\section Design

This section describe design the database where I had to do normalisation, identify primary keys and bring database to third normal form. Although, I had to find functional dependencies for each attribute are identified to proceed the next stages of firs, second and third normal form.

\subsection Identify primary keys and functional dependencies

I have been given a sql file from university with data which contain a complete table moma in un-normalized form.

I have listed the attributes of the moma table here:

\textbf{moma} (title, artist, artist\\_bio, year, medium, dimensions, credit\\_line, moma\\_number, classification, department, date\\_acquired, curator\\_approved, object\\_id, url)

\textbf{description of the attributes:}

\begin{itemize}

\item title – The title of the work of art

\item artist – the name and surname of the artist

\item artist\\_bio – The artist information about date of birth, place and date of death

\item year – The production year of the art

\item medium – the medium of the art

\item dimensions – dimension of the art

\item credit\\_line – the company which gave that art for the museum

\item moma\\_number – it’s the number of moma in database

\item classification – it shows where the art has been located and in which department

\item department – departments in moma

\item date\\_acquired - the date when museum got that art

\item curator\\_approved – Y or N if the art is approved by curator or no

\item object\\_id – an unique id for the art

\item URL – url address of that art ended by object\\_id

\end{itemize}

\subsubsection Functional dependencies

In the above un-normalized form of the database I have found a few dependencies of the following attributes: