

UNLEASHING THE POTENTIAL OF OUR YOUTH: A STUDENT PERFORMANCE ANALYSIS

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PUDUKKOTTAI-622 507

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1.INTRODUCTION

1.1 Project Overview

The project, titled "Unleashing The Potential Of Our Youth: A Student Performance" aims to empower young individuals by providing them with access to quality education and support. The primary objective is to enhance student performance and foster personal growth. This project encompasses a comprehensive scope, including curriculum enhancements, teacher training, and the development of an inclusive learning environment. Key deliverables include improved academic outcomes, increased student engagement, and a supportive school culture. The project will span two academic years, with milestones at the end of each semester. The estimated budget covers resources, teacher professional development, and the implementation of technology in the classroom. Primary stakeholders include students, parents, educators, and community members, while the project team comprises education experts, school administrators, and community organizers. Potential risks, such as budget constraints and curriculum adaptation challenges, are identified and will be managed through proactive strategies. Success will be measured by enhanced student performance and overall educational well-being.

1.2 Purpose

It is dedicated to transforming our educational landscape and empowering the young generation with the knowledge, skills, and mindset needed for success. This project aspires to elevate student performance by providing quality education and nurturing holistic growth, focusing not only on academic excellence but also on character development, creativity, and adaptability. Moreover, it emphasizes equity and inclusion, aiming to bridge educational disparities and create an environment where every student can thrive. In this journey, educators will be empowered, parents and the community engaged, and students prepared for the challenges of the future. The project's purpose is to shape a brighter future by unleashing the full potential of our youth, ensuring they are well-equipped to meet the opportunities and demands of a rapidly evolving world. Through this initiative, educators will be empowered to facilitate effective learning, parents and the community will actively participate in the educational process, and students will be prepared for the dynamic challenges of the future. The project's ultimate purpose is to unlock the full potential of our youth, shaping them into well-rounded, empowered individuals ready to thrive in a rapidly evolving world.

2.LITERATURE SURVEY

2.1 Existing problem

Educational Disparities: One of the most prominent challenges is the presence of educational disparities. Students from marginalized backgrounds, low-income families, or underserved communities often face limited access to quality education, which can hinder their academic performance and personal growth.

Standardized Testing Pressures: The heavy reliance on standardized testing can create a one-size-fits-all approach to education, which fails to account for diverse learning styles and individual strengths. This pressure can lead to student stress, anxiety, and underperformance.

Lack of Resources: Many schools, especially those in economically disadvantaged areas, lack the necessary resources, including up-to-date materials, technology, and well-qualified educators. This deficiency in resources can limit the quality of education available to students.

Teacher Burnout: Educators often face significant challenges, including large class sizes, administrative burdens, and limited professional development opportunities. These factors can contribute to teacher burnout, which, in turn, affects student performance.

Inadequate Support Systems: Not all students have access to effective support systems, such as guidance counselors, mentors, or extracurricular activities. These support mechanisms play a crucial role in helping students develop academically and personally.

Curriculum Relevance: Outdated or irrelevant curriculum content can disengage students and hinder their motivation to perform well academically. A lack of real-world applicability in the curriculum can hinder their overall educational experience.

Digital Divide: The digital divide, where some students have access to technology and the internet while others do not, has become a significant issue, especially in the wake of increased reliance on digital resources for education.

Mental Health Challenges: Students' mental health and well-being are often overlooked, resulting in stress, anxiety, and emotional challenges that can negatively impact academic performance.

2.2 References

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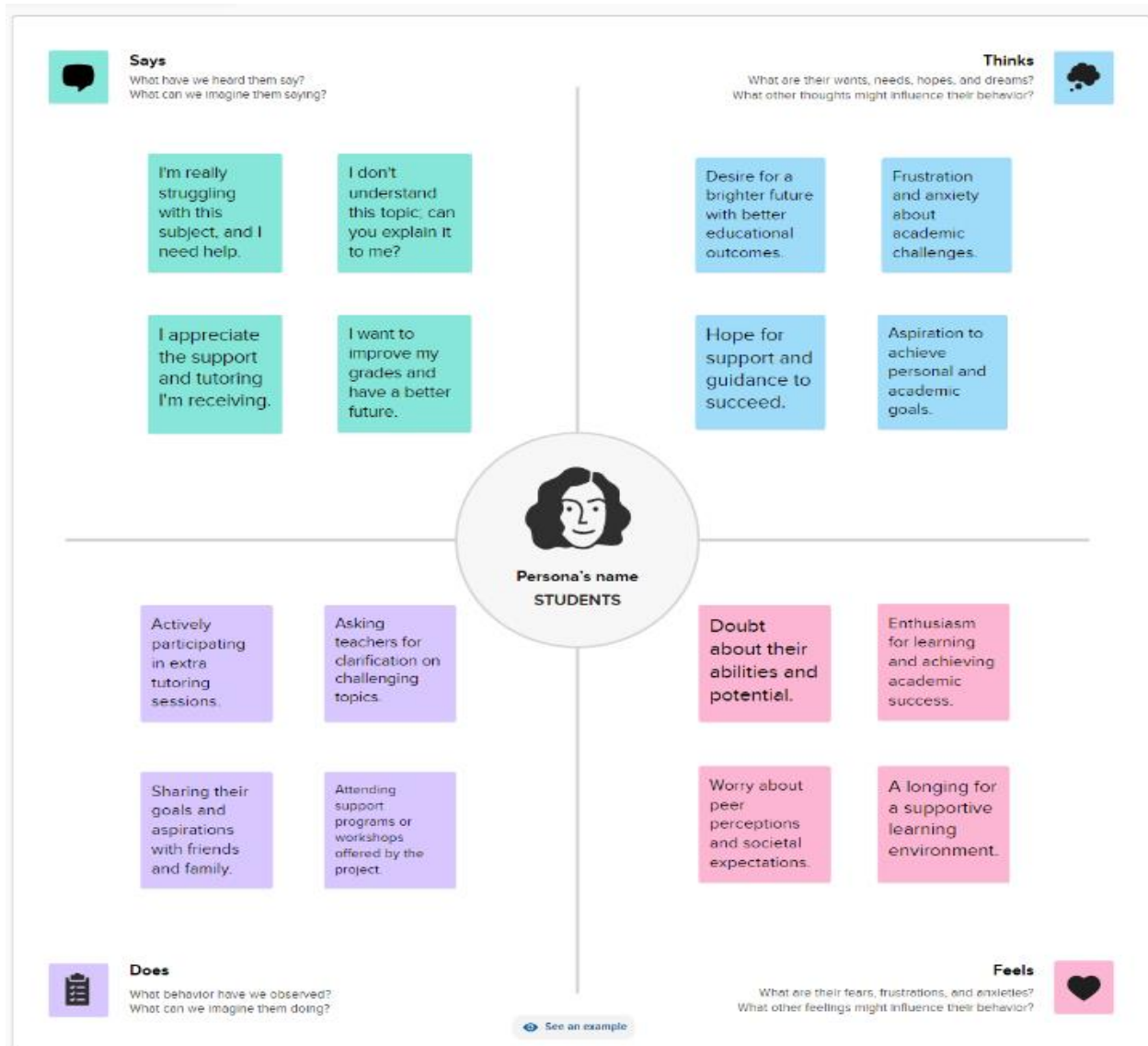
2.3 Problem Statement Definition

It confronts a series of pressing issues within our educational systems. It grapples with the widespread disparities in education that affect students from marginalized backgrounds and underserved communities, as well as the pressures stemming from an overreliance on standardized testing. Additionally, it addresses the critical shortage of resources in many schools, the burnout experienced by educators, and the absence of adequate support systems for students. Outdated curricula and the digital divide are also among the problems it seeks to rectify, along with the often-neglected mental health challenges that students face. "Unleashing The Potential Of Our Youth" is poised to tackle these issues head-on by creating a nurturing and inclusive learning environment that empowers students and equips them to overcome these obstacles on their path to realizing their full potential.

"In today's educational landscape, we are faced with a pressing issue: the untapped potential of our youth. Despite being the driving force for a brighter future, many students encounter significant obstacles that hinder their full development. The inequality in educational opportunities, a rigid emphasis on standardized testing, and a lack of mentorship and guidance restrict their growth. Moreover, the traditional educational system often fails to nurture creativity, critical thinking, and problem-solving skills. The digital divide and information overload further complicate the journey of discovering one's true capabilities. Additionally, the mental health and well-being of our youth are at stake due to the overwhelming academic pressure and societal expectations. To unlock the potential of our youth, we must address these challenges and strive to create an inclusive and supportive environment that allows every student to thrive, innovate, and contribute meaningfully to our society."

3.IDEATION&PROPOSED SOLUTION


3.1 Empathy Map canvas



3.2 Ideation & Brainstorming

Step-1: Team Gathering, Collaboration and Select the Problem Statement


Template



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.


🕒 10 minutes to prepare
🕒 1 hour to collaborate
👥 2-8 people recommended




Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.


🕒 10 minutes

**Team gathering**

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

**Set the goal**

Think about the problem you'll be focusing on solving in the brainstorming session.

**Learn how to use the facilitation tools**

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →

1


Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes


PROBLEM


How might we (your problem statement)?





Key rules of brainstorming


To run a smooth and productive session


 Stay in topic.

 Encourage wild ideas.

 Defer judgment.

 Listen to others.

 Go for volume.

 If possible, be visual.

PROBLEM STATEMENT:

The problem statement for the project "Unleashing The Potential Of Our Youth: A Student Performance Project Using Data Analytics" can be summarized as:
"Many students face academic underperformance, and the challenge is to use data analytics to identify at-risk students early and provide effective interventions to improve their academic outcomes."

Step-2: Brainstorm, Idea 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

Develop advanced AI predictive models to identify students at risk of underperformance.

Implement a comprehensive data analytics platform that integrates academic, attendance, and socio-economic data for real-time analysis.

Enhance data security measures, including encryption and access controls, to protect sensitive student information.

Ensure that teachers and administrators have access to timely insights to support struggling students and initiate early interventions.

Person 2

Create personalized learning pathways for each student that adapt to their individual needs, learning styles, and progress.

Develop user-friendly platforms that empower teachers to tailor their teaching methods to students' unique requirements.

Provide professional development opportunities for teachers to enhance their data literacy and teaching strategies, aligning with the goal of personalized learning.

Foster a culture of data-informed instruction to align teaching strategies with individual student needs.

Person 3

Establish a feedback mechanism that systematically collects input from all stakeholders, including students, teachers, parents, and administrators.

Use the feedback mechanism to continuously refine project strategies and resources, ensuring alignment with stakeholder needs and goals.

Promote transparency and inclusivity in the project's decision-making process, ensuring that every stakeholder's voice is heard.

Maintain a collaborative environment where project improvements are a result of collective input and shared ownership.

Person 4

Create support networks and peer mentoring programs to build a sense of community and mutual assistance among students.

Gather regular feedback from students to ensure that these support initiatives align with their needs and preferences.

Provide resources and guidance for students to actively engage in their education, set personal goals, and take ownership of their learning journey.

Prioritize student engagement and emotional well-being, understanding their needs as the central focus of the project.

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.

Group 1

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Provide resources and guidance for students to actively engage in their education, set personal goals, and take ownership of their learning journey.

Develop advanced AI predictive models to identify students at risk of underperformance.

