

```

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

import pandas as pd

# Try reading the CSV file with an alternative encoding
df = pd.read_csv("intern_details 20241226_RG.csv", encoding='ISO-8859-1')

# Check the first few rows of the DataFrame to ensure it loaded correctly
print(df.head())

```

	Id	Date	Status	Name \
0	2128156	12/24/2024	unread	Vignesh K
1	2128008	12/24/2024	unread	Deekshitha Edukulla
2	2127964	12/23/2024	unread	AASHISH NIRANJAN BARATHYKANNAN
3	2127963	12/23/2024	unread	Keerthi Shivampeta
4	2127962	12/23/2024	unread	Keerthi Shivampeta

	Interns Email	Menu 23	Number
570 \			
0	vikikannan8@gmail.com	AI(Artificial Intelligence	
6369727236			
1	deekshitha1745@gmail.com	DevOps	
9346380711			
2	aashishniranjanb@gmail.com	Data Science	
6381477688			
3	keerthishivampeta04@gmail.com	Data Analyst	
7032706017			
4	keerthishivampeta04@gmail.com	Data Analyst	
7032706017			

	Menu 2 DegreeQualification
Branch \	
0 3 Months(NO STIPEND)	B.Tech/M.Tech
CSE(AIML)	
1 3 Months(NO STIPEND)	B.Tech/M.Tech
	Data science
2 3 Months(NO STIPEND)	B.Tech/M.Tech
ELECTRONICS AND COMMUNICATION	
3 3 Months(NO STIPEND)	B.Tech/M.Tech
CSE (DATA SCIENCE)	
4 3 Months(NO STIPEND)	B.Tech/M.Tech
CSE (DATA SCIENCE)	

	Experienceifany	CollegeUniversity \
0	NaN	KPR Institute of engineering and technology

1	NaN	Institute of aeronautical engineering
2	INTERN AT CODSOFT	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
3	No	Malla reddy college of engineering
4	No	Malla reddy college of engineering

	Location	City	Internshipstartdate
Message			
0	Work From Home(WFH)	Coimbatore	2/5/2025
NaN			
1	Work From Home(WFH)	Hyderabad South East	3/12/2025
NaN			
2	Work From Home(WFH)	CHENNAI	4/15/2025
NaN			
3	Work From Home(WFH)	Hyderabad	2/24/2024
NaN			
4	Work From Home(WFH)	Hyderabad	2/24/2024
NaN			

## Basic Statistic

df.describe()

	Id	Date	Status	Name
Interns Email \				
count	4908	4908	4908	4908
4510				
unique	4905	365	3	2799
2533				
top	?Id	11/19/2024	unread	KULDEEP SINGH
				singh.kuldeep22798@gmail.com
freq	4	139	4889	31
51				

	Menu 23	Number 570	Menu 2
DegreeQualification \			
count	4908	4908	4908
4908			
unique	50	2690	4
10			
top	Web Development	6392033597	3 Months(NO STIPEND)
	B.Tech/M.Tech		
freq	1538	51	4193
2942			

	Branch	Experienceifany
CollegeUniversity \		
count	4585	2674
4908		
unique	881	537
2133		

```

top      CSE      No Trinity institute of professional
studies
freq      359      846
42

```

```

count      Location      City Internshipstartdate \
unique      3      1002      529
top      Work From Home(WFH)      Delhi      2/28/2025
freq      4806      191      157

```

```

count      Message
unique      948
top      Thank you for considering my application. I lo...
freq      23

```

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 4908 entries, 0 to 4907
```

```
Data columns (total 16 columns):
```

#	Column	Non-Null Count	Dtype
0	Id	4908 non-null	object
1	Date	4908 non-null	object
2	Status	4908 non-null	object
3	Name	4908 non-null	object
4	Interns Email	4510 non-null	object
5	Menu 23	4908 non-null	object
6	Number 570	4908 non-null	object
7	Menu 2	4908 non-null	object
8	DegreeQualification	4908 non-null	object
9	Branch	4585 non-null	object
10	Experienceifany	2674 non-null	object
11	CollegeUniversity	4908 non-null	object
12	Location	4891 non-null	object
13	City	4906 non-null	object
14	Internshipstartdate	4908 non-null	object
15	Message	1609 non-null	object

```
dtypes: object(16)
```

```
memory usage: 613.6+ KB
```

Check for duplicates-Identify and handle Duplicates.

