**Project 3 Proposal: classification of start-up companies**

**Business Case:**

There are many start-up companies founded every year. There are start-ups, which are acquired by other companies, while others remain independent or decide to be publicly trade.

There are economic implications for any of these outcomes for the investors, employees and founders. Thus, developing a model to classify start-ups would be helpful to these stakeholders.

**Minimum Viable Product:**

The MVP for this project is to classify companies five years and older between acquired and not acquired.

**The Data:**

The data is a 2013 snapshot contains a replica of the Crunchbase dataset from October 2013. That includes all organization, and product profiles along with funding rounds, acquisitions, and IPOs.

|  |  |  |
| --- | --- | --- |
| crunchbase-companies.csv | Variable used | Alternative variable to be created |
| name | Y |  |
| category\_code | Y |  |
| funding\_total\_usd | N |  |
| status | Y |  |
| country\_code | Y |  |
| state\_code | Y |  |
| region | Y |  |
| city | Y |  |
| funding\_rounds | Y |  |
| founded\_at | Y | Estimated to calculate other variables and filter into companies less than 5 years old |
| founded\_month | Y |  |
| founded\_quarter | Y |  |
| founded\_year | N |  |
| first\_funding\_at | Y |  |
| last\_funding\_at | Y | Last\_funding (in days since company foundation) |
| last\_milestone\_at | N |  |
|  |  |  |
|  |  |  |
| crunchbase-acquisitions.csv |  |  |
| company\_name | Y |  |
| company\_category\_code | Y |  |
| company\_country\_code | Y |  |
| company\_state\_code | Y |  |
| company\_region | Y |  |
| company\_city | Y |  |
| acquirer\_permalink | N |  |
| acquirer\_name | N |  |
| acquirer\_category\_code | N |  |
| acquirer\_country\_code | N |  |
| acquirer\_state\_code | N |  |
| price\_currency\_code | N |  |
| acquirer\_region | N |  |
| acquirer\_city | N |  |
| acquired\_at | N |  |
| acquired\_month | N |  |
| acquired\_quarter | N |  |
| acquired\_year | N |  |
| price\_amount | N |  |
|  |  |  |
| crunchbase-investments |  |  |
| company\_name | Y |  |
| company\_category\_code | Y |  |
| company\_country\_code | Y |  |
| company\_state\_code | Y |  |
| company\_region | Y |  |
| company\_city | Y |  |
| investor\_permalink | N |  |
| investor\_name | N |  |
| investor\_category\_code | N |  |
| investor\_country\_code | N |  |
| investor\_state\_code | N |  |
| investor\_region | N |  |
| investor\_city | N |  |
| funding\_round\_type | Y |  |
| funded\_at | Y | Relative to founding date |
| funded\_month | N |  |
| funded\_quarter | N |  |
| funded\_year | N |  |
| raised\_amount\_usd | Y |  |
| crunchbase-rounds.csv |  |  |
| company\_name | Y |  |
| company\_category\_code | Y |  |
| company\_country\_code | Y |  |
| company\_state\_code | Y |  |
| company\_region | Y |  |
| company\_city | Y |  |
| funding\_round\_type | Y |  |
| funded\_at | Y | Relative to founding date |
| funded\_month | N |  |
| funded\_quarter | N |  |
| funded\_year | N |  |
| raised\_amount\_usd | Y |  |

crunchbase-companies.csv

name 17727 non-null object

category\_code 17328 non-null object

funding\_total\_usd 16222 non-null object

status 17727 non-null object

country\_code 17727 non-null object

state\_code 17480 non-null object

region 17727 non-null object

city 17462 non-null object

funding\_rounds 17727 non-null int64

founded\_at 13676 non-null object

founded\_month 13676 non-null object

founded\_quarter 13676 non-null object

founded\_year 13676 non-null float64

first\_funding\_at 17622 non-null object (time after foundation)

last\_funding\_at 17622 non-null object

last\_milestone\_at 10528 non-null object

crunchbase-acquisitions.csv

company\_name 4651 non-null object

company\_category\_code 3933 non-null object

company\_country\_code 4651 non-null object

company\_state\_code 4543 non-null object

company\_region 4651 non-null object

company\_city 4532 non-null object

acquirer\_permalink 4651 non-null object

acquirer\_name 4651 non-null object

acquirer\_category\_code 4137 non-null object

acquirer\_country\_code 4384 non-null object

acquirer\_state\_code 3877 non-null object

acquirer\_region 4651 non-null object

acquirer\_city 4262 non-null object

acquired\_at 4651 non-null object

acquired\_month 4651 non-null object

acquired\_quarter 4651 non-null object

acquired\_year 4651 non-null float64

price\_amount 1409 non-null float64

price\_currency\_code 4648 non-null object

crunchbase-investments

company\_name 52869 non-null object

company\_category\_code 52227 non-null object

company\_country\_code 52869 non-null object

company\_state\_code 52378 non-null object

company\_region 52869 non-null object

company\_city 52337 non-null object

investor\_permalink 52868 non-null object

investor\_name 52868 non-null object

investor\_category\_code 2443 non-null object

investor\_country\_code 40869 non-null object

investor\_state\_code 36061 non-null object

investor\_region 52868 non-null object

investor\_city 40390 non-null object

funding\_round\_type 52867 non-null object

funded\_at 52867 non-null object

funded\_month 52867 non-null object

funded\_quarter 52867 non-null object

funded\_year 52867 non-null float64

raised\_amount\_usd 49271 non-null float64

crunchbase-rounds.csv

company\_name 31679 non-null object

company\_category\_code 31215 non-null object

company\_country\_code 31679 non-null object

company\_state\_code 31334 non-null object

company\_region 31679 non-null object

company\_city 31329 non-null object

funding\_round\_type 31679 non-null object

funded\_at 31679 non-null object

funded\_month 31679 non-null object

funded\_quarter 31679 non-null object

funded\_year 31679 non-null int64

raised\_amount\_usd 29100 non-null float64