



UNLEASHING THE POTENTIAL OF OUR YOUTH: A STUDENT PERFORMANCE ANALYSIS



PROJECT REPORT

Submitted By

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|------------------------|---------------------|
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in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

KNOWLEDGE INSTITUTE OF TECHNOLOGY

SALEM-637504

ANNA UNIVERSITY :: CHENNAI-600025

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ACKNOWLEDGEMENT

At the outset, we express our heartfelt gratitude to **GOD**, who has been our strength to bring this project to light.

At this pleasing moment of having successfully completed our project, we wish to convey our sincere thanks and gratitude to our beloved president **Mr. C. Balakrishnan**, who has provided all the facilities to us.

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BONAFIDE CERTIFICATE

Certified that this project report titled **“UNLEASHING THE POWER OF OUR YOUTH: A STUDENT PERFORMANCE ANALYSIS”** is the bonafide work of **“ROHINTH V (611220104117), SAHANA SRUTHI S (611220104120), SANDHIYA S (611220104121), SANJAY S (611220104126),”** who carried out the project work under my supervision.

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TABLE OF CONTENTS

| CHAPTER NO | TITLE | PAGE NO |
|-----------------------|---|--------------------|
| | ABSTRACT | I |
| | LIST OF FIGURES | II |
| | LIST OF TABLES | III |
| 1 | INTRODUCTION | 1 |
| | 1.1 PROJECT OVERVIEW | 1 |
| | 1.2 PURPOSE | 1 |
| 2 | LITERATURE SURVEY | 2 |
| 3 | IDEATION & PROPOSED SOLUTION | 5 |
| | 3.1 PROBLEM STATEMENT DEFINITION | 5 |
| | 3.2 EMPATHY MAP CANVAS | 6 |
| | 3.3 IDEATION & BRAINSTORMING | 7 |
| | 3.4 PROPOSED SOLUTION | 11 |
| 4 | REQUIREMENTS ANALYSIS | 13 |
| | 4.1 FUNCTIONAL REQUIREMENTS | 13 |
| | 4.2 NON - FUNCTIONAL REQUIREMENTS | 14 |

| | | |
|-----------|---|------------|
| 5 | PROJECT DESIGN | 15 |
| | 5.1 DATA FLOW DIAGRAMS | 15 |
| | 5.2 SOLUTION & TECHNICAL ARCHITECTURE | 16 |
| | 5.3 USER STORIES | 17 |
| 6 | CODING & SOLUTIONING | 19 |
| | 6.1 FEATURE 1 | 19 |
| | 6.2 FEATURE 2 | 19 |
| 7 | RESULTS | 20 |
| | 7.1 PERFORMANCE METRICS | 20 |
| 8 | ADVANTAGES & DISADVANTANGES | 22 |
| 9 | CONCLUSION | 23 |
| 10 | FUTURE SCOPE | 24 |
| 11 | APPENDIX | A1 |
| | A.1 SOURCE CODE | A1 |
| | A.2 SCREENSHOTS | A8 |
| | GITHUB AND PROJECT VIDEO DEMO LINK | A16 |
| | REFERENCES | R1 |

ABSTARCT

ABSTRACT

The "Student Performance Analysis and Improvement Recommendations" project is a data-driven initiative that harnesses the power of IBM Cognos to comprehensively examine academic performance at the individual, class, and school levels. By amalgamating diverse data sources, including grades, test scores, attendance records, and surveys, the project seeks to unveil academic strengths and weaknesses, while also identifying the key determinants of student success or challenges. Leveraging IBM Cognos for analysis, the project customizes instructional strategies and prescribes targeted interventions to enhance academic achievement.

In a world where a nation's progress is intrinsically tied to the quality of its educational system, the global education landscape faces mounting challenges, including declining student success rates and elevated dropout rates. This project, underpinned by a dataset featuring the examination scores of 1000 students from a school, delves deep into the correlation between student performance and various factors, such as parental education levels and test preparation. The primary objective is to unravel the intricate web of influences on academic outcomes. Ultimately, this analysis endeavors to illuminate the complex dynamics that underlie student performance in education.

LIST OF FIGURES

| FIGURE NO | NAME OF THE FIGURE | PAGE NO |
|----------------------|---------------------------------------|--------------------|
| 3.2.1 | EMPATHY MAP | 6 |
| 3.3.1 | TEAM GATHERING & COLLABORATION | 7 |
| 3.3.2 | BRAINSTORING & IDEA LISTING | 8 |
| 3.3.3 | BRAINSTORING & IDEA PRIORITIZATION | 9 |
| 3.3.4 | BRAINSTORING & IDEA PRIORITIZATION | 10 |
| 5.1.1 | DATA FLOW DIAGRAM | 15 |
| 5.2.1 | SOLUTION & TECHNICAL ARCHITECTURE | 16 |
| 6.2.1 | STUDENT BY GRADE | 19 |

LIST OF TABLES

| FIGURE NO | NAME OF THE TABLE | PAGE NO |
|----------------------|------------------------------|--------------------|
| 3.1 | PROBLEM STATEMENT DEFINITION | 5 |
| 3.4 | PROPOSED SOLUTION | 11 |
| 4.1 | FUNCTIONAL REQUIREMENTS | 13 |
| 4.2 | NON-FUNCTIONAL REQUIREMENTS | 14 |
| 5.3 | USER STORIES | 17 |

INTRODUCTION

CHAPTER-1

INTRODUCTION

1.1 PROJECT OVERVIEW

The "Student Performance Analysis and Improvement Recommendations" project leverages IBM Cognos to gather and analyze academic performance data at individual, class, or school levels. By integrating data from various sources like grades, test scores, attendance records, and surveys, the project identifies academic strengths and weaknesses, as well as factors influencing student success or difficulties. Utilizing IBM Cognos for analysis, the project tailors instructional strategies and suggests interventions to enhance academic performance. Anticipated outcomes encompass a deeper understanding of students' academic progress, pinpointing areas for improvement, and offering tailored recommendations. Ultimately, the project underscores the pivotal role of analyzing student performance using data-driven approaches and highlights IBM Cognos as a potent tool for achieving academic enhancement goals.

1.2 PURPOSE

A country's progress is significantly tied to the quality of its education system. The educational landscape has transformed into an industry globally, facing challenges such as declining student success rates and high dropout rates. An integral aspect of teaching involves analyzing student work for assessment and continuous improvement. This project focuses on analyzing a dataset comprising the exam scores of 1000 students from a school. The objective is to correlate student performance with various factors like parental education levels and test preparation, aiming to understand their influence on exam outcomes. Ultimately, the analysis aims to shed light on the dynamics impacting student performance in education.

LITERATURE SURVEY

CHAPTER-2

LITERATURE SURVEY

2.1. STUDENT PERFORMANCE ANALYSIS USING MACHINE LEARNING TOOLS

Authors: Atul Prakash Prajapati, Sanjeev Kr. Sharma, Manish Kr. Sharma

Year of Publication: 10 Oct 2018

Several tools have been designed till today for the betterment and evaluation of student's performance. The results produced by these tools can help in decision making, that improves student's performance. This paper presents a survey of existing tools and techniques that have been designed in this area. This Paper uses a machine learning tool for analysing and predicting the results based on various factors that can improve the student's performance. This paper also suggests that cognitive modelling is a better way that can improve the decision making capability and it is useful for making quality software and tools for performance analysis. Section methodology describes the machine learning tool and the approach for choosing a data set. Section experimental design and result shows the schematic diagrams of tables that are used for performance analysis. Finally, this paper suggests that one should use the cognitive modelling for designing the knowledge-base. So that they can produce better results.

2.2. STUDENT PERFORMANCE ANALYSIS SYSTEM USING DATA MINING

Authors: Disha Kalambe, Anita Labade, Surabhi Khedekar, Komal Mahajan

Year of Publication: 03 Mar 2019

In this age of computerization, education has also re-constructed itself and is not limited to old lecture method. Nowadays, lots of data is collected in educational databases, but it remains unutilized. In order to get required benefits from such a big data, powerful tools are required. Data mining is an emerging powerful tool for analysis. The previous system doesn't give the guidance to student based on the overall performance. The proposed system presents the analysis of student performance on the basis of academic performance, extra-curricular activities, strengths, weakness and hobbies. The proposed system uses classification algorithm and guides them by displaying the areas where they need to do improvement in order to contribute to a student's overall growth by generating a score card for the same. The proposed system will give all the required information of each and every student. The proposed system helps to the students and the teachers to improve the division of the student. The proposed system also work to identify those students who require special attention to lessen fail ratio and taking proper action for the next semester examination. The proposed system also classifies the students who are eligible for placements based on company's criteria.

2.3. STUDENT PERFORMANCE ANALYSIS AND LEARNING ANALYTICS

Authors: Ismail duru, Gulustan Dogan, Banu Diribin Hossin

Year of Publication: 08 Dec 2020

In this paper, we aimed to guide about latest development and studies about students performance analysis and Learning Analytics in Massively Open Online Courses (MOOCs) for researchers related with the topics. For this purpose short review for usage of performance prediction and Learning Analytics in MOOCs is investigated. In our study, to help readers get familiar with our topic, firstly

literature information about basic concepts are explained. Then to understand features' importance level and their relationships more detailed, information about some papers were provided. After that, findings about usage of student performance prediction and Learning Analytics in MOOCs are summarized. Until now, about students' performance analysis and Learning Analytics in Massive Open Online Courses (MOOCs) a variety of hypotheses are verified as using different methods and different data sets. They helped us to understand student behavior, improve platform quality and also use different perspectives on different MOOCs. But, results of these studies not only provided new information but also brought new research questions which could lead to further development in (MOOCs).

2.4. STUDENT PERFORMANCE ANALYSIS IN CLASSROOM LEARNING

Authors: Anupam Khan, Soumya K. Ghosh

Year of Publication: 05 Mar 2021

This paper reviews student performance modeling in educational data mining (EDM), a challenging research topic. Multiple non-linear factors influence performance, attracting researchers. Existing EDM surveys primarily focus on predictor identification and modeling, lacking a specific focus on classroom-based education and temporal prediction. This systematic review addresses these gaps, analyzing 140 studies to highlight efficient prediction during the course but emphasizing the need for pre-course prediction improvement.

IDEATION & PROPOSED SOLUTION

CHAPTER-3

IDEATION & PROPOSED SOLUTION

3.1 PROBLEM STATEMENT DEFINITION

| Problem Statement (PS) | I am (Principle) | I'm trying to | But | Because | Which makes me feel |
|-------------------------------|-------------------------|-------------------------------|---|-------------------------------|----------------------------|
| PS-1 | Principal | Improve student performance | Lack in their academic | Not attentive in class | worried |
| PS-2 | Teacher | Improve student grades | Unable to grasp concepts | Not fast learner | sad |
| PS-3 | Teacher | Improve their understanding | Can't recollect the concepts and no one to help | Parents are not well educated | dejected |
| PS-4 | Principal | Improve student communication | Unable to read and write | Lack of practice | anxiety |
| PS-5 | Principle | Improve the body and mind | Have health issues | Choice of their lunch | depressed |

