

# Сергеев М.Ю. ИУ5-63Б

Для заданного набора данных произведите масштабирование данных (для одного признака) и преобразование категориальных признаков в количественные двумя способами (label encoding, one hot encoding) для одного признака. Какие методы Вы использовали для решения задачи и почему? Для произвольной колонки данных построить график "Ящик с усами (boxplot)".

In [1]:

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

In [2]:

```
df = pd.read_csv('C:/Users/maxim/OneDrive/Рабочий стол/ТМО/marvel-wikia-data.csv', sep=',')
```

In [3]:

```
df.head()
```

Out[3]:

	page_id	name	urlslug	ID	ALIGN	EYE	HAIR	SEX	GSM	ALIVE	APPEARANCES	FIRST APPEARANCE
0	1678	Spider-Man (Peter Parker)	VSpider-Man_(Peter_Parker)	Secret Identity	Good Characters	Hazel Eyes	Brown Hair	Male Characters	NaN	Living Characters	4043.0	Aug-64
1	7139	Captain America (Steven Rogers)	VCaptain_America_(Steven_Rogers)	Public Identity	Good Characters	Blue Eyes	White Hair	Male Characters	NaN	Living Characters	3360.0	Mar-41
2	64786	Wolverine (James \"Logan\" Howlett)	VWolverine_(James_%22Logan%22_Howlett)	Public Identity	Neutral Characters	Blue Eyes	Black Hair	Male Characters	NaN	Living Characters	3061.0	Oct-73
3	1868	Iron Man (Anthony \"Tony\" Stark)	VIron_Man_(Anthony_%22Tony%22_Stark)	Public Identity	Good Characters	Blue Eyes	Black Hair	Male Characters	NaN	Living Characters	2961.0	Mar-68
4	2460	Thor (Thor Odinson)	VThor_(Thor_Odinson)	No Dual Identity	Good Characters	Blue Eyes	Blond Hair	Male Characters	NaN	Living Characters	2258.0	Nov-52

In [4]:

```
df.shape
```

Out[4]:

```
(16376, 13)
```

In [5]:

```
df.dtypes
```

Out[5]:

```
page_id      int64
name          object
urlslug       object
ID            object
ALIGN         object
EYE           object
HAIR          object
SEX           object
GSM           object
ALIVE         object
APPEARANCES  float64
FIRST APPEARANCE  object
Year          float64
dtype: object
```

In [6]:

```
#поиск пропусков
for col in df.columns:
    is_missing = np.mean(df[col].isnull())
    print('{} - {}'.format(col, round(is_missing*100)))
```

page\_id - 0%  
name - 0%  
urlslug - 0%  
ID - 23%  
ALIGN - 17%  
EYE - 60%  
HAIR - 26%  
SEX - 5%  
GSM - 99%  
ALIVE - 0%  
APPEARANCES - 7%  
FIRST APPEARANCE - 5%  
Year - 5%  
Целочисленными значениями будем кодировать признак name (пропусков нет). Масштабировать - признак Appearances (есть пропуски).

In [7]:

```
df['APPEARANCES'].unique()

array([4.043e+03, 3.360e+03, 3.061e+03, 2.961e+03, 2.258e+03, 2.255e+03,
       2.072e+03, 2.017e+03, 1.955e+03, 1.934e+03, 1.825e+03, 1.713e+03,
       1.528e+03, 1.512e+03, 1.394e+03, 1.338e+03, 1.307e+03, 1.304e+03,
       1.266e+03, 1.265e+03, 1.237e+03, 1.233e+03, 1.230e+03, 1.162e+03,
       1.161e+03, 1.137e+03, 1.120e+03, 1.107e+03, 1.050e+03, 1.047e+03,
       1.007e+03, 1.000e+03, 8.860e+02, 8.810e+02, 8.800e+02, 8.780e+02,
       8.560e+02, 8.500e+02, 7.870e+02, 7.520e+02, 7.400e+02, 7.250e+02,
       7.210e+02, 7.090e+02, 7.080e+02, 6.960e+02, 6.920e+02, 6.890e+02,
       6.860e+02, 6.570e+02, 6.410e+02, 6.360e+02, 6.180e+02, 6.120e+02,
       5.990e+02, 5.900e+02, 5.670e+02, 5.580e+02, 5.500e+02, 5.480e+02,
       5.320e+02, 5.280e+02, 5.260e+02, 5.250e+02, 5.170e+02, 5.120e+02,
       5.030e+02, 5.020e+02, 5.000e+02, 4.780e+02, 4.740e+02, 4.730e+02,
       4.710e+02, 4.640e+02, 4.480e+02, 4.460e+02, 4.330e+02, 4.290e+02,
       4.260e+02, 4.220e+02, 4.150e+02, 4.080e+02, 4.060e+02, 4.030e+02,
       3.900e+02, 3.880e+02, 3.870e+02, 3.840e+02, 3.820e+02, 3.800e+02,
       3.760e+02, 3.750e+02, 3.740e+02, 3.730e+02, 3.710e+02, 3.680e+02,
       3.660e+02, 3.610e+02, 3.530e+02, 3.480e+02, 3.460e+02, 3.420e+02,
       3.400e+02, 3.380e+02, 3.320e+02, 3.290e+02, 3.270e+02, 3.250e+02,
       3.240e+02, 3.230e+02, 3.210e+02, 3.200e+02, 3.190e+02, 3.180e+02,
       3.170e+02, 3.160e+02, 3.130e+02, 3.110e+02, 3.100e+02, 3.060e+02,
       2.960e+02, 2.930e+02, 2.900e+02, 2.840e+02, 2.800e+02, 2.770e+02,
       2.760e+02, 2.740e+02, 2.730e+02, 2.720e+02, 2.710e+02, 2.700e+02,
       2.670e+02, 2.650e+02, 2.640e+02, 2.630e+02, 2.610e+02, 2.600e+02,
       2.590e+02, 2.570e+02, 2.550e+02, 2.520e+02, 2.500e+02, 2.490e+02,
       2.480e+02, 2.470e+02, 2.450e+02, 2.420e+02, 2.400e+02, 2.390e+02,
       2.380e+02, 2.370e+02, 2.360e+02, 2.340e+02, 2.310e+02, 2.290e+02,
       2.270e+02, 2.260e+02, 2.250e+02, 2.240e+02, 2.230e+02, 2.220e+02,
       2.210e+02, 2.180e+02, 2.170e+02, 2.120e+02, 2.110e+02, 2.100e+02,
       2.090e+02, 2.070e+02, 2.050e+02, 2.040e+02, 2.030e+02, 2.020e+02,
       2.000e+02, 1.980e+02, 1.970e+02, 1.950e+02, 1.940e+02, 1.930e+02,
       1.900e+02, 1.890e+02, 1.880e+02, 1.870e+02, 1.840e+02, 1.810e+02,
       1.800e+02, 1.790e+02, 1.780e+02, 1.770e+02, 1.760e+02, 1.750e+02,
       1.740e+02, 1.720e+02, 1.710e+02, 1.700e+02, 1.690e+02, 1.660e+02,
       1.650e+02, 1.640e+02, 1.630e+02, 1.610e+02, 1.600e+02, 1.580e+02,
       1.570e+02, 1.560e+02, 1.550e+02, 1.530e+02, 1.520e+02, 1.510e+02,
       1.500e+02, 1.490e+02, 1.480e+02, 1.470e+02, 1.460e+02, 1.450e+02,
       1.440e+02, 1.430e+02, 1.420e+02, 1.410e+02, 1.400e+02, 1.390e+02,
       1.380e+02, 1.370e+02, 1.360e+02, 1.350e+02, 1.340e+02, 1.330e+02,
       1.320e+02, 1.310e+02, 1.300e+02, 1.290e+02, 1.280e+02, 1.270e+02,
       1.260e+02, 1.250e+02, 1.240e+02, 1.220e+02, 1.210e+02, 1.200e+02,
       1.190e+02, 1.180e+02, 1.160e+02, 1.150e+02, 1.140e+02, 1.130e+02,
       1.120e+02, 1.110e+02, 1.100e+02, 1.090e+02, 1.080e+02, 1.070e+02,
       1.060e+02, 1.050e+02, 1.040e+02, 1.030e+02, 1.020e+02, 1.010e+02,
       1.000e+02, 9.900e+01, 9.800e+01, 9.700e+01, 9.600e+01, 9.500e+01,
       9.400e+01, 9.300e+01, 9.200e+01, 9.100e+01, 9.000e+01, 8.900e+01,
       8.800e+01, 8.700e+01, 8.600e+01, 8.500e+01, 8.400e+01, 8.300e+01,
       8.200e+01, 8.100e+01, 8.000e+01, 7.900e+01, 7.800e+01, 7.700e+01,
       7.600e+01, 7.500e+01, 7.400e+01, 7.300e+01, 7.200e+01, 7.100e+01,
       7.000e+01, 6.900e+01, 6.800e+01, 6.700e+01, 6.600e+01, 6.500e+01,
       6.400e+01, 6.300e+01, 6.200e+01, 6.100e+01, 6.000e+01, 5.900e+01,
       5.800e+01, 5.700e+01, 5.600e+01, 5.500e+01, 5.400e+01, 5.300e+01,
       5.200e+01, 5.100e+01, 5.000e+01, 4.900e+01, 4.800e+01, 4.700e+01,
       4.600e+01, 4.500e+01, 4.400e+01, 4.300e+01, 4.200e+01, 4.100e+01,
       4.000e+01, 3.900e+01, 3.800e+01, 3.700e+01, 3.600e+01, 3.500e+01,
       3.400e+01, 3.300e+01, 3.200e+01, 3.100e+01, 3.000e+01, 2.900e+01,
       2.800e+01, 2.700e+01, 2.600e+01, 2.500e+01, 2.400e+01, 2.300e+01,
       2.200e+01, 2.100e+01, 2.000e+01, 1.900e+01, 1.800e+01, 1.700e+01,
       1.600e+01, 1.500e+01, 1.400e+01, 1.300e+01, 1.200e+01, 1.100e+01,
       1.000e+01, 9.000e+00, 8.000e+00, 7.000e+00, 6.000e+00, 5.000e+00,
       4.000e+00, 3.000e+00, 2.000e+00, 1.000e+00, nan])
```

