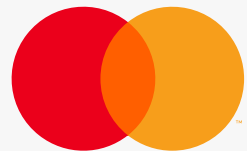


BUILD A CAREER TRACKING PLATFORM FOR SKILLED YOUTH FOR Y4D FOUNDATION

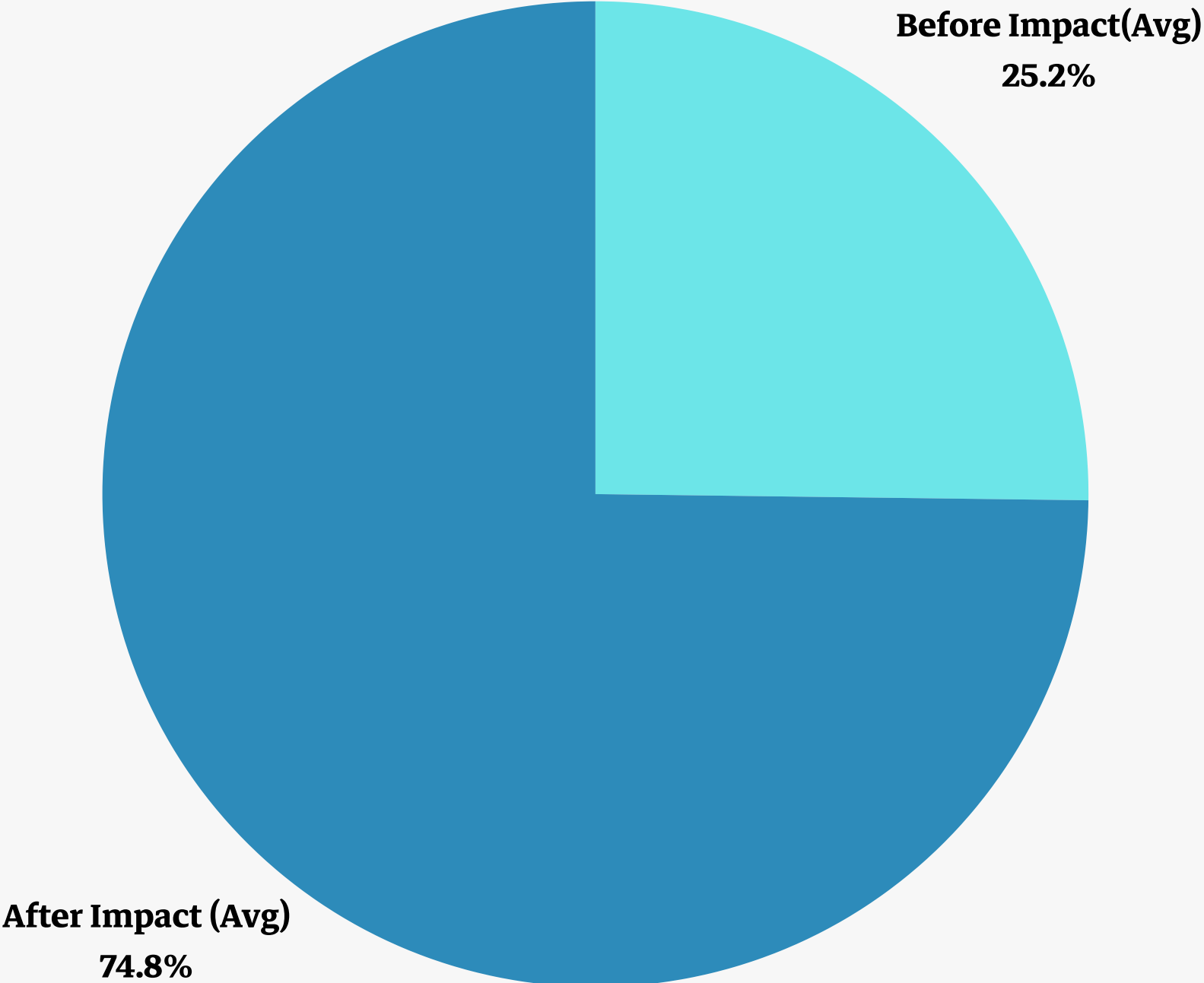
By Team 6



Executive Summary



CHALLENGE	BEFORE	AFTER
Long Term Career tracking Efficiency	30%	70%
Manual Data Collection Efficiency	33.3%	66.7%
Incomplete Records detection	42.9%	57.2%
Structured Data Quality	20%	80%



But how?