Step-3: Idea Prioritization

4

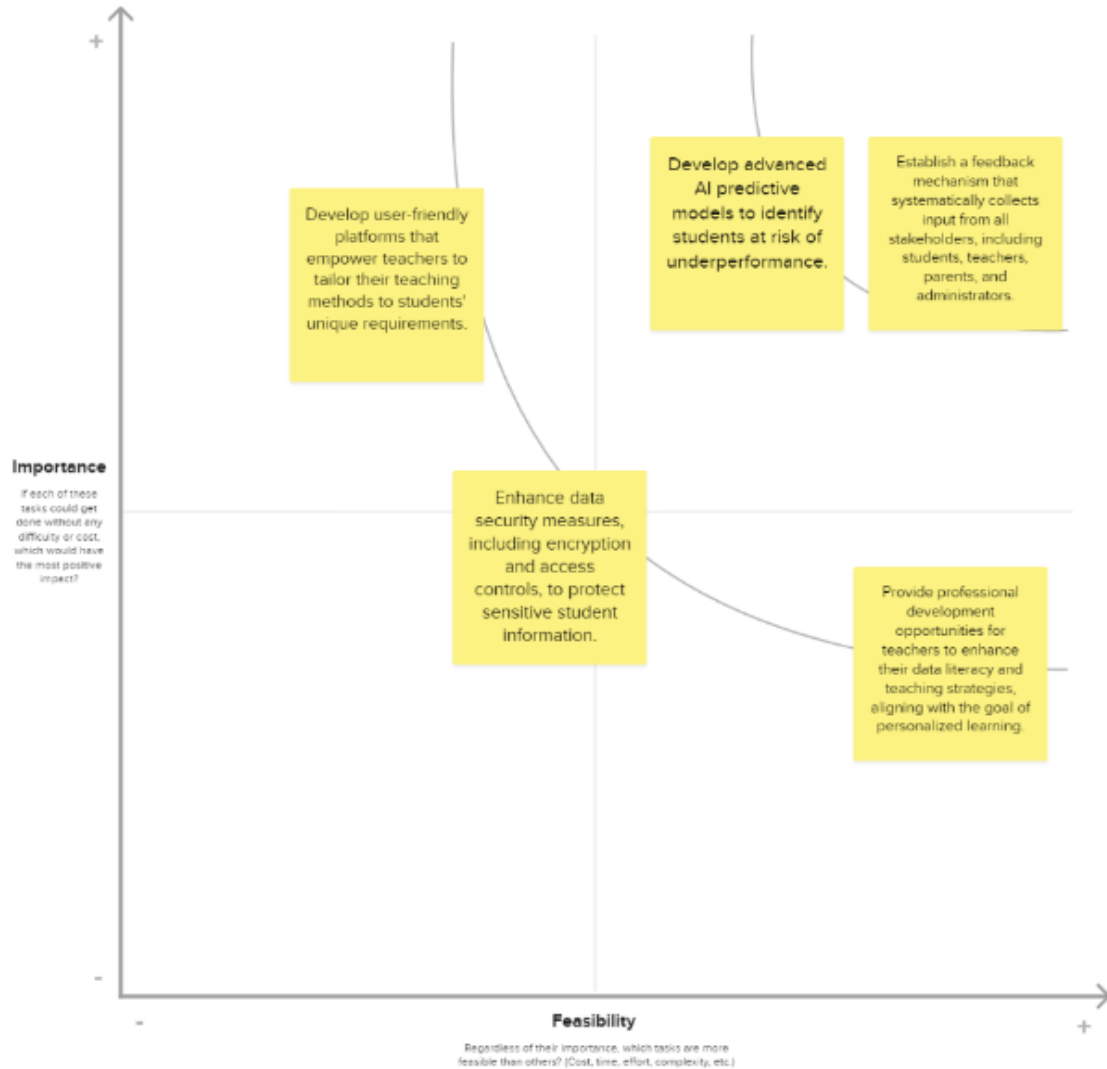
Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

TIP

Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H** key on the keyboard.



4. REQUIREMENTS ANALYSIS

4.1 Functional Requirements

1. Curriculum Flexibility and Diversification:

The educational system should offer a diverse range of subjects and extracurricular activities that allow students to explore their interests and passions.

Create opportunities for interdisciplinary learning and project-based education to foster creativity and problem-solving skills.

2. Individualized Learning Paths:

Develop a system for personalized learning that takes into account the unique abilities, learning styles, and interests of each student.

Offer elective courses and extracurricular activities that align with students' individual goals and talents.

3. Mentorship and Guidance:

Establish mentorship programs that connect students with teachers, professionals, or community members who can provide guidance, support, and real-world insights.

Provide career counseling and academic advising to help students discover and pursue their passions.

4. Promotion of Critical Thinking and Creativity:

Integrate critical thinking, problem-solving, and creative thinking into the curriculum.

Encourage open-ended projects, discussions, and activities that promote innovation and intellectual curiosity.

5. Digital Literacy and Access:

Ensure equitable access to digital resources and technology for all students, addressing the digital divide.

Implement programs to teach digital literacy, information evaluation, and responsible use of technology.

6. Mental Health and Well-being Support:

Offer counseling services and mental health programs to help students cope with academic pressure and stress.

Promote a culture of well-being, including mindfulness and stress management techniques.

7.Assessment and Feedback Mechanisms:

Develop alternative assessment methods that go beyond standardized testing, including portfolios, presentations, and project evaluations.

Provide timely, constructive feedback to students to aid their growth and development.

8.Parent and Community Engagement:

Encourage parents and communities to be actively involved in supporting students' education and personal development.

Organize regular meetings, workshops, and events to strengthen the school-community relationship.

9.Extracurricular Opportunities:

Expand extracurricular offerings in areas such as sports, arts, music, and community service to cater to a wide range of interests.

Ensure that these activities are accessible and inclusive to all students.

10.Data-Driven Decision-Making:

Collect and analyze data on student performance, attendance, and participation in various activities to make informed decisions for continuous improvement.

Use data to identify at-risk students and provide early interventions and support.

11.Professional Development for Educators:

Offer training and professional development opportunities for teachers and staff to keep them updated with the latest educational trends and techniques.

Promote a culture of continuous improvement and collaboration among educators.

12.Stakeholder Collaboration:

Establish partnerships with local businesses, organizations, and professionals to provide students with real-world experiences, internships, and career exploration opportunities.

4.2 Non-Functional Requirements

1.Accessibility:

The program and all associated materials, events, and resources should be accessible to students with disabilities, ensuring inclusivity for all.

2.Scalability:

The initiative should be designed to accommodate an increasing number of students and participants without significant degradation in performance or quality.

3.Security and Privacy:

Protect the privacy of students and their personal data by implementing robust security measures for digital platforms and record-keeping.

4.Reliability:

The program should operate consistently and reliably, ensuring that students can depend on it for their educational and personal development needs.

5.Performance:

Any digital platforms or systems used within the initiative should be responsive and provide a seamless user experience, even during peak usage times.

6.Compliance:

Ensure that the program complies with all relevant laws, regulations, and educational standards, including those related to data protection and student safety.

7.User Experience:

Design the program to be user-friendly and engaging to encourage active participation and learning.

8.Cultural Sensitivity:

Be culturally sensitive and diverse, recognizing and respecting the diverse backgrounds and perspectives of the student population.

9.Cost-Effectiveness:

Operate within a defined budget to maximize the resources available for educational and developmental purposes.

10.Sustainability:

Implement sustainable practices in terms of both environmental impact and program longevity, ensuring the initiative's long-term success.

11.Collaboration and Communication:

Ensure clear and effective communication channels among students, educators, parents, and other stakeholders, fostering collaboration and information sharing.

12.Scalable Technology Infrastructure:

Maintain an adaptable technology infrastructure that can accommodate the evolving needs of the initiative and handle potential increases in user demand.

13.Performance Monitoring and Evaluation:

Continuously monitor and evaluate the program's performance against its objectives, making necessary adjustments for improvement.

14.Data Backup and Recovery:

Implement regular data backup and recovery procedures to safeguard critical information and content.

15.Response Time:

Ensure a rapid response to students' needs and concerns, both in terms of academic support and mental health services.

16.Feedback Mechanisms:

Implement mechanisms for students and stakeholders to provide feedback on the program and make suggestions for improvement.

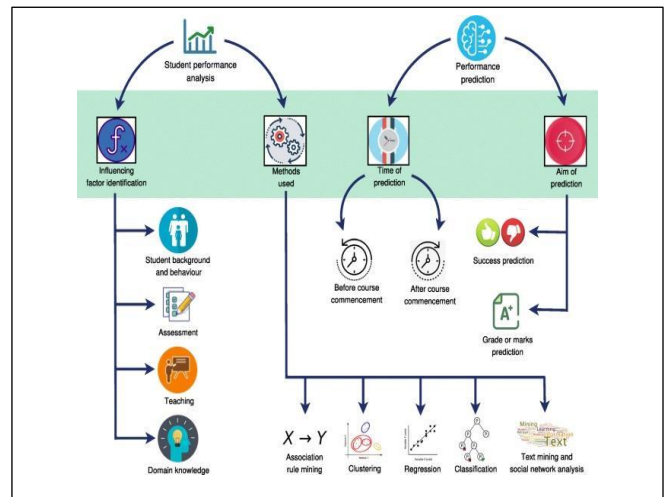
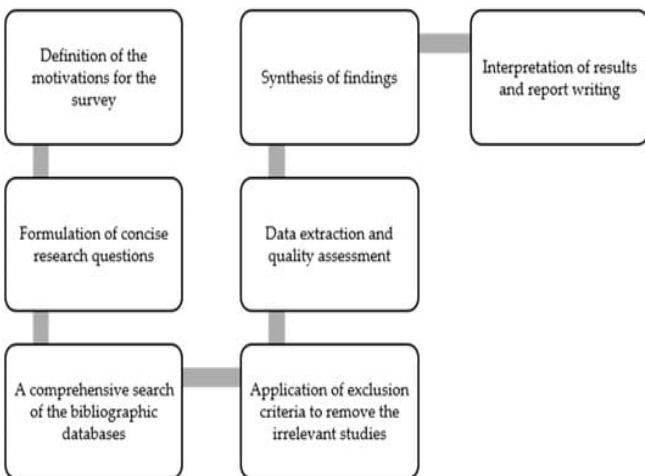
5.PROJECT PLANNING &SCHEDULING

5.1 Data Flow Diagrams & User Stories

Data Flow Diagrams:

A Data Flow Diagram (DFD) 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 shows how data enters and leaves the system, what changes the information, and where data is stored.

DFD Diagram



Stories User

Use the below template to list all the user stories for the student performance

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	priority	Release
Administrator	Registration	USN-1	AS a administrator, should generate unique performance Ids for each student.	The administrator can input event details, including date, time, location, and theme.	High	Sprint-1
	Event organizer	USN-2	Allow users to register for the event.	Share the event on social media platforms	High	Sprint-1
		USN-3	As a event organizer, I want to input event details and manage the event schedule to ensure it runs smoothly.	The Event organizer should be able to add student performers, including their names, grades, and performance types	Low	Sprint-2
		USN-4	Receive event reminders and updates.	Attendee information should be handled securely and in compliance with data privacy regulations.	Medium	Sprint-1
	Registration	USN-5	Register for the event by providing name, email, and contact information	Attendees should receive event reminders and updates via email or notifications on the platform	High	Sprint-1

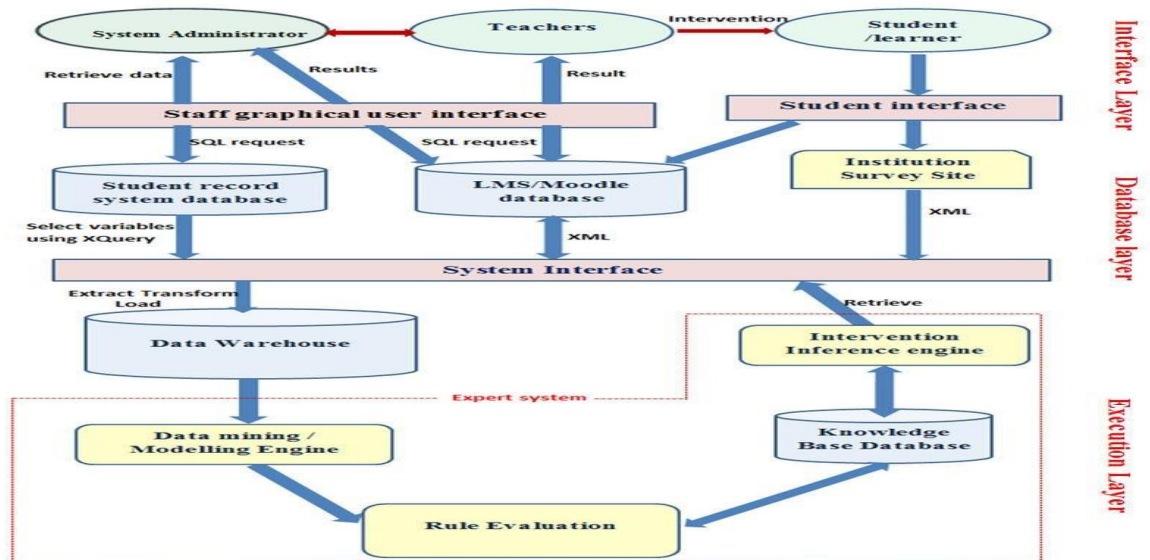
	Event attendee (setup)	USN-6	Participate in discussions and ask questions related to the event on the platform.	The event page should be user-friendly and responsive, ensuring a seamless experience	High	Sprint-1
Parent/Guardian		USN-7	Event reminders should be automatically sent to registered attendees at least 24 hours before the event.	The event page should be easy to navigate and visually appealing to attract potential attendees	Medium	Medium
Reviewing the student performance (reviewer)	Event Information	USN-8	The system should provide information about the upcoming student performance, brief description.	They should be able to reserve tickets for the event through the system.	Low	Low
	Review Submission	USN-9	As a Reviewers, should be able to submit their reviews and feedback about the student performance.	Reviewers should have access to photos and videos from the event for reference when writing their reviews.	High	High
	Special Guest	USN-10	As a Special guests should have a designated communication channel to interact with the event organizers for coordination and information sharing.	The system should provide access to detailed information about the student performance to the any special guests.	High	High
	Rating	USN-11	The rating system should allow	should be able to assign	Low	Low

			reviewers to provide a rating based on their evaluation of the performance.	a rating (e.g., stars or points) to the content they are reviewing		
	Evaluator	USN-12	As an evaluator, I want to use a clearly defined set of evaluation criteria to assess the student performance	The reviewer can findout potential of youth student	High	High

5.2 Solution Architecture

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.