Out[7]:

#заполним пропуски медианой

In [8]:

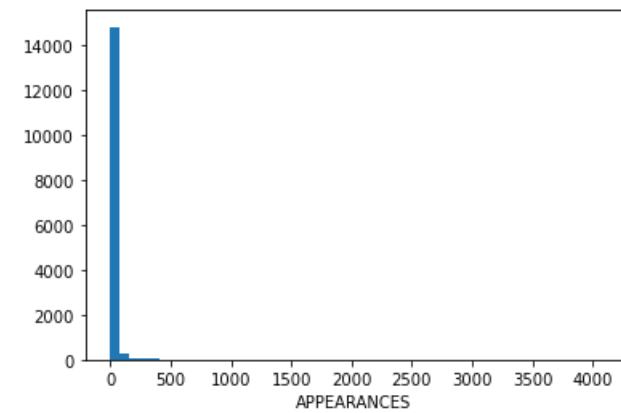
```
from sklearn.impute import SimpleImputer
imp1 = SimpleImputer(missing_values=np.nan, strategy='most_frequent')
data1 = imp1.fit_transform(df[['APPEARANCES']])
pd.isnull(data1).sum()
```

Out[8]:

In [9]:

0

```
plt.hist(df['APPEARANCES'], 50)
plt.xlabel('APPEARANCES')
plt.show()
```



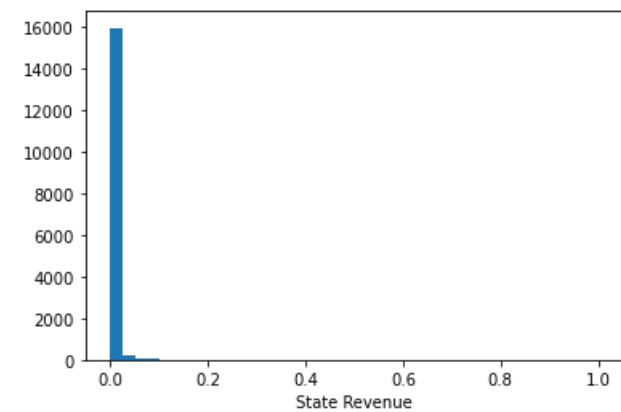
## Масштабирование данных

In [10]:

```
from sklearn.preprocessing import MinMaxScaler
sc1 = MinMaxScaler()
sc1_data = sc1.fit_transform(data1)
```

In [11]:

```
plt.hist(sc1_data, 40)
plt.xlabel('State Revenue')
plt.show()
```



## Преобразование категориальных признаков в количественные

In [12]:

```
from sklearn.preprocessing import LabelEncoder, OneHotEncoder
```

In [13]:

```
df['name']
```

```
0 Spider-Man (Peter Parker)
1 Captain America (Steven Rogers)
2 Wolverine (James \"Logan\" Howlett)
3 Iron Man (Anthony \"Tony\" Stark)
4 Thor (Thor Odinson)
...
16371 Ru'ach (Earth-616)
16372 Thane (Thanos' son) (Earth-616)
16373 Tinkerer (Skrull) (Earth-616)
16374 TK421 (Spiderling) (Earth-616)
16375 Yologarch (Earth-616)
Name: name, Length: 16376, dtype: object

df['name'].unique()

array(['Spider-Man (Peter Parker)', 'Captain America (Steven Rogers)',
      'Wolverine (James \"Logan\" Howlett)', ...,
      'Tinkerer (Skrull) (Earth-616)', 'TK421 (Spiderling) (Earth-616)',
      'Yologarch (Earth-616)'], dtype=object)

#преобразование
le1 = LabelEncoder()
le1.fit_transform(df['name'])

array([13954, 2327, 15996, ..., 14816, 14335, 16147])

list(le1.classes_)

['\"Spinner (Earth-616)\",
'107 (Earth-616)',
'11-Ball (Earth-616)',
'115 (Legion Personality) (Earth-616)',
'14 (Earth-616)',
'181 (Legion Personality) (Earth-616)',
'1X (Earth-616)',
'2-D (Earth-616)',
'2X (Earth-616)',
'302 (Legion Personality) (Earth-616)',
'3X (Earth-616)',
'6-Ball (Earth-616)',
'6R (Earth-616)',
'762 (Legion Personality) (Earth-616)',
'8-Ball (Hobgoblin) (Earth-616)',
'8-Ball II (Earth-616)',
'88 (Earth-616)',
'9-Ball (Earth-616)',
'933 (Legion Personality) (Earth-616)',
'99 (Earth-616)',
'A (Earth-616)',
'A Friend (Earth-616)',
'A'Kurru U'mbaya (Earth-616)',
'A'Lars (Earth-616)',
'A'Sai (Earth-616)',
'A'kane (Earth-616)',
'A'yin (Earth-616)',
'A. G. Bell (Earth-616)',
'A. Summers (Earth-616)',
'A.C. O'Connor (Earth-616)',
'A.J. Raffles (Earth-616)',
'A3 (Earth-616)',
'AC-DC (Earth-616)',
'Aa-Gorn (Earth-616)',
'Aa-Thak (Earth-616)',
'Aaidan Blomfield (Earth-616)',
'Aalbort (Earth-616)',
'Aaliyah Hardin (Earth-616)',
'Aamir (Earth-616)',
'Aamshed (Earth-616)',
'Aan Taanu (Earth-616)',
'Aardvark (Earth-616)',
'Aarkus (Earth-616)',
'Aaron Amberson (Earth-616)',
'Aaron Carpenter (Earth-616)',
'Aaron Cashin (Earth-616)',
'Aaron Chord (Earth-616)',
'Aaron Dawkins (Earth-616)']
```

