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ANURAG UNIVERSITY DASHBOARD

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Abstract : *Dashboards are a collection of widgets that give you an overview of the reports and metrics of your choice. A widget is a mini-report that can display your data in a number of presentation styles, including simple numeric metrics, tables and charts [1]. They are the core components that make up a dashboard and help you visualize and summarize the data. Widgets display information and charts on dashboards [2] . A dashboard highlights and displays information in measurable values and is easily understandable. Our dashboard automatically depicts project data in easy-to-read, colourful charts, so you get total transparency into projects. The project dashboard updates instantly when tasks make progress. Say goodbye to complex spreadsheets and tons of data.*

Keywords: Dashboard , User login , Admin login , Database management

I INTRODUCTION

In the present terms, a dashboard can be defined as a data visualization tool that displays the current status of metrics and key performance indicators (KPIs) simplifying complex data sets to provide users with a glance of current performance [3]. To monitor the organization's overall performance, dashboards allow you to capture and report specific data points from each of the departments in the organization, providing a snapshot of current performance and a comparison with earlier performance [4]. University Dashboard is a dynamic website that represents data which is visually pleasing. This dashboard consists of six modules. They are students, faculty, admissions, programs, research grants and exams. It represents the integrated data of previous years as well as present year. Other than this it is used in the admission process and also to provide examination schedules.

II LITERATURE SURVEY

In this dashboard we have different users. We have admins for providing the data to the database and users who view the data from the database in the user module. The operations are defined as follows:

1.Admin login

Under log in, the admin uploads an excel file with all the data (be it structured or unstructured), then that data is processed, and the analysed information is presented into different widgets. The Widgets consist of different visualizations of statistics of data such as bar chart, horizontal bar chart, Multi-bar chart, line graph, pie chart etc.

2. User login

Under user login, only a specific set of people are authorized as users and are allowed to login such as- Vice Chancellor, Registrar, CEO, Chairman, Administrative Officer, Guest, Deans etc. For example, if the user clicks on the student widget, the detailed and analysed information of the students is visible in a presentable manner such as pie chart, bar graph which is easily understandable by the user.

III PROBLEM STATEMENT

The development of AU Dashboard that automatically makes visualizations out of the data which can easily be understandable to users.

IV EXISTING SYSTEM

It is observed that analysing the written data is more difficult than understanding the data which is visually pleasing. We have all the data in the form of excel which sometimes becomes difficult to handle. Gathering insights is also difficult using the bulk data. Due to the unstructured data it makes the usage difficult. We understand better when we see the graphical representation of data rather than viewing the data in excel. The other existing system was developed but couldn't be deployed due to the database they used.

DRAWBACKS:

- Analysing the data is a time taking process as most of the information is in textual form.
- It is a time taking process for getting any conclusions.
- It is a large manpower process and has many problems.
- Collective data over years are not provided.

V PROPOSED SYSTEM

A dashboard is a mini report that can display your data using graphical elements. The main purpose is to understand the data in a quick and easier way. The admin uploads the excel data of a particular category. The user can view that data in the form of graphs, charts and tables [5]. The admin has the complete right to give access to the users. Each user will be given their login credentials. In this dashboard we have provided various categories such as student, faculty, exams, programs, research grants and admissions. It also provides previous years data. It also provides the number of seats available and number of seats occupied by the students. We have overcome the existing problems by this-

- By providing statistical data representation rather than textual representation.
- The data is unambiguous for the users.
- University data is represented in the form of pie charts and graphs.
- It has a collection of data over years.

VI SYSTEM ARCHITECTURE

A system architecture is the conceptual model that defines the structure, behaviour, and more views of a system . An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviours of the system. A system architecture can consist of system components and the sub-systems developed that will work together to implement the overall system. There have been efforts to formalize languages to describe system architecture, collectively these are called architecture description languages (ADLs) [6].

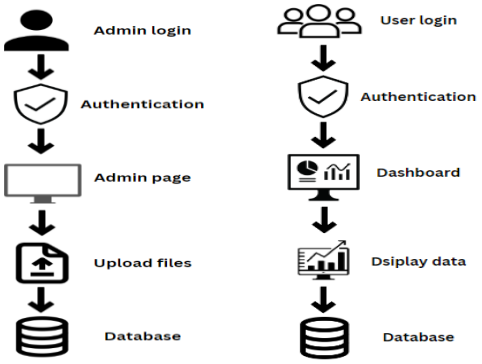


Fig 1: Flow of events

The above image shows the flow of event in both admin and user module

VII PROCESS FLOW

The admin uploads the excel files into the database. Then the data is converted into graphs and charts which are viewed on the user screen. The data is stored year wise and branch wise. There is an interconnectivity between the user and the admin module that is the data uploaded by the admin is viewed by the user.

