



## **1. DFD diagram**

A data flow diagram is a graphical view of how data is processed in a system in terms of input and output. The Data flow diagram contains some symbol for drawing the data flow diagram. It is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It can be manual, automated, or a combination of both .

## **2. OBJECTIVES**

This DFD notions and symbols vary according to the methodology model employed. Some organizations have adopted their own conventions, though this is not recommended.

Different DFD notations include:

- Gane and Sarson
- Yourdon and De Marco
- SSADM
- UML

All DFD notions will represent the following:

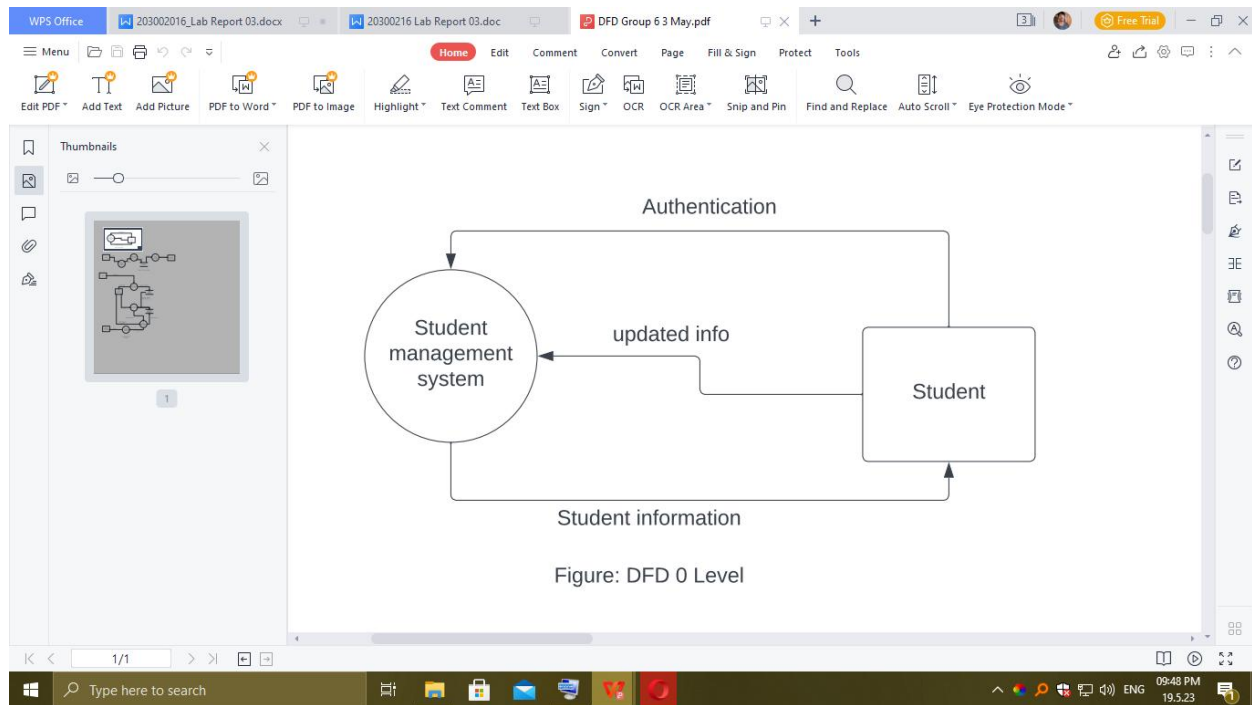
- External entities: information enters from or exits to the system being described
- Flows: define the movement of information to, from and within the system being described
- Stores: places where information is maintained or held, most often databases or database tables
- Processes: transform information .

## **3. INTRODUCTION**

A data flow diagram illustrates how data is processed by a system in terms of inputs and outputs. As its name indicates its focus is on the flow of information, where data comes from, where it goes and how it gets stored. DFDs make it easy to depict the business requirements of applications by representing the sequence of process steps and flow of information using a graphical representation or visual representation rather than a textual description. When used through an entire development process, they first document the results of business analysis. Then, they refine the representation to show how information moves through, and is changed by, application flows. Both automated and manual processes are represented.

