STUDENT ANALYSIS SYSTEM

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A PROJECT REPORT SUBMITTED TO

Dr. MANIKANDAN.N

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

PHY1901-INTRODUCTION TO INNOVATIVE PROJECTS

VIT CHENNAI

VANDALUR – KELAMBAKKAM ROAD

CHENNAI – 600127

JUNE 2021

BONAFIDE CERTIFICATE

Certified that this project report entitled "**STUDENT ANALYSIS SYSTEM"** is a Bonafide work of **Karthik.A (20BEC1265), Janice Ziona Abraham(20BAI1312), Bitra Bhaskara Yashwant(20BAI1015), Akash kandakatla (20BPS1026), Vignesh Kumar(20BAI1235), Chinthamani Mohan Krishna (20BAI1269)** who carried out the Project work under my supervision and guidance.

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Associate Professor Senior

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Chennai

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ACKNOWLEDGEMENT

We wish to express our sincere thanks and deep sense of gratitude to our project guide, **Dr. Manikandan.N,** Associate Professor Senior, School of Advanced Sciences, for his consistent encouragement and valuable guidance offered to us in a pleasant manner throughout the course of the project work.

We are extremely grateful to**,** Dean of School of Computer Science and Electronics Engineering, VIT Chennai, for extending the facilities of the school towards our project and for her unstinting support.

We also take this opportunity to thank all the faculty of the school for their support and their wisdom imparted to us throughout the course.

We thank our parents, family, and friends for bearing with us throughout the course of our project and for the opportunity they provided us in undergoing this course in such a prestigious institution.

Signature of the Students:

Karthik.A

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Bitra Bhaskara Yashwant

Chinthamani Mohan Krishna:

Vignesh Kumar

CONTENTS

ABSTRACT:

In today's world technology has reached its pinnacle that it can be used to do various task in day-to-day life easily with less effort and time. Today the world has realized the importance of education in one's life which has led to revolution in field of education. Universities, colleges, schools today have loads of task to be completed in given timeline. In today's scenario colleges needs to analyze student performance manually which takes a lot of time and effort by faculties working on it. Hence in order to simplify this task a web-based system is introduced which can perform student performance analysis system. Student Performance Analysis System provides a interface for school maintenance. It can used by educational institutes or coaching classes to analyze the student performance easily.

1.1 INTRODUCTION:

1.1.1 AIM:

The primary aim of our project was to present large quantities of educational data in a simple, intuitive, user-friendly format, for the use of decision makers to pass laws and for the general populace to gain a more coherent insight into the intricacies of our education system. The secondary aim of our project was to gather on-ground, realistic ideas about it from the students and parent community spread across the country.

1.1.2 OBJECTIVE:

Indian demographic is vast and diverse, and has people from a wide range of cultures, religions, areas of residence and more. Without the right tools to analyze such a large number of people, it can be difficult to gain a clear perspective on the on-ground situation. For example, the educational system in our country, which is supposed to be an integral engine of development and the architect of the nation's future, often receives criticism for failing to achieve even minimum learning outcomes, and for poor management. This is at least partially due to policy makers' failure to gain a proper bird's eye view of the student population and all the socio-economic factors that affect their performance. Our project attempted to help solve this problem using advanced database management techniques.

2.1 BACKGROUND OF THE WORK:

The work was divided into a few major components – the front end, the back end, the survey form / response collection and the documentation. The six of us roughly divided the work amongst ourselves, and held weekly meetings to collaborate, give updates, and to make suggestions/changes to the web application. The few of us who had learnt the basics of html in school, brought the rest of the team up to speed on that front. Similarly, those of us that had in-depth expertise in SQL and database managements passed on their knowledge to those who didn't. Thus, an effective channel of healthy communication and learning was established, and each of us developed at least a basic level of understanding in all the technical components of the project.

3.1 METHODOLOGY ADOPTED:

First, we created an excel spreadsheet with about 600 sample records containing a wide spectrum of student information and used special algorithms and formulae to fill up the table columns. Using software such MySQL workbench and phpMyAdmin, we imported these records and created a rudimentary back-end for our demo website. Our project showed that analyzing a large number of records does not have to be an intimidating and cumbersome task.

