

## Design and Development of Fee Structure and Analysis Tool

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**Abstract**-In 21<sup>st</sup> century whole world is dependent on Information Technology where accuracy, trustworthiness, speed have huge impact. The fee collection progression in college is very crucial procedure as fee structure for every student is different. The fee structure & analysis tool is designed and developed for fee distribution sheet and total collection sheet preparation with various reports required at university level and college level. In manual procedure has some chances of human error. This is the reason that many educational institute are shifting from manual process to Fee structure and analysis tool. There are many advantages of Fee structure and analysis tool like paperless system, automatic calculation, and safe and secure etc. The aim of research work is to develop a Fee structure and analysis system tool for college to make fees related activity and process easy, efficient and user friendly.

**Keywords:** Fee structure, fee instalments, fee distribution, Flexibility

### I. INTRODUCTION

Administration department of any institute or college plays an important role. Academic course fee collection and Distribution is one of the most important administrative works. It represents college or institute's economic growth. Most of students from rural and urban areas not able to pay course fee at a time so they want concession to pay a fee in instalments. So they pay fee in one ,two or three instalments so it is very tedious task to keep track of students paid fees and students pending fees etc. Complexity of administrative work has increased, if institute run various courses. The "Fee structure and analysis tool" is standalone desktop application. This software is very much helpful to administrative department of college to maintain information of student's fees. This software hold all information of students fees like paid fees, pending fees, no of instalments, course wise fees paid by students, fee heads priority etc. This software helps to save a lot of time and power. This system can handle millions of records. Any educational institute can use Fee structure and analysis system tool that helps the organization in keeping track of all record related to fee activities.

### II. EXISTIN SYSTEM

At present, fee collection process is done with excel sheet but there is lot problems occurs as in fee structure fee is described under lot no of heads like admission fee, tuition fee, gymkhana fee, library fee, laboratory fee etc. In existing system, when students pay fees clerk manually distributes fees against given fee heads in excel sheet. Some fee heads have some priority in fee structure so, paid fee get distributed priority wise under the fees structure heads. This task becomes very crucial task when the students paid their fees in more than one instalment. If no of instalments get increased then no of records/transaction

related to particular student also get increased, so it make lot of mistakes by administrative department. In the existing system it is very difficult to quick search for particular student's fees status.

#### Difficulties found in existing system –

1. Required of excessive man power
2. Enormous paper work
3. Redundancy in information storage
4. Tedious report generation
5. Anomalies due to incorrect updates

### III. PRAPOSED SYSTEM

Objective of designing and developing Fee structure and analysis tool is to analysing students fees status , reduce crucial task of existing system, generation of accurate reports of students paid fees and unpaid fees class wise well as course wise etc.

#### A. SYSTEM DESIGN

System development life cycle (SDLC) is a process uses during the development of any system. SDLC consists of four main phases: analysis, design, implement and testing. During analysis phase, context diagram and data flow diagrams are used to produce the process model of a system. In system development life cycle (SDLC), a system model can be developed by using Data Flow Diagram (DFD). DFD is graphical diagrams for specifying, constructing and visualizing the system. DFD is used in defining the requirements in a graphical view [1],[2],[3].