'Aaron Downing (Earth-616)',  
'Aaron English (Earth-616)',  
'Aaron MacKenzie (Earth-616)',  
'Aaron Nicholson (Earth-616)',  
'Aaron Rosenberg (Earth-616)',  
'Aaron Salomon (Earth-616)',  
'Aaron Soames (Earth-616)',  
'Aaron Stankey (Earth-616)',  
'Aaron Thorne (Earth-616)',  
'Aaron Verne (Earth-616)',  
'Aaron the Aakon (Earth-616)',  
'Aaron the Sorcerer (Earth-616)',  
'Abadon (Earth-616)',  
'Abahla (Earth-616)',  
'Aban (Earth-616)',  
'Abara and Cadabra (Earth-616)',  
'Abarac (Earth-616)',  
'Abbas al-Abbad (Earth-616)',  
'Abbess Horror (Earth-616)',  
'Abbey Sykes (Earth-616)',  
'Abby Levine (Earth-616)',  
'Abd-el-Hazred (Earth-616)',  
'Abdi (Earth-616)',  
'Abdol (Earth-616)',  
'Abdul (Earth-616)',  
'Abdul Faoul (Earth-616)',  
'Abdul Qamar (Earth-616)',  
'Abel (Earth-616)',  
'Abel Stack (Earth-616)',  
'Aberdeen Angus (Earth-616)',  
'Aberham (Earth-616)',  
'Abigail (Earth-616)',  
'Abigail Baxter (Earth-616)',  
'Abigail Boylen (Earth-616)',  
'Abigail Brand (Earth-616)',  
'Abigail Burns (Earth-616)',  
'Abigail Dunton (Earth-616)',  
'Abigail Harkness (Earth-616)',  
'Abigail Varden (Earth-616)',  
'Abigail Wright (Earth-616)',  
'Abira (Earth-616)',  
'Able Doone (Earth-616)',  
'Abner (Mutant) (Earth-616)',  
'Abner Abernathy (Earth-616)',  
'Abner Doolittle (Earth-616)',  
'Abner Dunson (Earth-616)',  
'Abner Jenkins (Earth-616)',  
'Abner Jonas (Earth-616)',  
'Abner Little (Earth-616)',  
'Abomination (Morlock) (Earth-616)',  
'Abraham Beame (Earth-616)',  
'Abraham Brown (Earth-616)',  
'Abraham Cornelius (Earth-616)',  
'Abraham Erskine (Earth-616)',  
'Abraham James (Earth-616)',  
'Abraham Kieros (Earth-616)',  
'Abraham Klein (Earth-616)',  
'Abraham Lincoln (Earth-616)',  
'Abraham Lincoln (Robot) (Earth-616)',  
'Abraham Verne (Earth-616)',  
'Abraham Wilson (Heroes Reborn) (Earth-616)',  
'Abraham Zimmer (Earth-616)',  
'Abraham van Helsing (Earth-616)',  
'Abrams (Earth-616)',  
'Absalom (Earth-616)',  
'Absolon Mercator (Earth-616)',  
'Absynthe (Earth-616)',  
'Absynthia van Mort (Earth-616)',  
'Abu Ben Hakim (Earth-616)',  
'Abu Dakir (Earth-616)',  
'Abu Ho Dadi (Earth-616)',  
'Abu M\u016bs\u0101 ibn Hayy al-Azdi (Earth-616)',  
'Abu-Jamal Rodriguez (Earth-616)',  
'Abwama (Earth-616)',  
'Abyss (Earth-616)',  
'Abysss (Earth-616)',  
'Acba (Earth-616)',  
'Accolon (Earth-616)',  
'Ace (G.R.A.M.P.A) (Earth-616)',  
'Ace (Pilot) (Earth-616)',  
'Ace (SHIELD Agent) (Earth-616)',  
'Ace Fenton (Earth-616)',  
'Ace Maxwell (Earth-616)',

'Ace Spencer (Earth-616)',  
'Ace Turmbull (Earth-616)',  
'Aces Wilde (Earth-616)',  
'Achak (Earth-616)',  
'Achebe (Earth-616)',  
'Achelous (Earth-616)',  
'Achille DiBacco (Earth-616)',  
'Achilles (Greek Legend) (Earth-616)',  
'Achilles (Helmut) (Earth-616)',  
'Achmed El Gib\\u00e1r (Earth-616)',  
'Achmed Korba (Earth-616)',  
'Acidroid (Earth-616)',  
'Acrobat (1940s) (Earth-616)',  
'Acrobat (Spider-Squad) (Earth-616)',  
'Acroyear (Earth-616)',  
'Actor (Spy) (Earth-616)',  
'Adahm (Earth-616)',  
'Adai (Earth-616)',  
'Adam (Earth-616)',  
'Adam (Priest) (Earth-616)',  
'Adam Able (Earth-616)',  
'Adam Austin (Earth-616)',  
'Adam Berman (Earth-616)',  
'Adam Brashear (Earth-616)',  
'Adam Clayton (Earth-616)',  
'Adam Crown (Earth-616)',  
'Adam Destine (Earth-616)',  
'Adam Essex (Earth-41001)',  
'Adam Essex (Earth-616)',  
'Adam Fisher (Earth-616)',  
'Adam Harkins (Earth-616)',  
'Adam II (Earth-616)',  
'Adam K'ad-Mon (Earth-616)',  
'Adam Mann (Earth-616)',  
'Adam Manna (Earth-616)',  
'Adam Neramani (Earth-616)',  
'Adam Peters (Earth-616)',  
'Adam Plunder (Earth-616)',  
'Adam Simon (Earth-616)',  
'Adam Warlock (Earth-616)',  
'Adam Wright (Earth-616)',  
'Adamantine (Earth-616)',  
'Adams (Earth-616)',  
'Adap-Tor (Earth-616)',  
'Addison Blackburn (Earth-616)',  
'Addison Falk (Earth-616)',  
'Adele Hawthorne (Earth-616)',  
'Adelicia von Krupp (Earth-616)',  
'Adelynn Duquesne (Earth-616)',  
'Adewale Ekokú (Earth-616)',  
'Adjudicator (Earth-616)',  
'Adjunct (Earth-616)',  
'Admiral Footsu (Earth-616)',  
'Admiral Leeds (Earth-616)',  
'Admiral Nippo (Earth-616)',  
'Admiral Nodope (Earth-616)',  
'Admiral von Roeder (Earth-616)',  
'Adolf Hitler (Clone) (Earth-616)',  
'Adolf Hitler (Earth-616)',  
'Adolf Impossible (Earth-616)',  
'Adolphus (Earth-616)',  
'Adomox (Earth-616)',  
'Adonis (Earth-616)',  
'Adora (Clone) (Earth-616)',  
'Adora (Earth-616)',  
'Adri Nital (Earth-616)',  
'Adria (Earth-616)',  
'Adria Walker (Earth-616)',  
'Adrian Castorp (Earth-616)',  
'Adrian Corbo (Earth-616)',  
'Adrian Defoe (Earth-616)',  
'Adrian Eiskalt (Earth-616)',  
'Adrian Lynn (Earth-616)',  
'Adrian Toomes (Earth-616)',  
'Adrian Turner (Earth-616)',  
'Adriana Soria (Earth-616)',  
'Adriana Soria (Princess) (Earth-616)',  
'Adrienne Bowen (Earth-616)',  
'Adrienne Frost (Earth-616)',  
'Adur (Earth-616)',  
'Adva (Earth-616)',  
'Adversary (Earth-616)',  
'Adversary (Earth-616)',