The front-end of our website was built using hypertext mark-up language (html) and cascading style sheets. (CSS) These tools allowed us to create forms, links and anchors, insert images and animations, and bring our site to life.

The next phase of our project was the survey phase. Using google forms, we collected over 130 responses from students all across the country, not just from our own college, but also other ones. We found out detailed information about the general student opinion on the effects of a variety of factors on student learning, ranging from financial background and the private/government school divide to caste and board examinations. This gave us a better idea of what students directly affected by the current educational policies thought about them.

4.1 ANALYSIS:

The first step of our project was to create a large number of sample records to place in our database, for the purpose of displaying the efficacy of our student analysis system. We chose to use Microsoft Excel to visualize, manipulate and evaluate our data, as it has several powerful in-built formulae and functions that allowed us to create sample data at a large scale, instead of going row-by row. Excel also has a very simple UI and contains chart-making tools, which added to its appeal, along with its ability to save sheets in a .CSV format which is easier to import. We divided our database into 4-5 major sections, grouping relevant data together, and created multiple spreadsheets.

The sheets were then imported using SQL developer, which automatically generated SQL scripts for the tables. SQL developer simplifies the process of debugging and querying, making it a perfect choice for our backend. Furthermore, database components can be modified and dropped as required, connections can be defined, and data can be exported in a variety of formats.

The SQL script generated by SQL developer was then imported by XAMPP server which ran the codes and created the tables for the connection between the front-end and back-end part. XAMPP is essentially a software stack of several different utilities, all managed by a single UI application, such as phpMyAdmin (a widely-popular browser-based administration utility for managing MySQL databases) and MySQL workbench (an alternative to phpMyAdmin for administering and managing MySQL databases).

PhpMyAdmin, powered by XAMPP server, was used to connect the front end of the website to the backend. PHP is a common choice when developing web applications due to the following reasons:

It’s open source and free to use.

It is platform independent. PHP based applications can run on any OS like UNIX, Linux and windows, etc.

PHP’s built-in database connection modules help in connecting database easily reduce trouble and time for development of web applications and content-based sites.

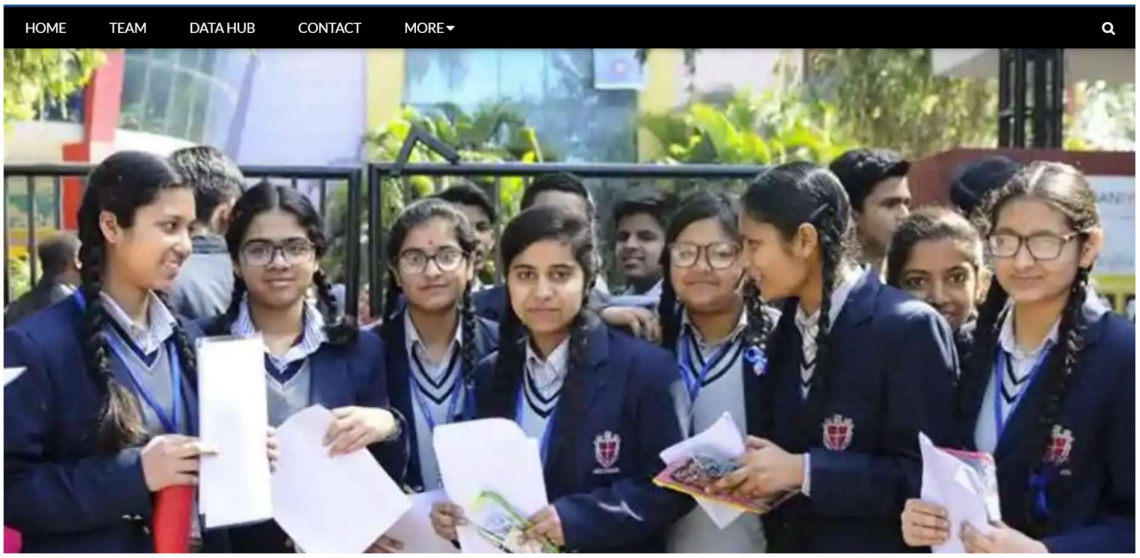
It has a powerful library support to use various function modules for data representation too.

