**A document (word/pdf) explaining why your program sends only one request to Firebase per query; and if the response contains irrelevant data.**

I first saved all the data in the local computer and used film\_category.csv to merge film data and category data in order to setting up pattern1, and used film\_actor.csv to merge film data and actor data in order to setting up pattern2. I then uploaded these merged data onto the Firebase’s real-time database and the database structure is showed in the screenshots. So basically, the first key is designed for pattern1 and the second key is designed for pattern2. When I do the query, I use ‘requests’ package in python and get the database I designed in Firebase. When I set up pattern1, I send a request to Firebase and get the data in the first key. The same goes for pattern2. So, I just need to send one request and I can get the data in Firebase. I then filter the data with python, selecting the data I need. For example, when I search for a specific category, the data I need are film titles, release year, rating, rental rate, and rental duration and nothing more. So, there are no irrelevant data when I do the query because I just filter them out.