'Advisor (Earth-616)',  
'Aegir (Earth-616)',  
'Aegis (Earth-616)',  
'Aeish (Earth-616)',  
'Ael-Dan (Earth-616)',  
'Aelfric (Earth-616)',  
'Aelfyre Whitemane (Earth-616)',  
'Aeltri (Earth-616)',  
'Aeneas (Earth-616)',  
'Aentaros (Earth-616)',  
'Aeric (Earth-616)',  
'Aerivar XVIII (Earth-616)',  
'Aeroika (Earth-616)',  
'Aesklos (Earth-616)',  
'Aftaab Lemar (Earth-616)',  
'Afterburner (Earth-616)',  
'Afterlife (Earth-616)',  
'Aftermath (Sleeper) (Earth-616)',  
'Agamemnon (Dog) (Earth-616)',  
'Agamemnon (Mythology) (Earth-616)',  
'Agamoto (Earth-616)',  
'Agar (Earth-616)',  
'Agatha Harkness (Earth-616)',  
'Agatha Harkness (Heroes Reborn) (Earth-616)',  
'Agatha Timly (Earth-616)',  
'Agathon (Earth-616)',  
'Agdistis (Earth-616)',  
'Aged Genghis (Earth-616)',  
'Agent 13 (Hydra Agent) (Earth-616)',  
'Agent 17 (A.I.M.) (Earth-616)',  
'Agent 22 (Earth-616)',  
'Agent 5 (Earth-616)',  
'Agent 9 (Earth-616)',  
'Agent A-14 (Earth-616)',  
'Agent Anesthesia (Earth-616)',  
'Agent Axis (Earth-616)',  
'Agent Briggs (Earth-616)',  
'Agent Carver (Earth-616)',  
'Agent Colby (Earth-616)',  
'Agent Copernicus (Earth-616)',  
'Agent Crimson (Earth-616)',  
'Agent Crock (Earth-616)',  
'Agent D (Ducharme) (Earth-616)',  
'Agent Deems (Earth-616)',  
'Agent Donohue (Earth-616)',  
'Agent Gorman (Earth-616)',  
'Agent Green (Earth-616)',  
'Agent Hayes (Earth-616)',  
'Agent K (Earth-616)',  
'Agent Kepler (Earth-616)',  
'Agent L (Earth-616)',  
'Agent M (Earth-616)',  
'Agent Monkton (Earth-616)',  
'Agent Newton (Earth-616)',  
'Agent Orange (Earth-616)',  
'Agent Owen (Earth-616)',  
'Agent Planck (Earth-616)',  
'Agent Pratt (Earth-616)',  
'Agent Q (Earth-616)',  
'Agent R-2 (Earth-616)',  
'Agent Red (Earth-616)',  
'Agent Simon (Earth-616)',  
'Agent Syn (Earth-616)',  
'Agent Walsh (Earth-616)',  
'Agent Whitman (Earth-616)',  
'Agent X (Nijo) (Earth-616)',  
'Agent X (WWII Japanese Soldier) (Earth-616)',  
'Agent X (WWII Japanese Spy) (Earth-616)',  
'Agent of 1000 Faces (Earth-616)',  
'Agent of Fortune (Earth-616)',  
'Agent of Heaven (Earth-616)',  
'Agent of Hell (Earth-616)',  
'Agent of the Realm Between (Earth-616)',  
'Aggamon (Earth-616)',  
'Aghanne (Earth-616)',  
'Aginar (Earth-616)',  
'Agitator (Earth-616)',  
'Agmarr Slogg (Earth-616)',  
'Agnar (Earth-616)',  
'Agnar of Vanaheim (Earth-616)',  
'Agnar, King of the Eagles (Earth-616)',  
'Agon (Earth-616)',  
'Agony (Hellbent) (Earth-616)',

'Agony (Symbiote) (Earth-616)',  
'Agrimet (Earth-616)',  
'Agrom (Earth-616)',  
'Agu (Earth-616)',  
'Aguinaga (Earth-616)',  
'Aguja (Earth-616)',  
'Ah Knee (Earth-616)',  
'Ah-Muzencab (Earth-616)',  
'Ahh (Earth-616)',  
'Ahmad Azis (Earth-616)',  
'Ahmbra (Earth-616)',  
'Ahmed (Tunnel Rats) (Earth-616)',  
'Ahmed Noor (Earth-616)',  
'Ahmet (Earth-616)',  
'Ahmet Abdol (Earth-616)',  
'Ahpuch (Earth-616)',  
'Ahqlau (Earth-616)',  
'Ahura Boltagon (Earth-616)',  
'Ahura Mazda (Earth-616)',  
'Ai Apaec (Earth-616)',  
'Ai-Chi Wong (Earth-616)',  
'Aiden (Earth-616)',  
'Aiko Miyazaki (Earth-616)',  
'Ailma (Earth-616)',  
'Aimee (Clint Barton's neighbor) (Earth-616)",  
'Ainet (Earth-616)',  
'Aiomumkondi (Earth-616)',  
'Air (Elementals) (Earth-616)',  
'Air-Walker (Automaton) (Earth-616)',  
'Airborne (Death Squad) (Earth-616)',  
'Aireo (Earth-616)',  
'Airhead (Earth-616)',  
'Aislinn (Earth-616)',  
'Aja (Earth-616)',  
'Ajak (Earth-616)',  
'Ajani Jackson (Earth-616)',  
'Ajax (Francis) (Earth-616)',  
'Ajax (Greek Legend) (Earth-616)',  
'Ajax (Pantheon) (Earth-616)',  
'Ajaxis (Earth-616)',  
'Ajes'ha (Earth-616)",  
'Ajna (Earth-616)',  
'Ak (Earth-616)',  
'Akaje (Earth-616)',  
'Akasha Martinez (Earth-616)',  
'Akatora (Earth-616)',  
'Akeja (Earth-616)',  
'Akihiro (Earth-616)',  
'Akihiro (Earth-616)',  
'Akiniko (Earth-616)',  
'Akira Kiamata (Earth-616)',  
'Akiro (Earth-616)',  
'Akpaxa (Earth-616)',  
'Akreon (Earth-616)',  
'Akulia (Earth-616)',  
'Al B. Harper (Earth-616)',  
'Al Gentle (Earth-616)',  
'Al Larson (Earth-616)',  
'Al Shaitan (Earth-616)',  
'Al'Arok (Earth-616)",  
'Al-Khalad (Earth-616)',  
'Al-Thahab Al-Aswad (Earth-616)',  
'Aladdin (Earth-616)',  
'Aladi Ko Eke (Earth-616)',  
'Alain Racine (Earth-616)',  
'Alaisa Ruatha Pethnan (Earth-616)',  
'Alaka'i Ryan II (Earth-616)",  
'Alake (Earth-616)',  
'Alan Brialige (Earth-616)',  
'Alan Burstyn (Earth-616)',  
'Alan Cavanaugh (Earth-616)',  
'Alan Desmond (Earth-616)',  
'Alan Fagan (Earth-616)',  
'Alan Heinman (Earth-616)',  
'Alan O'Neil (Earth-616)",  
'Alan Quartermain (Earth-616)',  
'Alan Spaulding (Earth-616)',  
'Alan Trent (Earth-616)',  
'Alan Wilson (Earth-616)',  
'Alana Jobson (Earth-616)',  
'Alana Jobson (Sara Ehret) (Earth-616)',  
'Alana Sloan (Earth-616)',  
'Alani Ryan (Earth-616)'



