

# AI Club data modelling exercise 2019-04-30

Here is some information about a data set and the questions we want to ask.

Model the data as you would for one or more of:

- A relational database
- A key value store such as DynamoDB
- A graph database such as Neo4j or Neptune

Write down any assumptions you make

Show how you would query the data store to ask the questions

Which data model is best for which question?

- A **recording** has a unique **ISRC** (International Standard Recording Code), a **title**, an **artist**.
- An **album** has a unique **UPC** (Universal Product Code), a **title** and an overall **artist** (might be "Various Artists"). A **recording** can appear on many **albums**. Each of these versions of the recording can have a different **track length**. An **album** is released on a specific **release date**.
- An **artist** can appear on many recordings. More than one **artist** can appear on a **recording** (e.g. Catatonia featuring Tom Jones) - therefore the artist that is displayed on the recording may not be the same as an actual artist.
- You can assume all artist names, ISRCs and UPCs are unique for this exercise
- You can assume a recording doesn't appear twice on an album

The questions we want to ask of the data are:

- I have an ISRC - Give me the titles of all the albums this recording is on
- I have an artist name - give me a list of all the recordings they have on new albums released in 2019
- I have a UPC - Give me the title of the album
- Find me all albums released since the start of the year
- Find me all the artists that have collaborated with this artist