Data Collection and Preprocessing Phase

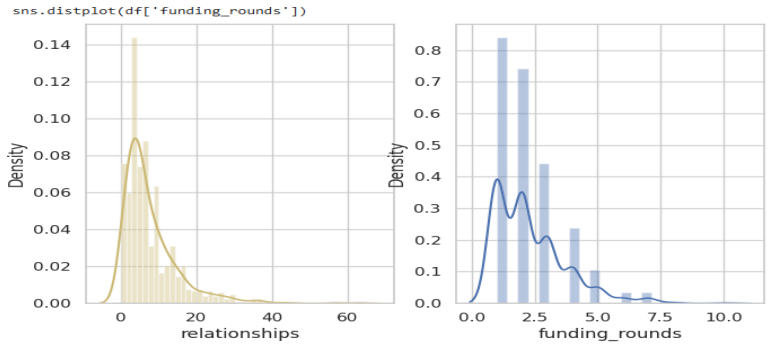
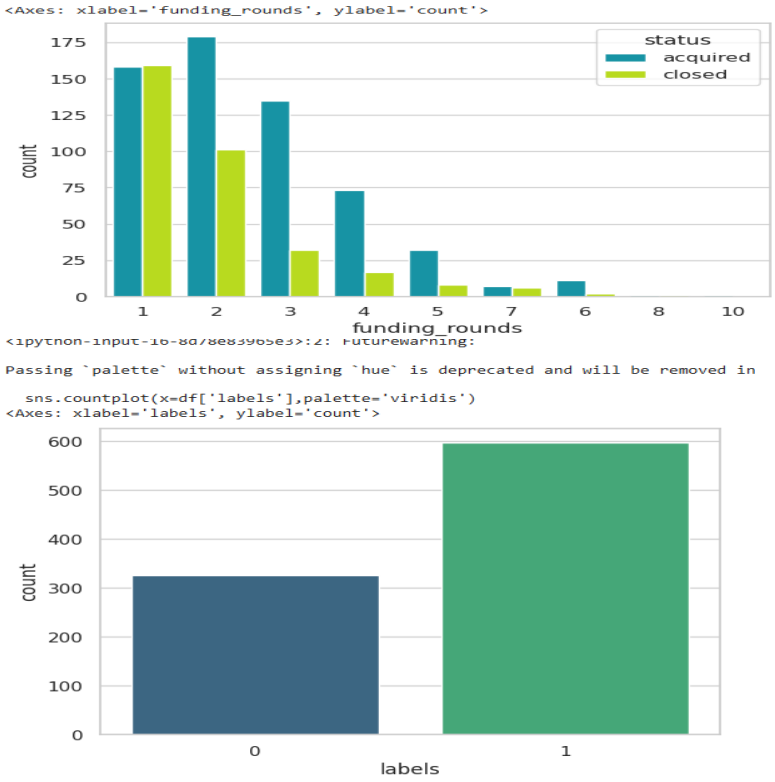
Date	21 June 2024
Team ID	TMID739650
Project Title	Startup Prophet
Maximum Marks	6 Marks

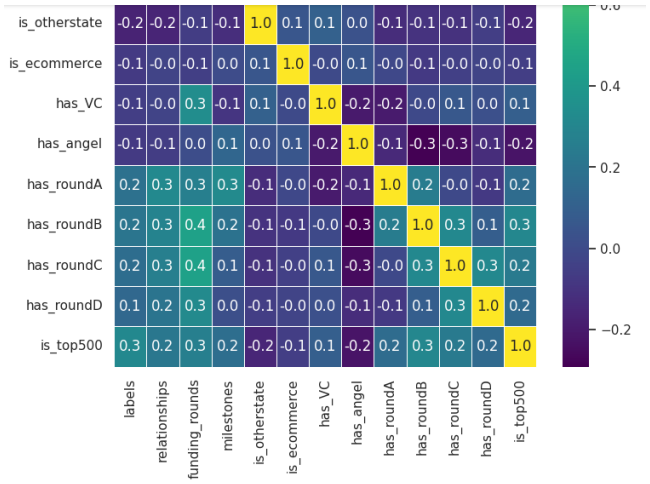
Data Exploration and Preprocessing Report