'Alaric (Asgardian) (Earth-616)',  
'Alaric (Mystic) (Earth-616)',  
'Alaris (Earth-616)',  
'Alarr (Earth-616)',  
'Alasdhair Kinross (Earth-616)',  
'Albakor (Earth-616)',  
'Alban Emond (Earth-616)',  
'Albasini (Earth-616)',  
'Alberich (Earth-616)',  
'Alberik (Earth-616)',  
'Albert (Earth-616)',  
'Albert Bendix (Earth-616)',  
'Albert Cleary (Earth-616)',  
'Albert DeVoor (Earth-616)',  
'Albert Destine (Earth-616)',  
'Albert Einstein (Robot) (Earth-616)',  
'Albert Gaines (Zombie Clone) (Earth-616)',  
'Albert Jones (Earth-616)',  
'Albert Louis (Earth-616)',  
'Albert Malik (Earth-616)',  
'Albert Poole (Earth-616)',  
'Albert Potter (Earth-616)',  
'Albert Rackham (Earth-616)',  
'Albert Vito (Earth-616)',  
'Albert Wanton (Earth-616)',  
'Albino (Istvan) (Earth-616)',  
'Albrecht Kerfoot (Earth-616)',  
'Albri Leiricgrie (Earth-616)',  
'Alcemides (Earth-616)',  
'Alchemist (Earth-616)',  
'Alchemoid (Earth-616)',  
'Alcmena (Earth-616)',  
'Alda Huxley (Earth-616)',  
'Aldebron (Earth-616)',  
'Alden Maas (Earth-616)',  
'Alder Revery (Earth-616)',  
'Aldo (Earth-616)',  
'Aldo Ferro (Earth-616)',  
'Aldo Moomjay (Earth-616)',  
'Aldo Zane (Earth-616)',  
'Aldrich Killian (Earth-616)',  
'Aldrif Odinsdottir (Earth-616)',  
'Aldvi (Earth-616)',  
'Alec Dalton (Earth-616)',  
'Alec Eiffel (Earth-616)',  
'Alec Maloni (Earth-616)',  
'Alec Thorne (Earth-616)',  
'Alec Wright (Earth-616)',  
'Alecto (Furies) (Earth-616)',  
'Alecto (Inhuman) (Earth-616)',  
'Alecto (Red Slayer) (Earth-616)',  
'Aleister Kane (Earth-616)',  
'Aleister Ravenna (Earth-616)',  
'Alejandra Blaze (Earth-616)',  
'Alejandro Cortez (Earth-616)',  
'Alejandro Montoya (Earth-616)',  
'Aleksander Lukin (Earth-616)',  
'Aleksandra Nikolaevna (Earth-616)',  
'Aleksei Sytsevich (Earth-616)',  
'Aleksey Lebedev (Earth-616)',  
'Aleph (Garden) (Earth-616)',  
'Alessandro Brannex (Earth-616)',  
'Alestaire Grunch (Earth-616)',  
'Alex (Inferno Baby) (Earth-616)',  
'Alex (Morlock) (Earth-616)',  
'Alex (Telepath) (Earth-616)',  
'Alex Alaric (Earth-616)',  
'Alex Anderson (Earth-616)',  
'Alex DePaul (Earth-616)',  
'Alex Flores (Earth-616)',  
'Alex Grimond (Earth-616)',  
'Alex Lipton (Earth-616)',  
'Alex Mitchell (Earth-616)',  
'Alex Nevsky (Earth-616)',  
'Alex Wilder (Earth-616)',  
'Alex Wildman (Earth-616)',  
'Alexa Reilly (Earth-616)',  
'Alexander Aaron (Earth-616)',  
'Alexander Bont (Earth-616)',  
'Alexander Ellis (Earth-616)',  
'Alexander Erde (Earth-616)',  
'Alexander Flynn (Earth-616)',

'Alexander Gentry (Earth-616)',  
'Alexander Lexington (Earth-616)',  
'Alexander Patel (Earth-616)',  
'Alexander Pierce (Earth-616)',  
'Alexander Power (Earth-616)',  
'Alexander Ryking (Earth-616)',  
'Alexander Schrott (Earth-616)',  
'Alexander Summers (Earth-616)',  
'Alexander Walsh (Earth-616)',  
'Alexander Woolcot (Earth-616)',  
'Alexander of Macedon (Earth-616)',  
'Alexander van Tilburg (Earth-616)',  
'Alexandra Draguno (Earth-616)',  
'Alexandra Rasputina (Earth-616)',  
'Alexei Kravinoff (Earth-616)',  
'Alexei Vazhin (Earth-616)',  
'Alexei Vazhin (Robot) (Earth-616)',  
'Alexi Bruskin (Earth-616)',  
'Alexi Garnoff (Earth-616)',  
'Alexi Kalishnikov (Earth-616)',  
'Alexi Shostakov (Earth-616)',  
'Alexi Skarab (Earth-616)',  
'Alexis (Earth-616)',  
'Alexis Primo (Earth-616)',  
'Aleytys Forrester (Earth-616)',  
'Alfeo Spinoso (Earth-616)',  
'Alfie (Earth-616)',  
'Alflyse (Earth-616)',  
'Alfonso Lopez (Earth-616)',  
'Alfred Coppersmith (Earth-616)',  
'Alfred Gray (Earth-616)',  
'Alfred Tooko (Earth-616)',  
'Alfredo Morelli (Earth-616)',  
'Algernon Crowe (Earth-616)',  
'Algon (Earth-616)',  
'Alhambra (Akbitana) (Earth-616)',  
'Alhambra (Earth-616)',  
'Ali Al-Zubaidi (Earth-616)',  
'Ali Baba (Earth-616)',  
'Ali Hamud (Earth-616)',  
'Ali Hassan (Earth-616)',  
'Ali Kokmen (Earth-616)',  
'Ali Wazoo (Earth-616)',  
'Ali-Ben Ar (Earth-616)',  
'Alibar (Earth-616)',  
'Alice (Genosha) (Earth-616)',  
'Alice Evans (Earth-616)',  
'Alice Graham (Earth-616)',  
'Alice Hayes (Earth-616)',  
'Alice Hu (Earth-616)',  
'Alice Larkin (Earth-616)',  
'Alice Nugent (Earth-616)',  
'Alice Springs (Earth-616)',  
'Alice Taylor (Earth-616)',  
'Alice Terrel (Earth-616)',  
'Alice Tremaine (Earth-616)',  
'Alicia Downing (Earth-616)',  
'Alicia Masters (Earth-616)',  
'Alicia Masters (Heroes Reborn) (Earth-616)',  
'Alisa Tager (Earth-616)',  
'Alisande Morales (Earth-616)',  
'Alisher Sham (Earth-616)',  
'Alison Blaire (Earth-616)',  
'Alison Double (Earth-616)',  
'Alison Kane (Earth-616)',  
'Alison Mongrain (Earth-616)',  
'Alistair (Earth-616)',  
'Alistair Koch (Earth-616)',  
'Alistaire Armstrong (Earth-616)',  
'Alistaire Smythe (Earth-616)',  
'Alistaire Stuart (Earth-616)',  
'Alistro (Earth-616)',  
'Alix Buchanan (Earth-616)',  
'Alizon Baunacha (Earth-616)',  
'Alkali Ike (Earth-616)',  
'Alkhema (Earth-616)',  
'All-Blud (Earth-616)',  
'All-Devourer (Earth-616)',  
'All-Mother (Sisterhood of the Wasp) (Earth-616)',  
'Allan Lewis (Earth-616)',  
'Allan Rennie (Earth-616)',  
'Allatou (Earth-616)',  
'Allegra (Earth-616)'

