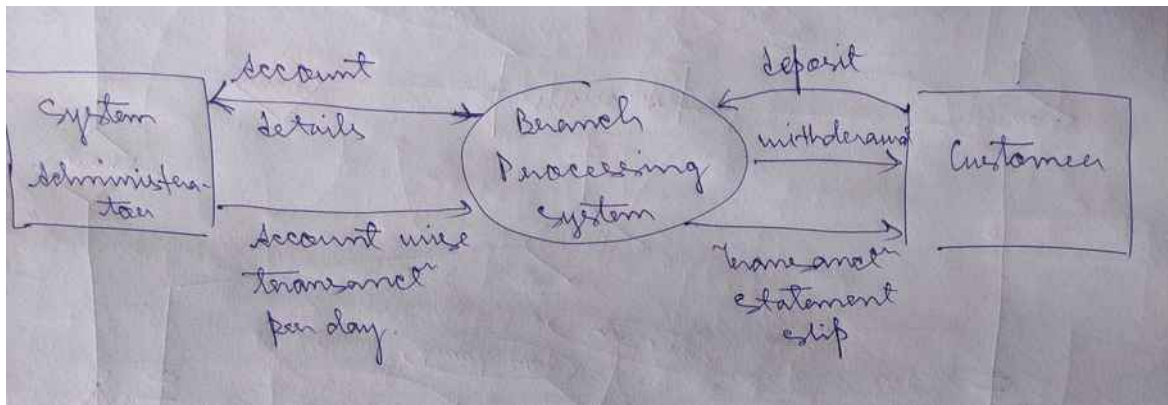


## 2.6 Notation for DFD

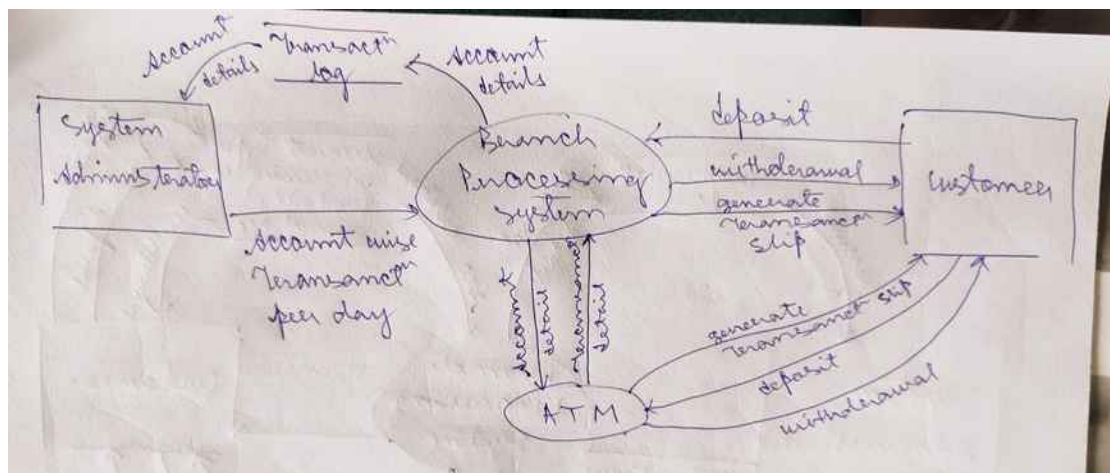
- 1  Source, Destination, External entity, Interface
- 2  Processes
- 3  Data Flow
- 4  Data Store

## 2.7 Control flow diagram

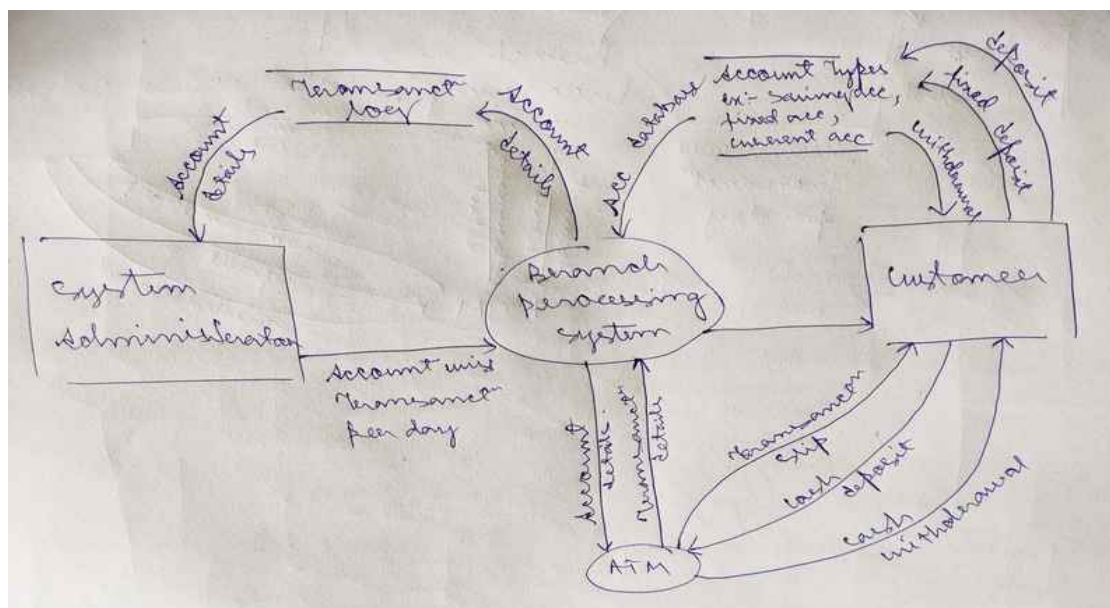
## Assignment 1 : System Requirements Specification