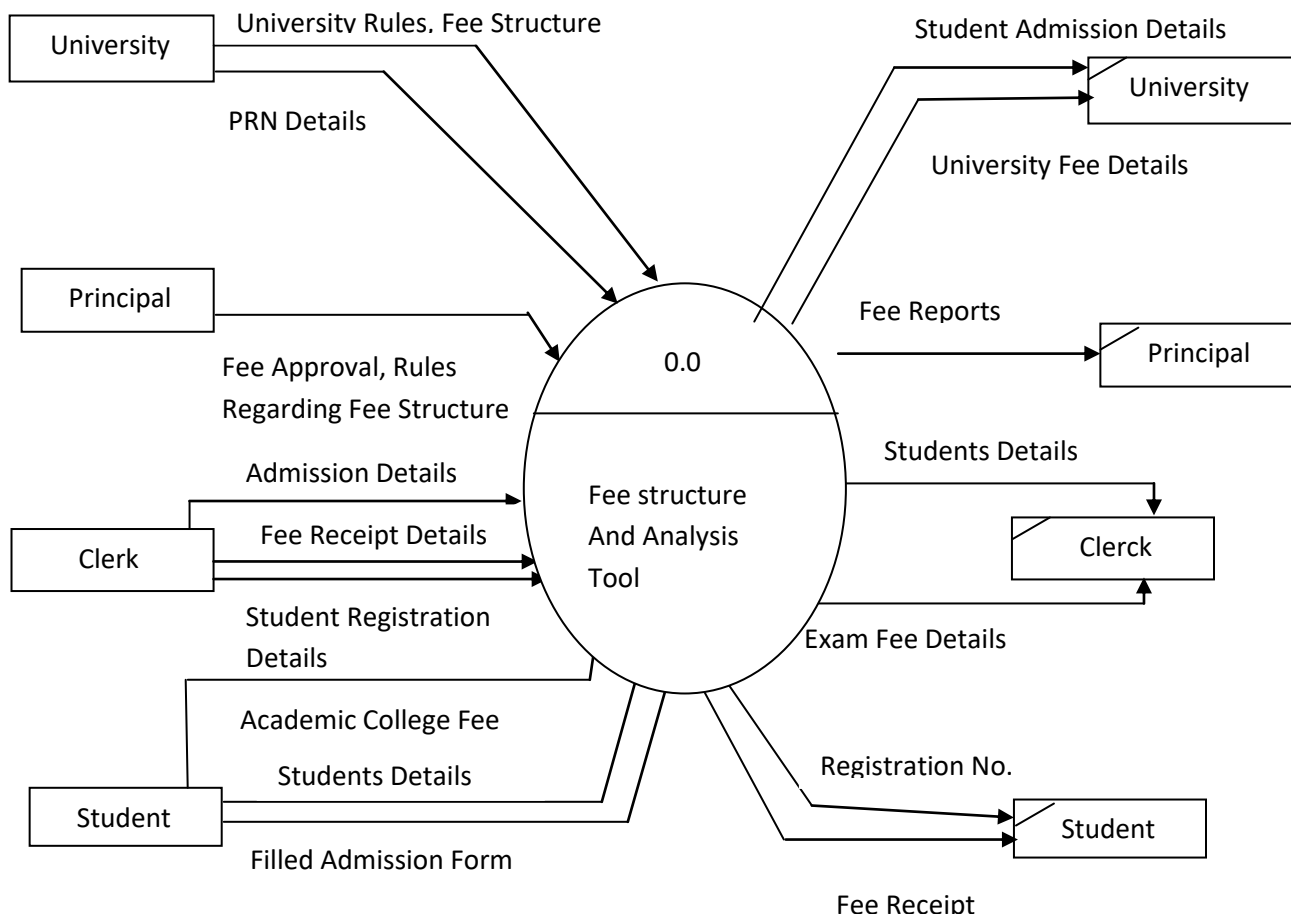
DFD's are easily understands by technical and nontechnical users. It showed how the data moved from one process to another, as well as its logical storage. In data flow diagram, the highest-level view of the system

is known as context diagram [4], [5]. It is common practice for a designer to draw the context level DFD first, which shows the interaction between the system and external agents which act as data sources and data sinks. System Context Diagram is shown in Figure 1. Context Diagram represents entities such as,

**Context Diagram represents entities such as,**

- University
- Principal
- Clerk
- Student

These entities interact with result system. Entities on the left hand side supply information to the system and after processing that information result is send to specific entities mentioned on the right hand side. It represents highest level view of the system. [1],[2]. Context level diagram shows graphical representation of fee structure and analysis system tool. This diagram helps to understand the working of fee structure and analysis tool at a one glance.