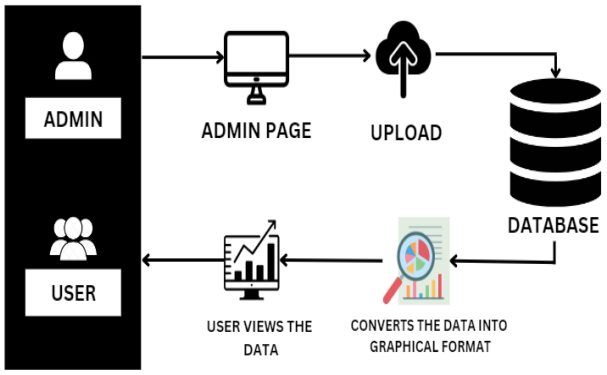
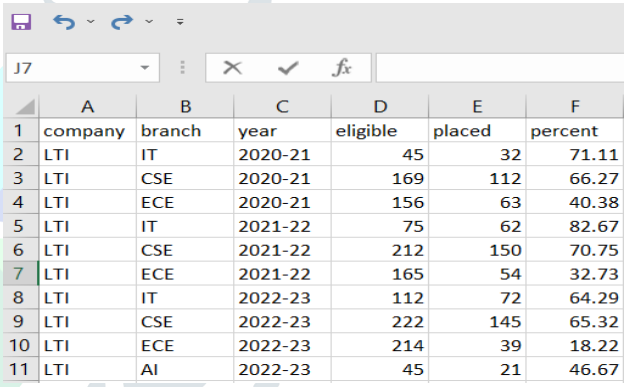


Fig 2 : Process Flow

This above image shows the processing of the data.

VIII THE PROCESS(Example)

Let us consider the case of uploading and displaying the placement details of students in LTI firm. we need to prepare the excel with the data as show below:



	A	B	C	D	E	F
1	company	branch	year	eligible	placed	percent
2	LTI	IT	2020-21	45	32	71.11
3	LTI	CSE	2020-21	169	112	66.27
4	LTI	ECE	2020-21	156	63	40.38
5	LTI	IT	2021-22	75	62	82.67
6	LTI	CSE	2021-22	212	150	70.75
7	LTI	ECE	2021-22	165	54	32.73
8	LTI	IT	2022-23	112	72	64.29
9	LTI	CSE	2022-23	222	145	65.32
10	LTI	ECE	2022-23	214	39	18.22
11	LTI	AI	2022-23	45	21	46.67

Fig 3 : Excel sheet of data

The above images displays the excel sheet of the LTI data

The admin now must upload the excel into the website as shown:

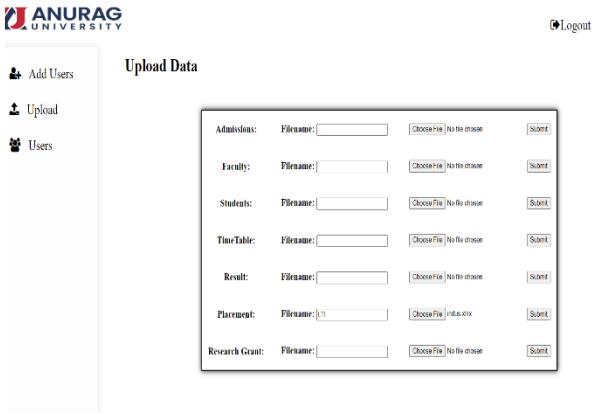


Fig 4 : Upload page

The above image shows the upload page which allows us to upload excel sheets into the desired category.

Now the user can view the data in the form of graphs and charts by opting for the option.

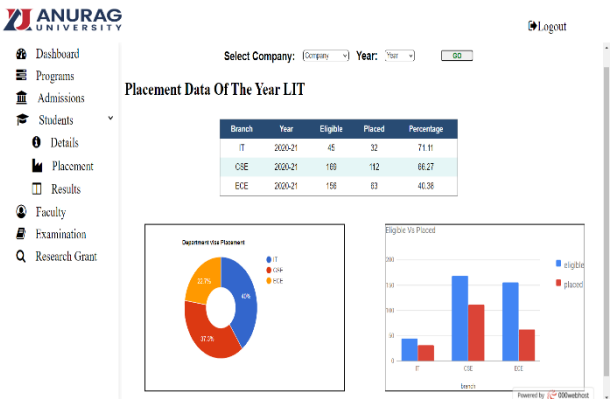


Fig 5: Student Placement page

The above image displays the placement data of LTI for the year 2020-21. The data is represented in the form of table, area graph, donut chart.

Similarly we can upload any data in the form of excel sheets and view the graphical data.

IX RESULTS AND DISCUSSION

In this system we are using an Incremental Model to apply these ideas. Each step is separated, and when we finish one phase, the output is given input to the next phase. Also, backward approach can be implemented if there is a new requirement or to apply any update [7].