```
df.duplicated().sum()
```

```
np.int64(3)
```

```
df = df.drop_duplicates() # Drop duplicates
df
```

	Id	Date	Status	Name \
0	2128156	12/24/2024	unread	Vignesh K
1	2128008	12/24/2024	unread	Deekshitha Edukulla
2	2127964	12/23/2024	unread	AASHISH NIRANJAN BARATHYKANNAN
3	2127963	12/23/2024	unread	Keerthi Shivampeta
4	2127962	12/23/2024	unread	Keerthi Shivampeta
...	...	...	...	...
4903	999	7/23/2023	unread	Simran jaggi
4904	998	7/23/2023	unread	Simran jaggi
4905	997	7/23/2023	unread	Simran jaggi
4906	996	7/23/2023	unread	Simran jaggi
4907	995	7/23/2023	unread	Simran jaggi

	Interns Email	Menu 23
Number 570 \		
0	vikikannan8@gmail.com	AI(Artificial Intelligence
6369727236		
1	deekshitha1745@gmail.com	DevOps
9346380711		
2	aashishniranjanb@gmail.com	Data Science
6381477688		
3	keerthishivampeta04@gmail.com	Data Analyst
7032706017		
4	keerthishivampeta04@gmail.com	Data Analyst
7032706017		
...	...	...
...		
4903	NaN	Digital Marketing
9899548755		
4904	NaN	Digital Marketing
9899548755		
4905	NaN	Digital Marketing
9899548755		
4906	NaN	Digital Marketing
9899548755		
4907	NaN	Digital Marketing
9899548755		

	Menu 2 DegreeQualification
Branch \	
0	3 Months(NO STIPEND) B.Tech/M.Tech
CSE(AI ML)	
1	3 Months(NO STIPEND) B.Tech/M.Tech Data
science	
2	3 Months(NO STIPEND) B.Tech/M.Tech ELECTRONICS AND
COMMUNICATION	
3	3 Months(NO STIPEND) B.Tech/M.Tech CSE (DATA

SCIENCE)			
4	3 Months(NO STIPEND)	B.Tech/M.Tech	CSE (DATA
SCIENCE)			

...	...	...
-----	-----	-----

...

4903	3 Months(NO STIPEND)	Post-Graduation
------	----------------------	-----------------

Delhi

4904	3 Months(NO STIPEND)	Post-Graduation
------	----------------------	-----------------

Delhi

4905	3 Months(NO STIPEND)	Post-Graduation
------	----------------------	-----------------

Delhi

4906	3 Months(NO STIPEND)	Post-Graduation
------	----------------------	-----------------

Delhi

4907	3 Months(NO STIPEND)	Post-Graduation
------	----------------------	-----------------

Delhi

	Experienceifany
--	-----------------

CollegeUniversity \
---------------------

0	NaN	KPR Institute of engineering and technology
---	-----	---

1	NaN	Institute of aeronautical engineering
---	-----	---------------------------------------

2	INTERN AT CODSOFT	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
---	-------------------	---

3	No	Malla reddy college of engineering
---	----	------------------------------------

4	No	Malla reddy college of engineering
---	----	------------------------------------

...	...	...
-----	-----	-----

4903	NaN	Iilm,lodhi road
------	-----	-----------------

4904	NaN	Iilm,lodhi road
------	-----	-----------------

4905	NaN	Iilm,lodhi road
------	-----	-----------------

4906	NaN	Iilm,lodhi road
------	-----	-----------------

4907	NaN	Iilm,lodhi road
------	-----	-----------------

	Location	City	Internshipstartdate \
--	----------	------	-----------------------

0	Work From Home(WFH)	Coimbatore	2/5/2025
---	---------------------	------------	----------

1	Work From Home(WFH)	Hyderabad South East	3/12/2025
---	---------------------	----------------------	-----------

2	Work From Home(WFH)	CHENNAI	4/15/2025
---	---------------------	---------	-----------

3	Work From Home(WFH)	Hyderabad	2/24/2024
---	---------------------	-----------	-----------

4	Work From Home(WFH)	Hyderabad	2/24/2024
---	---------------------	-----------	-----------

...	...	...	...
-----	-----	-----	-----

4903	NaN	New delhi	10/24/2023
------	-----	-----------	------------

4904	NaN	New delhi	10/24/2023
------	-----	-----------	------------

4905	NaN	New delhi	10/24/2023
4906	NaN	New delhi	10/24/2023
4907	NaN	New delhi	10/24/2023

	Message
0	NaN
1	NaN
2	NaN
3	NaN
4	NaN
...	...
4903	I want to join this internship as it will be a...
4904	I want to join this internship as it will be a...
4905	NaN
4906	NaN
4907	NaN

[4905 rows x 16 columns]

## Check unique values

```
df['Location'].unique()
array(['Work From Home(WFH)', 'Select Location', 'Location', nan],
      dtype=object)

df.isnull().sum()
Id          0
Date        0
Status      0
Name        0
Interns Email  398
Menu 23     0
Number 570  0
Menu 2      0
DegreeQualification  0
Branch      323
Experienceifany  2234
CollegeUniversity  0
Location    17
City        2
Internshipstartdate  0
Message     3299
dtype: int64