For the front end, we used HTML (hypertext markup language) and CSS (cascading style sheets) Using these tools, we were about to create forms, insert images, hyperlinks, basic animations, headers, footers and more, thus bringing our site to life. HTML is easy to code even for novice programmers, and is present by default in all windows computer systems, and that was why we chose to use it.

As for CSS, we chose it because it’s very device friendly. It enhances responsivity of web applications, and minimizes the number of lines required to make changes. It allows us to control several areas at the same time, which boosts efficiency.

5.1 RESULTS AND DECLARATION:

After a lot of efforts from all the team members, we finally created a system for the easy analysis of large amounts of information. Our team implemented this project in the context of the educational system, but it can easily be adapted to different use cases whenever there is a lot of data to analyze. Our survey was also a huge success, and we gained a deeper insight into the requirements and needs of students in India. We are now going to enclose pictures of our results below:



HOME TEAM DATA HUB CONTACT MORE

INDIAN EDUCATION STATISTICS

What does the future of our country look like

Children are the future of any nation, and India is blessed with one of the largest populations of children in the world. Every one of these children has a right to recieve a quality education, but sadly, our education system in its current state is not optimal. Why is this so? We would like to analyse the impact of various factors such as gender, caste and economic background on childrens' education.

Here's a brief introduction to the team that worked on this project.

Akash

Yashwant

Karthik

HOME TEAM DATA HUB CONTACT MORE

THE DATAHUB

ANALYZE THE INFORMATION HERE

Enter the details

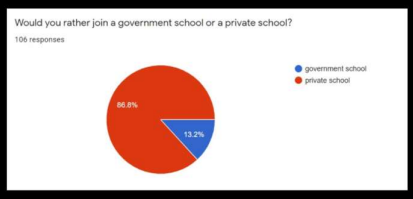
State:
Andhra Pradesh(AP)
age:
status:
pass
physics:
chem:
math:
biology:
economic status:

HOME TEAM DATA HUB CONTACT MORE

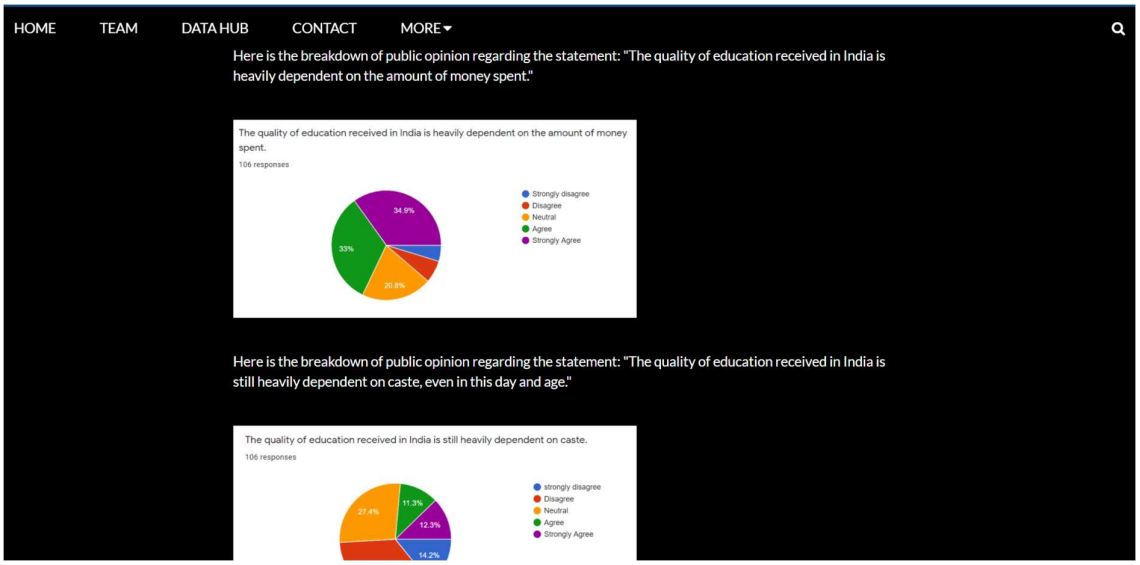
SURVEY

A group of people were asked about their opinions on various aspects of the education system in India. This section helps us understand what they said.