6. PROJECT PLANNING & SCHEDULING

6.1 Technical Architecture

Table-1:Components& Technologies:

S.No	Component	Description	Technology
1.	UserInterface	How user interacts with application e.g.WebUI,Mobile App,Chatbotetc.	HTML, CSS, JavaScript / Angular Js /ReactJsetc.
2.	ApplicationLogic-1	Logic fora processinthe application	Java/ Python
3.	ApplicationLogic-2	Logic fora processinthe application	IBMWatsonSTTservice
4.	ApplicationLogic-3	Logic fora processinthe application	IBMWatsonAssisstant
5.	Database	DataType,Configurationsetc.	MySQL,NoSQL,etc.
6.	CloudDatabase	DatabaseServiceonCloud	IBMDB2, IBMCloudantetc.
7.	FileStorage	Filestoragerequirements	IBM Block Storage or Other StorageService orLocal Filesystem
8.	ExternalAPI-1	PurposeofExternalAPI usedintheapplication	IBMWeatherAPI,etc.
9.	ExternalAPI-2	PurposeofExternalAPI usedintheapplication	AadharAPI,etc.
10.	MachineLearningModel	PurposeofMachine Learning Model	ObjectRecognition Model, etc.
11.	Infrastructure(Server/Cloud)	Application Deployment on Local System / CloudLocalServerConfiguration :Configuration for deploying the application on local servers. CloudServerConfiguration:Configuration for deploying the application on cloud platforms like Local, Cloud Foundry, Kubernetes, etc. Infrastructural Demarcation: Local, Cloud	Local,CloudFoundry,Kubernetes,etc.

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	<ul style="list-style-type: none"> • Web Framework • Front-end Framework • Backend Framework • Database Framework 	<ul style="list-style-type: none"> • Express.js (Node.js) • React • Backend Framework: Django (Python) • Hibernate (Java)
2.	SecurityImplementations	<ul style="list-style-type: none"> • AES-256 for data encryption at rest and in transit • Implement IAM roles and policies for AWS services • Implement OWASP (Open Web Application Security Project) best practices to mitigate common security vulnerabilities • Use firewall rules and security groups to control incoming and outgoing traffic • Use SHA-256 for hashing sensitive information 	<ul style="list-style-type: none"> • Encryption • Identity and Access Management (IAM) Controls • Web Application Security • Firewall • Secure Hash Algorithm (SHA-256)
3.	ScalableArchitecture	<ul style="list-style-type: none"> • Our application is designed with a 3-tier architecture, separating the presentation, logic, and data layers for better scalability and maintainability. • We employ a microservice 	<ul style="list-style-type: none"> • 3-Tier Architecture • Microservices • Load Balancing • Containerization

		<p>s architecture, allowing us to scale individual components independently, ensuring high availability and resource optimization</p> <ul style="list-style-type: none"> • Implement load balancing with technologies like AWS Elastic Load Balancing or Nginx to distribute traffic evenly across multiple instances. • Use containerization tools like Docker and orchestration platforms like Kubernetes to manage and scale microservices. 	
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S.No	Characteristics	Description	Technology
4.	Availability	<ul style="list-style-type: none"> • Implement load balancers to evenly distribute user requests across multiple servers, ensuring redundancy and fault tolerance. • Employ a multi-server setup to distribute application components, reducing the risk of downtime due to server failures. • Use auto-scaling mechanisms to dynamically adjust server resources based on varying traffic demand, ensuring consistent performance during peak usage. • Implement failover and backup strategies to minimize downtime and data loss in case of server or component failures. • Utilize database replication and clustering solutions to ensure continuous data availability. 	<ul style="list-style-type: none"> • Load Balancers • Distributed Servers • Auto-Scaling • Failover Mechanisms • High Availability Databases
5.	Performance	<ul style="list-style-type: none"> • Implement caching mechanisms using technologies like Redis or Memcached to store frequently accessed educational content, reducing server load and improving response times. • Content Delivery Network (CDN): Utilize CDNs like Cloudflare or Akamai 	<ul style="list-style-type: none"> • Caching • Content Delivery Network (CDN) • Load Testing • Adaptive Learning Algorithms • Interactive and Responsive User Interface

		<p>to cache and serve educational resources from edge servers closer to students, reducing latency and improving access speed.</p> <ul style="list-style-type: none"> • Perform load testing with tools like Apache JMeter or Gatling to determine the application's capacity to handle concurrent students and identify performance bottlenecks. • Adaptive Learning Algorithms: Employ machine learning models to personalize and adapt learning experiences for individual students, improving engagement and outcomes. • Interactive and Responsive User Interface: Develop a responsive user interface with technologies like Angular, React, or Vue.js to ensure a seamless and enjoyable user experience for students. 	
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6.2 Sprint Planning & Estimation

Product Backlog, Sprint Schedule, and Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story/Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	5	High	J.REEMA AFSHAN S.SIVASAKTHI
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	4	High	S.MAGESWARI S.SINDHUJA
Sprint-1		USN-3	As a user, I can register for the application through Facebook	4	Low	J.REEMA AFSHAN S.SINDHUJA
Sprint-1		USN-4	As a user, I can register for the application through Gmail	7	Medium	S.SIVASAKTHI S.SINDHUJA
Sprint-2	Login	USN-5	As a user, I can log into the application by entering email & password	6	High	J.REEMA AFSHAN S.SIVASAKTHI
Sprint-2	Data Collection	USN-6	As a data administrator, I can import student performance data into the system.	7	Medium	J.REEMA AFSHAN S.MAGESWARI
Sprint-2	Data Collection	USN-7	As a data administrator, I can clean and preprocess the imported data for analysis.	4	High	S.MAGESWARI S.SINDHUJA

Sprint-2	Data Collection	USN-8	As a data administrator, I can verify and validate data to ensure accuracy.	3	Medium	S.MAGESWARI S.SINDHUJA
Sprint-3	Data Analysis	USN-9	As a data analyst, I can perform exploratory data analysis (EDA) to understand the dataset's characteristics.	6	Low	J.REEMA AFSHAN S.SIVASAKTHI
Sprint-3	Data Analysis	USN-10	As a data analyst, I can calculate descriptive statistics for the dataset.	4	High	S.MAGESWARI S.SINDHUJA
Sprint-3	Data Analysis	USN-11	As a data analyst, I can create visualizations to illustrate student performance trends.	7	High	J.REEMA AFSHAN S.SINDHUJA
Sprint-4	Data Analysis	USN-12	As a data analyst, I can identify outliers and anomalies in the data.	3	High	J.REEMA AFSHAN S.SIVASAKTHI

Sprint-4	Correlation Analysis	USN-13	As a data scientist, I can perform correlation analysis to understand the relationship between student performance and parental education.	7	Low	J.REEMA AFSHAN S.SINDHUJA
Sprint-3	Correlation Analysis	USN-14	As a data scientist, I can analyze the impact of test preparation on student scores.	3	Medium	J.REEMA AFSHAN S.MAGESWARI
Sprint-4	Report Generation	USN-15	As a user, I can generate a detailed report of the analysis, including insights and recommendations.	4	High	J.REEMA AFSHAN S.SIVASAKTHI
Sprint-4	Report Generation	USN-16	As a user, I can export the report in PDF or other formats.	6	Medium	S.MAGESWARI S.SINDHUJA

6.3 Sprint Delivery Schedule

Sprint	Total Story Points	Duration	SprintStart Date	SprintEndDate(Planned)	StoryPoints Completed (asonPlannedEndDate)
Sprint-1	20	6Days	29 Sep2023	04Oct2023	20
Sprint-2	2	6Days	06 Oct2023	12Oct2023	20
Sprint-3	20	6Days	14Oct2023	20Oct2023	20
Sprint-4	20	6Days	22Oct2023	28Oct2023	20

Velocity:

Imaginewehavea10-daysprint duration,andthevelocity oftheteamis20(pointspersprint).

Let'scalculatetheteam'saveragevelocity(AV)periterationunit(storypointsperday)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

7.CODING & SOLUTIONING

7.1 Features 1

Dashboard:

Coding:

```
<section id="services" class="services">

<div class="container">

<div class="section-title" data-aos="fade-up">

<h2>Dashboard</h2>

</div>

<div >

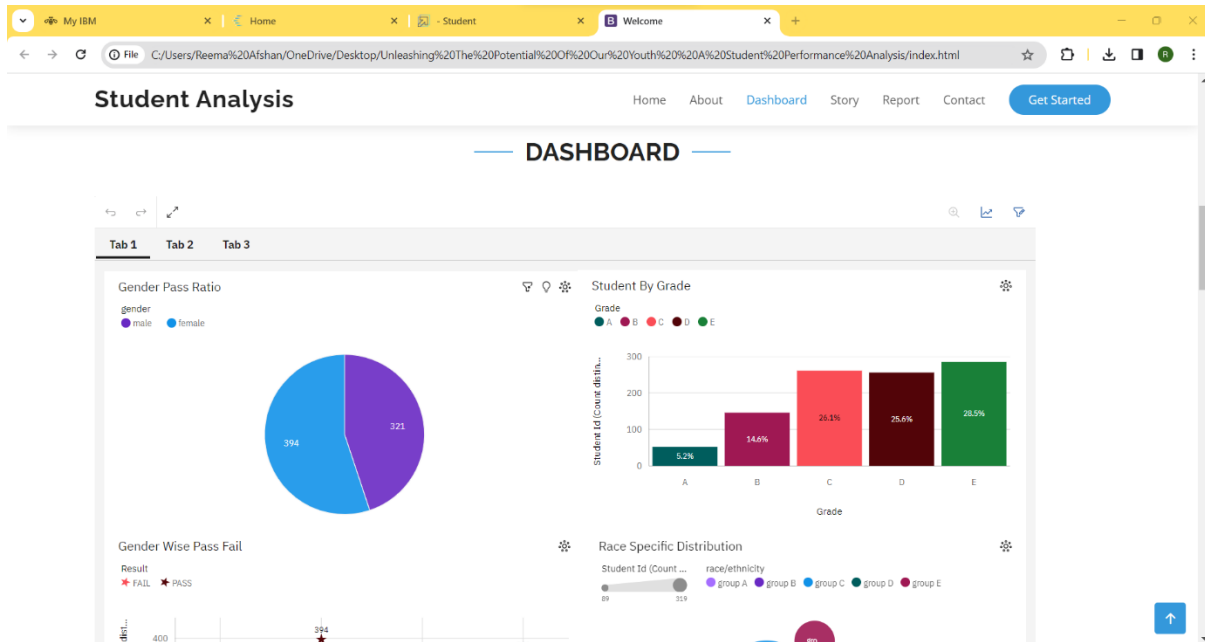
<iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FSt%2Bdashboard&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=view&mode=dashboard&subView=model0000018b7b2dd9ec_00000003" width="1200" height="800" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</div>

</div>

</section>
```

