# **MAJOR PROJECT 4 - SANJAY ANAND V**

# **SWIGGY EDA AND VISUALISATION**

# **Importing Libraries and dataset**

### In [1]:

```
import pandas as pd
import numpy as np
import json as js
```

#### In [2]:

```
from matplotlib import pyplot as plt
import seaborn as sns
```

## In [3]:

```
df=pd.read_csv("swiggy.csv")
df.head()
```

#### Out[3]:

	id	name	city	rating	rating_count	cost	cuisine	lic_no
0	567335	AB FOODS POINT	Abohar		Too Few Ratings	₹ 200	Beverages,Pizzas	22122652000138
1	531342	Janta Sweet House	Abohar	4.4	50+ ratings	₹ 200	Sweets,Bakery	12117201000112
2	158203	theka coffee desi	Abohar	3.8	100+ ratings	₹ 100	Beverages	22121652000190
3	187912	Singh Hut	Abohar	3.7	20+ ratings	₹ 250	Fast Food,Indian	22119652000167
4	543530	GRILL MASTERS	Abohar		Too Few Ratings	₹ 250	Italian- American,Fast Food	12122201000053
4								<b>)</b>

# 1)The top 10 Most common restaurants in India

## In [4]:

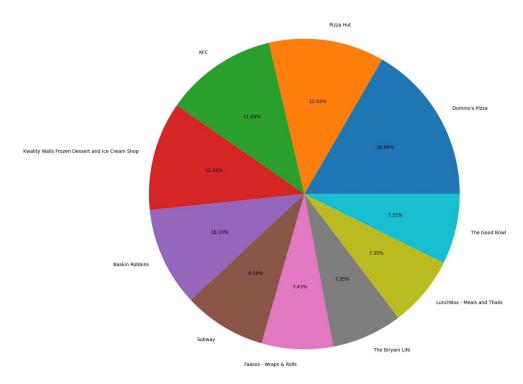
```
data = df.groupby('name').size().sort_values(ascending = False).head(10)
print("The top 10 most common restaurant names in India are")
print("-----")
print(data)
print("----")
```

The top 10 most common restaurant names in India	are
name	
Domino's Pizza	442
Pizza Hut	319
KFC	309
Kwality Walls Frozen Dessert and Ice Cream Shop	300
Baskin Robbins	274
Subway	228
Faasos - Wraps & Rolls	197
The Biryani Life	195
LunchBox - Meals and Thalis	195
The Good Bowl	194
dtype: int64	

## In [5]:

```
percent = data.values
names = data.index
fig = plt.figure(figsize =(15, 15))
plt.pie(data, labels = names,autopct = '%1.2f%%')
plt.title('Top Ten Most common restaurant names in India', fontsize = 50 )
plt.show()
```

# Top Ten Most common restaurant names in India



## 2) The top 10 most common restaurants in Bangalore

#### In [6]:

```
cities = [ i for i in df['city'].unique() if 'Bangalore' in i ]

data = df[['name','city']]
data['include'] = data['city'].apply( lambda city : 1 if city in cities else 0)

data = data[data['include'] == 1]

data = data.groupby('name').size().sort_values(ascending = False).head(10)

print("The top 10 most common restaurant names in Bangalore are")
print("-----")
print(data)
print("-----")
```

```
The top 10 most common restaurant names in Bangalore are
_____
name
Domino's Pizza
                                       30
Kwality Walls Frozen Dessert and Ice Cream Shop
                                       28
KFC
                                       26
Kanti Sweets
                                       26
Baskin Robbins
                                       25
Pastas By Pizza Hut
                                       25
Snack House
                                       25
Biryani Trip
                                       24
Andhra Gunpowder
                                       24
Momo Monk
                                       24
dtype: int64
_____
```

C:\Users\anand\AppData\Local\Temp\ipykernel\_5668\2245140167.py:4: SettingW
ithCopyWarning:

A value is trying to be set on a copy of a slice from a DataFrame. Try using .loc[row\_indexer,col\_indexer] = value instead