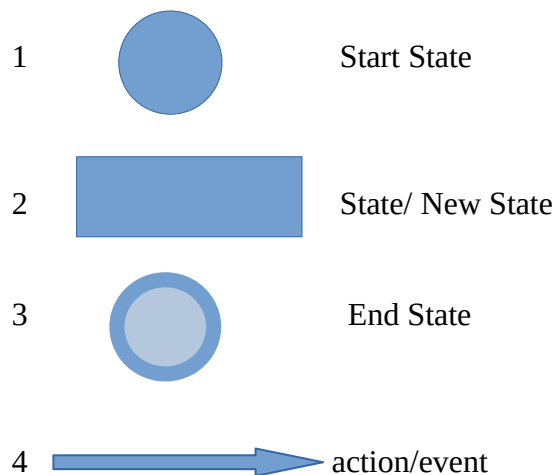
2.8 Level-0 Data Flow Diagram



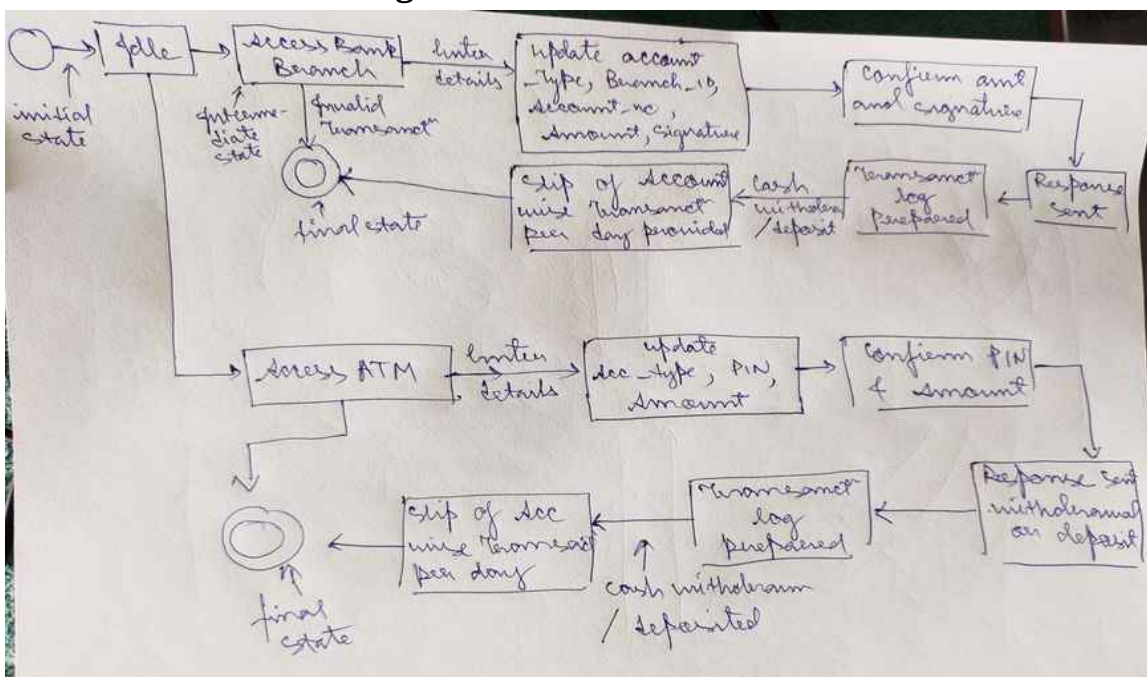
2.9 Level-1 Data Flow Diagram



## 2.10 Notation For State Transition Diagram



## 2.11 State Transition Diagram



## 2.12 Justification

The above documentation shows us the way in which the customer goes to the bank branch and carries out all the transaction according to the requirement of the type of Account( Fixed, Current, Savings). It also shows the role of ATM machine in the banking process. This document also gives us the way in which the customer and the System Administrators are related and how the entire Banking Processing takes place. It also shows the usage of the ATM pin, Account Data and other values which can be helpful in making the reader understand the SRS easily.