Solution:



7.2 Feature 2

Story:

Coding:

```
<section id="portfolio" class="portfolio">

<div class="container">

<div class="section-title" data-aos="fade-up">

<h2>Story</h2>

</div>

<div>

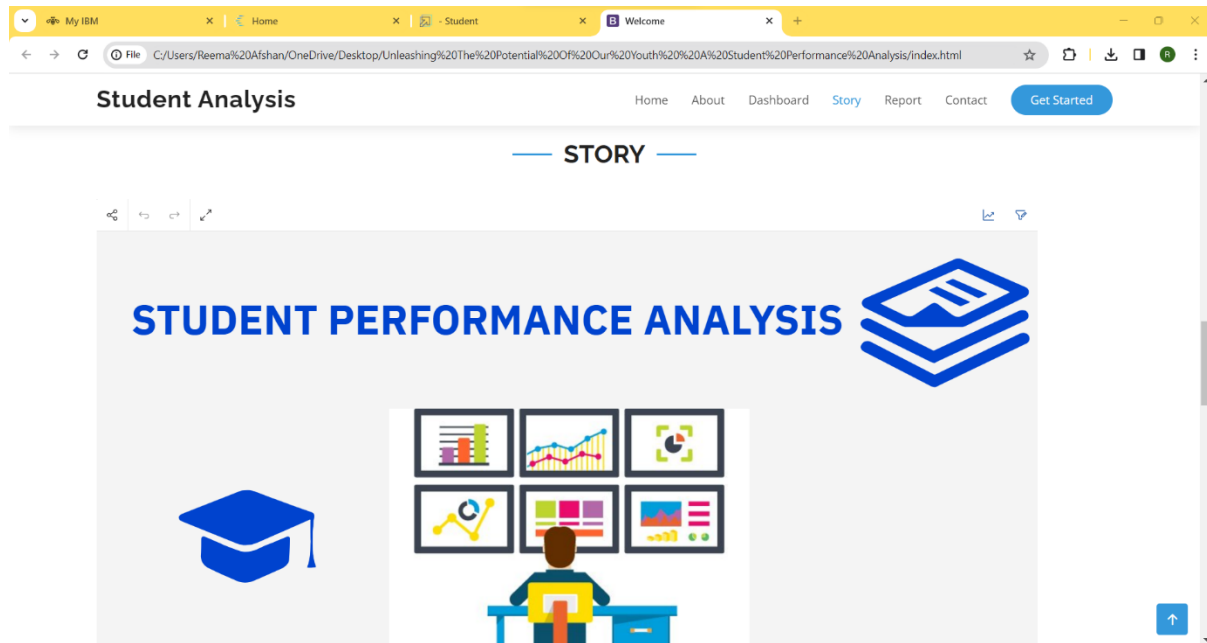
<iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.my_folders%2Fst%
2Bstory&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&a
mp;shareMode=embedded&action=view&sceneId=model0000018b7bc2386e_000000
01&sceneTime=0" width="1200" height="800" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>

</div>

</div>

</section>
```

Solution:



7.3 Feature 3

Report:

Coding:

```
<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">

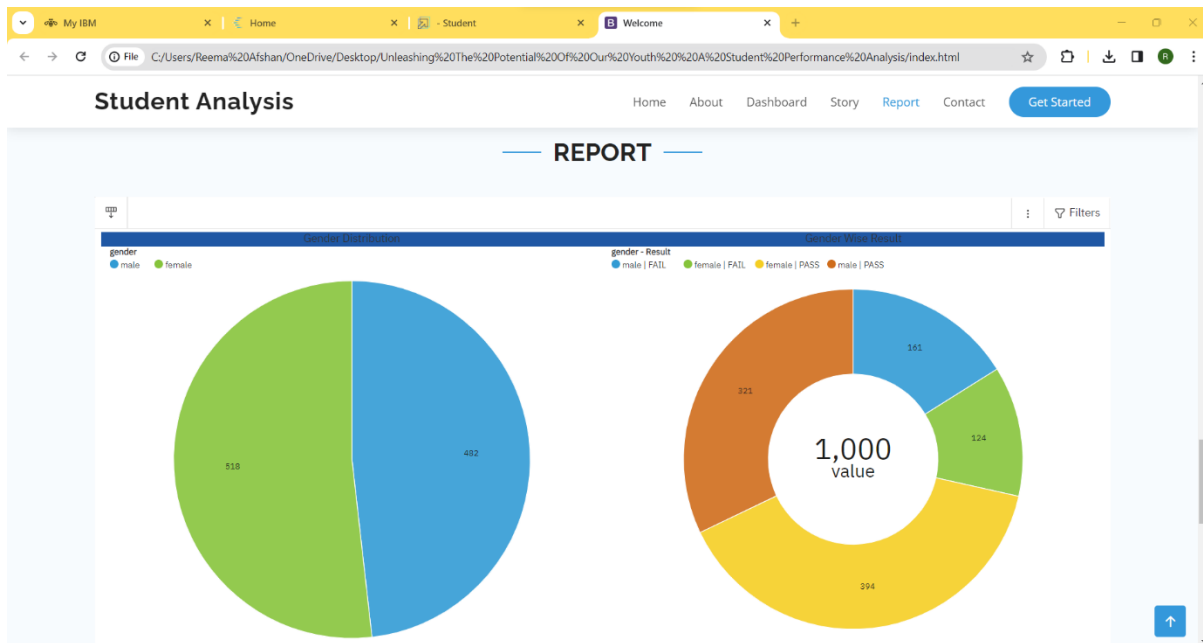
<iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fst%2Breport&closeWin
dowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedde
d&action=run&format=HTML&prompt=false" width="1200" height="800"
frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</div>

</div>

</section>
```

solution:



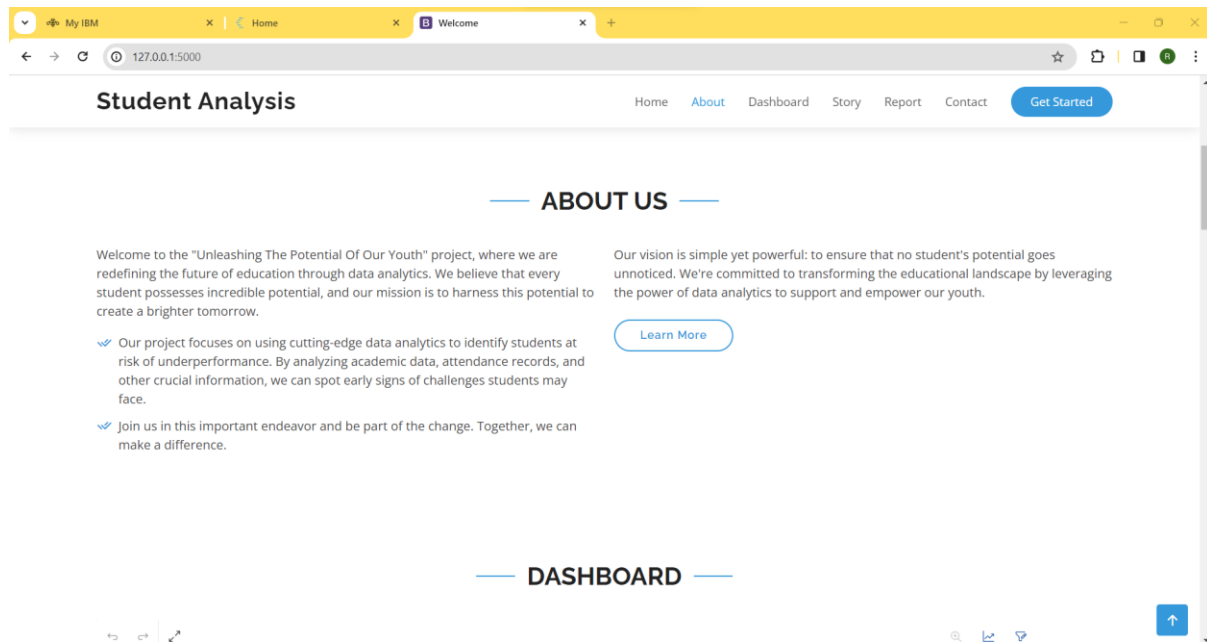
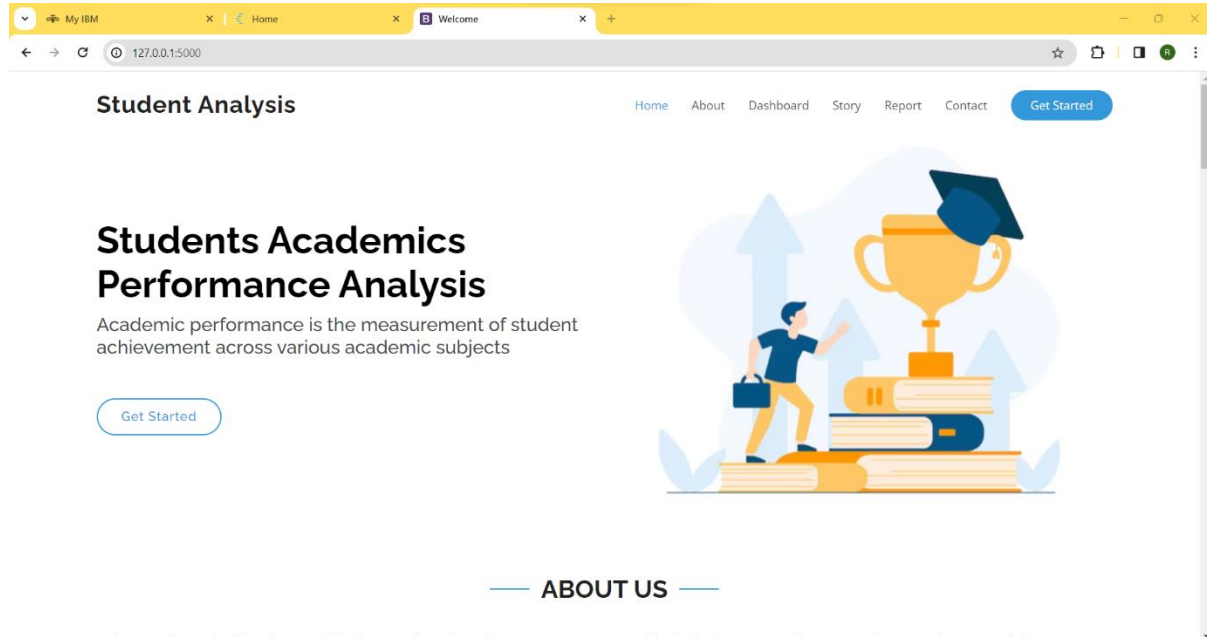
8.PERFORMANCE TESTINGS

