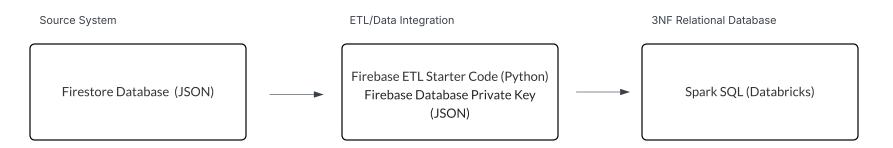
## **Eric Shin East Section**

## **System Architecture Design**



I have decided to go with the 3NF relational model as my database architecture for this project.

Choosing a 3NF relational model for Rudy's interactive theater project ensures clean, consistent data by eliminating redundancy and maintaining clear relationships between users, admins, plays, and gesture recordings. This structure supports accurate, reliable data collection needed for training the machine-learning model to detect play signals. It also makes the system easier to maintain and scale as more users, plays, or recordings are added over time.

signal\_recordings\_detail

string

decimal

decimal

decimal

decimal

decimal

decimal

decimal

decimal

decimal

integer

signal\_ID (PK, FK)

accel\_x

accel\_y

accel\_z

accel\_grav\_x

accel\_grav\_y

accel\_grav\_z

rotation\_rate\_alpha

rotation\_rate\_beta

timestamp\_ms

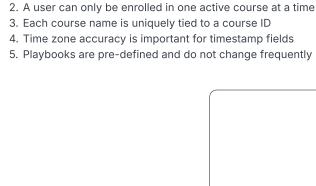
rotation\_rate\_gamma

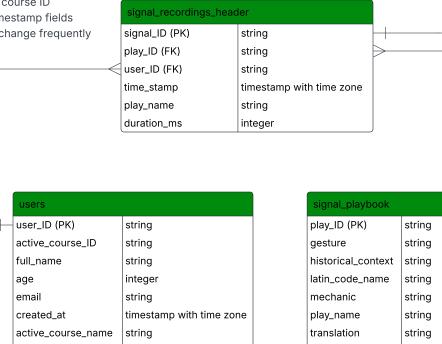
## **Assumptions:**

**3NF Relational Model** 

updated\_at

1. Each signal recording is linked to exactly one user and one playbook





timestamp with time zone

play\_type

string