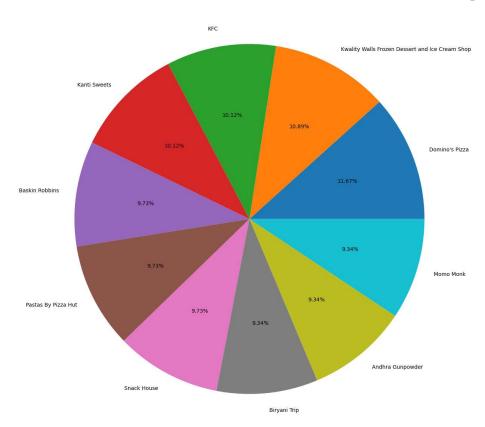
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user\_guide/indexing.html#returning-a-view-versus-a-copy (https://pandas.pydata.org/pandas-docs/stable/user\_guide/indexing.html#returning-a-view-versus-a-copy)

data['include'] = data['city'].apply( lambda city : 1 if city in cities
else 0)

## In [7]:

```
count = data.values
names = data.index
fig = plt.figure(figsize =(15, 15))
plt.pie(data, labels = names,autopct = '%1.2f%%')
plt.title('Top Ten Most common restaurant names in Bangalore', fontsize = 40 )
plt.show()
```

# Top Ten Most common restaurant names in Bangalore



# 3) Number of Branches of Dominos

#### In [8]:

```
l=len(df['name'])
c=0
for i in range(l):
    if(df['name'][i]=="Domino's Pizza"):
        c+=1
print("The number of branches of Dominos are",c)
```

The number of branches of Dominos are 442

## 4)Comparison of number of branches on KFC, MacD, Dominos and Subway

In [9]:

```
data = df.groupby('name').size()[["Domino's Pizza", "KFC", "McDonald's",'Subway']].sort_
print("The number of branches of KFC,MacD,Dominos and Subway are")
print("----")
print(data)
print("----")
```

The number of branches of KFC,MacD,Dominos and Subway are
-----name
Domino's Pizza 442
KFC 309
Subway 228
McDonald's 187
dtype: int64

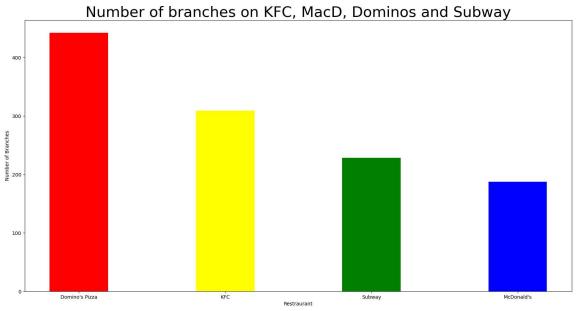
#### In [10]:

```
x = data.index
y = data.values

plt.figure(figsize = (20,10))

color = ['red','yellow','green','blue']

ax = plt.bar(x,y,width = 0.4,color = color)
plt.xlabel('Restraurant')
plt.ylabel('Number of Branches')
plt.title('Number of branches on KFC, MacD, Dominos and Subway', fontsize=30)
plt.show()
```



# 5)Top 10 most popular cuisines

### In [11]:

```
dt = df.groupby('cuisine').size().sort_values(ascending = False).head(10)
print("The top 10 most popular cuisines are")
print("-----")
print(dt)
print("----")
```

```
The top 10 most popular cuisines are
cuisine
North Indian,Chinese
                    6471
Indian
                    6414
Chinese
                    5051
North Indian
                    4775
Indian, Chinese
                    4374
South Indian
                    3303
Bakery
                    3132
Chinese, Indian
                    2308
Chinese, North Indian 2288
Bakery, Desserts
                    2233
dtype: int64
-----
```

#### In [12]:

```
data = df.groupby('cuisine').size().sort_values(ascending = False).head(10)

count = data.values
names = data.index

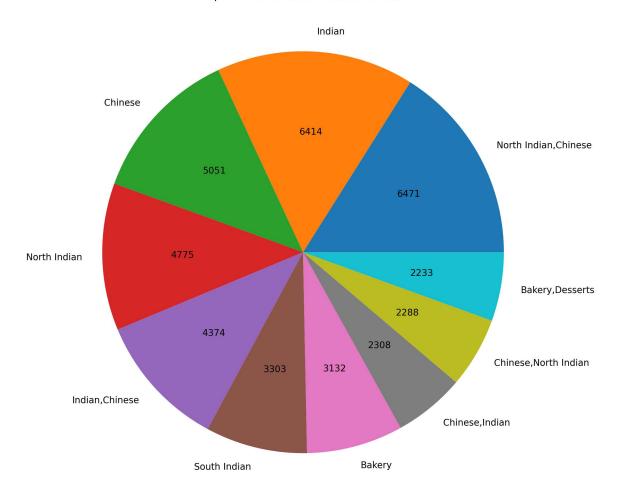
def format(p,count):
    value = p/100 * sum(count)

    value += 1 if float('.'+str(value).split('.')[-1]) > 0.5 else 0
    return f'{int(value)}'

plt.rc('font', **{'size':25})
plt.figure(figsize=(25,25))
plt.pie(count,labels = names,autopct = lambda p : format(p,count))

plt.title('Top 10 Most common cuisine in India', fontsize = 30 )
plt.show()
```

