

EPPS6354 Information Management Final Project

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Database Purpose

Impact of Online Classes on High School Students' Grades

• *Transition to online classes* during the pandemic had *varied effects* on high school students' grades.

- Impact influenced by financial, organizational, and *characteristic features of schools*.
- Regional differences in support for schools also contributed to varying impacts.



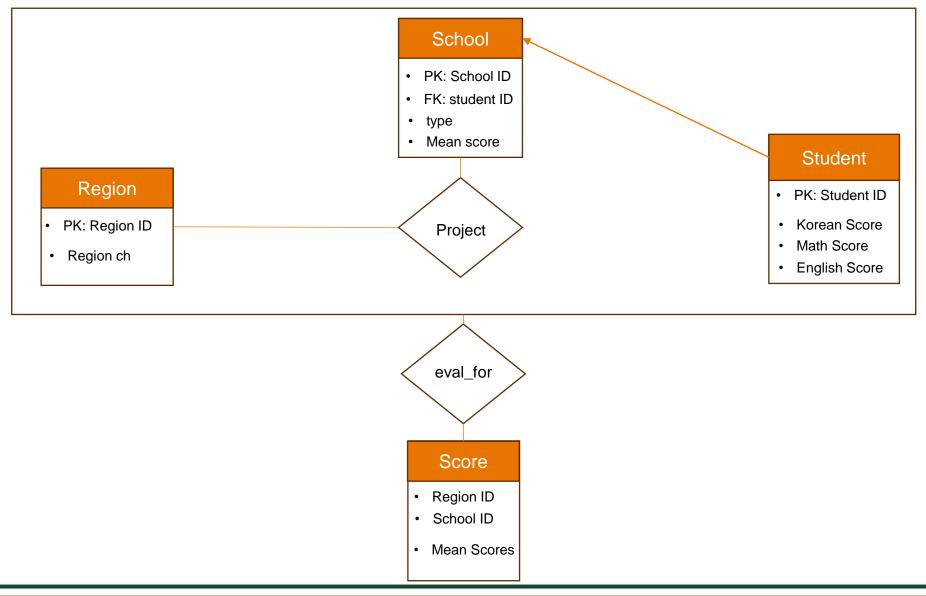
Database Purpose

Improving Access to Data for Informed Decision-Making

- Challenge: Current data on schools and students' grades provided individually, making comparisons difficult.
- Solution: Research aims to create a comprehensive dataset allowing easy comparison across schools and regions.
- *Benefits:* Enables policymakers, school administrators, parents, and students to *assess and compare impacts* of online classes effectively.



2 Schema





3 Interface

Location Mapping

 Location distribution pattern of public and private schools

Histogram

Decision Tree

- Comparison of public schools and private schools
- Comparison before and after COVID-19
- Comparison by subject



4 Method

Utilizing *R Shiny* for SQL Database Management

 Integration with SQL Database: R Shiny can be utilized to create user-friendly interfaces for managing SQL databases, providing a dynamic and interactive environment for database administration.

Advantages:

- Real-Time Visualization: R Shiny enables real-time visualization of SQL data, facilitating quick insights and decision-making.
- *Flexibility and Customization*: R Shiny provides flexibility in designing the interface according to specific user requirements, allowing for customization of features and functionalities.

Challenges:

• *Performance Considerations*: As R Shiny applications run on a server, performance may be impacted by factors such as server capacity and network speed.



4 Method

Let's Look at the Project!

https://dohyojeong.shinyapps.io/IM_shiny/





THANK YOU