**Figure 1- Context Level Diagram**

## B.MODULE DESIGN

Following are the different modules designed for fee structure and analysis tool according to System Context Diagram (SCD) shown in fig.1.

### 1. Student\_master

This module is used to collect all required information about student for example registration no, student name, address, admission date, course name, class etc.

### 2. Course\_master

This module is used to enter course details. Any college or institute have various courses like BSC, BCOM, BA , BBA, MCA, MBA etc.

For example course id, course name, duration etc.

### 3. Fee\_master

This module is used to store course wise as well as class wise fee amount details according to fee heads.

### 4. Fee\_challan

This module is used to accept student and fee details which students are going to pay for particular course.

### 5. Fee\_details

This module is used store students fee details of various courses. When students are paid fees in instalments then this file stored records as per instalments in proper priority wise format

## IV. SAMPLE REPORTS OF FEE STRUCTURE AND ANALYSIS TOOL

### 1. Report of individual student regarding paid fees

BBA Reports

Year: 2019-20 Class: SYBCA Student Name: GIRI PALLAVI BALASO Show Report Individual All Exit

SAP CRYSTAL REPORTS\*

Main Report

**Fee Distribution Details**

BBA 2019-20

Registration No.	Student Name	Challan No.	Date	Admission	Tuition	Gymkhana	Library	Library Database	Development	sports	medical	Enrollment	Magazine	Identity Card	Ashwamedh Fee	Student Welfare	Esuvidha	Disaster	Laboratory	Annual	Project	Placement	Total	Extracurricular
1548	GIRI PALLAVI BALASO	3567	07/24/2019	500	0	500	1000	100	500	150	35	0	0	0	30	100	75	10	2000	0	0	0	5000	0
1548	GIRI PALLAVI BALASO	410	11/27/2019	0	15000	0	0	0	0	0	0	0	50	0	0	0	0	0	310	0	0	0	15360	0

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### 2. Report of Class wise Student Fee Details

BBA Reports

Year: 2019-20 Class: SYBCA Student Name: GIRI PALLAVI BALASO Show Report Individual All Exit