Top 10 Most common cuisine in India



# **Loading JSON Dataset**

```
In [13]:
```

```
fd = open('data.json','r')
dct = js.loads(fd.read())
fd.close()
dct.keys()
```

Out[13]:

dict\_keys(['Abohar', 'Adilabad', 'Adityapur', 'Adoni', 'Agartala', 'Agra',
'Ahmedabad', 'Ahmednagar', 'Aizawl', 'Ajmer', 'Akola', 'Alappuzha', 'Aliga rh', 'Alipurduar', 'Allahabad', 'Almora', 'Alwar', 'Amalapuram', 'Ambala', 'Ambikapur', 'Ambur', 'Amravati', 'Amreli', 'Amritsar', 'Anand', 'Anantapu r', 'Angul', 'Ankleshwar', 'Arakkonam', 'Arambagh', 'Arrah', 'Aruppukotta i', 'Asansol', 'Aurangabad', 'Aurangabad\_bihar', 'Azamgarh', 'Baddi', 'Bag alkot', 'Bagdogra', 'Bagula', 'Bahadurgarh', 'Bahraich', 'Balaghat', 'Bala ngir', 'Balasore', 'Ballari', 'Balrampur', 'Balurghat', 'Banda', 'Bangalor e', 'Bankabihar', 'Bankura', 'Bantwal', 'Bapatlachirala', 'Baramati', 'Bar an', 'Baraut', 'Bardhaman', 'Bardoli', 'Bareilly', 'Baripada', 'Barmer', 'Barnala', 'Barshi', 'Barwani', 'Basirhat', 'Basti', 'Batala', 'Bathinda', 'Beawar', 'Beed', 'Begusarai', 'Bela-pratapgarh', 'Belgaum', 'Berhampore', 'Berhampur', 'Bettiah', 'Betul', 'Bhadohi', 'Bhadrachalam', 'Bhadrak', 'Bh adravati', 'Bhagalpur', 'Bhandara', 'Bharabanki', 'Bharatpur', 'Bharuch', 'Bhatkal', 'Bhavnagar', 'Bhawanipatna', 'Bhilai', 'Bhilwara', 'Bhimavara m', 'Bhind', 'Bhiwadi', 'Bhiwani', 'Bhopal', 'Bhubaneswar', 'Bhuj', 'Bhusa wal', 'Bidar', 'Biharsharif', 'Bijapur', 'Bijnor', 'Bikaner', 'Bilaspur', 'Bilaspur-hp', 'Bilimora', 'Biswanath-chariali', 'Bodhan-rural', 'Bodinaya kanur', 'Boisar', 'Bokaro', 'Bolpur', 'Bongaigaon', 'Bongaon', 'Budaun', 'Budhwal', 'Bulandshahr', 'Buldana', 'Bundi', 'Burhanpur', 'Buxar', 'Centr al-goa', 'Chakdaha', 'Chalakkudy', 'Chalisgaon', 'Chandausi', 'Chandigar h', 'Chandrapur', 'Changanassery', 'Chengannur', 'Chennai', 'Cherthala', 'Chhapra', 'Chhatarpur', 'Chhindwara', 'Chidambaram', 'Chikkli', 'Chikkaba llapur', 'Chikmagalur', 'Chiplun', 'Chitradurga', 'Chittoor', 'Chittorgar h', 'Chopda', 'Churu', 'Coimbatore', 'Cooch-behar', 'Cuddalore', 'Cuttack', 'Dahanu', 'Dahod', 'Daltonganj', 'Daman', 'Darbhanga', 'Darjeeling', 'Daund', 'Dausa', 'Davanagere', 'Dehradun', 'Dehri', 'Delhi', 'Deoghar', 'Dewas', 'Dhanbad', 'Dhar', 'Dharamshala', 'Dharapuram', 'Dharmapuri', 'Dh arwad', 'Dhoraji', 'Dhule', 'Dibrugarh', 'Digboi', 'Dimapur', 'Dindigul', 'Diu', 'Doddaballapura', 'Duliajan', 'Dumka', 'Durgapur', 'Eluru', 'Erod e', 'Etah', 'Etawah', 'Faizabad', 'Faridabad', 'Faridkot', 'Farrukhabad', 'Fatehabad', 'Fatehgarh-sahib', 'Fatehpur', 'Fazilka', 'Firozabad', 'Firoz pur', 'Freelancer', 'Gadag-betigeri', 'Gadwal', 'Gandhidham', 'Gangapur-ci