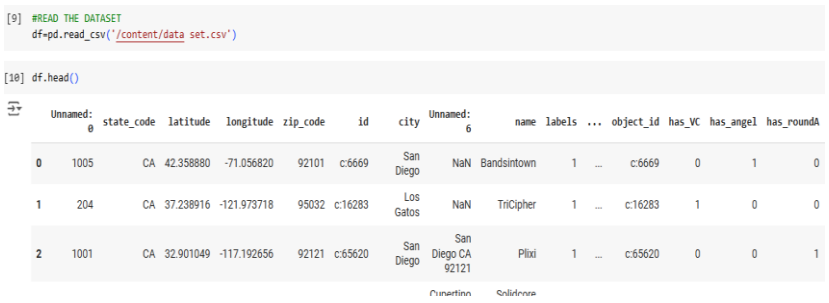
Dataset variables will be statistically analyzed to identify patterns and outliers, with Python employed for preprocessing tasks like normalization and feature engineering. Data cleaning will address missing values and outliers, ensuring quality for subsequent analysis and modeling, and forming a strong foundation for insights and predictions.

Section	Description
Data Overview	Dimension: 923 rows × 13 columns Descriptive statistics:
Univariate Analysis	

	Unnamed: 0	latitude	longitude	labels	age_first_funding_year	age_last_funding_year	age_first_milestone_year	age_last_milestone_year
count	923.000000	923.000000	923.000000	923.000000	923.000000	923.000000	771.000000	771.000000
mean	572.297941	38.517442	-103.539212	0.646804	2.235630	3.931456	3.055353	4.754423
std	333.585431	3.741497	22.394167	0.478222	2.510449	2.967910	2.977057	3.212107
min	1.000000	25.752358	-122.756956	0.000000	-9.046600	-9.046600	-14.169900	-7.005500
25%	283.500000	37.388869	-122.198732	0.000000	0.576700	1.669850	1.000000	2.411000
50%	577.000000	37.779281	-118.374037	1.000000	1.446600	3.528800	2.520500	4.476700
75%	866.500000	40.730646	-77.214731	1.000000	3.575350	5.560250	4.686300	6.753400
max	1153.000000	59.335232	18.057121	1.000000	21.895900	21.895900	24.684900	24.684900

	
Bivariate Analysis	

Multivariate Analysis	

Outliers and Anomalies	-
Data Preprocessing Code Screenshots	
Loading Data	 Unnamed: 0 | state_code | latitude | longitude | zip_code | id | city | Unnamed: 6 | name | labels | ... | object_id | has_VC | has_angel | has_roundA 0 | 1005 | CA | 42.358880 | -71.056820 | 92101 | c:6669 | San Diego | NaN | Bandsintown | 1 | ... | c:6669 | 0 | 1 | 0 1 | 204 | CA | 37.238916 | -121.973718 | 95032 | c:16283 | Los Gatos | NaN | TriCipher | 1 | ... | c:16283 | 1 | 0 | 0 2 | 1001 | CA | 32.901049 | -117.192656 | 92121 | c:65620 | San Diego | San Diego CA 92121 | Plixi | 1 | ... | c:65620 | 0 | 0 | 1 Cupertino | Solidcore
Handling Missing Data	---

Data Transformation	[25] `#SEPARATING THE DATA`
	`x=df.drop(columns=['labels'],axis=1)`
	`y=df['labels']`
	
	`#STANDARD SCALAR`
	`from sklearn.preprocessing import StandardScaler`
	`sc=StandardScaler()`
	`x=sc.fit_transform(x)`
	`x`
	
	`array([[-0.648696 , 0.49566485, 0.87613768, ..., -0.55106471, -0.3327311 , -2.06017431],`
	`[ 0.17754099, 1.21500235, -0.6368185 , ..., 1.81466891, 3.00542987, 0.48539582],`
	`[-0.37328367, -0.94301016, 0.11965959, ..., -0.55106471, -0.3327311 , 0.48539582],`
	`...,`
	`[-0.37328367, -0.94301016, -0.6368185 , ..., -0.55106471, 3.00542987, 0.48539582],`
	`[ 0.59065949, -0.22367266, 0.11965959, ..., -0.55106471, -0.3327311 , 0.48539582],`
	`[-0.51098983, -0.94301016, -0.6368185 , ..., -0.55106471,`

Feature Engineering	Attached the codes in final submission.
Save Processed Data	-