'Allegra (Earth-616)',  
'Allen Bazin (Earth-616)',  
'Allen Crater (Earth-616)',  
'Allen Marc Yuric (Earth-616)',  
'Allen Rosnim (Earth-616)',  
'Allie Magruder (Earth-616)',  
'Allison Kemp (Earth-616)',  
'Allison Lange (Earth-616)',  
'Allison McCourt (Earth-616)',  
'Allo (Earth-616)',  
'Alma Chalmers (Earth-616)',  
'Aloba Dastoor (Earth-616)',  
'Alonzo Gonzales (Earth-616)',  
'Aloysius Jamesly (Earth-616)',  
'Aloysius Kare (Earth-616)',  
'Aloysius Thorndrake (Earth-616)',  
'Aloysius Vault (Earth-616)',  
'Alpha (Ape) (Earth-616)',  
'Alpha (Mad Thinker Robot) (Earth-616)',  
'Alpha (Mutant) (Earth-616)',  
'Alpha Achromic (Earth-616)',  
'Alpha Ray (Earth-616)',  
'Alphan (Earth-616)',  
'Alphonse (Mutant) (Earth-616)',  
'Alphonse Frankenstein (Earth-616)',  
'Alphonse LaGuardia (Earth-616)',  
'Alphonso Mackenzie (Earth-616)',  
'Alphonsus Lefszycic (Earth-616)',  
'Alt (Earth-616)',  
'Alter Ego (Earth-616)',  
'Althea (Earth-616)',  
'Althea Green (Earth-616)',  
'Altjira (Earth-616)',  
'Alton Osborn, Sr. (Earth-616)',  
'Alton Vibereaux (Earth-616)',  
'Alturi (Earth-616)',  
'Alva (Earth-616)',  
'Alveroz Monez (Earth-616)',  
'Alvin Barnes (Earth-616)',  
'Alvin Denton (Earth-616)',  
'Alvin Healey (Earth-616)',  
'Alvin Martinike (Earth-616)',  
'Alyce Grimm (Earth-616)',  
'Alynn Chambers (Earth-616)',  
'Alysande Stuart (Earth-616)',  
'Alyssa (Earth-616)',  
'Alyssa Moy (Earth-616)',  
'Am (Earth-616)',  
'Amaa (Earth-616)',  
'Amadeus Cho (Earth-616)',  
'Amahl Farouk (Earth-616)',  
'Amalga-Beast (Earth-616)',  
'Amalgam (Earth-616)',  
'Amanda Batavides (Earth-616)',  
'Amanda Chaney (Earth-616)',  
'Amanda Fairmont (Earth-616)',  
'Amanda Fallows (Earth-616)',  
'Amanda Mueller (Earth-616)',  
'Amanda Reilly (Earth-616)',  
'Amanda Saint (Earth-616)',  
'Amanda Smith (Earth-616)',  
'Amanda von Doom (Earth-616)',  
'Amara Aquilla (Earth-616)',  
'Amaterasu (Earth-616)',  
'Amatsu-Mikaboshi (Earth-616)',  
'Amazo (Earth-616)',  
'Amazon (S.H.E.) (Earth-616)',  
'Ambassador (Earth-616)',  
'Amber (Mutant) (Earth-616)',  
'Amber D\\u2019Alexis (Earth-616)',  
'Amber Douglas (Earth-616)',  
'Amberson Osborn (Earth-616)',  
'Ambrose Meek (Earth-616)',  
'Ambur Amaquelin (Earth-616)',  
'Ame-No-Mi-Kumari (Earth-616)',  
'Ame-no-minaka-nushi-no-kami (Earth-616)',  
'Ameiko Sabuki (Earth-616)',  
'Amelia Barnhardt (Earth-616)',  
'Amelia Greer (Earth-616)',  
'Amelia Voelker (Earth-616)',  
'Amelia Voght (Earth-616)',  
'Amelia Weatherly (Earth-616)',  
'Amergin (Earth-616)',

'American Panther (Earth-616)',  
'American Samurai (Earth-616)',  
'Amie Zamborano (Earth-616)',  
'Amiko Kobayashi (Earth-616)',  
'Amina Syngé (Earth-616)',  
'Aminedi (Earth-616)',  
'Amir (Earth-616)',  
'Amity Hunter (Earth-616)',  
'Ammo (Earth-616)',  
'Ammon Ra (Earth-616)',  
'Amo (Earth-616)',  
'Amodeus Q. Termineus (Earth-616)',  
'Amon (Horse) (Earth-616)',  
'Amora (Earth-616)',  
'Amora (Heroes Reborn) (Earth-616)',  
'Amos Crawley (Earth-616)',  
'Amos Flood (Earth-616)',  
'Amos Jardine (Earth-616)',  
'Amp (Michelle) (Earth-616)',  
'Ampere (Circle of Pavane) (Earth-616)',  
'Amphibian (Earth-616)',  
'Amphibius (Earth-616)',  
'Ampzilla (Earth-616)',  
'Amtor the Unspeakable (Earth-616)',  
'Amy (Earth-616)',  
'Amy Brewer (Earth-616)',  
'Amy Chen (Earth-616)',  
'Amy Conklin (Earth-616)',  
'Amy Powell (Earth-616)',  
'Amy Reilly (Earth-616)',  
'Amy Stringer (Earth-616)',  
'Ana (Natasha Romanoff's neighbor) (Earth-616)",  
'Ana Cortes (Earth-616)',  
'Ana Maximoff (Earth-616)',  
'Ana Shwartz (Earth-616)',  
'Ana\\u00efs (Earth-616)',  
'Anabolicus (Earth-616)',  
'Anad (Earth-616)',  
'Anais (Earth-616)',  
'Anak (Earth-616)',  
'Anakalak (Earth-616)',  
'Analisa Medina (Earth-616)',  
'Anastasia Rinaldi (Earth-616)',  
'Anonym (Earth-616)',  
'Anarchy (ULTIMATUM) (Earth-616)',  
'Anarra (Earth-616)',  
'Anastasia Kravinoff (Earth-616)',  
'Anastasia Sablinova (Earth-616)',  
'Anastasia Summit (Earth-616)',  
'Anath-Na Mut (Earth-616)',  
'Anatoly Vonya (Earth-616)',  
'Ancestor (Earth-616)',  
'Andamo (Earth-616)',  
'Anders Nobel (Earth-616)',  
'Anderson (Earth-616)',  
'Andr\\u00e9 (Earth-616)',  
'Andr\\u00e9 Gerard (Earth-616)',  
'Andr\\u00e9 Gerard (Skrull) (Earth-616)',  
'Andras Bertesy (Earth-616)',  
'Andras Tryp (Earth-616)',  
'Andre (Hydra) (Earth-616)',  
'Andre LeClare (Earth-616)',  
'Andre LeRoux (Earth-616)',  
'Andre Mexer (Earth-616)',  
'Andre Rostov (Earth-616)',  
'Andrea Benton (Earth-616)',  
'Andrea Haggard (Earth-616)',  
'Andrea Hobbes (Earth-616)',  
'Andrea Janson (Earth-616)',  
'Andrea Margulies (Earth-616)',  
'Andrea Roarke (Earth-616)',  
'Andrea Rodgers (Earth-616)',  
'Andrea Sterman (Earth-616)',  
'Andrea von Strucker (Clone) (Earth-616)',  
'Andrea von Strucker (Earth-616)',  
'Andreas Flec (Earth-616)',  
'Andreas Kapelos (Earth-616)',  
'Andreas Vadas (Earth-616)',  
'Andreas Zorba (Earth-616)',  
'Andreas de Ruyter (Earth-616)',  
'Andreas von Strucker (Earth-616)',  
'Andrei Gorlovich (Earth-616)',  
'Andrei Rostov (Earth-616)'