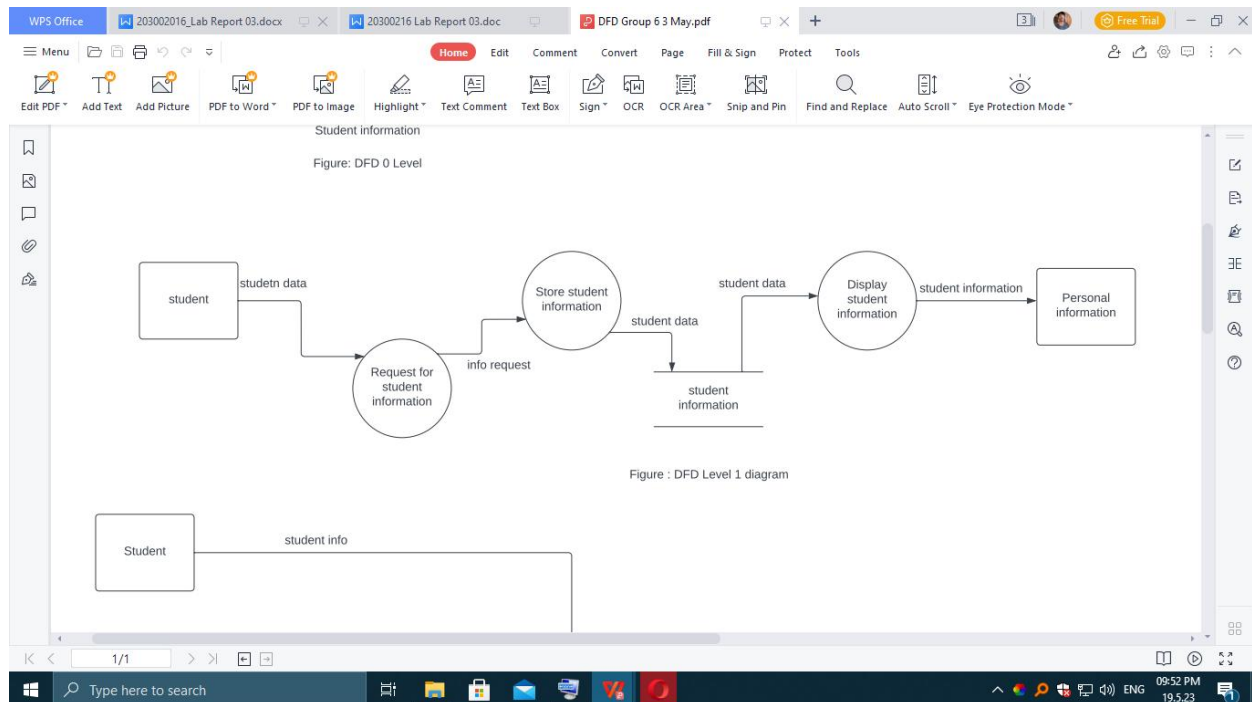
## **4. PROCEDURE**

1 .The 0 level dfd known as context level data flow diagram. The context level data flow diagram is describe the whole system. The level dfd describe the all user modules who run the system. Below context level data flow diagram of Student management system project shows the one Admin user can operate the system. Admin do all activities after login to system.



## 2.1st level DFD – Student Management System

The Admin side DFD describe the functionality of Admin. Admin is a responsible person who run the project. After login to system admin can first Add Course Detail and Teacher Detail and then add student detail by course wise. and admin can manage student reports and fees payment detail.



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Edit PDF Add Text Add Picture PDF to Word PDF to Image Highlight Text Comment Text Box Sign OCR OCR Area Snip and Pin Find and Replace Auto Scroll Eye Protection Mode

Figure : DFD Level 1 diagram

```
graph TD
    Student[Student] -- "Student info" --> ChangePortal((Change portal info - data))
    ChangePortal -- "Student details" --> Registry[Student registry data]
    ChangePortal -- "academic info related - documents" --> DB[(Central academic database)]
    Registry -- "Student details" --> AddData((add data info))
    AddData -- "Student ID - progress achievement data e.i.c" --> DB
    AddData -- "Selected data topics" --> AssignData((assign relevant data - documents))
    AssignData -- "Student ID - name" --> DB
    AssignData -- "academic schedules with timeline" --> AddData
    AssignData -- "notification" --> Urgent((Urgent academic notification))
    Urgent -- "new event or academic call" --> AddData
    AddData -- "Newly added academic info programs e.i.c" --> DB
```