ty', 'Gangarampur', 'Gangtok', 'Gauriganj', 'Gaya', 'Giridih', 'Godhra', 'Gokak', 'Golaghat', 'Gonda', 'Gondal', 'Gondia', 'Gopalganj', 'Gorakhpu r', 'Gudivada', 'Guna', 'Guntakal', 'Guntur', 'Gurdaspur', 'Gurgaon', 'Guw ahati', 'Gwalior', 'Habra', 'Hajipur', 'Haldia', 'Haldwani', 'Halol', pi', 'Hansi', 'Hanumangarh', 'Hapur', 'Hardoi', 'Haridwar', 'Hassan', 'Hat hras', 'Himmatnagar', 'Hindaun', 'Hinganghat', 'Hisar', 'Hoshangabad', 'Ho shiarpur', 'Hospet', 'Hosur', 'Hubli', 'Hyderabad', 'Ichalkaranji', 'Idukk i', 'Imphal', 'Indore', 'Irinjalakuda', 'Itanagar', 'Itarsi', 'Jabalpur', 'Jagdalpur', 'Jagraon', 'Jagtial', 'Jahanabad', 'Jaigaon', 'Jaipur', 'Jala ndhar', 'Jalaun', 'Jalgaon', 'Jalpaiguri', 'Jammu', 'Jamnagar', 'Jamshedpu r', 'Jaunpur', 'Jhalawar', 'Jhansi', 'Jhargram', 'Jhunjhunu', 'Jind', 'Jod hpur', 'Jorhat', 'Junagadh', 'Kadapa', 'Kadayanallur', 'Kadiri', 'Kaitha l', 'Kakinada', 'Kalaburagi', 'Kalady', 'Kalna', 'Kamareddy', 'Kanchrapar a', 'Kannauj', 'Kannur', 'Kanpur', 'Kanyakumari', 'Kapurthala', 'Karad', 'Karaikkudi', 'Karimnagar', 'Karnal', 'Karunagappaly', 'Karur', 'Karwar', 'Kasaragod', 'Kashipur', 'Katihar', 'Katni', 'Kavali', 'Kayamkulam', 'Kend rapada', 'Kendujhar', 'Khalilabad', 'Khamgaon', 'Khammam', 'Khandwa', 'Kha nna', 'Kharagpur', 'Khopoli', 'Kishanganj', 'Kishangarh', 'Kochi', 'Kodaik anal', 'Kohima', 'Kolar', 'Kolhapur', 'Kolkata', 'Kollam', 'Kopargaon', 'Koppal', 'Korba', 'Kota', 'Kotdwar', 'Kothagudem', 'Kothamanagalam', 'Kotta kkal', 'Kottarakkara', 'Kottayam', 'Kovilpatti', 'Kozhikode', 'Krishnagir i', 'Krishnanagar', 'Kumarakom', 'Kumbakonam', 'Kumta', 'Kundapura', 'Kunn amkullam', 'Kurnool', 'Kurukshetra', 'Lakhimpur', 'Lalitpur', 'Latur', 'Lo navala', 'Lonavla', 'Lucknow', 'Ludhiana', 'Machilipatnam', 'Madanapalle', 'Madhubani', 'Madikeri', 'Madurai', 'Mahabaleshwar', 'Mahbubnagar', 'Mahob a', 'Malappuram', 'Malda', 'Malegaon', 'Malout', 'Manali', 'Mancherial', 'Mandi-dabwali', 'Mandi-gobindgarh', 'Mandi-hp', 'Mandsaur', 'Mandya', 'Ma ngaluru', 'Manipal', 'Manjeri', 'Mannargudi', 'Mansa', 'Markapur', 'Mathur