'Andrew Bostov (Earth-616)',  
'Andrew Bazin (Earth-616)',  
'Andrew Benedict (Earth-616)',  
'Andrew Black (Earth-616)',  
'Andrew Blanding (Earth-616)',  
'Andrew Blodgett Mayfair (Earth-616)',  
'Andrew Booth (Earth-616)',  
'Andrew Chord (Earth-616)',  
'Andrew Forson (Earth-616)',  
'Andrew Gardner (Earth-616)',  
'Andrew Graves (Earth-616)',  
'Andrew Jackson (Earth-616)',  
'Andrew Jackson (President) (Earth-616)',  
'Andrew Jackson Hawk (Earth-616)',  
'Andrew Kale (Earth-616)',  
'Andrew Maguire (Earth-616)',  
'Andrew Mussawyr (Earth-616)',  
'Andrew Pauncholito (Earth-616)',  
'Andrew Prentiss (Earth-616)',  
'Andrew Thatcher (Earth-616)',  
'Andrew Webster (Earth-616)',  
'Andrex (Earth-616)',  
'Andro (Earth-616)',  
'Android Man (Earth-616)',  
'Andromeda (Pantheon) (Earth-616)',  
'Andromeda Attumaseen (Earth-616)',  
'Andros (Earth-616)',  
'Andwella (Earth-616)',  
'Andy (Angel) (Earth-616)',  
'Andy (Cop) (Earth-616)',  
'Andy Crockett (Earth-616)',  
'Andy Hartnell (Earth-616)',  
'Andy Opp (Earth-616)',  
'Aneka (Earth-616)',  
'Anelle (Earth-616)',  
'Angel (Barman) (Earth-616)',  
'Angel (Diamond Courier) (Earth-616)',  
'Angel (Fortunato's pet wolf) (Earth-616)",  
'Angel (Legion Street Gang) (Earth-616)',  
'Angel (Mysterio's Robots) (Earth-616)",  
'Angel (Wolf) (Earth-616)',  
'Angel Dust (Christina) (Earth-616)',  
'Angel O'Hara (Earth-616)",  
'Angel of Death (AIM Android) (Earth-616)',  
'Angel of Death (Dark Angel) (Earth-616)',  
'Angel of Death (Dark Angel) (Earth-7888)',  
'Angel of Death (Tavi) (Earth-616)',  
'Angel of Vengeance (Earth-616)',  
'Angela (Dinu) (Earth-616)',  
'Angela (FBI) (Earth-616)',  
'Angela Barbato (Earth-616)',  
'Angela Bradford (Earth-616)',  
'Angela Cairn (Earth-616)',  
'Angela Golden (Earth-616)',  
'Angela Lipscombe (Earth-616)',  
'Angela Pym (Earth-616)',  
'Angela Snow (Earth-616)',  
'Angela Stover (Earth-616)',  
'Angela Tortelli (Earth-616)',  
'Angela Yin (Earth-616)',  
'Angela del Toro (Earth-616)',  
'Angelface (Earth-616)',  
'Angelica Jones (Earth-616)',  
'Angelica Neal (Earth-616)',  
'Angelina Brancale (Earth-616)',  
'Angeline Kutter (Earth-616)',  
'Angeline Morrow (Earth-616)',  
'Angelo Baldini (Earth-616)',  
'Angelo Espinosa (Earth-616)',  
'Angelo Fortunato (Earth-616)',  
'Angelo Macon (Earth-616)',  
'Angerboda (Earth-616)',  
'Angie Huang (Earth-616)',  
'Angmo-Asan (Earth-616)',  
'Angrir (Earth-616)',  
'Angus MacWhirter (Earth-616)',  
'Ani-Mator (Earth-616)',  
'Anielle (Earth-616)',  
'Animator (Earth-616)',  
'Animus (Hate-Monger) (Earth-616)',  
'Anissa Dorsey (Earth-616)',  
'Anita Dillon (Earth-616)',  
'Anita Ehren (Earth-616)',

'Anitun (Earth-616)',  
"Anitun (Triumph Division's second incarnation) (Earth-616)",  
'Ankhi Gottberg (Earth-616)',  
'Anky (Earth-616)',  
'Ann Darnell (Earth-616)',  
'Ann Fraley (Earth-616)',  
'Ann Herd (Earth-616)',  
'Ann Macintosh (Earth-616)',  
'Ann Raymond (Earth-616)',  
'Ann Reynolds (Earth-616)',  
'Anna (Earth-616)',  
'Anna Frankenstein (Earth-616)',  
'Anna Kapplebaum (Earth-616)',  
'Anna Kefkin (Earth-616)',  
'Anna Maria Marconi (Earth-616)',  
'Anna May (Earth-616)',  
'Anna Ryker (Earth-616)',  
'Anna Twisdon (Earth-616)',  
'Anna Wei (Earth-616)',  
'Annabelle Adams (Earth-616)',  
'Annabelle Riggs (Earth-616)',  
'Annalee (Earth-616)',  
'Anne (Mutant) (Earth-616)',  
'Anne Benson (Earth-616)',  
'Anne Bronson (Earth-616)',  
'Anne Drake (Earth-616)',  
'Anne Garthwaite (Earth-616)',  
'Anne Ghazikhanian (Earth-616)',  
'Anne Marie Cortez (Earth-616)',  
'Anne Marie Hoag (Earth-616)',  
'Anne Moore (Earth-616)',  
'Anne Norton (Earth-616)',  
'Anne Weying (Earth-616)',  
'Anne-Marie Baker (Earth-616)',  
'Anneka (Earth-616)',  
'Annie (LMD) (Earth-616)',  
"Annie (Noh-Varr's Girlfriend) (Earth-616)",  
'Annie (Noh-Varr) (Earth-616)',  
'Annie (Noh-Varr, Construct) (Earth-616)',  
'Annie Christopher (Earth-616)',  
'Annie Coleman (Earth-616)',  
'Annie Deitz (Earth-616)',  
'Annie Jones (Earth-616)',  
'Annie Prazniki (Earth-616)',  
'Annie Richardson (Earth-616)',  
'Annie Wheeler (Earth-616)',  
'Annie Wong (Earth-616)',  
'Annihilus (Earth-616)',  
'Anomaly (Cosmic Being) (Earth-616)',  
'Anpu (Earth-616)',  
'Anskar (Earth-616)',  
'Anson Clinton (Earth-616)',  
'Anson Dictor (Earth-616)',  
'Anson Harkov (Earth-616)',  
'Answer (Hobgoblin) (Earth-616)',  
'Antaeus (Earth-616)',  
'Anteus (Earth-616)',  
'Anthea Dupres (Earth-616)',  
'Anthony Baskerville (Earth-616)',  
'Anthony Bronson (Earth-616)',  
'Anthony Coswell (Earth-616)',  
'Anthony Davis (Earth-616)',  
'Anthony Druid (Earth-616)',  
'Anthony Grant (Earth-616)',  
'Anthony Holland (Earth-616)',  
'Anthony Miller (Earth-616)',  
'Anthony Power (Earth-616)',  
'Anthony Sardo (Earth-616)',  
'Anthony Serba (Earth-616)',  
'Anthony Sloan (Earth-616)',  
'Anthony Stark (Counter-Earth) (Earth-616)',  
'Anthony Stark (Doppelganger) (Earth-616)',  
'Anthony Stark (Onslaught Reborn) (Earth-616)',  
'Anthony Stark (Skrull) (Earth-616)',  
'Anthony Zerbe (Earth-616)',  
'Anthos (Pheragot) (Earth-616)',  
'Anthropomorpho (Earth-616)',  
'Anti-Being (Earth-616)',  
'Anti-Cap (Earth-616)',  
'Anti-Priest (Earth-616)',  
'Anti-Venom (Symbiote) (Earth-616)',  
'Antiphon (Earth-616)',  
'Antoine Delsoin (Earth-616)'