Demo/Prototype

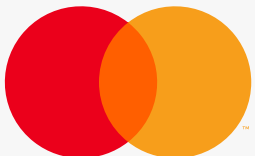
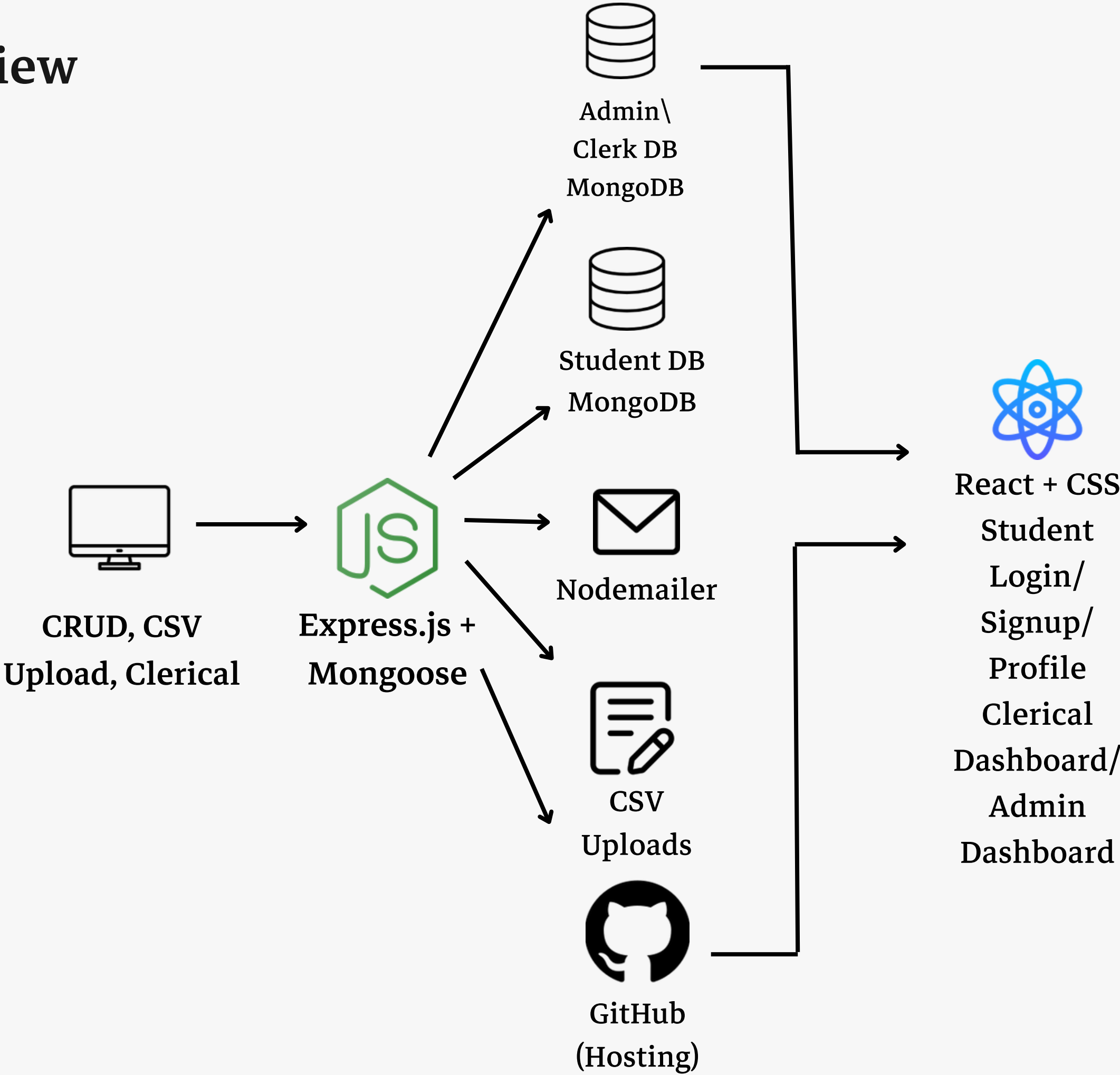
h

Google Drive Link:

<https://drive.google.com/drive/u/0/folders/1-qNFWQl6MPdQYMvWAHDvVuFNhNOZVpXh>



Solution Overview



Technology Stack Used



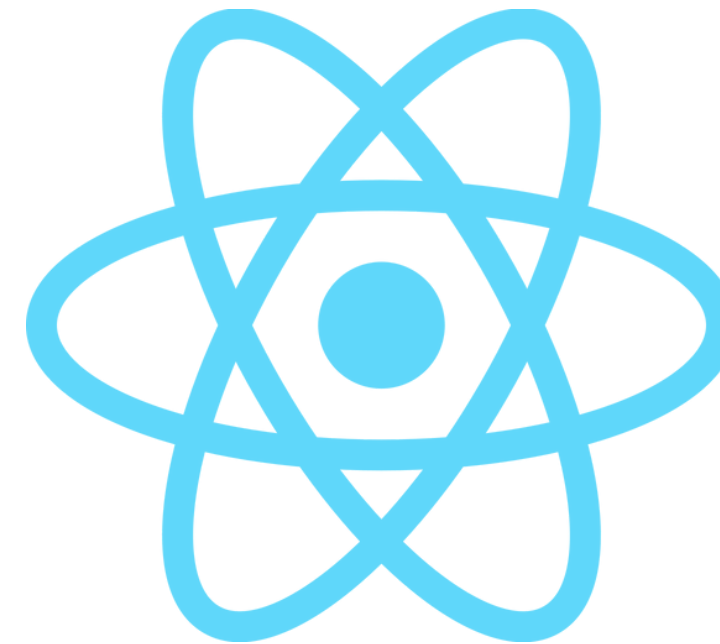
HTML

For basic framework of this website's interface



CSS

For the styling at front end to make it look attractive .