Table No. 3.1 Problem Statement Definition

3.2 EMPATHY MAP CANVAS

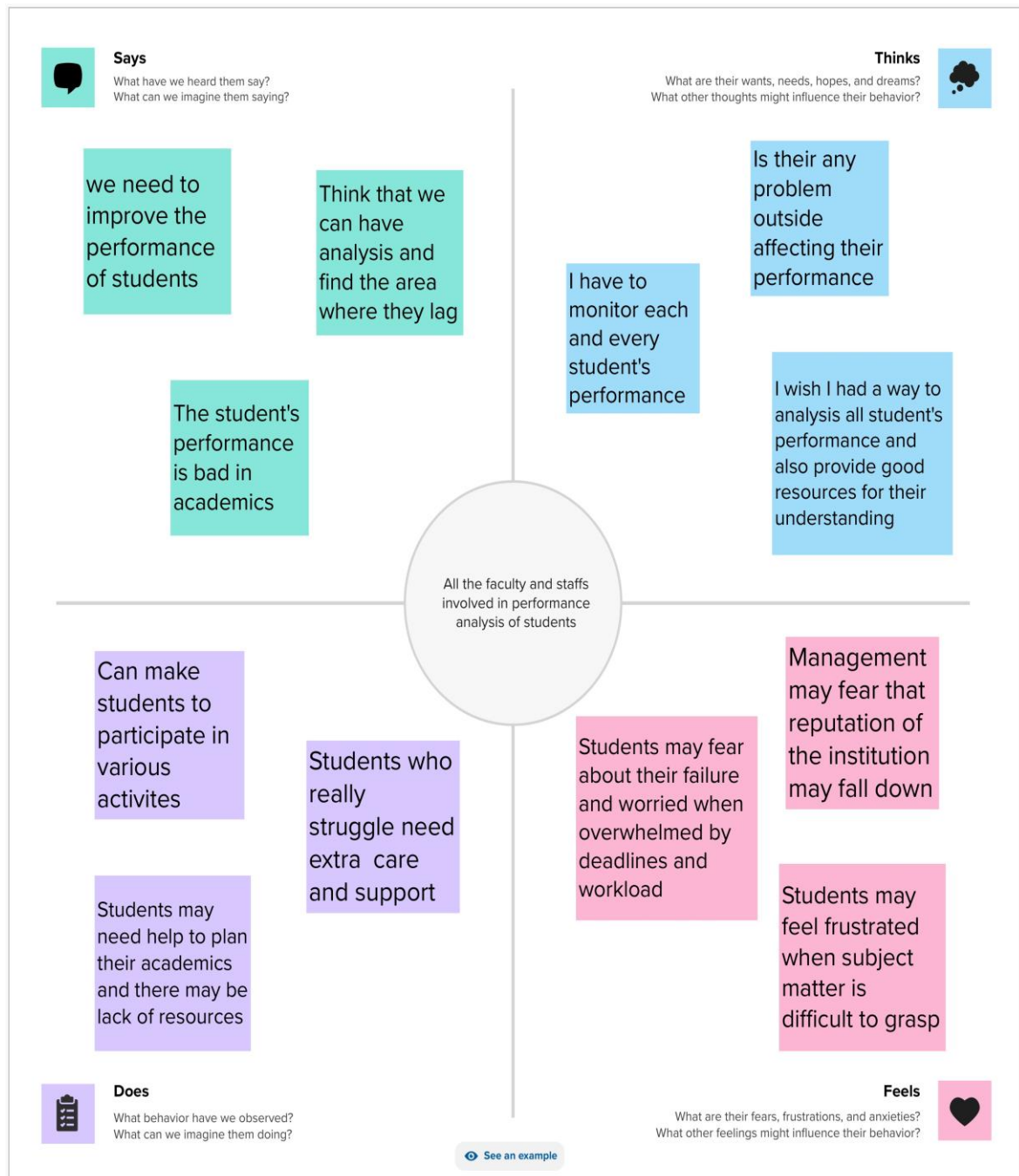


Fig. No. 3.2.1 Empathy Map

3.3 IDEATION AND BRAINSTORMING

Team Gathering, Collaboration and Select the Problem Statement

1

Define your problem statement

The problem statement of the "Student Performance Analysis and Improvement Recommendations" project is to improve academic performance by analyzing and identifying areas of strength and weakness for students, classes, and schools. The project aims to use IBM Cognos to collect and analyze various data sources such as grades, test scores, attendance records, and surveys to provide tailored instruction and intervention recommendations. The project emphasizes the importance of data-driven analysis to identify factors contributing to student success or challenges and to provide recommendations for improvement. The expected outcomes of the project are insights into how students are performing academically, identification of areas of strength and weakness, and recommendations for improvement.

5 minutes

PROBLEM:

How might we [your problem statement]?



Key rules of brainstorming

To run an smooth and productive session

 Stay in topic.

 Encourage wild ideas.

 Defer judgment.

 Listen to others.

 Go for volume.

 If possible, be visual.

Fig. No. 3.3.1 Team Gathering & Collaboration

NM2023TMID01992

7

Brainstorm, Ideas Listing and Grouping

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕒 10 minutes

TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Person 1

Collect feedback and observations from teachers to gain insights into students' strengths, weaknesses, and potential areas for improvement.

Person 2

Analyze how test preparation affects subject scores and highlight the importance of preparation in academic performance.

Person 3

Determine how parental level of education influences subject scores and emphasize the role of parental education in academic outcomes.

Person 4

Compare subject scores among different levels of parental education to assess the impact of education levels on student performance. Use the insights from the analysis to recommend policies or interventions aimed at improving academic performance, especially for disadvantaged groups.

Fig. No. 3.3.2 Brainstorm & Ideas Listing

Group Ideas

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

🕒 20 minutes

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

1. Utilize diverse data sources, including academic records, standardized test scores, teacher assessments, and attendance data, integrating them in IBM Cognos for comprehensive analysis.
2. Employ predictive modeling to forecast future academic performance, enabling proactive measures to support struggling students and challenge high achievers.
3. Identify critical KPIs such as graduation rates, average GPA, and subject-specific success rates to assess overall performance and growth over time.
4. Conduct a holistic analysis to uncover multifaceted factors affecting academic performance, including socio-economic background, extracurricular involvement, and study habits.
5. Tailor learning pathways for each student based on their performance patterns, interests, and preferred learning styles to optimize engagement and understanding.
6. Implement real-time monitoring of student performance and automated alert systems, notifying educators and parents of significant deviations or potential concerns.
7. Utilize interactive and visually appealing dashboards in IBM Cognos to communicate insights effectively, making data accessible and actionable for stakeholders.
8. Integrate student and teacher feedback into the analysis to gauge satisfaction, teaching effectiveness, and areas for improvement, aligning educational strategies accordingly.
9. Facilitate peer performance comparison to motivate students and encourage healthy competition, fostering a culture of continuous improvement.
10. Provide tailored recommendations for professional development to educators based on data insights, enhancing teaching methodologies and student engagement.
11. Engage parents by sharing personalized progress reports and recommendations, encouraging their active involvement in supporting their child's academic journey.
12. Analyze long-term performance trends to identify cyclical patterns and assess the impact of educational reforms, aiding in evidence-based policy decision-making.

Fig. No. 3.3.3 Brainstorming & Idea Prioritization

Prioritization

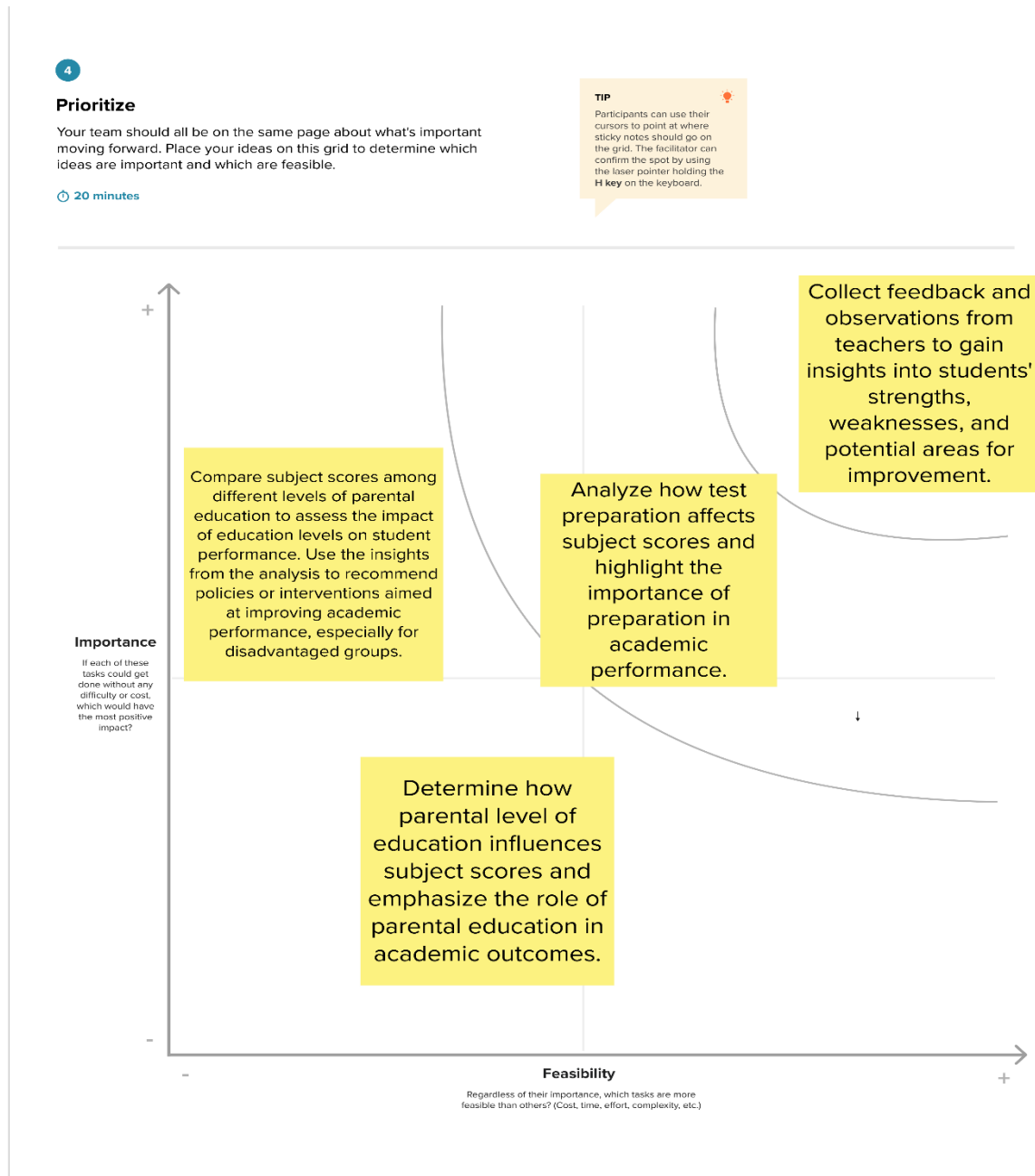


Fig.No.3.3.4 Brainstorming & Idea Prioritization

3.4 PROPOSED SOLUTION

| S. No | Parameter | Description |
|-------|---|---|
| 1. | Problem Statement (Problem to be solved) | The project aims to enhance academic performance through data-driven analysis, pinpointing strengths and weaknesses in student classes and schools, and providing actionable recommendations for improvement. |
| 2. | Idea / Solution description | Collect and analyze data with IBM Cognos to track student progress, identify contributing factors, and visualize performance via Flask-based UI with dashboards and reports. |
| 3. | Novelty / Uniqueness | This project addresses the rising need for data-driven education solutions, targeting students, teachers, and administrators facing academic challenges. It acknowledges a broader trend of educators and institutions adopting similar projects and engaging with resources such as webinars, tutorials, and research papers to enhance academic outcomes. |

| | | |
|----|---------------------------------------|---|
| 4. | Social Impact / Customer Satisfaction | Educational institutions benefit by easily identifying student performance, goals, and tracking progress over time through this project. |
| 5. | Business Model (Revenue Model) | The student performance analysis model provides tailored reporting and analysis services to schools and colleges, including custom reports and visualizations to meet their specific needs. |
| 6. | Scalability of the Solution | Combining IBM Cognos with Flask empowers educational progress tracking and success factor identification. |

Table No. 3.4 Proposed Solution

REQUIREMENT ANALYSIS

CHAPTER-4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|--|
| FR-1 | User Registration | Includes registration through a traditional form, registration through Gmail, and registration through LinkedIn. |
| FR-2 | User Confirmation | Confirmation via Email Confirmation via OTP |
| FR-3 | Login | Ensures that users access the system using appropriate and authorized user credentials. |
| FR-4 | Dataset | Upload dataset into the analytics tool. |
| FR-5 | Analysis | Involves the collection, processing, and exploration of information to uncover patterns, trends, and valuable insights within the data. |
| FR-6 | Create Dashboard | Create various visualization elements such as charts, graphs, and tables to form a dashboard |
| FR-7 | Reporting | The reporting function helps users have complete control over their business. The real-time reporting collects current information and displays. |