'Antoinette Esposito (Earth-616)',  
'Antoinelle Arceneaux (Earth-616)',  
'Anton Aubuisson (Earth-616)',  
'Anton Bigelow (Earth-616)',  
'Anton Devere (Earth-616)',  
'Anton Devine (Earth-616)',  
'Anton Harvey (Earth-616)',  
'Anton Hellgate (Earth-616)',  
'Anton Lupeski (Earth-616)',  
'Anton Miguel Rodriquez (Earth-616)',  
'Anton Mogart (Earth-616)',  
'Anton Pierce (Earth-616)',  
'Anton Pretorius (Earth-616)',  
'Anton Satan (Earth-616)',  
'Anton Trask (Earth-616)',  
'Anton Vanko (Crimson Dynamo) (Earth-616)',  
'Anton Vanko (Heroes Reborn) (Earth-616)',  
'Anton Vanko (Whiplash) (Earth-616)',  
'Anton Vierken (Earth-616)',  
'Anton Wexler (Earth-616)',  
'Antonio (Earth-616)',  
'Antonio Aggasiz (Earth-616)',  
'Antonio Rey (Earth-616)',  
'Antonio Rodriguez (Earth-616)',  
'Antonio Rojo (Earth-616)',  
'Antoro (Earth-616)',  
'Anu (Earth-616)',  
'Anubia (Earth-616)',  
'Anuxa (Earth-616)',  
'Anyia (Magda's mother) (Earth-616)',  
'Anyia Corazon (Earth-616)',  
'Anyia Eisenhardt (Earth-616)',  
'Anzehlika Medvedev (Earth-616)',  
'Anzhela Federova (Earth-616)',  
'Ao Jun (Earth-616)',  
'Aorangi (Earth-616)',  
'Apache (Earth-616)',  
'Apache Kid (Rosa) (Earth-616)',  
'Apalla (Earth-616)',  
'Ape (Challenger Foe) (Earth-616)',  
'Ape (Mobster) (Earth-616)',  
'Ape (Morlock) (Earth-616)',  
'Ape (Old West) (Earth-616)',  
'Ape God (Earth-616)',  
'Ape-Man (Earth-616)',  
'Aphrodite (CSA) (Earth-616)',  
'Aphrodite Ourania (Earth-616)',  
'Apocaledon (Earth-616)',  
'Apocalypse (Mr.Kazarian) (Earth-616)',  
'Apocalypse Beast (Earth-616)',  
'Apollon (Earth-616)',  
'Appraiser (Earth-616)',  
'April Maye (Earth-616)',  
'Aptak (Earth-616)',  
'Aqhat (Earth-616)',  
'Aquaria Neptunia (Earth-616)',  
'Aquarius (Ecliptic) (Earth-616)',  
'Aquarius (LMD) (Earth-616)',  
'Aquarius (Thanos' Zodiac) (Earth-616)',  
'Aquon (Earth-616)',  
'Aquon (Microverse) (Earth-616)',  
'Aqwen (Earth-616)',  
'Ara Tanzerian (Earth-616)',  
'Arab (Earth-616)',  
'Arabella Jones (Earth-616)',  
'Arachne (Demon-Fire) (Earth-616)',  
'Arachne (Earth-616)',  
'Aracht'yr (Earth-616)',  
'Aradnea (Earth-616)',  
'Aragorn (Earth-616)',  
'Aragorn (Vatican's Black Knight) (Earth-616)',  
'Araki (Earth-616)',  
'Araman Nila (Earth-616)',  
'Aranda Charboneau (Earth-616)',  
'Araoha Tepania (Earth-616)',  
'Araq Mezdbadah (Earth-616)',  
'Arashi Wakayama (Earth-616)',  
'Arath (Earth-616)',  
'Arc (Hellbent) (Earth-616)',  
'Arc (Imperial Guard) (Earth-616)',  
'Arcade (Earth-616)',  
'Arcadia DeVille (Earth-616)',  
'Arch Morton (Earth-616)',

```
'Arch Murdock (Earth-616)',
'Arch-E-5912 (Earth-616)',
'Archenemy (Earth-616)',
'Archer Bryce (Earth-616)',
'Archibald Corrigan (Earth-616)',
'Archibald Dyker (Earth-616)',
'Archibald Hunt (Earth-616)',
'Archie Goodwin (Earth-616)',
'Archie Stryker (Earth-616)',
'Archie the Gruesome (Earth-616)',
'Archimedes (Earth-616)',
'Architect (Cosmic Being) (Earth-616)',
'Architect (Shining Ones) (Earth-616)',
'Archon (Earth-616)',
'Archon (Thuvrian) (Earth-616)',
'Arcturus (Angel) (Earth-616)',
'Arcturus (Rigellian) (Earth-616)',
'Arcturus Rann (Earth-616)',
'Ard (Earth-616)',
"Ard'ran (Earth-616)",
'Ard-Con (Earth-616)',
'Ardina (Earth-616)',
'Ares (Earth-616)',
'Arex (Earth-616)',
'Arges (Earth-616)',
'Argon (Microverse) (Earth-616)',
'Argos (Atlantean) (Earth-616)',
'Argos (Deviant) (Earth-616)',
'Argos (Eternals) (Earth-616)',
'Argus (Earth-616)',
'Argus LaVecchio (Earth-616)',
'Argus the One-Eyed',
'Argyle Fist (Earth-616)',
'Aria (Earth-616)',
'Ariana (Earth-616)',
'Ariana Saddiqi (Earth-616)',
'Ariane (Galadorian) (Earth-616)',
'Ariann Wright (Earth-616)',
'Arianna Jankos (Earth-616)',
'Arides (Earth-616)',
'Ariel (Coconut Grove) (Earth-616)',
'Ariel (Coconut Grove, Male) (Earth-616)',
'Ariel (Zephyrean) (Earth-616)',
'Ariel Tremmore (Earth-616)',
'Aries (Ecliptic) (Earth-616)',
...]
```

Закодировали признак name целочисленными значениями методом label encoding

In [17]:

```
enc1 = OneHotEncoder(handle_unknown='ignore')
state_enc = enc1.fit_transform(df[['name']])
state_enc.toarray()[0:7]
```

Out[17]:

```
array([[0., 0., 0., ..., 0., 0., 0.],
       [0., 0., 0., ..., 0., 0., 0.],
       [0., 0., 0., ..., 0., 0., 0.],
       ...,
       [0., 0., 0., ..., 0., 0., 0.],
       [0., 0., 0., ..., 0., 0., 0.],
       [0., 0., 0., ..., 0., 0., 0.]])
```

In [18]:

```
enc1.categories_
```

Out[18]:

```
[array(['"Spinner (Earth-616)", '107 (Earth-616)', '11-Ball (Earth-616)',
      ..., '"Spider-Girl'" (Mutant\Spider Clone) (Earth-616)',
      '"Thumper"' Morgan (Earth-616)',
      '\u00c4kr\u00e4s (Earth-616)'], dtype=object)]
```

Закодировали признак name целочисленными значениями методом one hot encoding. В данном случае предпочтительнее метод label encoding, так как в кодируемом столбце много уникальных значений, а значит большой размер матрицы при one hot encoding.

# Гистограмма

In [19]:

```
plt.subplots(figsize = (10,20))
sns.boxplot(data = df, y = "Year")
```



&lt;AxesSubplot:ylabel='Year'&gt;