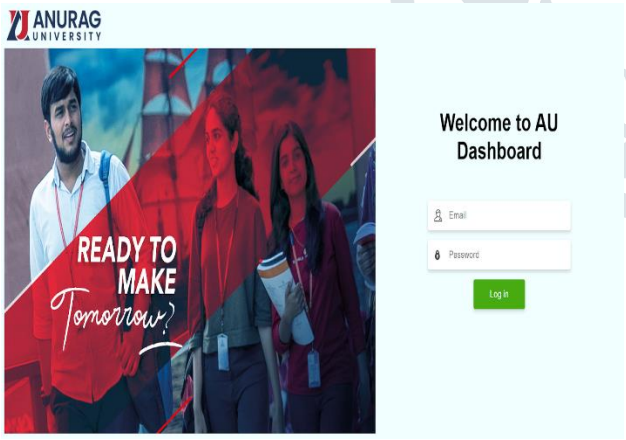


Fig 6: Main Page

The above image shows the main page of the dashboard where the user or the admin can login.

Fig 7: User Dashboard page

The above image shows the index page of the user after logging in. The user can choose any category and can explore the visualizations.

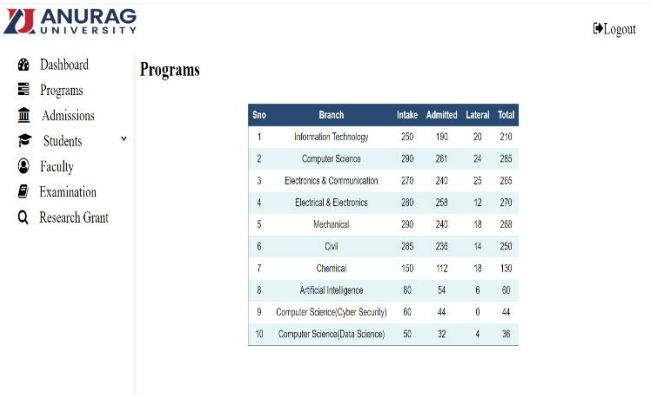


Fig 8: B.Tech Program

The above image shows the data of all departments under BTech program and with their respective data.

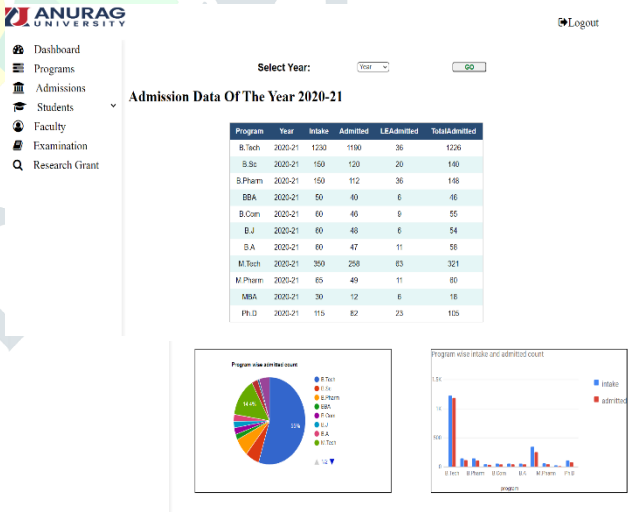


Fig 6: Admission graphs

The above image displays the admission data for the year 2020-21. The data is represented in the form of tables and charts.

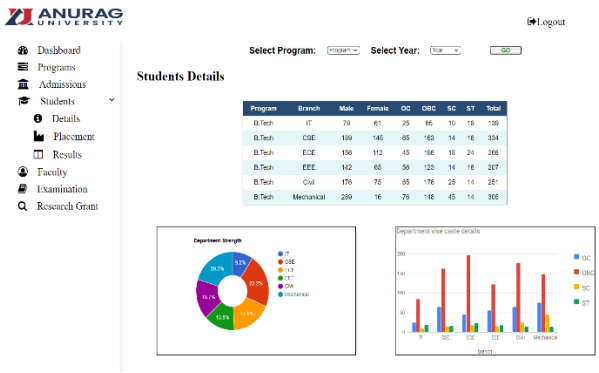


Fig 7: Student Details page

The above image displays detailed information of the total number of students in the year 2017-21. The data is represented in the form of tables and charts.

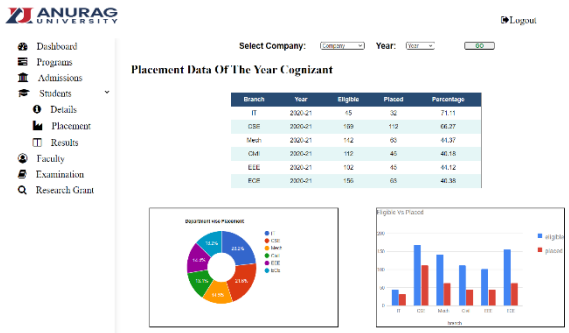


Fig 8: Student Placement page

The above image displays the placement data of cognizant for the year 2020-21. The data is represented in the form of table, area graph, donut chart.

