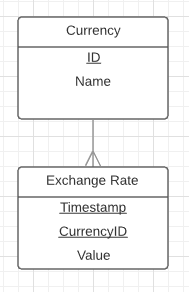
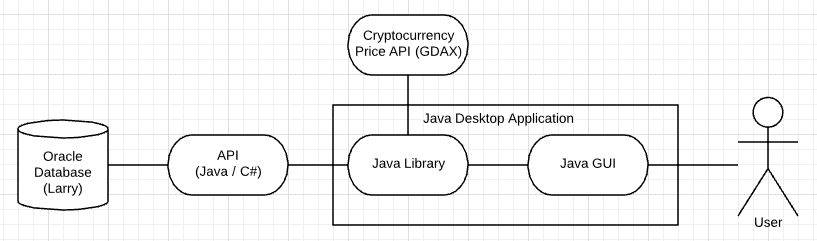
# System Design

## Entity Relationship Diagram



The data can be split into two tables – there are currencies and each currency has an exchange rate. The date and time combined with the currency’s ID field will retrieve the value of the currency at a given time. Storing additional fields within the exchange rate table may be required for a multi-client system. A single system could handle collecting and processing of data, leaving the end user system to simply get the recommendation from the database and act upon it.

## System Architecture Diagram



When the desktop application is activated the user is sees a graphical user interface. This GUI is populated by a library that collects data from a cryptocurrency exchange’s API endpoint, processes it and posts minutely exchange rates to an Oracle database through an API endpoint developed for the system.