Table No. 4.1 Functional Requirements

4.2 NON-FUNCTIONAL REQUIREMENTS

| FR No. | Non-Functional Requirement | Description |
|---------------|-----------------------------------|--|
| NFR-1 | Usability | Designed for optimal resource usage and accessibility to a broad audience. |
| NFR-2 | Security | Any individual with the correct login credentials can access and view the dashboards and templates |
| NFR-3 | Reliability | Templates are hosted on the cloud, ensuring their reliability and availability. |
| NFR-4 | Performance | The system demonstrates high performance and efficiency |
| NFR-5 | Availability | Cost-free and open to anyone interested in accessing sales data |
| NFR-6 | Scalability | The dashboards and templates are highly scalable, allowing users to modify metrics according to their preferences. |

Table No. 4.2 Non-Functional Requirements

PROJECT DESIGN

CHAPTER-5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS

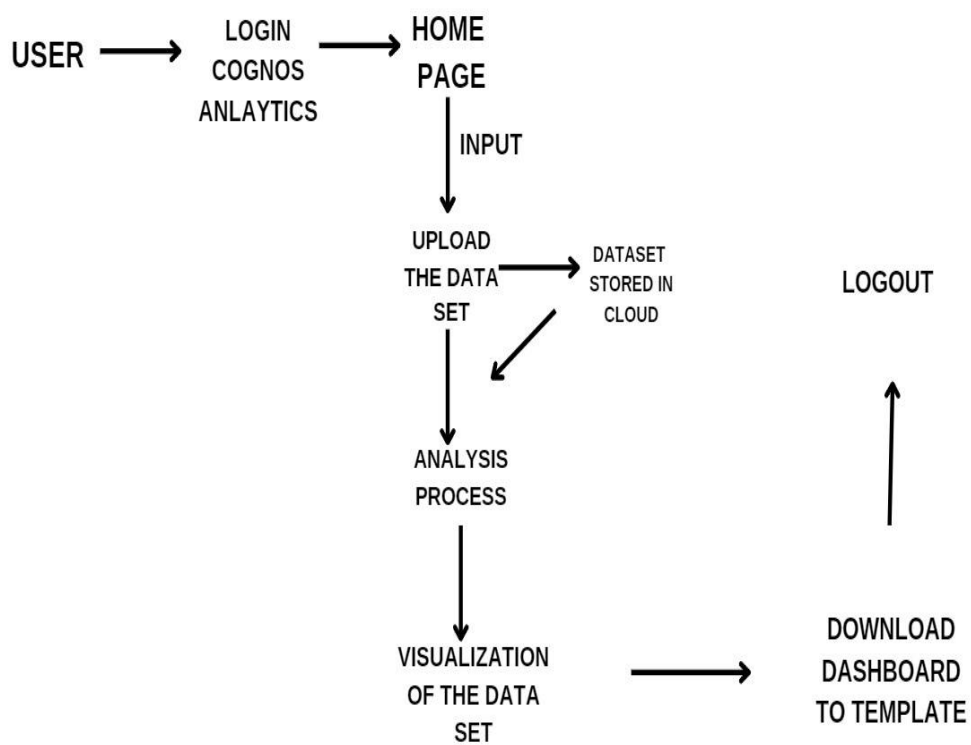


Fig.No. 5.1.1 Data Flow Diagram

5.2 SOLUTION AND TECHNICAL ARCHITECTURE

Technical Architecture:

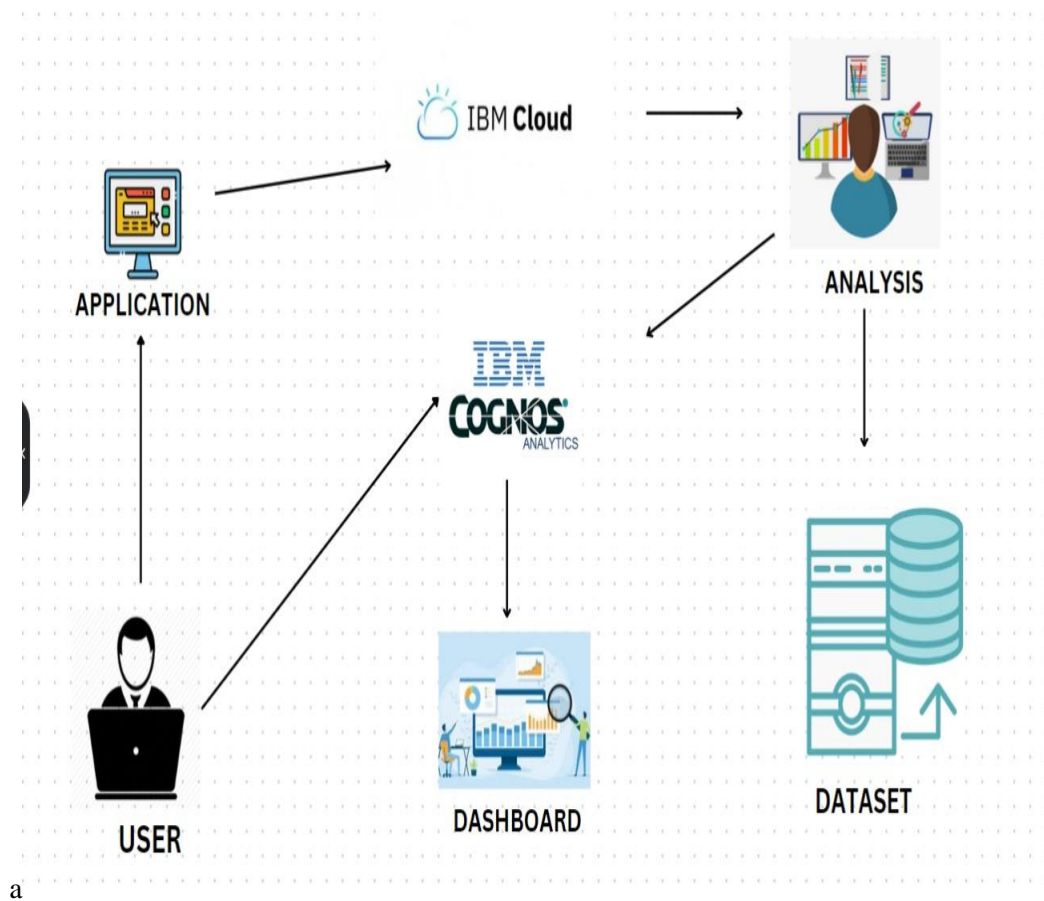


Fig. No. 5.2.1 Solution & Technical Architecture

5.3 USER STORIES

| User Type | Functional Requirement(Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority |
|---------------------|------------------------------|-------------------|---|--|----------|
| Customer (Web user) | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming my password. | I can access my account / dashboard | High |
| | Login | USN-2 | As a user, I can log into the application by entering email and password | I can access my account / dashboard | High |
| | Dashboard | USN-3 | User can able to see and upload dataset option in the browser | The user can upload data set in Cognos analytics | High |
| | Dashboard | USN-4 | If the user already used the Cognos analytics, we | The user can access the uploaded dataset | Low |

| | | | | | |
|-------|-----------|-------|---|-----------------------------|------|
| | | | can able to see the previously uploaded dataset | | |
| Admin | Login | USN-5 | As an admin, I can log into the application by entering username & password | I can access the dashboards | High |
| | Dashboard | USN-6 | As an admin, I can view the dashboard and otheractivities of the application. | I can access the dashboards | High |

Table No. 5.3 User Stories

CODING & SOLUTIONING

CHAPTER-6

CODING & SOLUTIONING

6.1 FEATURE 1

The system's primary feature involves the integration of diverse data sources, including grades, test scores, attendance records, and surveys. It utilizes IBM Cognos for comprehensive data analysis to examine academic performance at multiple levels (individual, class, and school). This feature highlights the system's ability to collect and process a wide range of educational data to gain insights into academic strengths, weaknesses, and factors influencing student success or challenges.

6.2 FEATURE 2

The system is designed to tailor instructional strategies and provide targeted interventions based on the data analysis. It aims to enhance academic achievement by offering specific recommendations to address the identified issues. This feature emphasizes the system's role in not only analyzing student performance but also in suggesting actionable steps for improving educational outcomes.