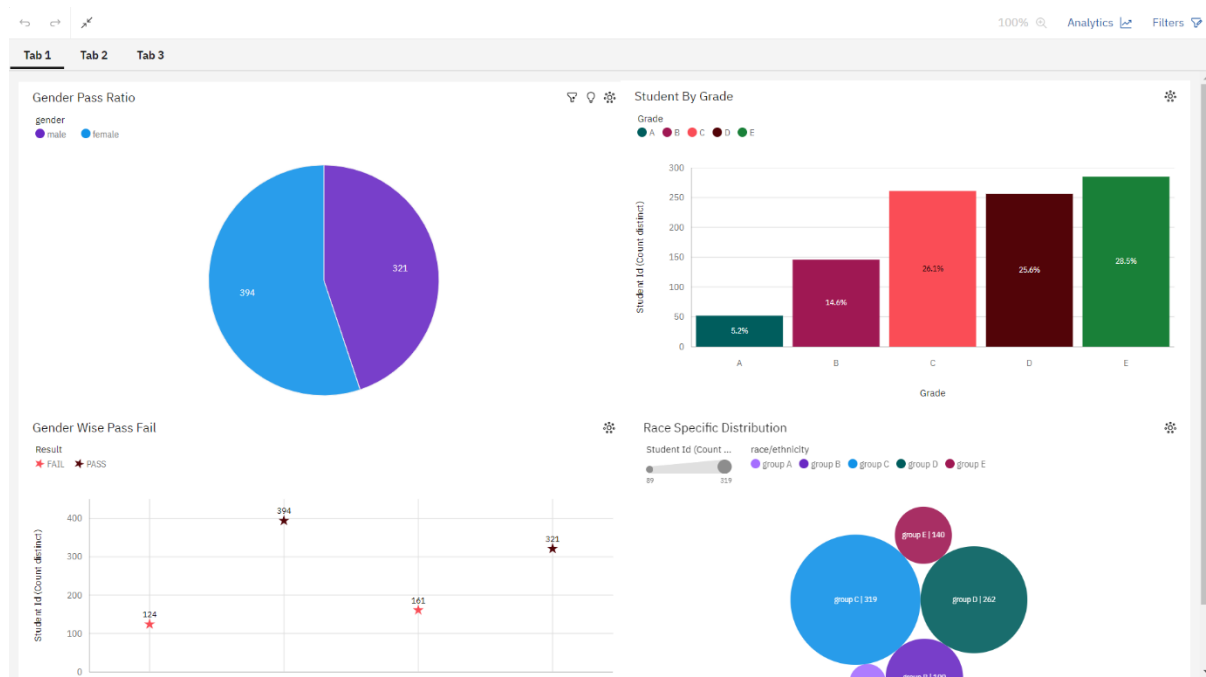
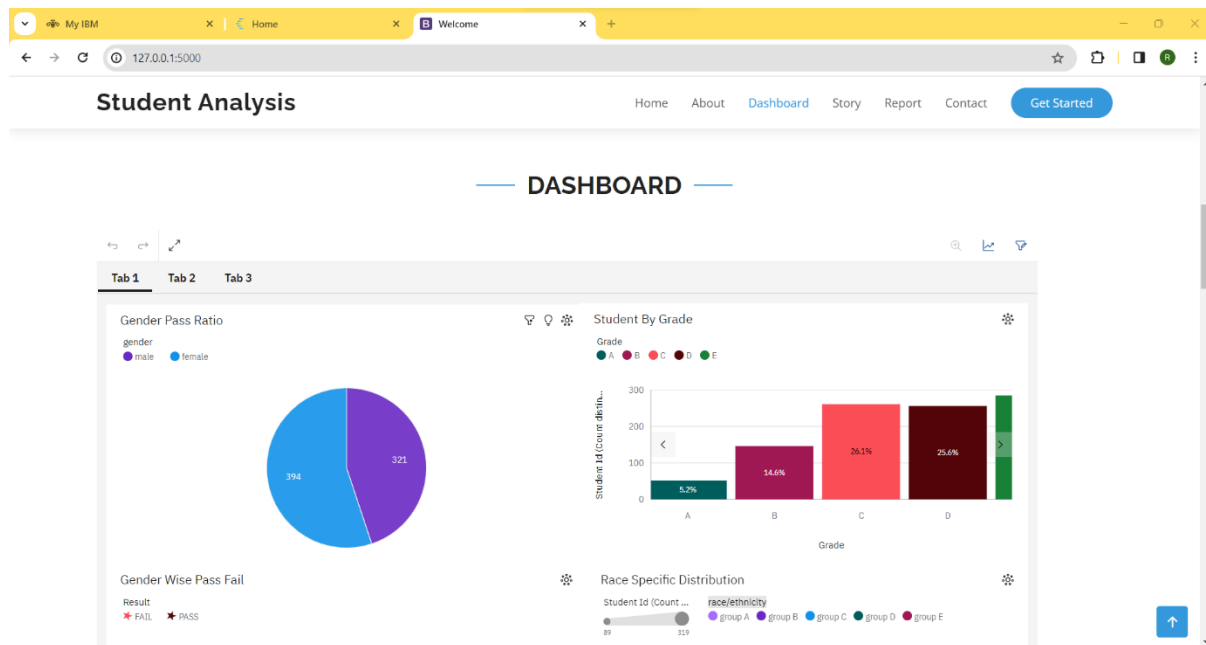
8.1 Performance Metrics

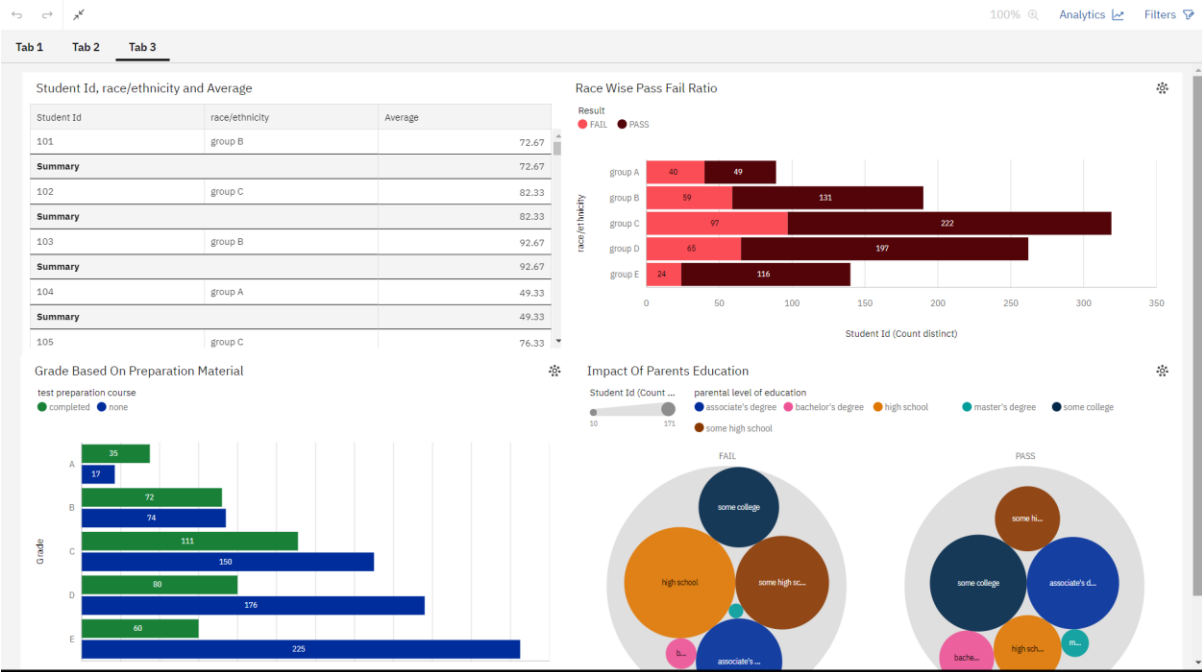
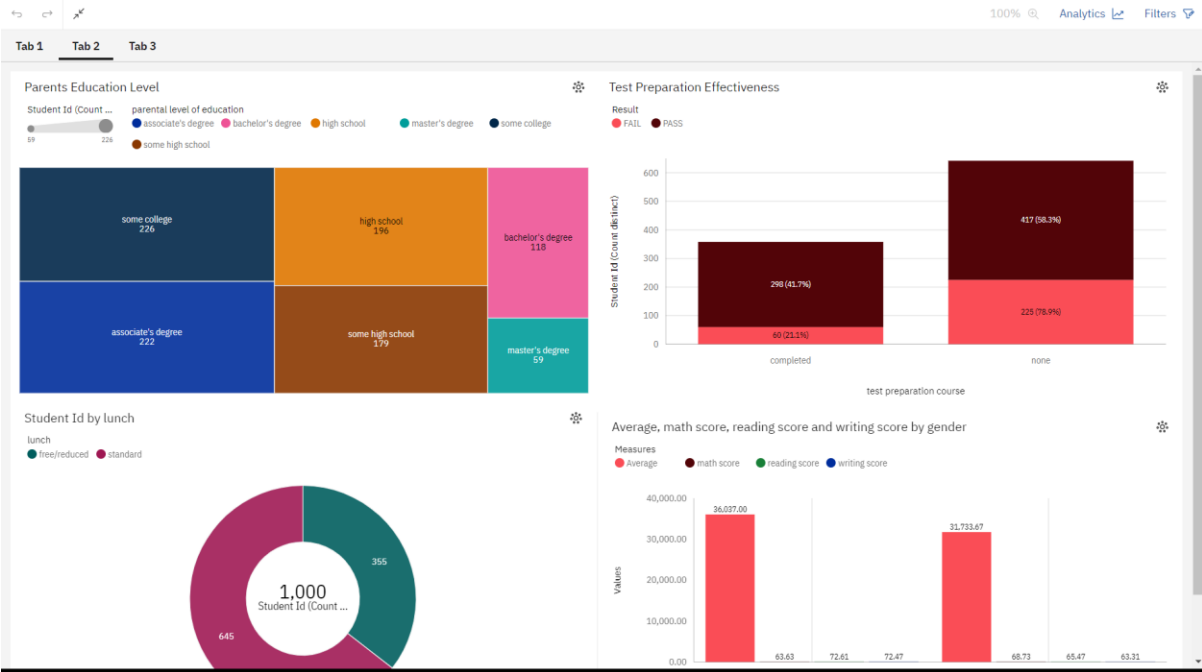
we will employ various performance metrics. These metrics will help us evaluate the effectiveness and reach of the event. Key indicators will include attendance numbers, audience engagement, and feedback from attendees. We will track the number of attendees to gauge the level of community interest and participation. Audience engagement will be assessed through surveys and social media interactions, allowing us to understand the emotional resonance of the performance. Additionally, feedback and testimonials from the audience will provide valuable insights into the event's influence and whether it effectively conveyed the message of youth potential. These metrics will guide us in assessing the event's success and making necessary improvements for future showcases.

9.RESULTS

9.1 Output Screenshots







My IBM Home Welcome





127.0.0.1:5000

Student Analysis

Home About Dashboard **Story** Report Contact [Get Started](#)