On being asked whether they would study at a public school or a private school, a whopping 86.8% chose the latter.



Here is the breakdown of public opinion regarding the statement: "The quality of education received in India is heavily dependent on the amount of money spent."



Is the current system of conducting board examinations for 10th graders and 12th graders good? (Should boards be conducted for other grades as well? If so, which ones? Should boards for tenth graders be removed?) Please describe your preference.

134 responses

Instead of following the herd Students should be able to find what they are good at

I think board exams for tenth grade classes should be removed. Some students even after finishing twelfth grade are unable to choose their career. So after tenth board exams students may choose wrong career options or get pressured by their parents or relatives.

Yes board examinations are essential for students. Having a basic educational qualification validated by a national body is essential career wise.

Present system is gd

The concept of board examinations should be scraped. Instead an aptitude exam should be conducted in its place as board exams solely focus on rote learning. To evaluate a student's skill and what he is capable of, more focus should be given on practicals and completing projects which actually teach students something.

The current system of boards for 10th and 12th is alright!


phpMyAdmin
Recent Favorites
New
foodorder
information_schema
mysql
performance_schema
studentdb
New
table1
table 2
table 3
sys
Server: localhost:3306 » Database: studentdb » Table: table1
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
Number of rows: 25 Filter rows: Search this table Sort by key: None
+ Options
HALL TICKET ID NAME DOB AGE GENDER STATE
Edit Copy Delete 20TGB1131 SAHAJA, PULIGADDA 2001-11-07 20 F GUJARAT
Edit Copy Delete 20TGB1132 KOTHA, ASHRITH 2002-11-26 19 F KARNATAKA
Edit Copy Delete 20TGB1133 BEJUGAM, MAHALAXMI 2003-02-24 18 F CHHATTISGARH
Edit Copy Delete 20TGB1134 KOLLIPARA, ANISHA 2002-05-19 19 F TELANGANA
Edit Copy Delete 20TGB1135 POTLURI, SHAMPI SRI 2002-07-02 19 M CHHATTISGARH
Edit Copy Delete 20TGB1136 KOPALLE, SAI SREEVALLI KEERTI 2002-11-04 19 M GOA
Edit Copy Delete 20TGB1137 TATIKONDA, VINUTHNA 2002-08-20 19 F GOA
Edit Copy Delete 20TGB1138 SATAR, LAXMI PRASANNA 2002-09-06 19 M MAHARASTRA
Edit Copy Delete 20TGB1139 CHERYALA, NEERAJ KUMAR 2002-03-13 19 F WEST BENGAL
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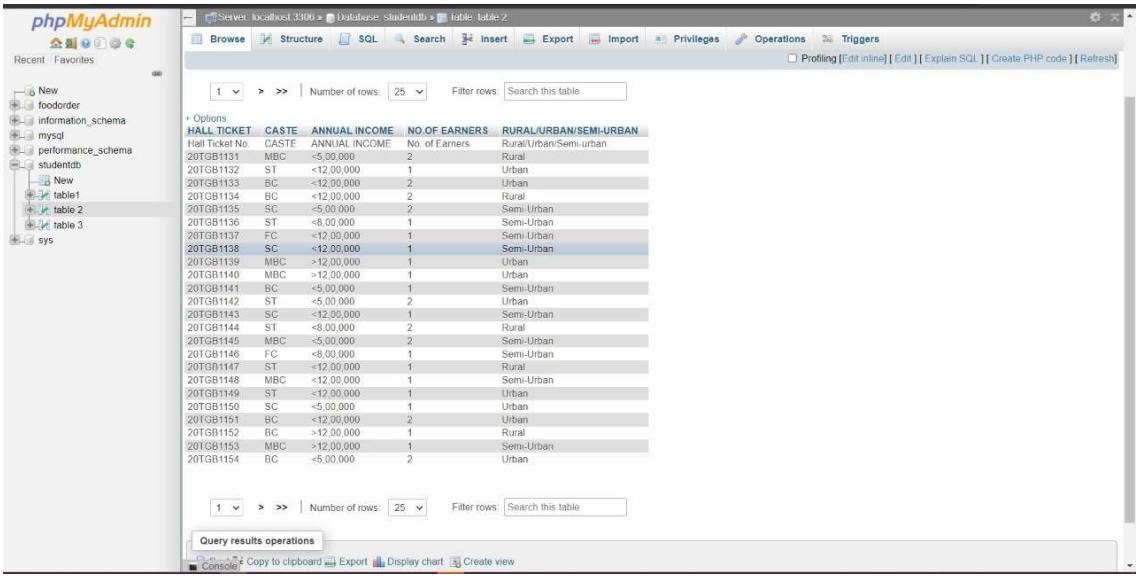
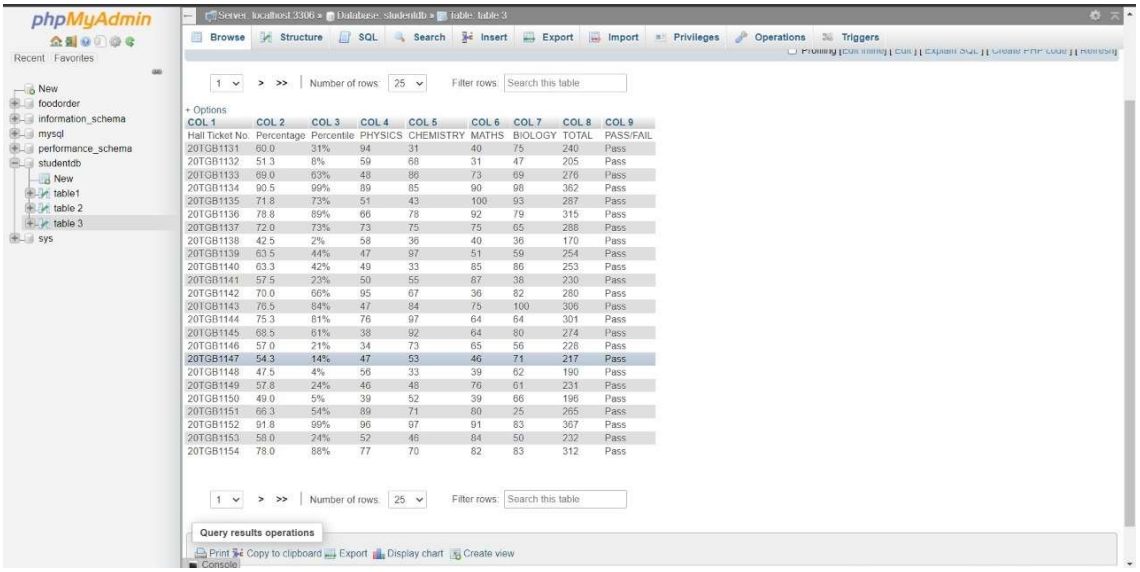