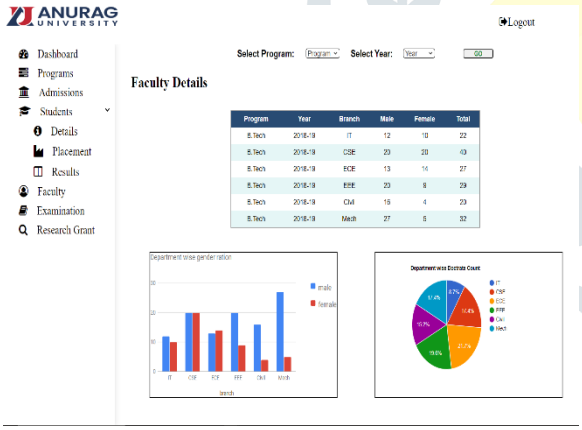


Fig 9: Faculty Page

The above image displays the Total Faculty count of B. Tech program for the year 2018-2019. The data is represented in the form of tables, column chart, pie chart.

Fig 10: Exams page

The above image displays the exam schedules.

Fig 11: Research Grant page

The above image displays the research done by different departments in the year 2020.

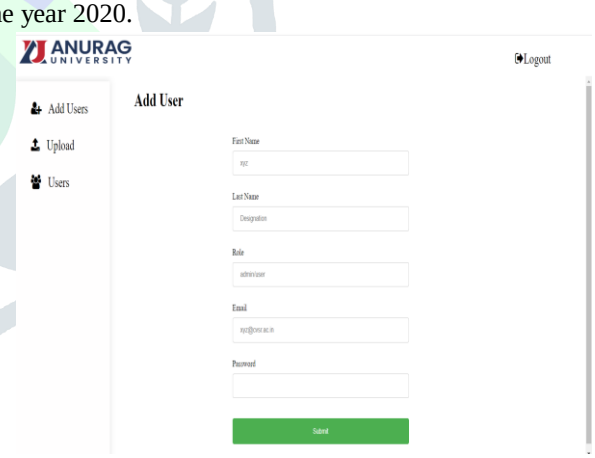


Fig 12: Add User Page

The above image shows the add user page where we need to fill the data.

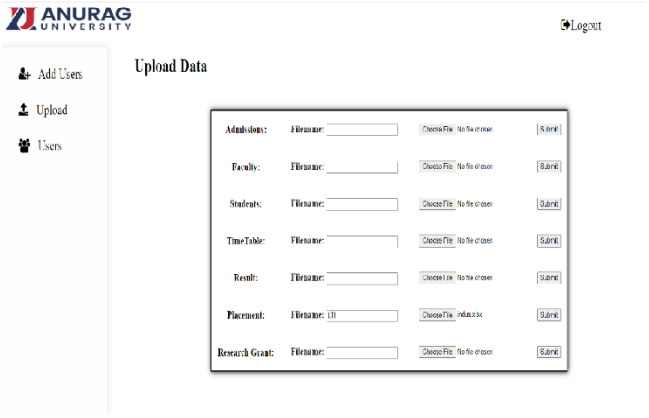


Fig 13: Upload page

The above image shows the upload page which allows us to upload excel sheets into the desired category.

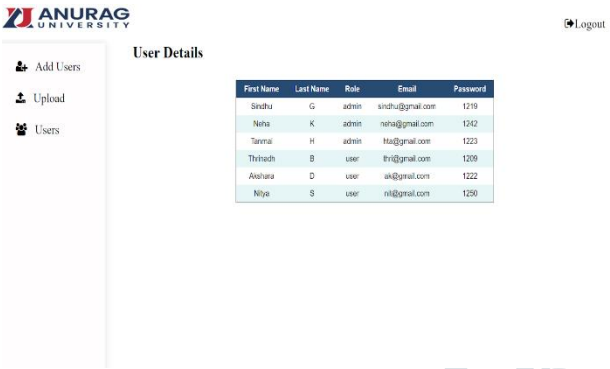


Fig 14: Display Details

The above image shows the user data in the database.

X CONCLUSION

AU Dashboard delivers real-time data analytics at the edge within a secure architecture at a scalable level. This platform communicates a data set clearly and effectively by using graphics. The best visualizations make it easy to comprehend data at a glance. This project is rich in potential applications in diverse disciplines. It demonstrates the power of charts to assemble, visualize, and analyze data.

XI REFERENCE

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