1. This dataset consists of two columns i,e., first\_name & last\_name &city use custom input format to read the key as the combination of first\_name and last\_name and arrange the output of the program should be the key sorted by last\_name.

In the compareTo method, we have written our logic to sort the keys. We have taken the ComparisionChain class and first compared the last name column and then compared the 1st column. Therefore, this logic will print the keys sorted by last name column.

Here, we are implementing the custom input format by extending the default FileInputFormat, which accepts the parameters key and value as our custom \_key and the value as IntWritable.

Now, these values are passed to the Record reader, which does the actual formatting of the inputs. The custom RecordReader class is as follows.