STORY

STUDENT PERFORMANCE ANALYSIS

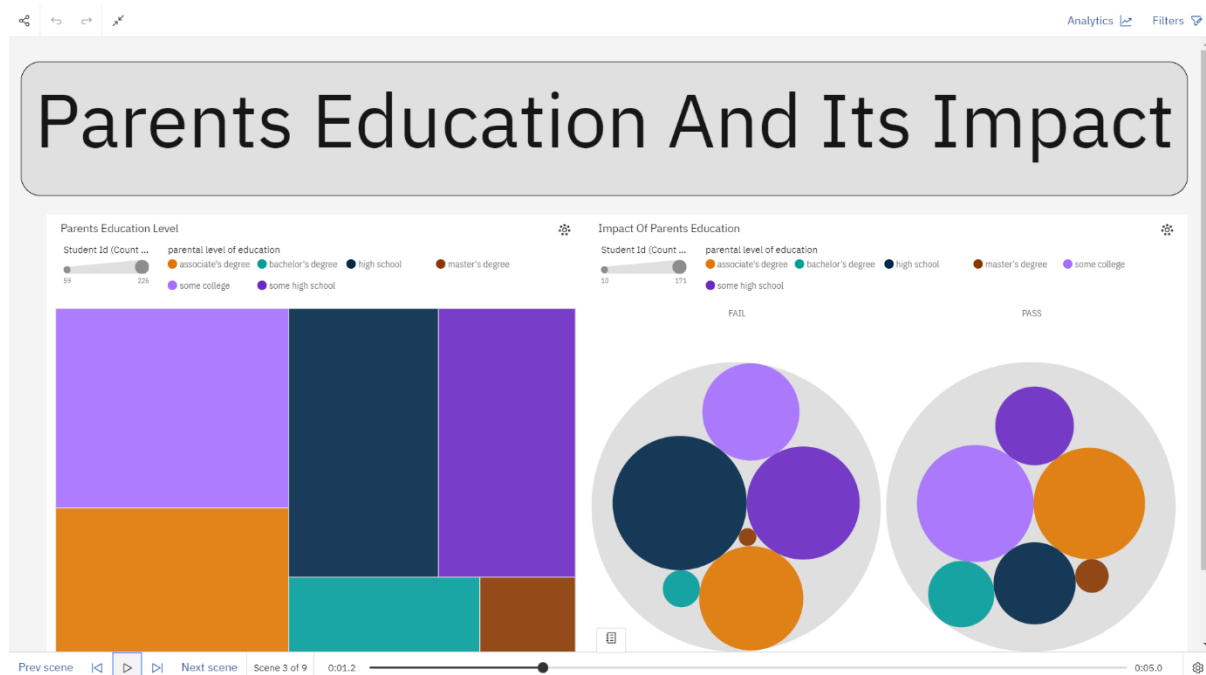
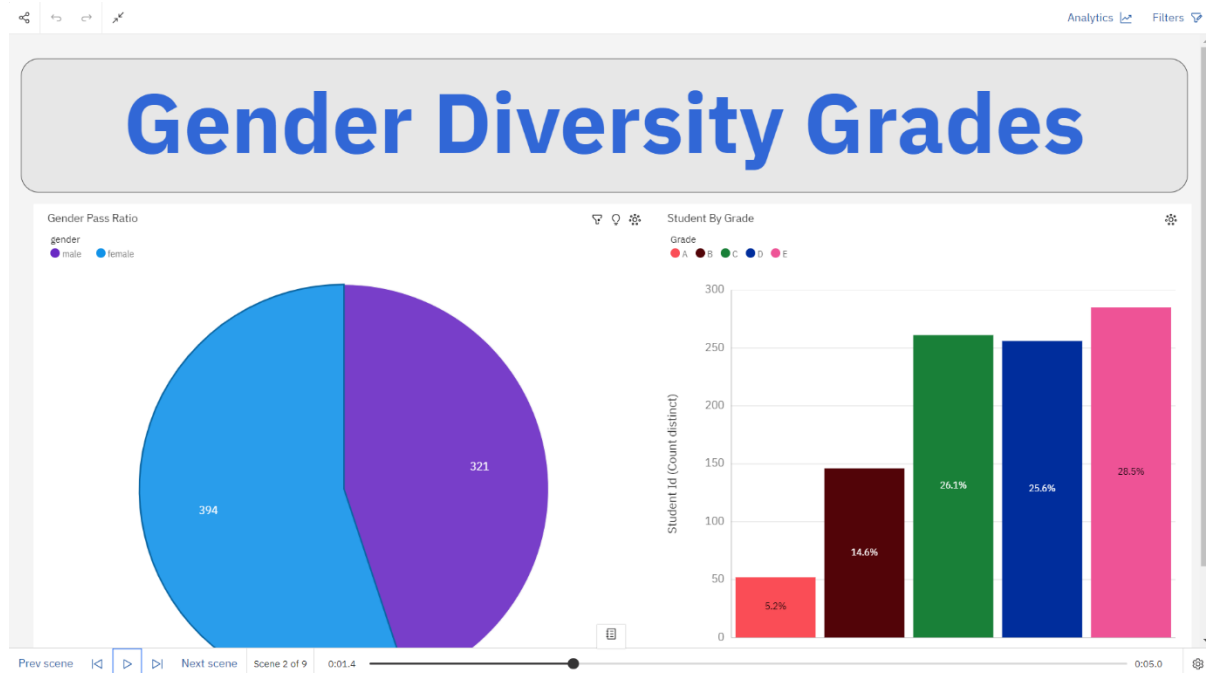


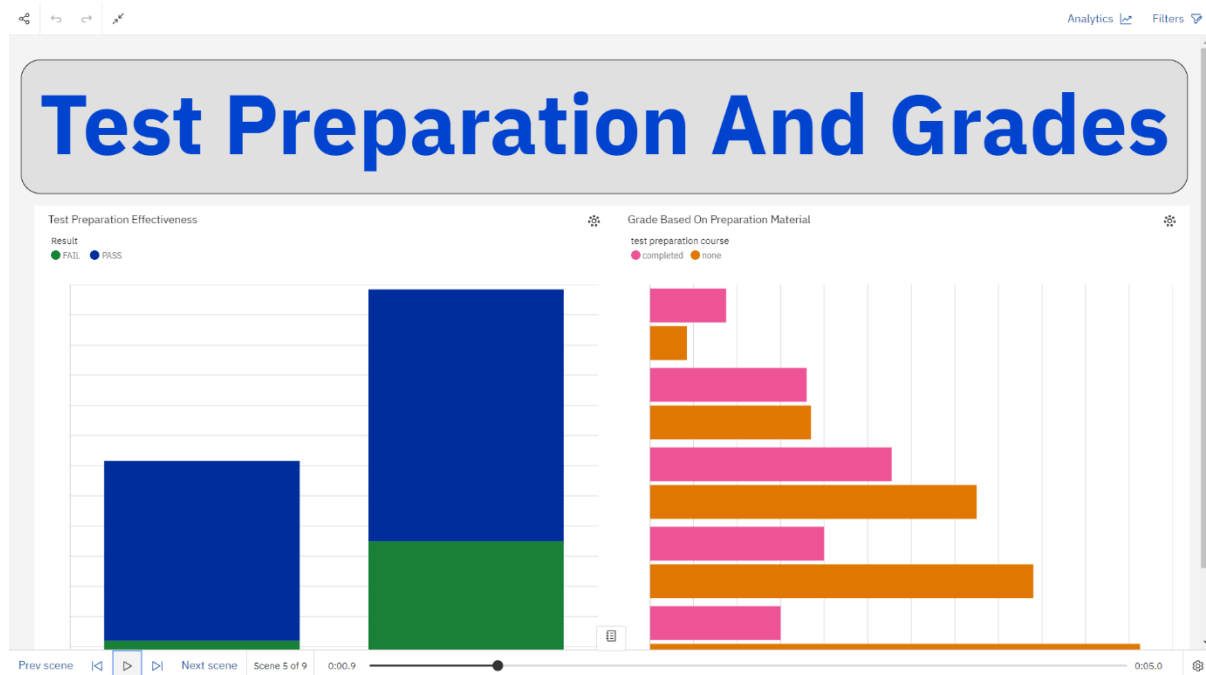
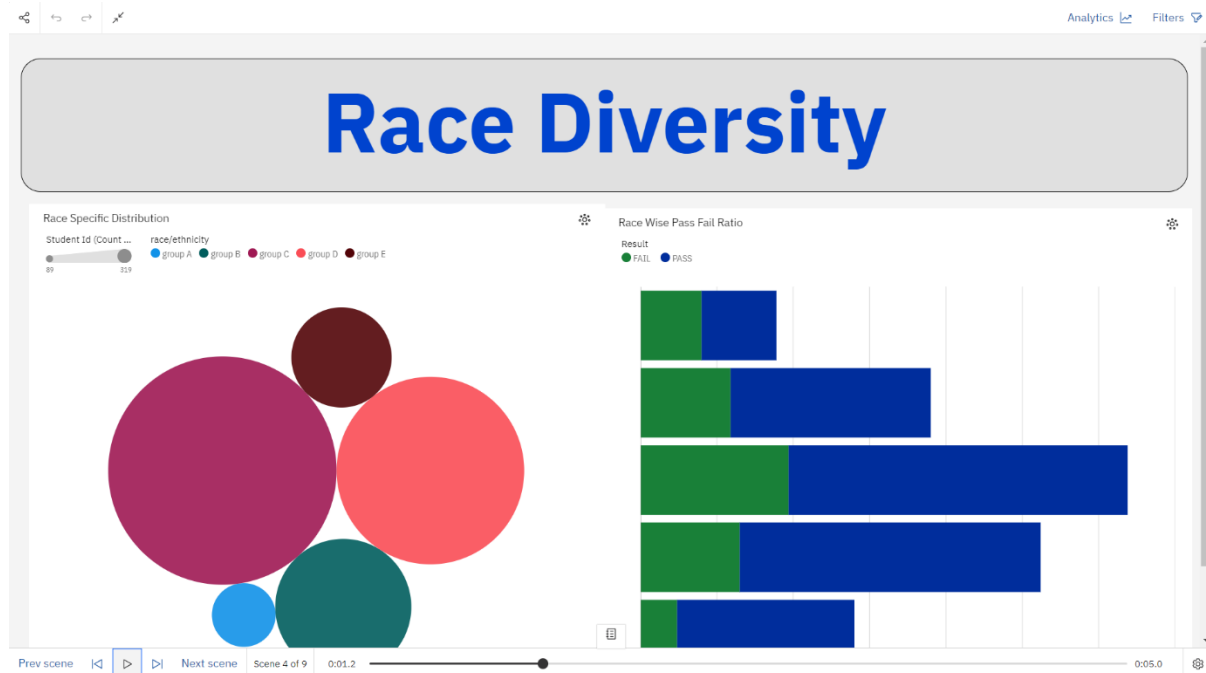
Analytics Filters