phpMyAdmin
Recent Favorites
New
foodorder
information_schema
mysql
performance_schema
studentdb
New
table1
table 2
table 3
sys
Server: localhost:3306 » Database: studentdb » Table: table 2
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Number of rows: 25 Filter rows: Search this table
+ Options
HALL TICKET CASTE ANNUAL INCOME NO.OF EARNERS RURAL/URBAN/SEMI-URBAN
Hall Ticket No. CASTE ANNUAL INCOME No. of Earners Rural/Urban/Semi-urban
20TGB1131 MBC <5,00,000 2 Rural
20TGB1132 ST <12,00,000 1 Urban
20TGB1133 BC <12,00,000 2 Urban
20TGB1134 BC <12,00,000 2 Rural
20TGB1135 SC <5,00,000 2 Semi-Urban
20TGB1136 ST <8,00,000 1 Semi-Urban
20TGB1137 FC <12,00,000 1 Semi-Urban
20TGB1138 SC <12,00,000 1 Semi-Urban
20TGB1139 MBC >12,00,000 1 Urban
20TGB1140 MBC >12,00,000 1 Urban
20TGB1141 BC <5,00,000 1 Semi-Urban
20TGB1142 ST <5,00,000 2 Urban
20TGB1143 SC <12,00,000 1 Semi-Urban
20TGB1144 ST <8,00,000 2 Rural
20TGB1145 MBC <5,00,000 2 Semi-Urban
20TGB1146 FC <8,00,000 1 Semi-Urban
20TGB1147 ST <12,00,000 1 Rural
20TGB1148 MBC <12,00,000 1 Semi-Urban
20TGB1149 ST <12,00,000 1 Urban
20TGB1150 SC <5,00,000 1 Urban
20TGB1151 BC <12,00,000 2 Urban
20TGB1152 BC >12,00,000 1 Rural
20TGB1153 MBC >12,00,000 1 Semi-Urban
20TGB1154 BC <5,00,000 2 Urban
Number of rows: 25 Filter rows: Search this table
Query results operations
Console Copy to clipboard Export Display chart Create view



COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8	COL 9
Hall Ticket No.	Percentage	Percentile	PHYSICS	CHEMISTRY	MATHS	BIOLOGY	TOTAL	PASS/FAIL
20TGB1131	60.0	31%	94	31	40	75	240	Pass
20TGB1132	51.3	8%	59	68	31	47	205	Pass
20TGB1133	69.0	63%	48	86	73	69	276	Pass
20TGB1134	90.5	99%	89	85	90	98	362	Pass
20TGB1135	71.8	73%	51	43	100	93	287	Pass
20TGB1136	78.8	89%	66	78	92	79	315	Pass
20TGB1137	72.0	73%	73	75	75	65	288	Pass
20TGB1138	42.5	2%	58	36	40	36	170	Pass
20TGB1139	63.5	44%	47	97	51	59	254	Pass
20TGB1140	63.3	42%	49	33	85	86	253	Pass
20TGB1141	57.5	23%	50	55	87	38	230	Pass
20TGB1142	70.0	66%	95	67	36	82	280	Pass
20TGB1143	76.5	84%	47	84	75	100	306	Pass
20TGB1144	75.3	81%	76	97	64	64	301	Pass
20TGB1145	68.5	61%	38	92	64	80	274	Pass
20TGB1146	57.0	21%	34	73	65	56	228	Pass
20TGB1147	54.3	14%	47	53	46	71	217	Pass
20TGB1148	47.5	4%	56	33	39	62	190	Pass
20TGB1149	57.8	24%	46	48	76	61	231	Pass
20TGB1150	49.0	5%	39	52	39	66	196	Pass
20TGB1151	66.3	54%	86	71	80	25	265	Pass
20TGB1152	91.8	99%	96	97	91	83	367	Pass
20TGB1153	58.0	24%	52	46	84	50	232	Pass
20TGB1154	78.0	88%	77	70	82	83	312	Pass

6.1 CONCLUSION:

In conclusion, we hope that our project that we worked on will give a comprehensible and transparent idea about the Indian Education System and help the policy makers to amend newer and fresher education policies replacing out our conventional education system and help the youth of our country to get proficient enough to face the digital world without any stumbling blocks.

7.1 CONTRIBUTION:

JANICE ZIONA ABRAHAM (20BAI1312):

The end goal of this project is to learn and create a student analysis system which collects and stores the information of a student and analyze the result of the student. Using MAMP software and localhost as its server. My contribution to this project is that I worked on the connection of the records that were stored in excel to PhpMyAdmin and created a Database in the server (localhost). I also worked on the frontend part of this project creating a web page using HTML along with Akash.

8.1 REFERENCES:

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https://www.geeksforgeeks.org/

https://www.geeksforgeeks.org/

Declaration

We hereby declare that the project report entitled **STUDENT ANALYSIS SYTEM** submitted by our group members (mentioned below) for **INTRODUCTION TO INNOVATIVE PROJECTS PHY1901** is a record of bonafide work carried out by us under the supervision of **Dr. Manikandan. N**. We further declare that the work reported in this report has not been submitted and will not be submitted, either in part or in full, for the award of marks in any other schools or for any other subjects at VIT.

Date: 27/09/2021.

Name of the Students (Reg. No.)

1. Akash Kandakatla

2. Janice Ziona Abraham:

3. Karthikh. A

4. Bitra Bhaskara Yashwant

5. Chinthamani Mohan Krishna

6. Vignesh Kumar