React.js

Fast, responsive, and modular UI with reusable components and smooth integration with backend APIs.

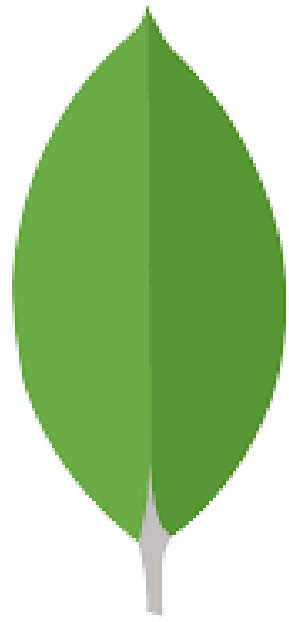


Tailwind CSS

For the inspiration of how the final web pages will look like.



For Backend



MongoDB

Backend runtime for APIs & server logic
Role-based authentication
(Student/Admin/Clerical)
Connects React frontend with MongoDB



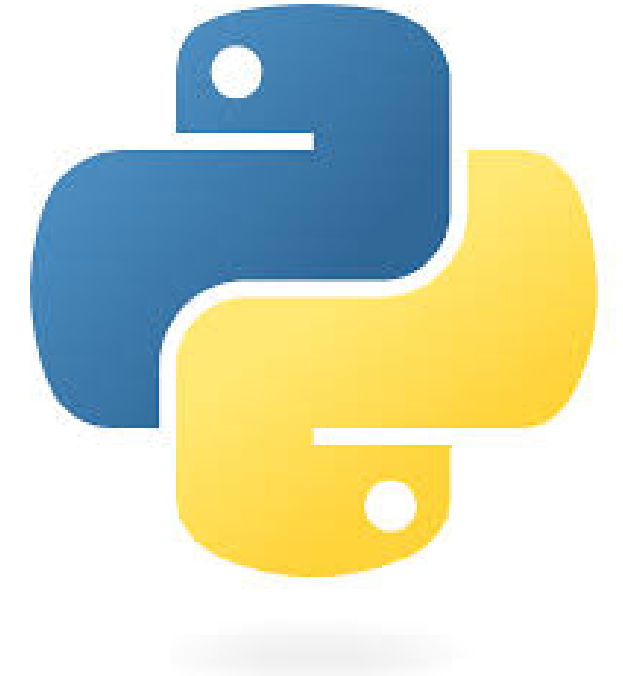
PostMan

Tested & validated
backend APIs
Checked authentication,
CRUD operations & errors



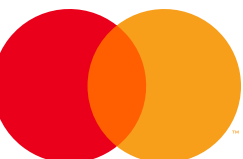
NodeJS

Backend runtime for
APIs & server logic
Role-based
authentication

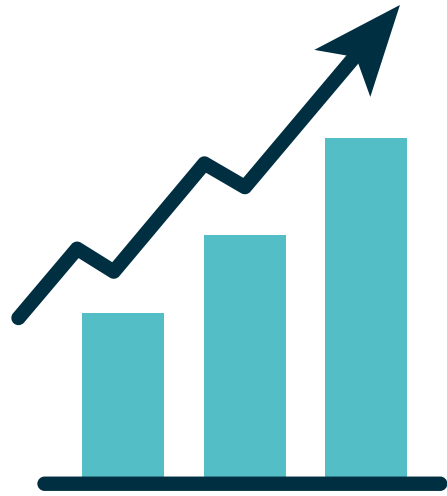


Python

For Optical
Character
Recognition,
extracting text from
resume



Future Scalability



Clustered Column Storage & Indexing

Data stored in columnar format and indexed for faster analytics (career tracking, progress reports, student insights).



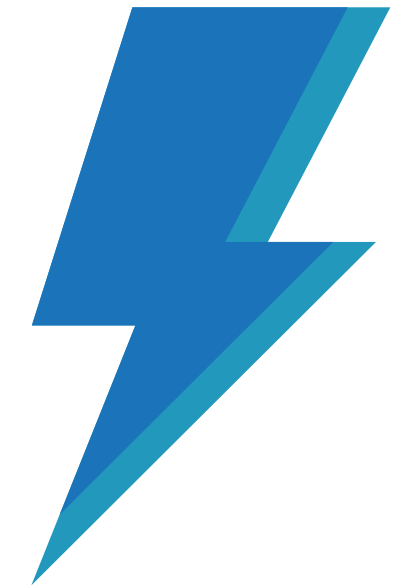
Horizontal Scaling with Load Balancing

System can add multiple servers (nodes) as student data grows -> ensures high availability and zero downtime during peak usage



Intelligent Data Type Identification

Automated recognition of data types (numeric, categorical, text, documents) optimizes storage, validation, and querying; minimizes errors from manual data entry.



Query Caching for High-Speed Access

Frequently accessed queries are cached -> reduces load on the database and speeds up responses for dashboards & reports.



Q&A