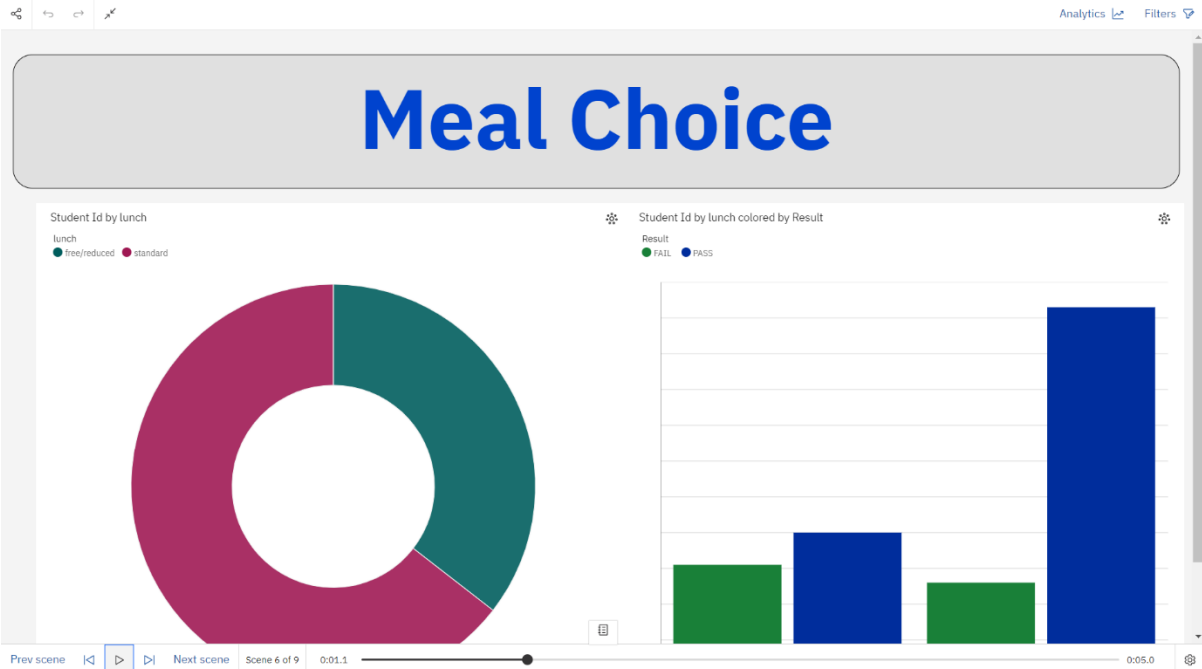
STUDENT PERFORMANCE ANALYSIS



Prev scene Next scene Scene 1 of 9 0:00.0 0:05.0







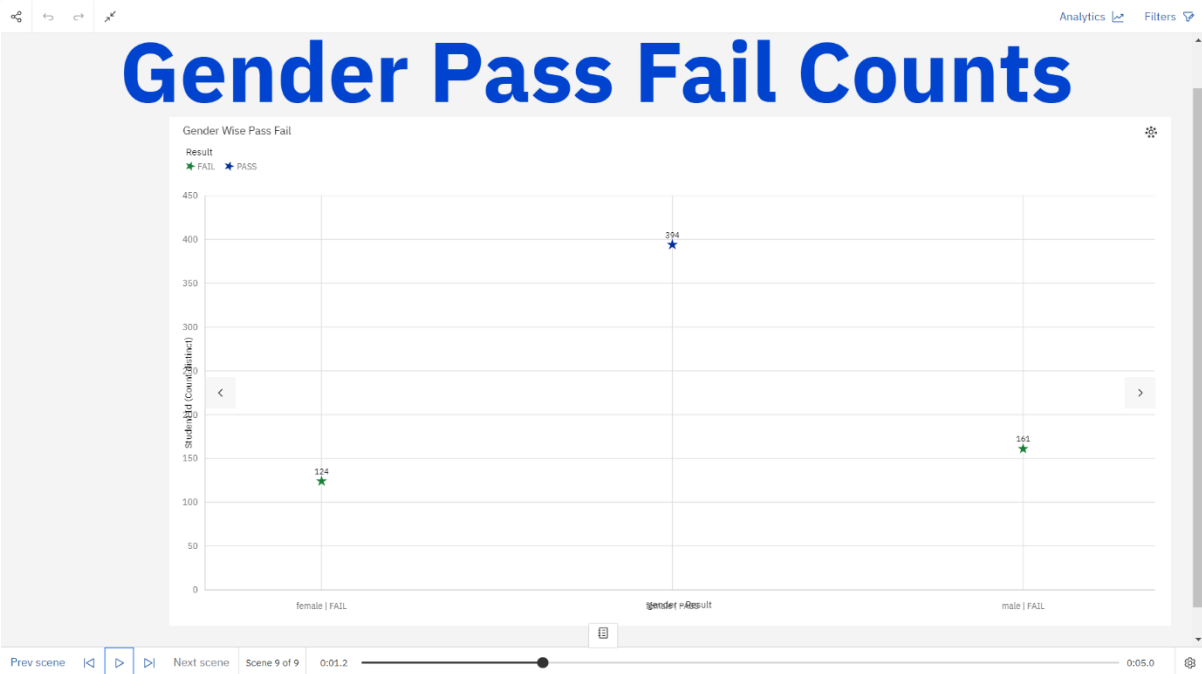
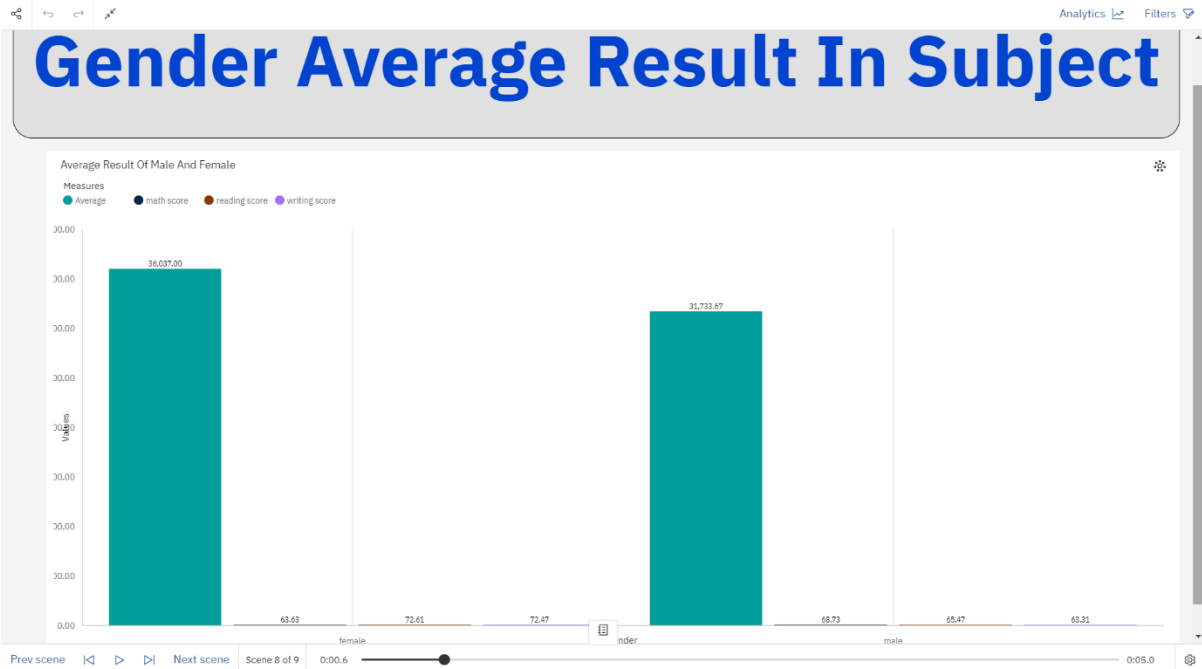
Analytics Filters

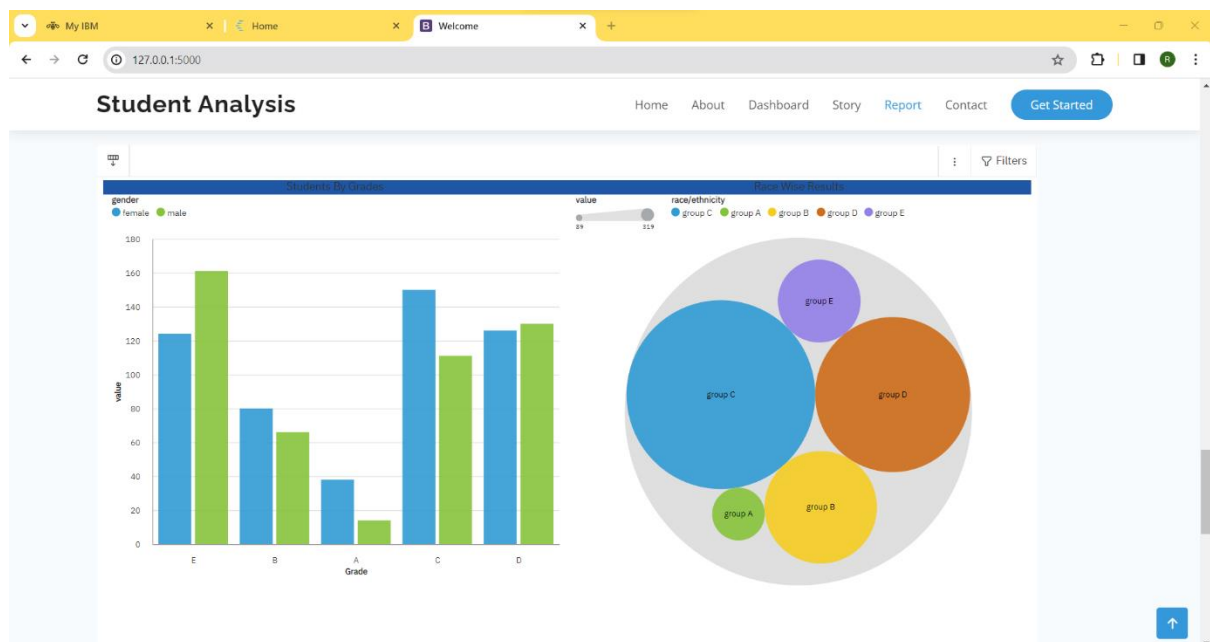
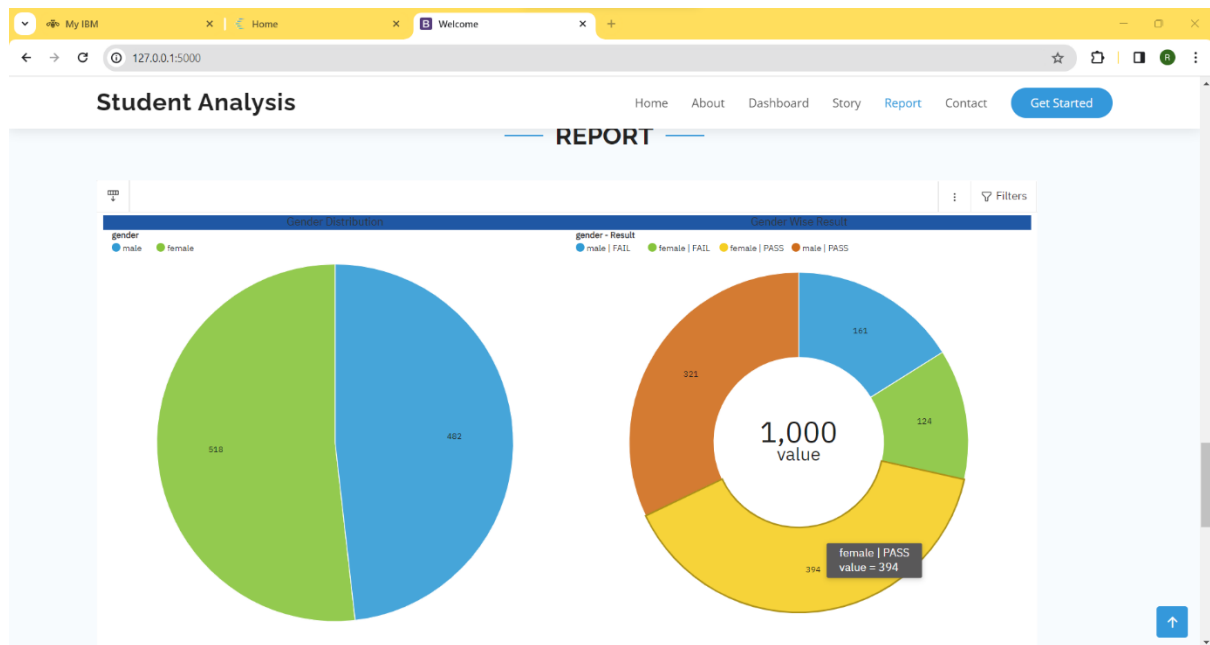
Top Students And Ranks

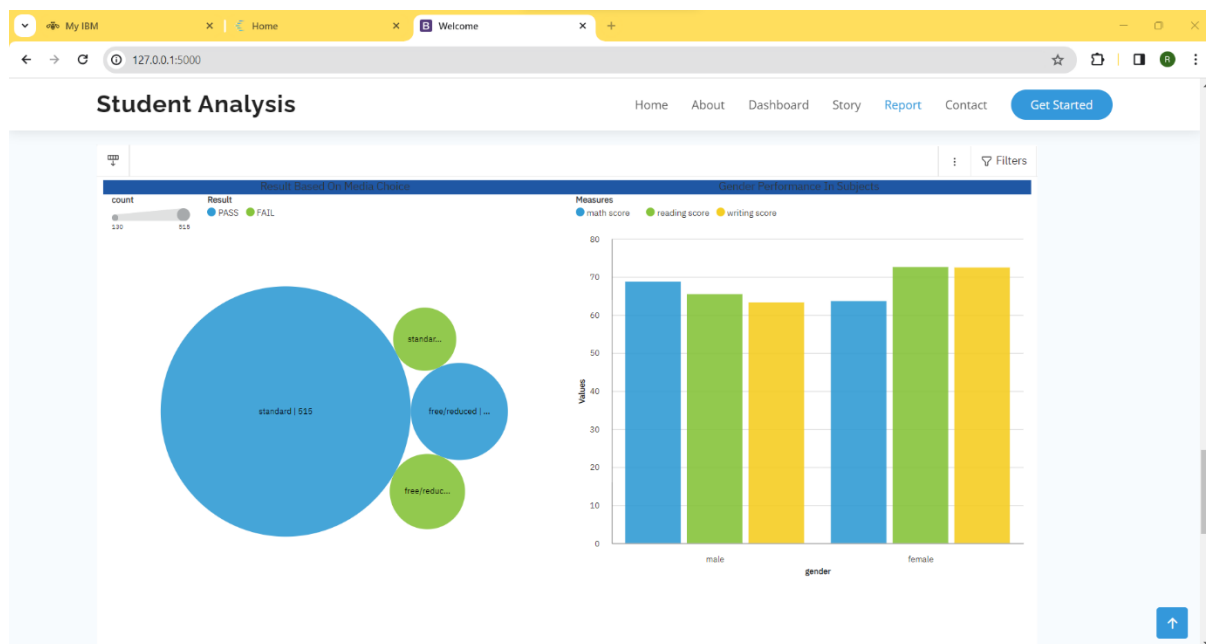
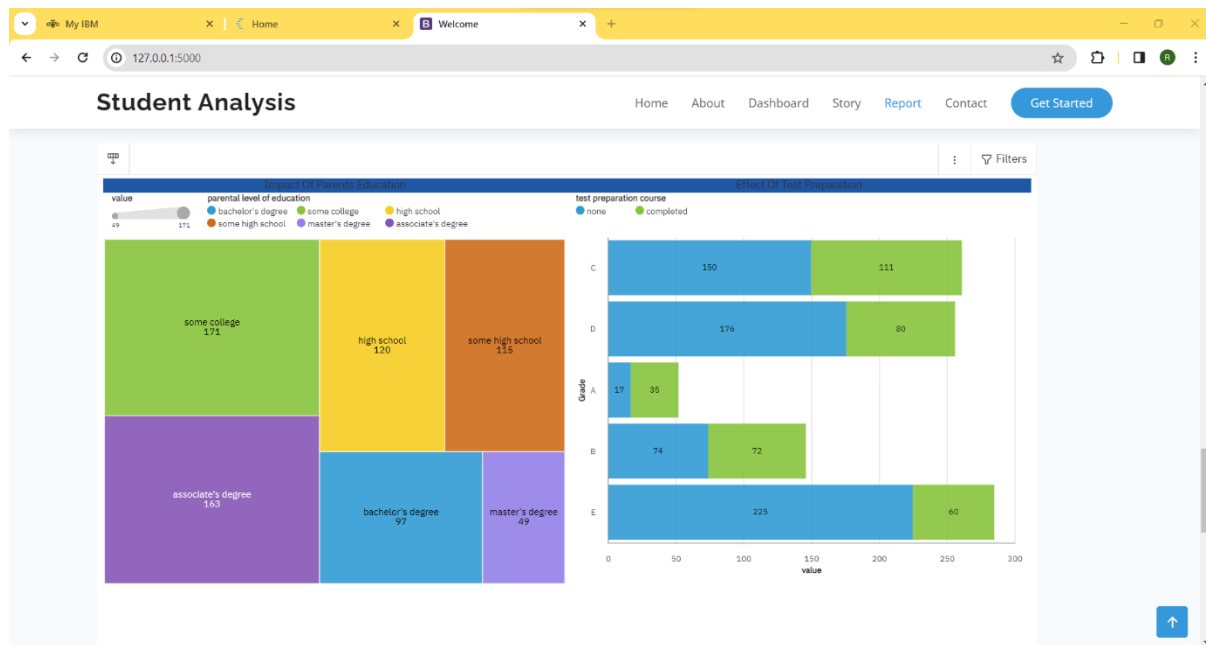
Student Id, race/ethnicity and Average