a', 'Maunath-bhanjan', 'Mayiladuthurai', 'Medinipur', 'Meerut', 'Mehsana', 'Mettupalayam', 'Miryalaguda', 'Mirzapur', 'Modinagar', 'Moga', 'Moodbidr 6)Ramo of veg and non veg restaurants in Indiant-abu', 'Mughalsara i', 'Mukerian', 'Muktsar', 'Mumbai', 'Munger', 'Murshidabad', 'Mussoorie', ႞Ϻսγֆֆֆֆարսzha', 'Muzaffarnagar', 'Muzaffarpur', 'Mysore', 'Nabadwip', 'Nad iad, 'Nagaon', 'Nagapattinam', 'Nagda', 'Nagercoil', 'Nagpur', 'Nagur', ርክቴትፎዎሲክgen{} 'Nainital', 'Nalbari', 'Nalgonda', 'Namakkal', 'Nanded', 'Na ក់ថែលកេចឆ់់្កប់,inNdែតដីប្រឡេស់ខែ្នស់ខែ្ង់ខ្នាប់, 'Naraingarh', 'Narasaraopet', 'Narnaul', 'N arsiaghan(çitmarsipatnam', 'Nashik', 'Navsari', 'Neemuch', 'Nellore', 'Ne yveli', fwrpmastaurmmrmam'çitwizmmabadrantwojdwaluem6)da-1', 'North-goa', , 'Oətylen(OestayraOsmahabād', 'Pala', 'Palakkad', 'Palakollu', alampur', 'Palanfor mealanporresteurant['manwal:yalpanthani', 'Panipat', 'Paramakudi', 'ParbhᡚpathamRo⊎s,∨a⊉⊌€≨ála', 'Patna', 'Pattukkottai', 'Payyannur', 'Perambalurงal'Pementhalmanna 'noneMagwara', 'Phusro', 'Pilan i', 'Pilibhit', 'Pinjorecategory[PahdizheategoryPgetamdaro) +Port-blair', 'Pratapgarh', 'Proddatur', 'Pudukkottai', 'Pune', 'Puri', 'Purnea', 'Purul ia', 'Pu**fad**'şubpityuin,cipyttakuRakhataka', 'Rae-bareli', 'Raghunathpur', 'Raichur', 'ƙanganstauraatganhsybekayburestaraanahmuddwalyeskajapalayam', 'Rajgarh', 'Rajkat'}eṅƙɑʧፍቴልዛဥልዕቱ),!≐Rājsamand', 'Ramagundam', 'Ramanagar a', 'Ramanathapuram'forRemeguehin reampurant[kenaghidtvalurandaghat-wb', 'Ran chi', 'Rangpo', 'Ranibenfior'menRamingenfius ፡ የRatugari', 'Ratugari', 'Ravulapa lem', 'Rayachoty', 'Rewa', 'Rewarimenukish&keshmon\_Rostak', 'Roorkee', 'Ro par', 'Rourkela', 'Rudrapur'Çats@g@b/[Yal\$ahaf@hp@pry.gsahwala@) +Sâlem', #Bamkstipaans esambafpane,ofsahgamaer'in'sanglis,Noskagrand,Vesamtaparpyre aBawaram'intsatagory[swega],/'satagony@h<mark>bpurveg'</mark>}awantwadi', 'Sehore', 'S hahjahanpur', 'Shamli', 'Shikohabad', 'Shillong', 'Shimla', 'Shirdi-city', pshittanogyar, 'ishitpouratio'shraqasaid,noshraramotaurantidipetdia:sikar', 'Silchar', 'Siliguri', 'Silvassa', 'Sindhanur', 'Singrauli', 'Sirkali', 'S lria'thesratio,ofsvegmandinonvegtapatayrantvaktasIndiasivasagar', 'Siwan', 'Solan', 'Solapur', 'Sonipat', 'South-goa', 'Sri-ganganagar', 'Srikakula m', 'Srivilliputhur', 'Sultanpur', 'Surat', 'Suratgarh', 'Surendranagar-du dhrej', 'Suri', 'Suryapet', 'Tadepalligudem', 'Tadpatri', 'Tanuku', 'Tarntaran-sahib', 'Tenkasi', 'Tezpur', 'Thalassery', 'Thanjavur', 'Theni', 'Th iruvalla', 'Thiruvallur', 'Thiruvananthapuram', 'Thiruvarur', 'Thodupuzh a', 'Thoothukudi', 'Thoubal', 'Thrissur', 'Tindivanam', 'Tinsukia', 'Tiptu r', 'Tirunelveli', 'Tirupati', 'Tirupur', 'Tiruttani', 'Tiruvannamalai', 'Tohana'. 'Trichv'. 'Tumakuru'. 'Tuni'. 'Udaipur'. 'Udgir'. 'Udhampur'. 'U