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## 4. IMPLEMENTATION

Here's the final output :

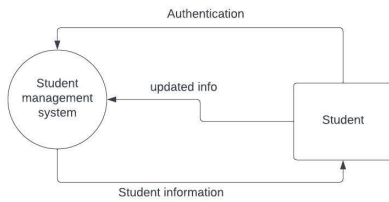


Figure: DFD 0 Level

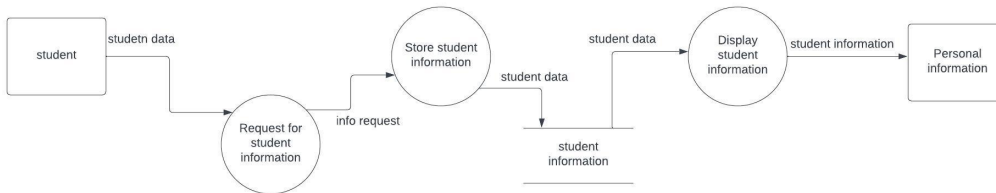


Figure : DFD Level 1 diagram

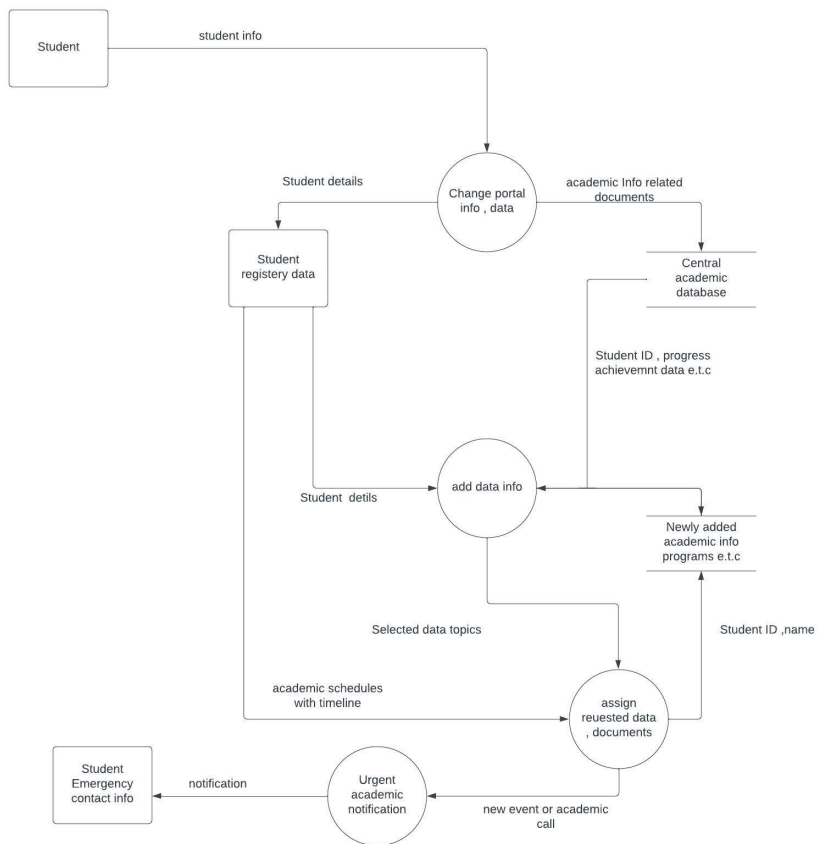


Figure: DFD Level 2 diagram

## **7. ANALYSIS AND DISCUSSION [2 marks]**

- 1 . Level 0 known as a "context diagram," this is the highest level and represents a very simple, top-level view of the system being represented.
- 2 . Level 1 still a relatively broad view of the system, but incorporates sub-processes and more detail.
- 3 . Level 2 provides even more detail and continues to break down sub-processes as needed.
- 4 . While it depends on the tool used to prepare a DFD, here is a basic breakdown of steps to follow when creating one.
- 5 . It's important to continuously check the diagram at each level to make sure there are no missing or unnecessary processes or flows