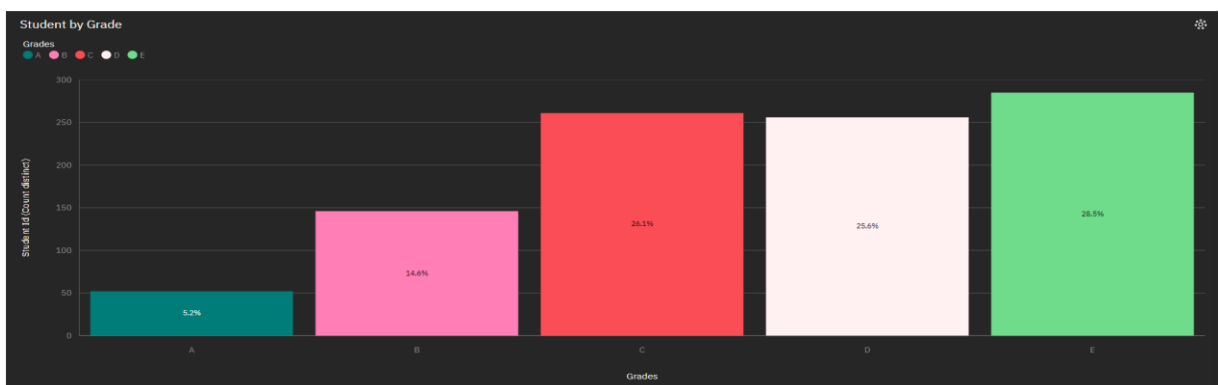


Fig.No.6.2.1 Student By Grade

RESULTS

CHAPTER-7

RESULTS

7.1 PERFORMANCE METRICS

```
from flask import Flask, render_template

app = Flask(__name__, static_url_path='/static')

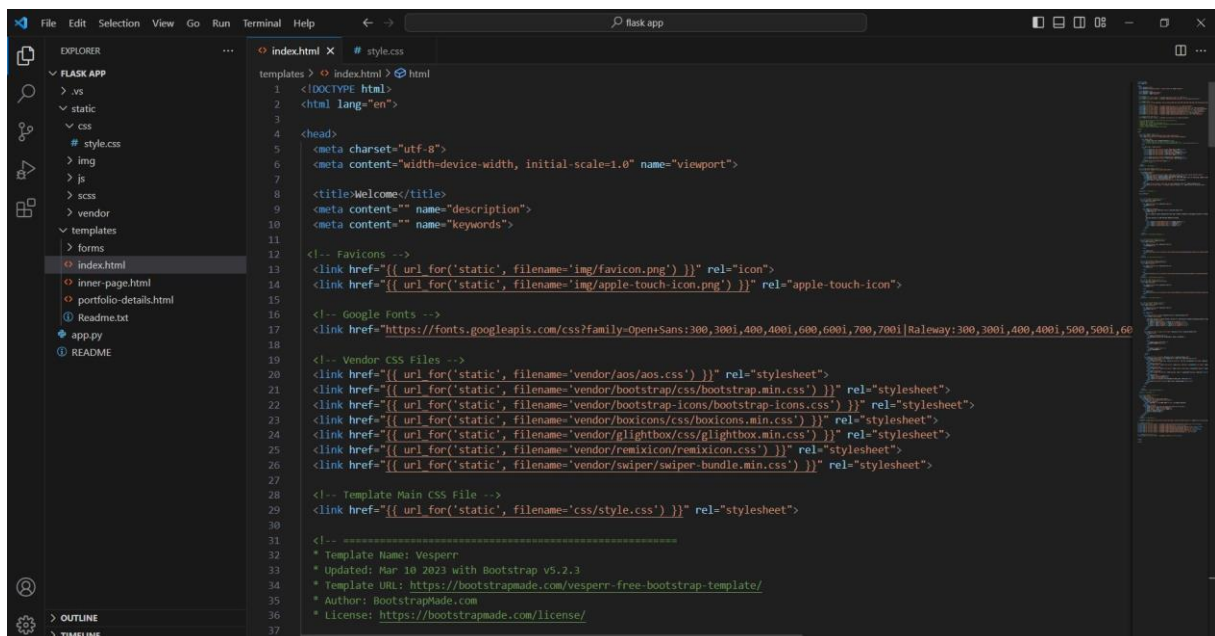
@app.route("/")

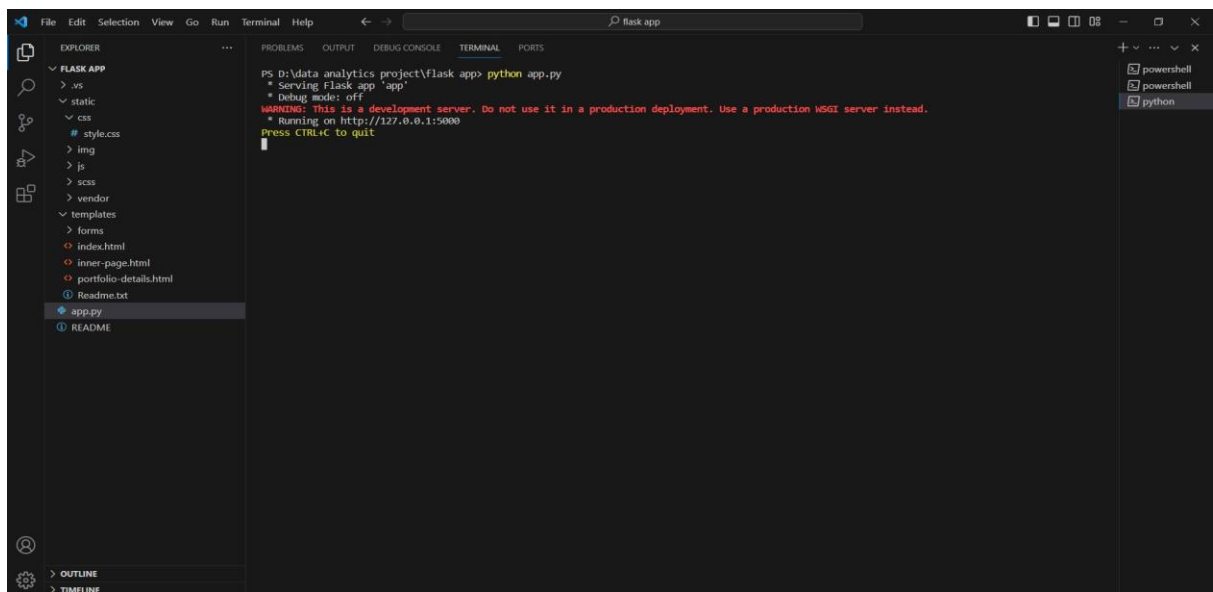
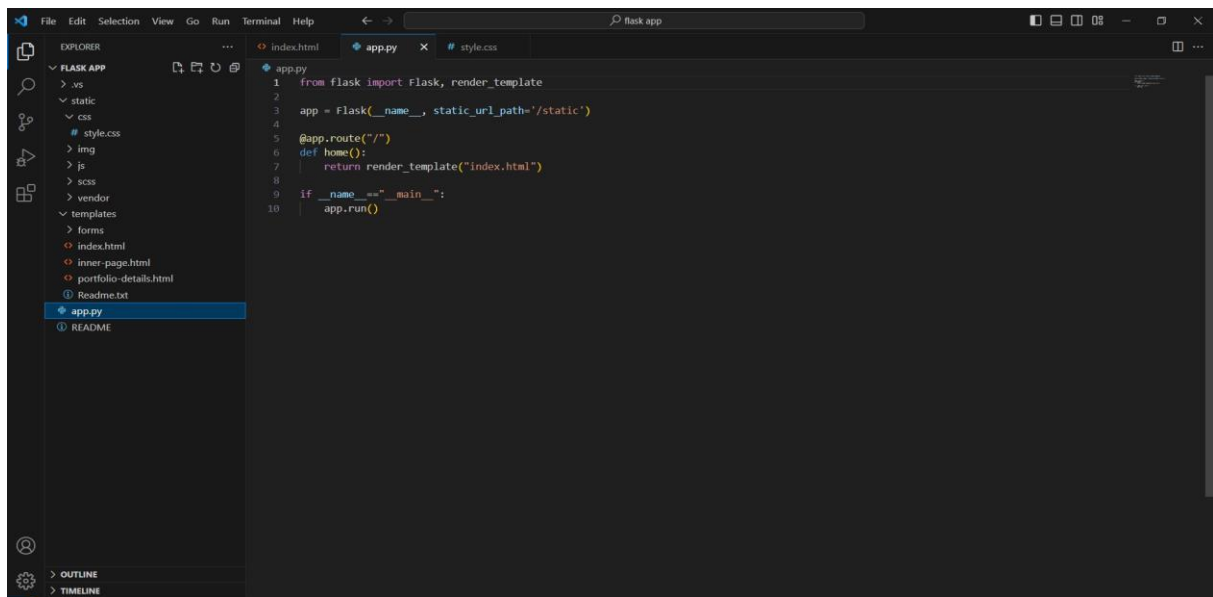
def home():

    return render_template("index.html")

if __name__=="main_":

    app.run()
```





ADVANTAGES & DISADVANTAGES

CHAPTER-8

ADVANTAGES & DISADVANTAGES

Advantages:

- The system enables in-depth analysis of extensive data from various sources including grades, test scores, attendance, and surveys.
- It provides personalized instruction and suggests interventions based on a thorough analysis of each student's data.
- The data-driven approach facilitates informed decisions regarding curriculum design, instructional methods, and allocation of resources.
- It allows for early detection of students facing challenges, enabling timely and targeted interventions.
- It allows for early detection of students facing challenges, enabling timely and targeted interventions.

Disadvantages:

- Dependence on data quality and accuracy.
- Privacy and security concerns with student data.
- Potential overemphasis on quantitative data, overlooking qualitative factors.
- Resource and infrastructure requirements for implementation.
- Challenges in adoption and training for educators and administrators.

CONCLUSION

CHAPTER-9

CONCLUSION

In conclusion, the "Student Performance Analysis and Improvement Recommendations" initiative employs IBM Cognos to gather and analyze diverse academic data such as grades, test scores, attendance, and surveys. It tailors instructional approaches and suggests interventions to enhance student performance by pinpointing strengths, weaknesses, and the underlying factors influencing success or difficulties.

The expected outcomes revolve around gaining valuable insights into student performance, identifying areas ripe for improvement, and providing targeted recommendations to elevate academic achievement. This project underscores the pivotal role of analyzing student performance in enhancing overall academic outcomes, with IBM Cognos standing out as a robust tool to facilitate this process. At its core, this initiative demonstrates the immense potential of leveraging data-driven analysis to propel advancements in academic performance.

FUTURE SCOPE



CHAPTER-10

FUTURE SCOPE

- **Predictive Analytics:** Using early signs of academic struggles or achievements to offer timely assistance and proactive support.
- **Integration of Diverse Data Sources:** Blending various data types, including academic records, test scores, attendance, and extracurricular involvement, to gain a holistic view of a student's advancement.
- **Personalized Learning:** Customizing guidance and support according to each student's unique needs and learning preferences.
- **Emotional Intelligence Monitoring:** Evaluating emotional well-being, stress levels, and engagement during learning to enhance motivation and involvement.

APPENDIX

CHAPTER-11

APPENDIX

A.1 SOURCE CODE

Index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">
  <title>Welcome</title>
  <meta content="" name="description">
  <meta content="" name="keywords">

  <!-- Favicons -->
  <link href="{ { url_for('static', filename='img/favicon.png') } }" rel="icon">
  <link href="{ { url_for('static', filename='img/apple-touch-icon.png') } }" rel="apple-
touch-icon">

  <!-- Google Fonts -->
  <link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600
i,700,700i|Raleway:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,4
00,400i,500,500i,600,600i,700,700i" rel="stylesheet">

  <!-- Vendor CSS Files -->
  <link href="{ { url_for('static', filename='vendor/aos/aos.css') } }" rel="stylesheet">
  <link href="{ { url_for('static', filename='vendor/bootstrap/css/bootstrap.min.css') } }"
rel="stylesheet">
  <link href="{ { url_for('static', filename='vendor/bootstrap-icons/bootstrap-icons.css')
} }" rel="stylesheet">
  <link href="{ { url_for('static', filename='vendor/boxicons/css/boxicons.min.css') } }"
rel="stylesheet">
  <link href="{ { url_for('static', filename='vendor/glightbox/css/glightbox.min.css')
} }" rel="stylesheet">
  <link href="{ { url_for('static', filename='vendor/remixicon/remixicon.css') } }"
rel="stylesheet">
  <link href="{ { url_for('static', filename='vendor/swiper/swiper-bundle.min.css') } }"
rel="stylesheet">
```

```

<link href="{ { url_for('static', filename='css/style.css') } }" rel="stylesheet">

<!-- =====
* Template Name: Vesperr
* Updated: Mar 10 2023 with Bootstrap v5.2.3
* Template URL: https://bootstrapmade.com/vesperr-free-bootstrap-template/
* Author: BootstrapMade.com
* License: https://bootstrapmade.com/license/
</head><body>

<!-- ===== Header ===== -->
<header id="header" class="fixed-top d-flex align-items-center">
  <div class="container d-flex align-items-center justify-content-between">

    <div class="logo">
      <h1><a href="index.html">student analysis</a></h1>
      <!-- Uncomment below if you prefer to use an image logo -->
      <!-- <a href="index.html"></a>-->
    </div>
    <nav id="navbar" class="navbar">
      <ul>
        <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
        <li><a class="nav-link scrollto" href="#about">About</a></li>
        <li><a class="nav-link scrollto" href="#services">Dashboard</a></li>
        <li><a class="nav-link scrollto " href="#portfolio">Story</a></li>
        <li><a class="nav-link scrollto" href="#team">Report</a></li>
        <li><a class="nav-link scrollto" href="#contact">Contact</a></li>
        <li><a class="getstarted scrollto" href="#about">Get Started</a></li>
      </ul>
      <i class="bi bi-list mobile-nav-toggle"></i>
    </nav><!-- .navbar -->
  </div>
</header><!-- End Header -->

<!-- ===== Hero Section ===== -->
<section id="hero" class="d-flex align-items-center">
  <div class="container">
    <div class="row">
      <div class="col-lg-6 pt-5 pt-lg-0 order-2 order-lg-1 d-flex flex-column justify-
content-center">
        <h1 data-aos="fade-up">Student academic performance analysis</h1>
        <h2 data-aos="fade-up" data-aos-delay="400">Here we using IBM cognos

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for analysing student's performance</h2>
    <div data-aos="fade-up" data-aos-delay="800">
        <a href="#about" class="btn-get-started scrollto">Get Started</a>
    </div>
</div>
<div class="col-lg-6 order-1 order-lg-2 hero-img" data-aos="fade-left" data-aos-
delay="200">
    
</div>
</div>
</div>
</section><!-- End Hero -->
<main id="main">

<!-- ===== About Us Section ===== -->
<section id="about" class="about">
    <div class="container">
        <div class="section-title" data-aos="fade-up">
            <h2>About Us</h2>
        </div>
        <div class="row content">
            <div class="col-lg-6" data-aos="fade-up" data-aos-delay="150">
                <h3>RSSS Team</h3>
                <p>
                    We are Computer Science Engineering final year students studying at
Knowledge Institute of Technology.
                </p>
                <p>
                    We here working on a IBM and Naan Mudhalvan Project.
                </p>
                <ul>
                    <li><i class="ri-check-double-line"></i> Sahana Sruthi S</li>
                    <li><i class="ri-check-double-line"></i> Sandhiya S</li>
                    <li><i class="ri-check-double-line"></i> Rohinth V</li>
                    <li><i class="ri-check-double-line"></i> Sanjay S</li>
                </ul>
            </div>
        </div>
    </div>
</section><!-- End About Us Section -->