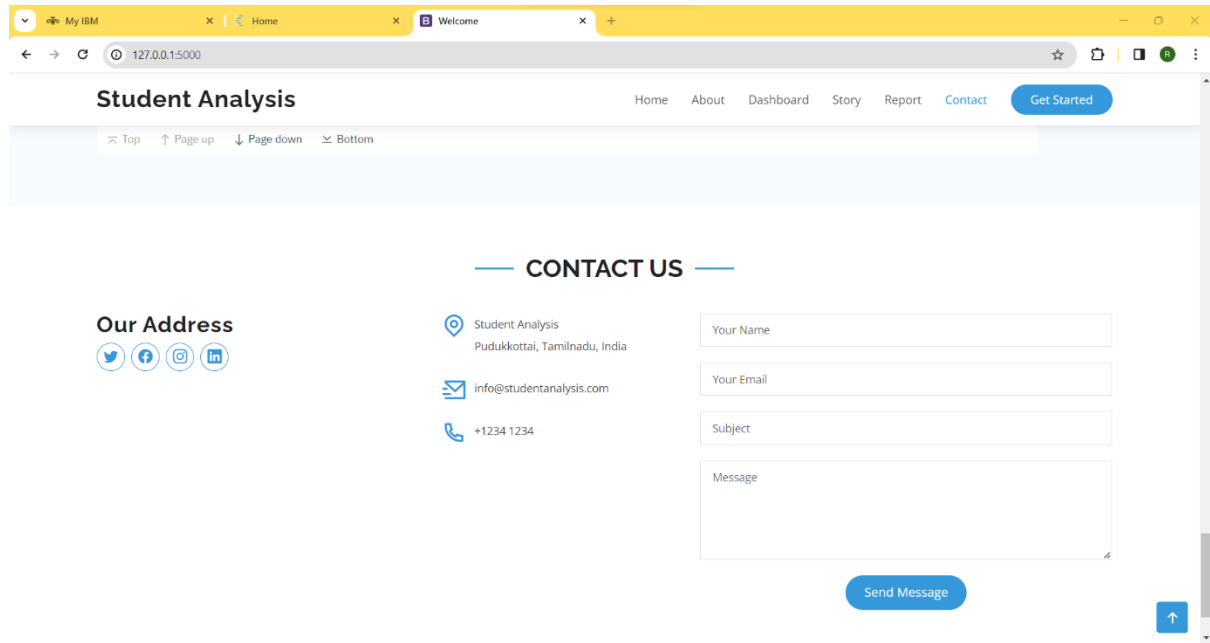
Student Id	race/ethnicity	Average
101	group B	72.67
Summary		72.67
102	group C	82.33
Summary		82.33
103	group B	92.67
Summary		92.67
104	group A	49.33
Summary		49.33
105	group C	76.33
Summary		76.33
106	group B	77.33
Summary		77.33
107	group B	91.67
Summary		91.67
108	group B	40.67
Summary		40.67

Prev scene Next scene Scene 7 of 9 0:01.0 0:05.0









10.ADVANTAGE AND DISADVANTAGE

Advantage

Inspiration: The performance can inspire both students and the community by showcasing the potential, talent, and achievements of young individuals, motivating them to pursue their dreams and reach their full potential.

Recognition: It provides an opportunity to recognize and celebrate the hard work and accomplishments of students in various fields, from academics to the arts, athletics, and community service.

Community Building: The event brings the community together, fostering a sense of unity and support for youth development. It encourages collaboration and participation from parents, teachers, and the wider community.

Awareness: It can raise awareness about the importance of investing in youth, emphasizing the need for quality education, mentorship, and resources to nurture their potential.

Networking: The event can serve as a platform for students to network with potential mentors, sponsors, and organizations interested in supporting youth initiatives.

Disadvantages

Resource Intensive: Organizing such a performance may require significant time, effort, and resources, including financial investments, which can be a challenge for schools or organizations with limited budgets.

Pressure on Students: The pressure to perform in front of an audience can be stressful for some students, potentially leading to performance anxiety or burnout.

Exclusivity: In some cases, such events may inadvertently exclude students who are not involved in traditional extracurricular activities, potentially overshadowing their talents and potential.

Logistical Challenges: Coordinating various aspects of the performance, such as scheduling, rehearsals, and technical requirements, can be logistically challenging and may lead to unexpected issues.

Limited Reach: The impact of the event may be limited to those who attend in person or follow it through limited media coverage, potentially missing a broader audience.

11.CONCLUSION

In conclusion, "Unleashing The Potential Of Our Youth: A Student Performance" stands as a powerful testament to the remarkable abilities and potential of our young generation. Through this event, we have celebrated their achievements, inspired our community, and reinforced the importance of investing in our youth. The advantages of such a performance, including inspiration, recognition, community building, awareness, and networking opportunities, are evident. However, we also recognize the challenges, such as resource constraints, potential student pressure, exclusivity, logistical hurdles, and limited reach.

12.FUTURE SCOPE

The future scope of project holds significant promise. This event can become an annual tradition, inspiring new generations of students and expanding its reach through live streaming and social media engagement. Collaborations with educational institutions and organizations can enhance its impact, fostering the growth of youth development programs and mentoring initiatives. Involving alumni and incorporating sustainability practices can further enrich the event's relevance. By continually evolving themes and integrating interactive elements, the performance can maintain its dynamism and attract a diverse audience. Gathering feedback and prioritizing improvement will

13.APPENDIX

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="static/assets/img/favicon.png" rel="icon">

  <link href="static/assets/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,600,600i,700,700i|Raleway:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">

  <!-- Vendor CSS Files -->

  <link href="static/assets/vendor/aos/aos.css" rel="stylesheet">

  <link href="static/assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

  <link href="static/assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">

  <link href="static/assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">

  <link href="static/assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">

  <link href="static/assets/vendor/remixicon/remixicon.css" rel="stylesheet">
```

```

<link href="static/assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

<!-- Template Main CSS File -->

<link href="static/assets/css/style.css" rel="stylesheet">

<!-- =====

* Template Name: Vesperr

* Updated: Sep 18 2023 with Bootstrap v5.3.2

* 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">Students Academics Performance Analysis</h1>

<h2 data-aos="fade-up" data-aos-delay="400">Academic performance is the measurement of student achievement across various academic subjects</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">
```

```
<p>
```

Welcome to the "Unleashing The Potential Of Our Youth" project, where we are redefining the future of education through data analytics. We believe that every student possesses incredible potential, and our mission is to harness this potential to create a brighter tomorrow.

```
</p>
```

```
<ul>
```

<i class="ri-check-double-line"></i> Our project focuses on using cutting-edge data analytics to identify students at risk of underperformance. By analyzing academic data, attendance records, and other crucial information, we can spot early signs of challenges students may face.

<i class="ri-check-double-line"></i> Join us in this important endeavor and be part of the change. Together, we can make a difference.

</div>

<div class="col-lg-6 pt-4 pt-lg-0" data-aos="fade-up" data-aos-delay="300">

<p>

Our vision is simple yet powerful: to ensure that no student's potential goes unnoticed. We're committed to transforming the educational landscape by leveraging the power of data analytics to support and empower our youth.

</p>

Learn More

</div>

</div>

</div>

</section><!-- End About Us Section -->

<!-- ===== Services Section ===== -->

<section id="services" class="services">

<div class="container">

<div class="section-title" data-aos="fade-up">

<h2>Dashboard</h2>

</div>

<div >

<iframe

src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FSt%2Bdashboard&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=view&mode=dashboard&subView=model0000018b7b2dd9ec_00000003" width="1200" height="800" 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 >

      ://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_folders%2Fst%2Bstory&a
      mp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareM
      ode=embedded&amp;action=view&amp;sceneId=model00000018b7bc2386e_000000001&amp;sc
      eneTime=0" width="1200" height="800" frameborder="0" gesture="media" allow="encrypted-
      media" allowfullscreen=""></iframe>

    </div>

  </div>

</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>

      <iframe
      src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fst%2Breport&amp;closeWin
      dowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedde

```

d&action=run&format=HTML&prompt=false" width="1200" height="800" 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">

<h3>Our Address</h3>

<div class="social-links">

<i class="bi bi-twitter"></i>

<i class="bi bi-facebook"></i>

<i class="bi bi-instagram"></i>

<i class="bi bi-linkedin"></i>

</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>Student Analysis<br>Pudukkottai, Tamilnadu, India</p>
    </div>
    <div>
      <i class="ri-mail-send-line"></i>
      <p>info@studentanalysis.com</p>
    </div>
    <div>
      <i class="ri-phone-line"></i>
      <p>+1234 1234</p>
    </div>
  </div>
</div>
<div class="col-lg-5 col-md-12" data-aos="fade-up" data-aos-delay="300">
  <form action="static/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>
  </form>
</div>

```

```

    </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>

</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>Vesperr</strong>. All Rights Reserved

</div>

<div class="credits">

    <!-- All the links in the footer should remain intact. -->

    <!-- You can delete the links only if you purchased the pro version. -->

    <!-- Licensing information: https://bootstrapmade.com/license/ -->

    <!-- Purchase the pro version with working PHP/AJAX contact form:
https://bootstrapmade.com/vesperr-free-bootstrap-template/ -->

    Designed by <a href="https://bootstrapmade.com/">BootstrapMade</a>

</div>

</div>
```

App.py

```
from flask import Flask, render_template

app = Flask(__name__)

@app.route("/")

def index():

    return render_template("index.html")
```

Github & Project Demo Link

Github Link:

https://github.com/ReemaAfshan/Unleashing-The-Potential-Of-Our-Youth-A-Student-Performance-Analysis_NM2023TMID06843

Project Demonstration Link:

<https://drive.google.com/file/d/1cVdMjPRxwMMX7yYtgqWNaocI0k3Rq4KO/view?usp=sharing>