* any coloumn appear in the groupby clause must appear in the select clause or appear in an aggregate function but not every coloumn appear in the groupby must appear in the select
* FROM generates the data set
* WHERE filters the generated data set
* GROUP BY aggregates the filtered data set
* HAVING filters the aggregated data set
* SELECT transforms the filters aggregated data set
* ORDER BY sorts the transformed data set
* LIMIT .. OFFSET frames the sorted data set