<!-- ===== Services Section ===== -->
<section id="services" class="services">

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<div class="container">
  <div class="section-title" data-aos="fade-up">
    <h2>Dashboard</h2>
  </div>

  <div class="row">
    <iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_
folders%2Fstudent_performance_dashboard&closeWindowOnLastView=true&a
mp;ui_appbar=false&ui_navbar=false&shareMode=embedded&action
=view&mode=dashboard&subView=model0000018b3c54a492_00000000"
width="1270" height="570" frameborder="0" gesture="media" allow="encrypted-
media" allowfullscreen=""></iframe>
    </div>
  </div>
</section><!-- End Services Section -->

<!-- ===== Portfolio Section ===== -->
<section id="portfolio" class="portfolio">
  <div class="container">
    <div class="section-title" data-aos="fade-up">
      <h2>Story</h2>
    </div>
    <div >
      <iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.my_folder
s%2Fstudent_performance_story&closeWindowOnLastView=true&ui_appb
ar=false&ui_navbar=false&shareMode=embedded&action=view&
sceneId=model0000018b3ce113b7_000000002&sceneTime=0" width="1270"
height="570" frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
      </div>
    </div>
  </section><!-- End Portfolio Section -->
<!-- ===== Team Section ===== -->
<section id="team" class="team section-bg">
  <div class="container">
    <div class="section-title" data-aos="fade-up">
      <h2>Report</h2>
    </div>
    <div class="row">
      <iframe
src="https://us1.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fstudent_perform
NM2023TMID01992

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ce_report&closeWindowOnLastView=true&ui_appbar=false&ui_navb
ar=false&shareMode=embedded&action=run&format=HTML&prompt=false" width="320" height="500" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
</div>
</div>
</section><!-- End Team Section -->
<!-- ===== Contact Section ===== -->
<section id="contact" class="contact">
<div class="container">
<div class="section-title" data-aos="fade-up">
<h2>Contact Us</h2>
</div>
<div class="row">
<div class="col-lg-4 col-md-6" data-aos="fade-up" data-aos-delay="100">
<div class="contact-about">
<p>We here working on a data analytics project for analysing the student
performance based on their academics activities.</p>
<div class="social-links">
<a href="#" class="twitter"><i class="bi bi-twitter"></i></a>
<a href="#" class="facebook"><i class="bi bi-facebook"></i></a>
<a href="#" class="instagram"><i class="bi bi-instagram"></i></a>
<a href="#" class="linkedin"><i class="bi bi-linkedin"></i></a>
</div>
</div>
</div>
<div class="col-lg-3 col-md-6 mt-4 mt-md-0" data-aos="fade-up" data-aos-
delay="200">
<div class="info">
<div>
<i class="ri-map-pin-line"></i>
<p>Knowledge Institute Of Technology<br>Salem, TN-637504</p>
</div>
<div>
<i class="ri-mail-send-line"></i>
<p>2k20cse120@kiot.ac.in</p>
</div>
<div>
<i class="ri-phone-line"></i>
<p>+91 9364606060</p>
</div>
</div>
</div>

```

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<div class="col-lg-5 col-md-12" data-aos="fade-up" data-aos-delay="300">
  <form action="forms/contact.php" method="post" role="form" class="php-
email-form">
    <div class="form-group">
      <input type="text" name="name" class="form-control" id="name"
placeholder="Your Name" required>
    </div>
    <div class="form-group">
      <input type="email" class="form-control" name="email" id="email"
placeholder="Your Email" required>
    </div>
    <div class="form-group">
      <input type="text" class="form-control" name="subject" id="subject"
placeholder="Subject" required>
    </div>
    <div class="form-group">
      <textarea class="form-control" name="message" rows="5"
placeholder="Message" required></textarea>
    </div>
    <div class="my-3">
      <div class="loading">Loading</div>
      <div class="error-message"></div>
      <div class="sent-message">Your message has been sent. Thank you!</div>
    </div>
    <div class="text-center"><button type="submit">Send
Message</button></div>
  </form>
</div>
</div>
</section><!-- End Contact Section -->
</main><!-- End #main -->
<!-- ===== Footer ===== -->
<footer id="footer">
  <div class="container">
    <div class="row d-flex align-items-center">
      <div class="col-lg-6 text-lg-left text-center">
        <div class="copyright">
          &copy; Copyright <strong>RSSS TEAM</strong>. All Rights Reserved
        </div>
      <div class="col-lg-6">
        <nav class="footer-links text-lg-right text-center pt-2 pt-lg-0">
          <a href="#intro" class="scrollto">Home</a>
          <a href="#about" class="scrollto">About</a>

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<a href="#">Privacy Policy</a>
    <a href="#">Terms of Use</a>
</nav>
</div>
</div>
</div>
</footer><!-- End Footer -->

<a href="#" class="back-to-top d-flex align-items-center justify-content-center"><i
class="bi bi-arrow-up-short"></i></a>

<!-- Vendor JS Files -->
<script src="{ { url_for('static', filename='vendor/purecounter/purecounter_vanilla.js')
}}"></script>
<script src="{ { url_for('static', filename='vendor/aos/aos.js') } }"></script>
<script src="{ { url_for('static', filename='vendor/bootstrap/js/bootstrap.bundle.min.js')
}}"></script>
<script src="{ { url_for('static', filename='vendor/glightbox/js/glightbox.min.js')
}}"></script>
<script src="{ { url_for('static', filename='vendor/isotope-layout/isotope.pkgd.min.js')
}}"></script>
<script src="{ { url_for('static', filename='vendor/swiper/swiper-bundle.min.js')
}}"></script>
<script src="{ { url_for('static', filename='vendor/php-email-form/validate.js')
}}"></script>

<!-- Template Main JS File -->
<script src="{ { url_for('static', filename='js/main.js') } }"></script>

</body>
</html>

```

A.2 SCREEN SHOTS:

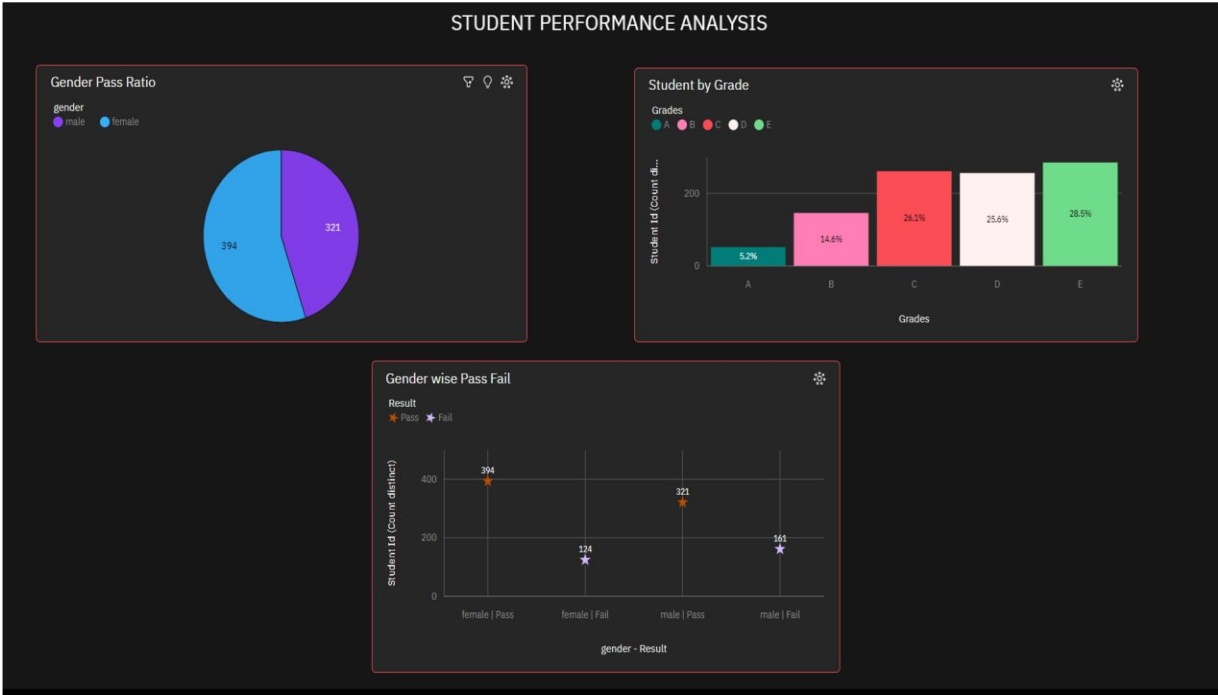


Fig. No. A.2.1 Dashboard Tab1

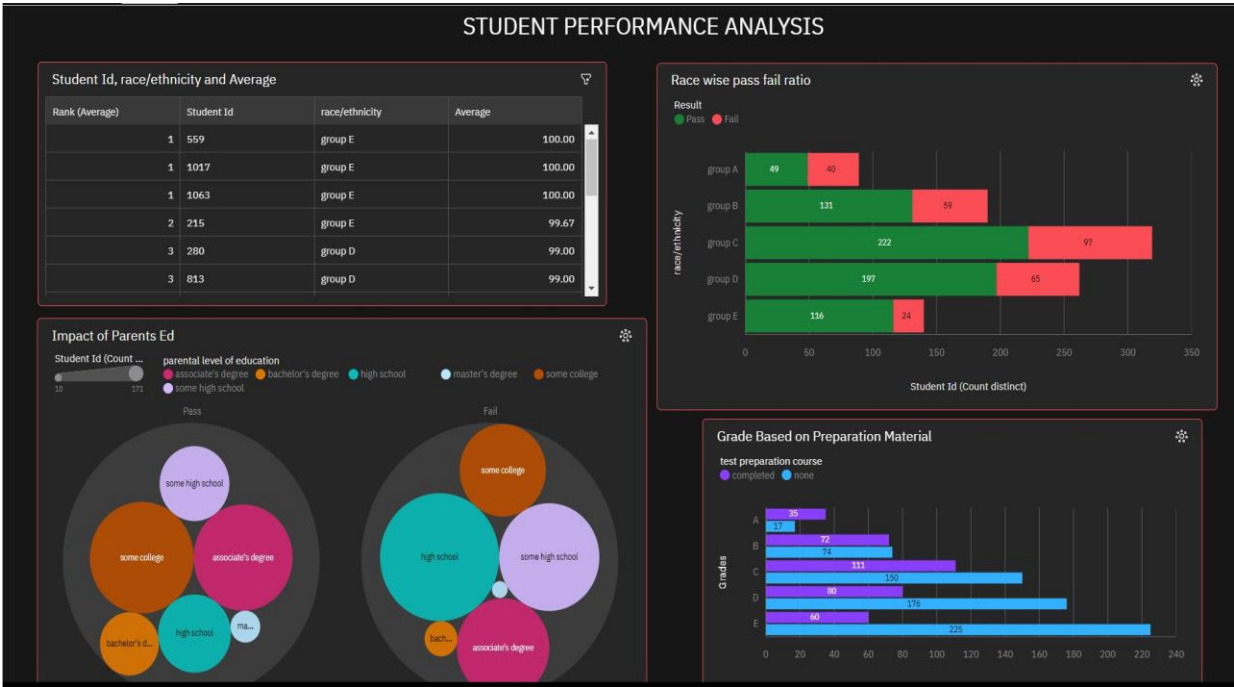


Fig. No. A.2.2 Dashboard Tab2

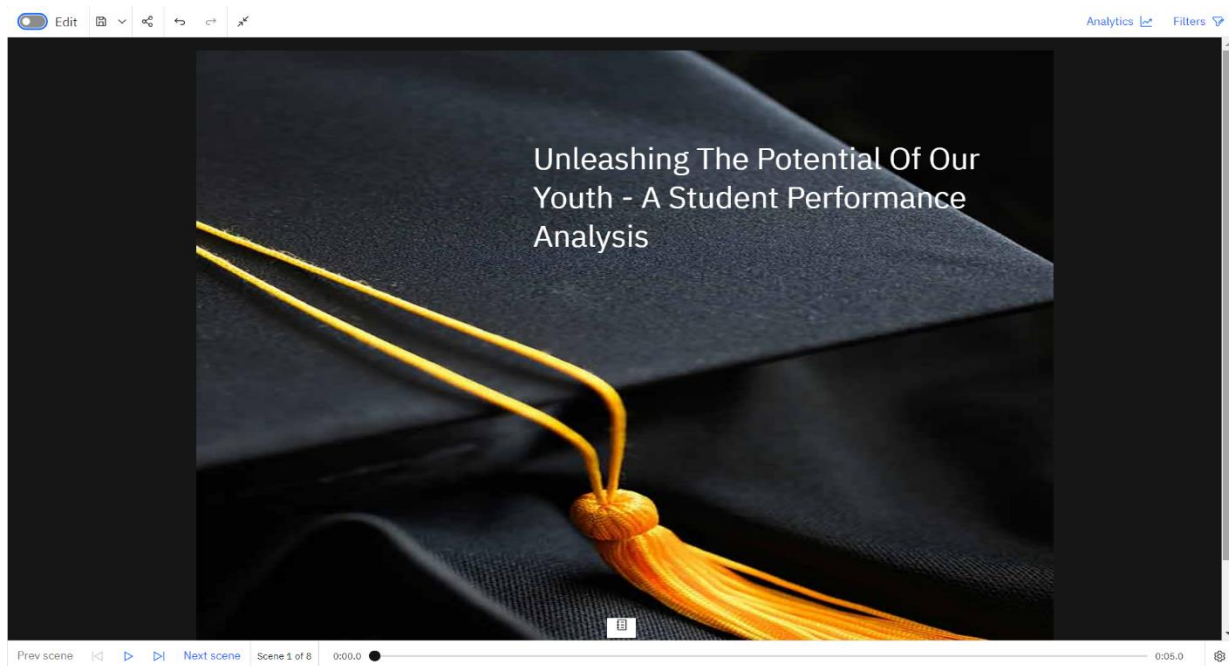


Fig. No. A.2.3 Story

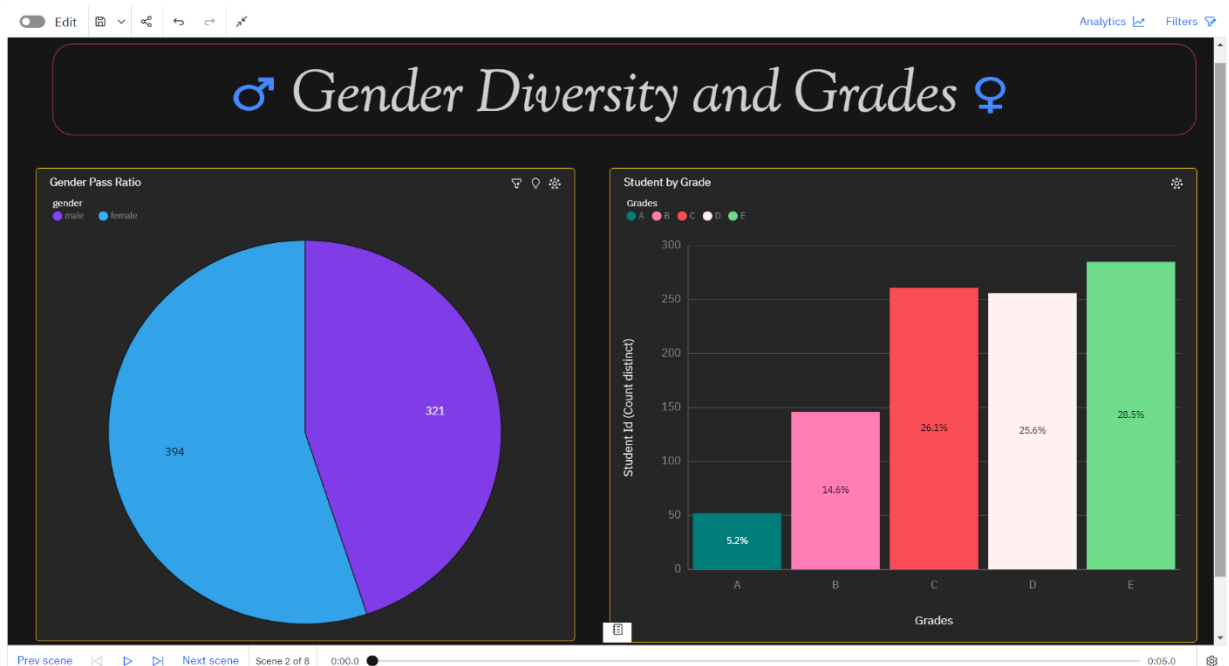


Fig. No. A.2.4 Story Scene1

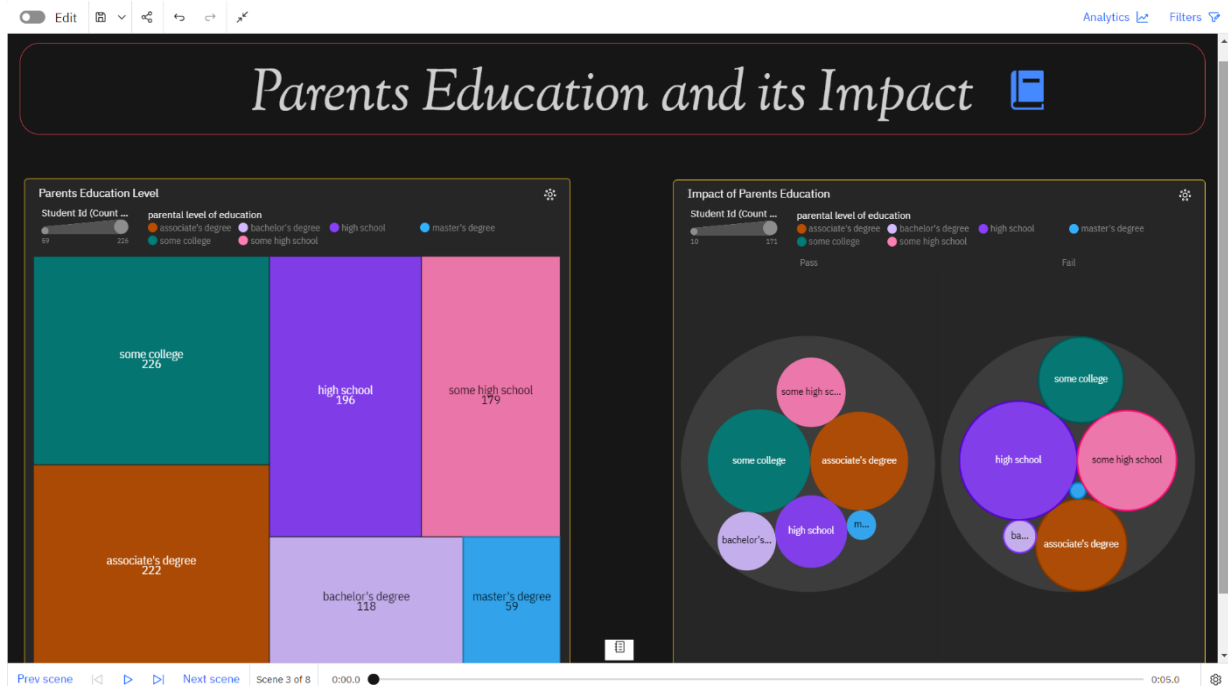


Fig. No. A.2.5 Story Scene2

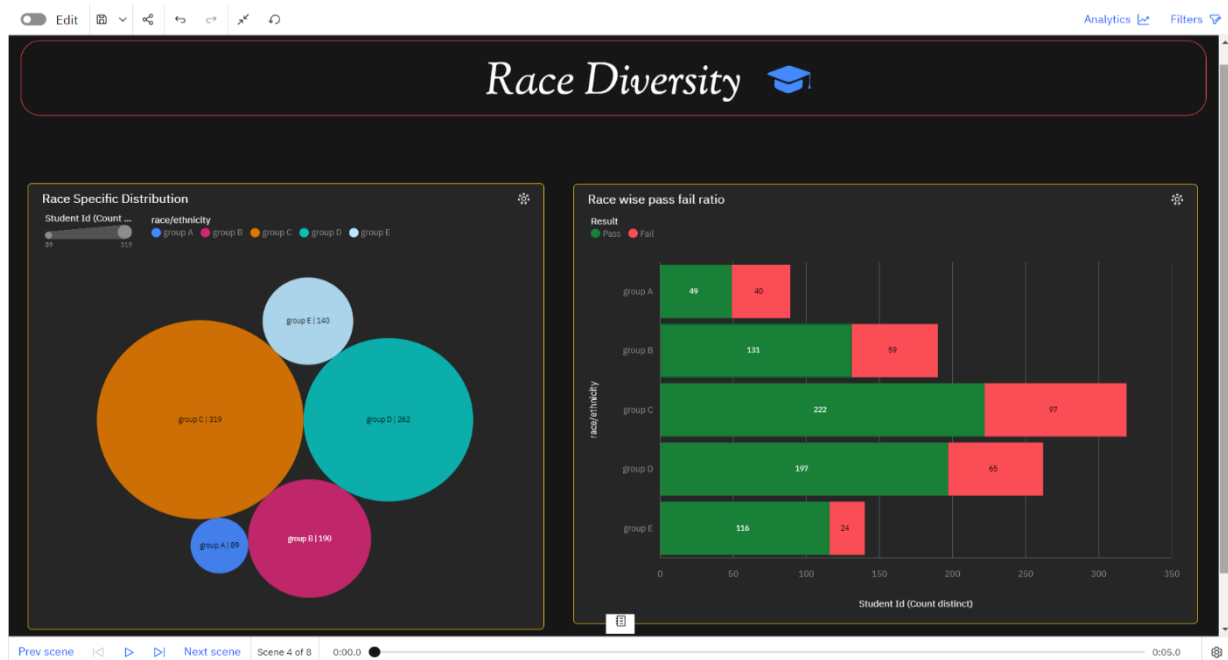


Fig. No. A.2.6 Story Scene3

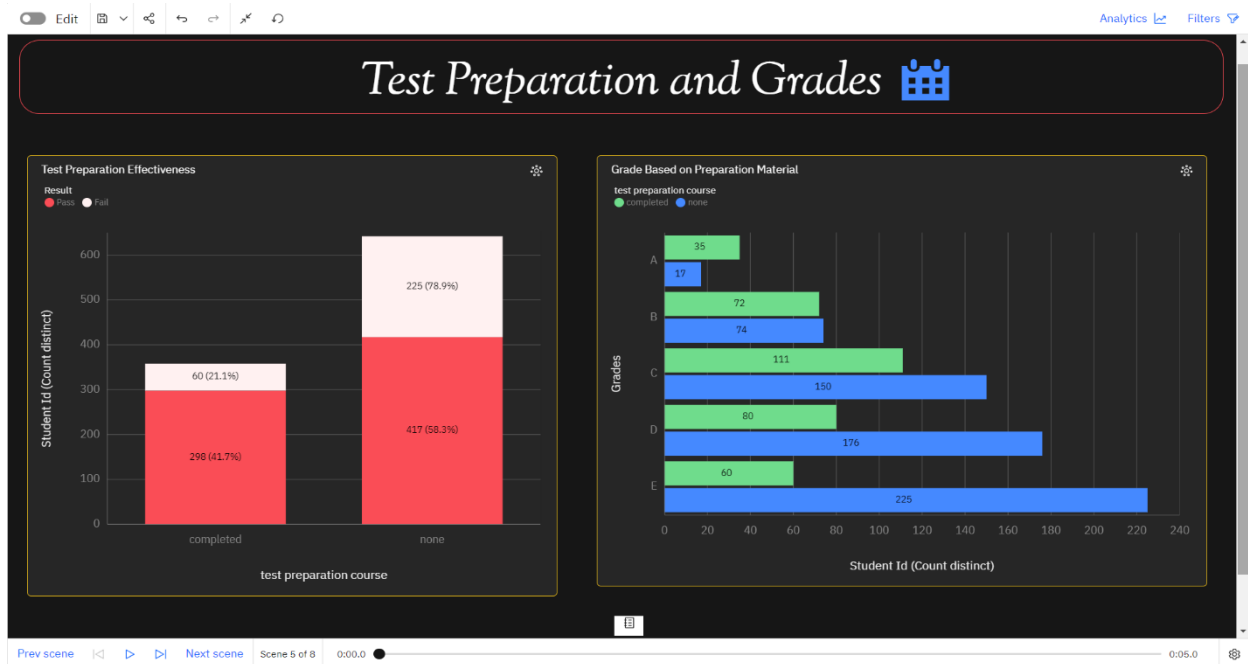


Fig. No. A.2.7 Story Scene4

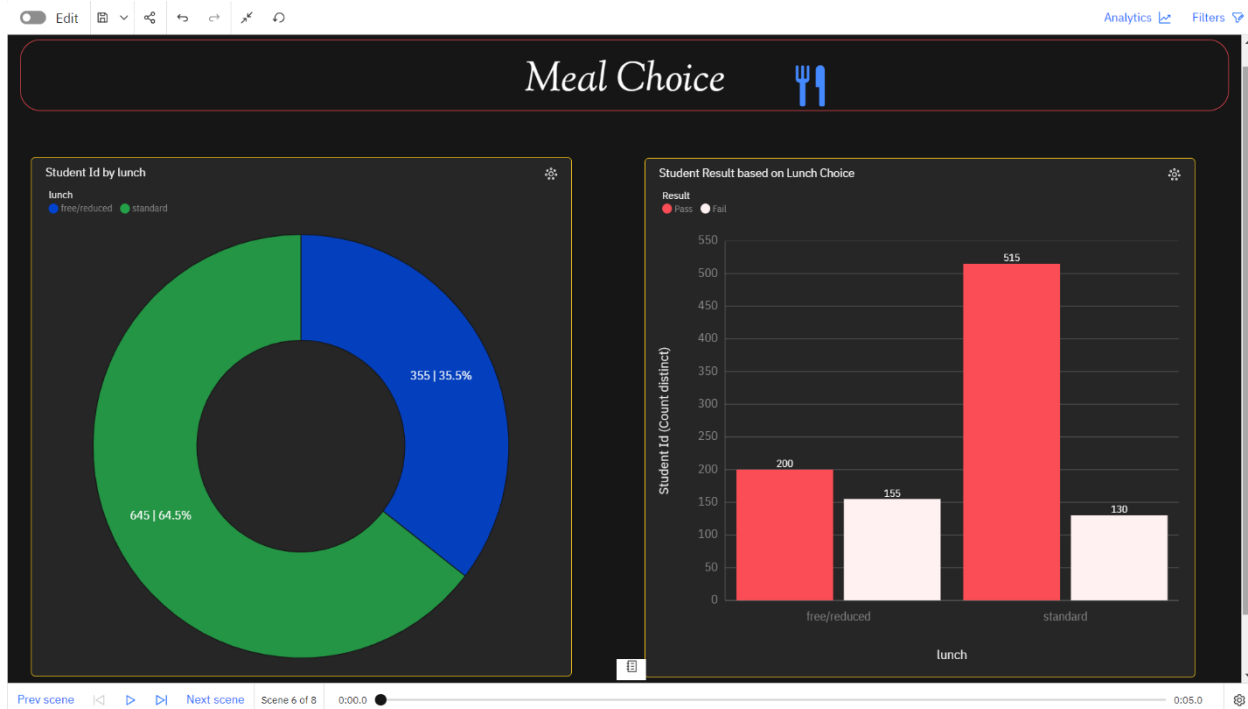


Fig. No. A.2.8 Story Scene5

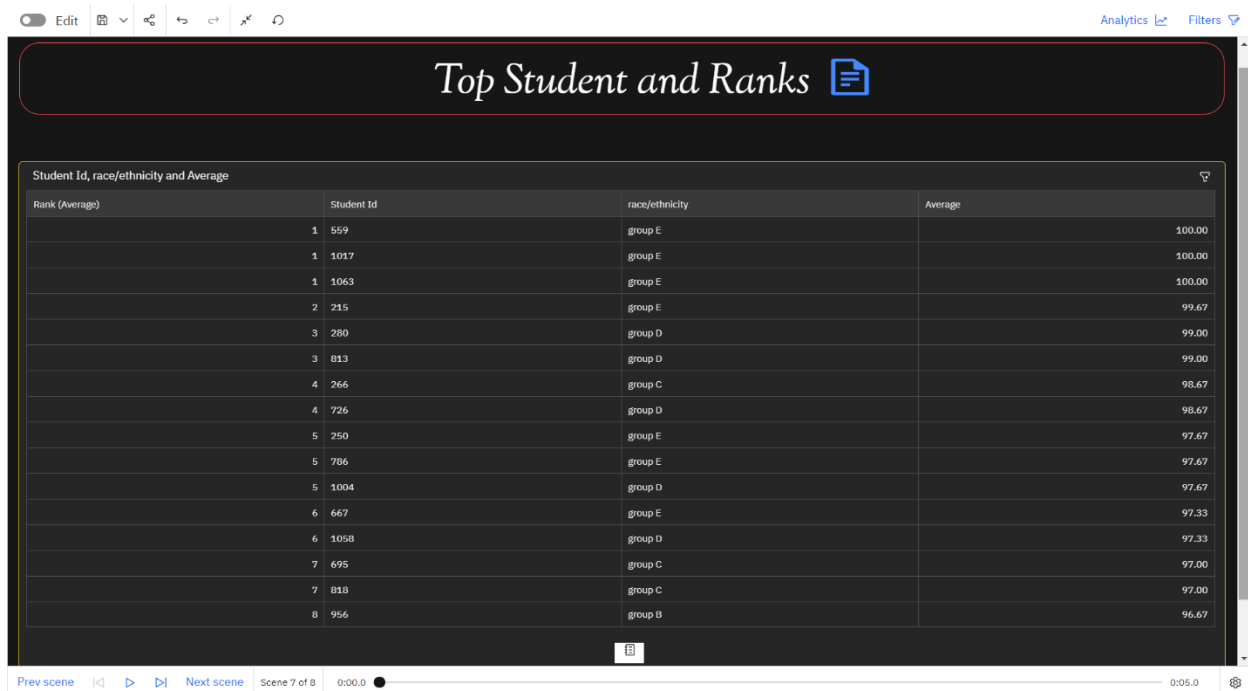


Fig. No. A.2.9 Story Scene6

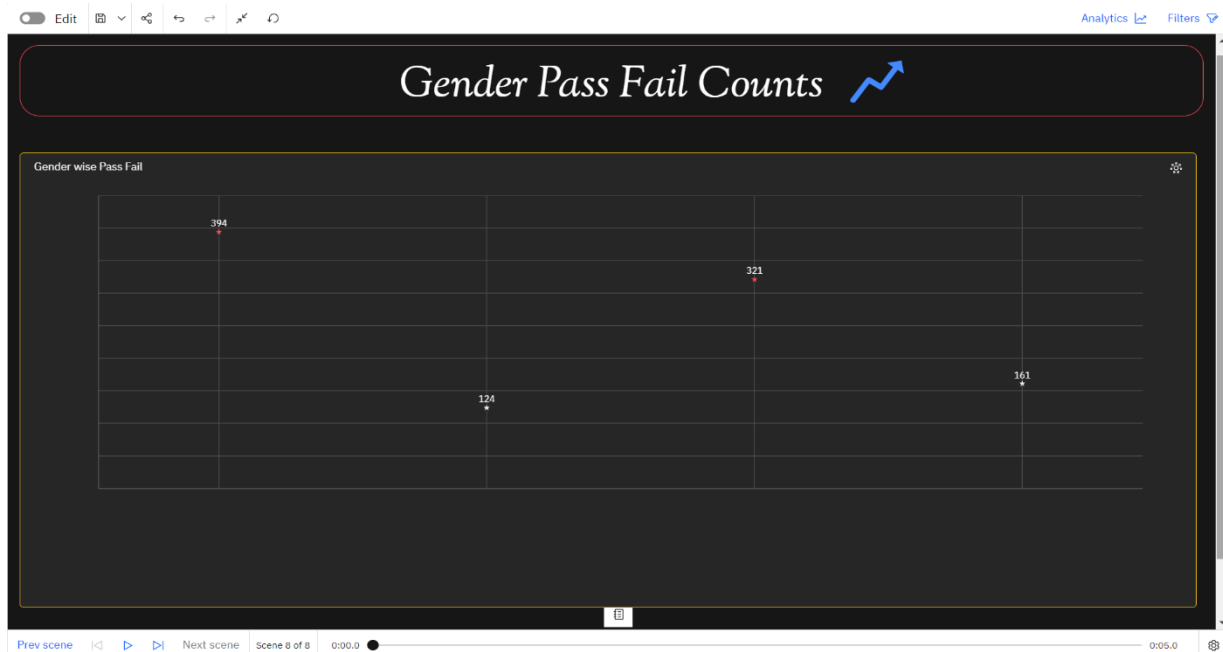


Fig. No. A.2.10 Story Scene7

| | |
|---|--|
| <div> <div>Edit</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>HTML</div> </div> <div>Filters</div> | |
| Gender Performance In Subjects | Male has the highest average math score due to group E race/ethnicity. Female is the most frequently occurring category of gender with a count of 518 items with average values(51.8% of the total). |
| Female has the highest students at 518 out of which pass contributed the most at 394. Parents who are completed bachelor's degree, associate degree and score college degree has the highest pass ratio of their children | Impact of Parents Education |
| Gender Wise Result | Equally male and female students has approximately same pass and fail ratio. Female and male has 60% passing percentage combined together |
| Average score of female and male 51.4% and 48.6% respectively. Literally, female has more average percentage than male students | Gender Distribution |
| Effect of Test Preparation | None is the most frequently occurring category of test preparation course with a count of 642 items with Student Id values(64.2% of the total). They have the less passing ratio. |
| Average is unusually high when Grade is A. The female has average percentage of 94.65 for grade A and male has average percentage of 93.81 for grade A. Grade stringly affects average (88%). | Students by Grade |
| Race Wise Result | Group C (31.9%) and Group D(26.2%) are the most frequently occurring categories of race/ ethnicity with a combined count of 581 items with Student Id values(58.1% of the total). Race/ethnicity group E highest average percentage of 100. |
| Standard is the most frequently occurring category of lunch with a count of 645 items with Student Id values (64.5% of the total). Literally standard of meal having students has twice passing result, as the free and reduced meal. | Result Based On Meal Choice |

Fig. No. A.2.11 Report

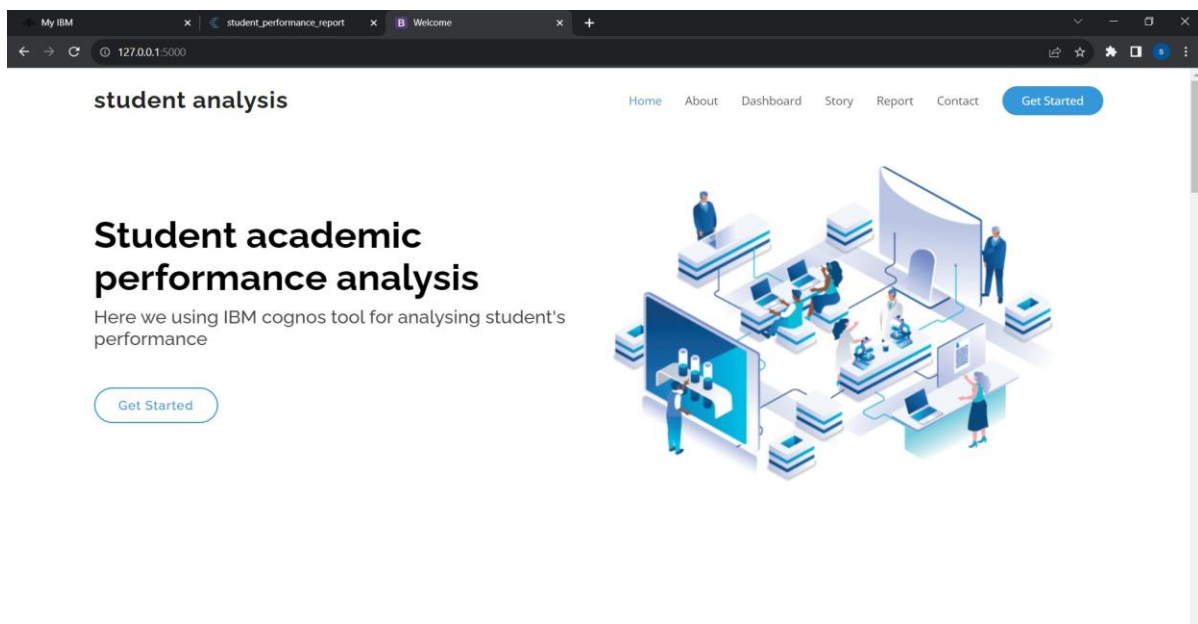


Fig. No. A.2.12 Home Section

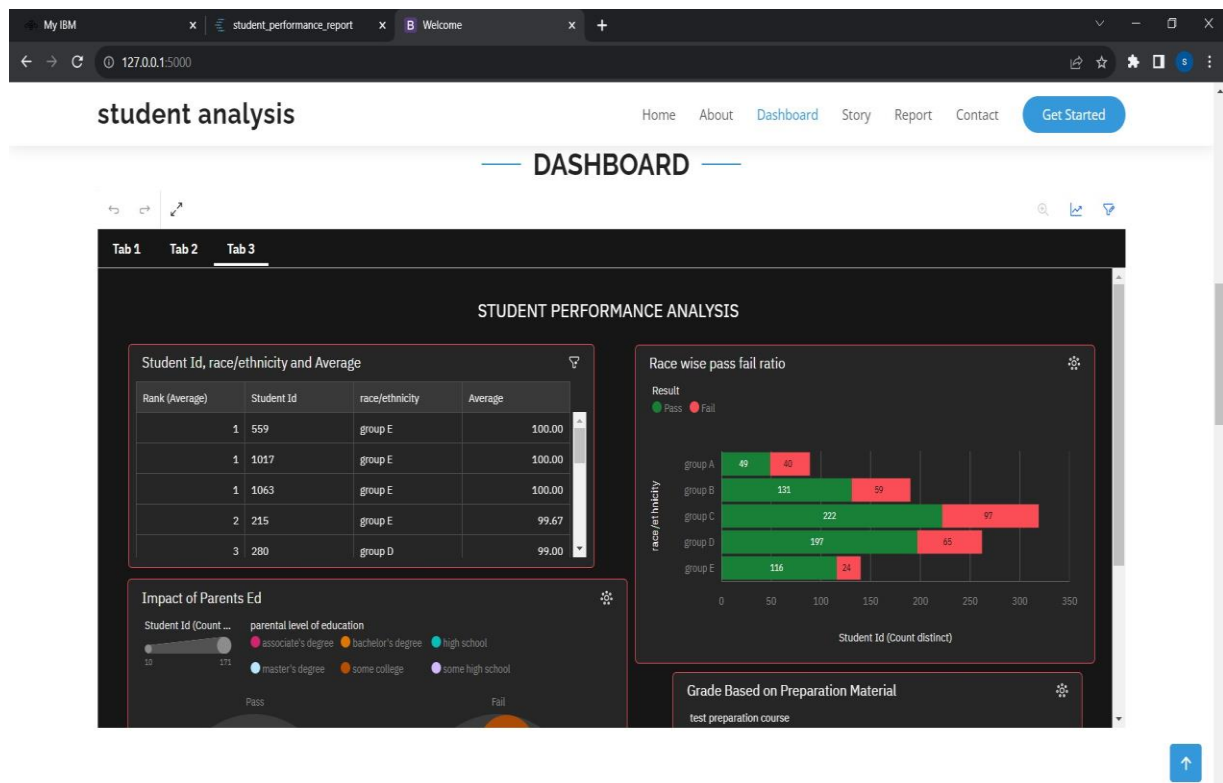


Fig. No. A.2.13 Dashboard Section

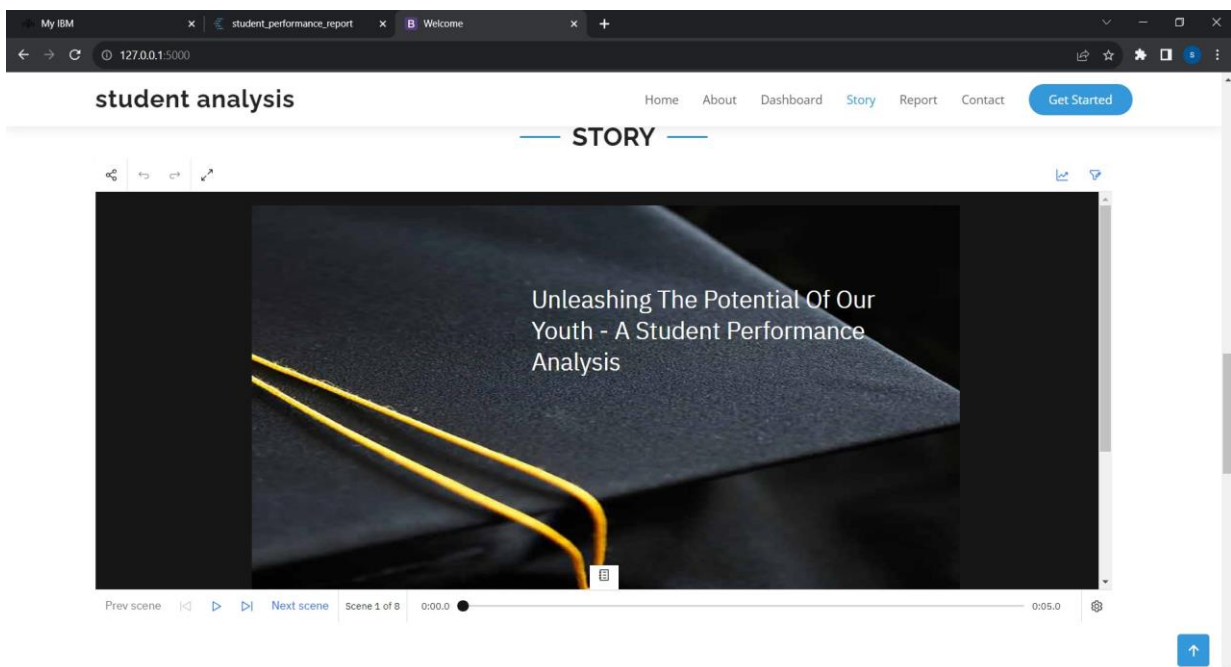


Fig. No. A.2.14 Story Section

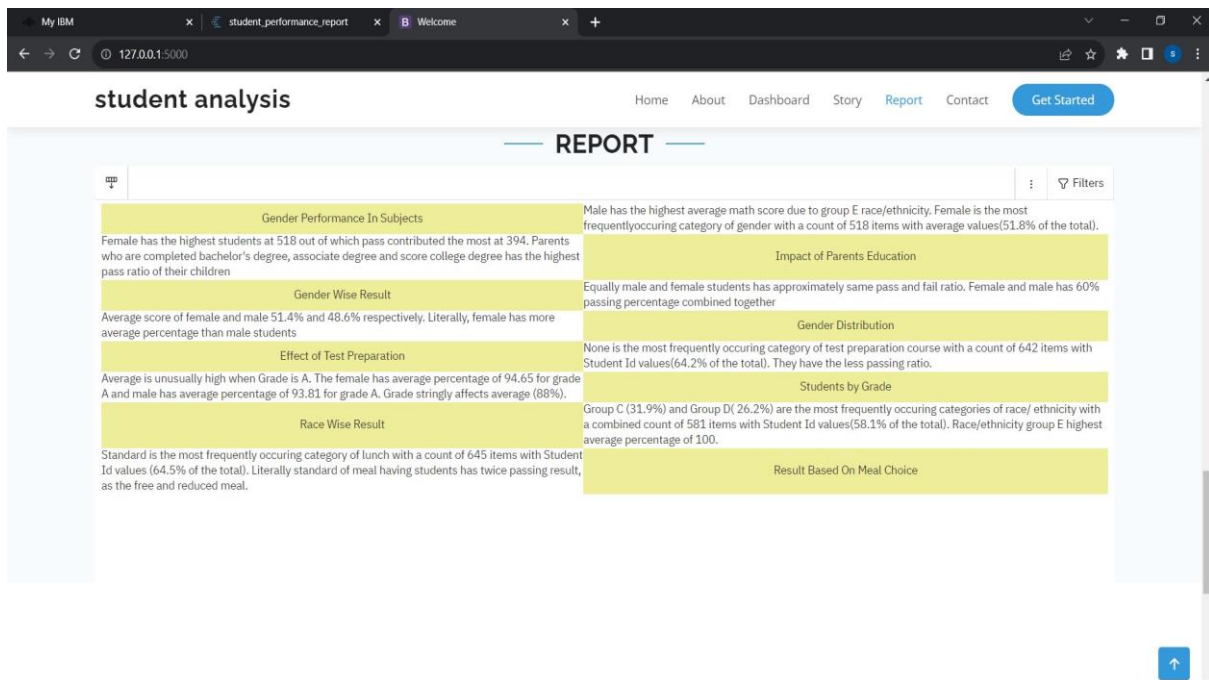


Fig. No. A.2.15 Report Section

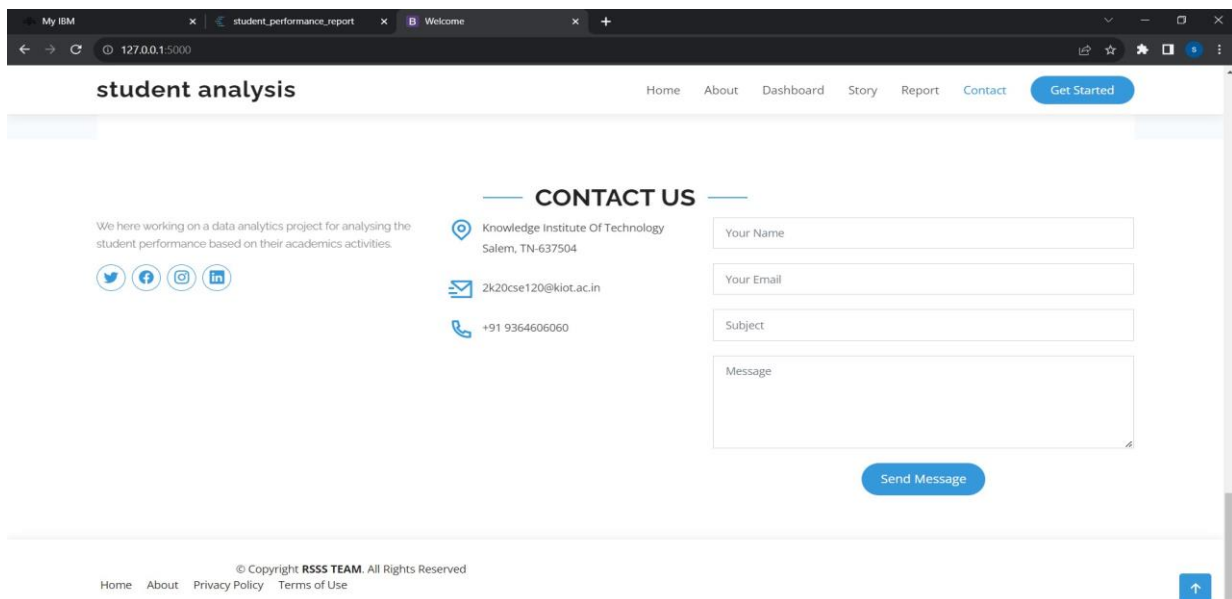


Fig. No. A.2.16 Contact Section

GITHUB & DEMO LINK

Git Hub

https://github.com/SahanaSruthiS/NaanMudhalvan_DataAnalytics_NM2023TMID01992/tree/main

Demo link -

<https://drive.google.com/file/d/1dPjjcS0boVPdn7oKvBccIT0iKYCAtAO8/view?usp=sharing>

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REFERENCES

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