SAP CRYSTAL REPORTS\*

Main Report

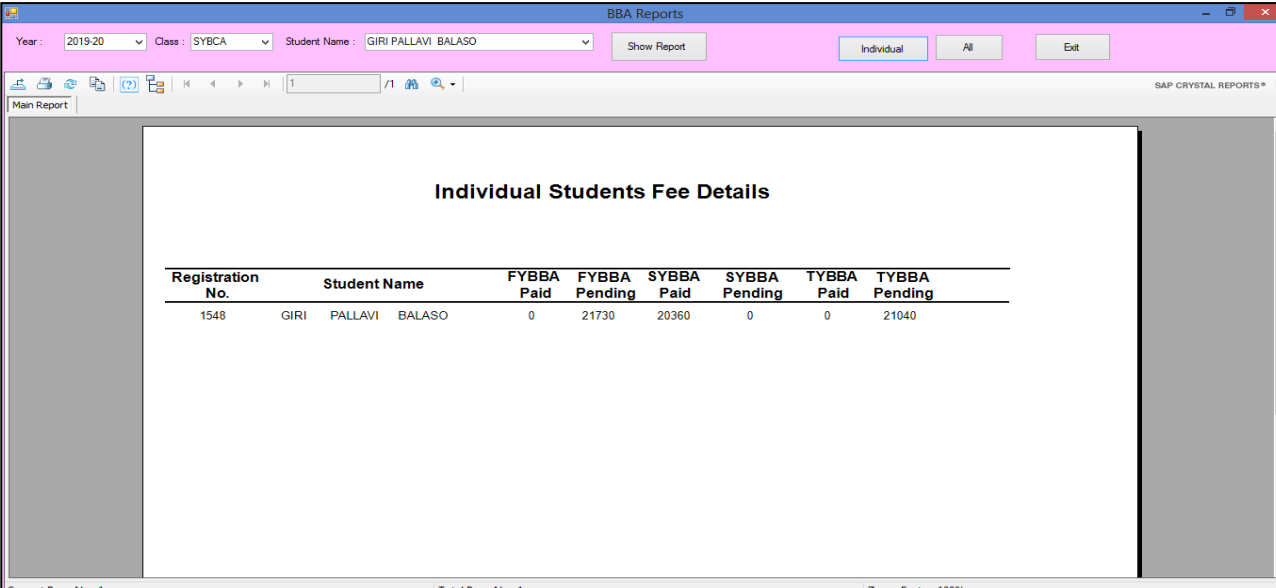
**Classwise Students Fee Details**

Registration No.	Student Name	FYFee	FYPending	SYFee	SYPending	TYFee	TYPending
1378	AHIRESHAI KAUSAR MEHBUB	0	20580	10000	10260	2000	17940
1382	BADADARE TEJAL SANJAY	0	21730	0	20360	11040	10000
1384	BAGWAN SANA AZIRAHMAD	0	21730	0	20360	6040	15000
1386	BAWLEKAR AVANTI VIJAY	0	21730	0	20360	11040	10000
1387	BELKAR NILAM GOVIND	0	21730	0	20360	10040	11000
1389	BHAT SOUJANYA JAIRAM	0	21730	0	20360	10040	11000
1522	AKKI JAYASHREBANDRAPPA	0	21730	10360	10000	0	21040
1523	ATRE TANMAYEERASHEKHAR	0	21730	10360	10000	0	21040
1524	AWASARE ANUSHKA MILIND	0	21730	2000	18360	0	21040
1525	BAGWAN ANAM MUNAF	0	21730	2000	18360	0	21040
1526	BAGWAN SAYMEEN SAJID	0	21730	2000	18360	0	21040
1390	BHOITE RADHIKA ALCHANDRA	0	21730	0	20360	5040	16000

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### 3. Class wise Individual Student Fee Details:



The screenshot shows a software window titled 'BBA Reports'. At the top, there are filters for 'Year: 2019-20', 'Class: SYBCA', and 'Student Name: GIRI PALLAVI BALASO'. Below these are buttons for 'Show Report', 'Individual', 'All', and 'Exit'. The main area displays a table titled 'Individual Students Fee Details'. The table has columns for 'Registration No.', 'Student Name', and fee details for three years (FYBBA, SYBBA, TYBBA), each split into 'Paid' and 'Pending' amounts. The data for student GIRI PALLAVI BALASO (Registration No. 1548) is shown below.

Registration No.	Student Name	FYBBA Paid	FYBBA Pending	SYBBA Paid	SYBBA Pending	TYBBA Paid	TYBBA Pending
1548	GIRI PALLAVI BALASO	0	21730	20360	0	0	21040

At the bottom of the window, it shows 'Current Page No.: 1', 'Total Page No.: 1', and 'Zoom Factor: 100%'. The Windows taskbar is visible at the very bottom.

### V. BENEFITS OF FEE STRUCTURE AND ANALYSIS TOOL

Now the colleges can use fees structure and analysis tool for improving the competence of their management system.

#### Paperless Solution:

One of the most important benefits of using fee collection system is, it provides a paperless environment for collecting student fee. The administrative team has to enter data and further maintain it on database.

#### Easy account management:

Now with the help of this software, the institutes can maintain the student's records easily. They can save student's information like their profiles and even can track student's activities like the paid fee, unpaid fee, class wise fees details, and course wise fees details.

#### Data backup:

With the advanced automated fees structure and analysis tool, the institutes can get the student's record backup in case of any data loss.

#### Generate reports:

This system can easily track records and generate various reports according to paid and unpaid fees of students.

students fee records easily. Fee Structure and analysis tool generate various reports as per requirement like individual student fee status, class wise paid or unpaid fee status etc.

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### VI. CONCLUSION

Money is very important resource for any educational institute, so collection of fee is very important aspect. Fee Structure and analysis tool is very helpful to any college or institutes administration department. Fee Structure and analysis tool store, retrieve, and maintain, search