# Fill missing values in 'Interns Email' with a placeholder email
df['Interns Email'] = df['Interns
Email'].fillna('noemail@example.com')
```

```
# Check the result
```

```
print(df.head())
```

	Id	Date	Status	Name \
0	2128156	12/24/2024	unread	Vignesh K
1	2128008	12/24/2024	unread	Deekshitha Edukulla
2	2127964	12/23/2024	unread	AASHISH NIRANJAN BARATHYKANNAN
3	2127963	12/23/2024	unread	Keerthi Shivampeta
4	2127962	12/23/2024	unread	Keerthi Shivampeta

	Interns Email	Menu 23	Number
570 \			
0	vikikannan8@gmail.com	AI(Artificial Intelligence	
6369727236			
1	deekshitha1745@gmail.com	DevOps	
9346380711			
2	aashishniranjanb@gmail.com	Data Science	
6381477688			
3	keerthishivampeta04@gmail.com	Data Analyst	
7032706017			
4	keerthishivampeta04@gmail.com	Data Analyst	
7032706017			

	Menu 2 DegreeQualification
Branch \	
0 3 Months(NO STIPEND)	B.Tech/M.Tech
CSE(AIML)	
1 3 Months(NO STIPEND)	B.Tech/M.Tech
science	Data
2 3 Months(NO STIPEND)	B.Tech/M.Tech
ELECTRONICS AND	
COMMUNICATION	
3 3 Months(NO STIPEND)	B.Tech/M.Tech
CSE (DATA	
SCIENCE)	
4 3 Months(NO STIPEND)	B.Tech/M.Tech
CSE (DATA	
SCIENCE)	

	Experienceifany	CollegeUniversity \
0	NaN	KPR Institute of engineering and technology
1	NaN	Institute of aeronautical engineering
2	INTERN AT CODSOFT	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
3	No	Malla reddy college of engineering
4	No	Malla reddy college of engineering

	Location	City	Internshipstartdate
Message			
0 Work From Home(WFH)	Coimbatore		2/5/2025
NaN			
1 Work From Home(WFH)	Hyderabad South East		3/12/2025
NaN			
2 Work From Home(WFH)	CHENNAI		4/15/2025

NaN			
3	Work From Home(WFH)	Hyderabad	2/24/2024
NaN			
4	Work From Home(WFH)	Hyderabad	2/24/2024
NaN			

Some Missing Values are present in the dataset so i just manage or filled .its called a Cleaning Process.

```
df.isnull().sum()

Id          0
Date        0
Status      0
Name        0
Interns Email 0
Menu 23     0
Number 570  0
Menu 2      0
DegreeQualification 0
Branch      323
Experienceifany 2234
CollegeUniversity 0
Location    17
City        2
Internshipstartdate 0
Message     3299
dtype: int64

df['Branch'] = df['Branch'].fillna("Not Provided")

df.isnull().sum()

Id          0
Date        0
Status      0
Name        0
Interns Email 0
Menu 23     0
Number 570  0
Menu 2      0
DegreeQualification 0
Branch      0
Experienceifany 2234
CollegeUniversity 0
Location    17
City        2
Internshipstartdate 0
```



```

Message          3299
dtype: int64

df['Experienceifany'] = df['Experienceifany'].fillna("No Experience")
df['Experienceifany']

0          No Experience
1          No Experience
2    INTERN AT CODSOFT
3              No
4              No
...
4903        No Experience
4904        No Experience
4905        No Experience
4906        No Experience
4907        No Experience
Name: Experienceifany, Length: 4905, dtype: object

df.isnull().sum()

Id              0
Date            0
Status          0
Name            0
Interns Email   0
Menu 23         0
Number 570      0
Menu 2          0
DegreeQualification  0
Branch          0
Experienceifany  0
CollegeUniversity  0
Location        17
City            2
Internshipstartdate  0
Message         3299
dtype: int64

df['Location'] = df['Location'].fillna("Unknown")
df['Location']

0    Work From Home(WFH)
1    Work From Home(WFH)
2    Work From Home(WFH)
3    Work From Home(WFH)
4    Work From Home(WFH)
...
4903    Unknown
4904    Unknown

```

```
4905          Unknown
4906          Unknown
4907          Unknown
Name: Location, Length: 4905, dtype: object
```

```
df.isnull().sum()
```

```
Id          0
Date        0
Status      0
Name        0
Interns Email 0
Menu 23     0
Number 570  0
Menu 2      0
DegreeQualification 0
Branch      0
Experienceifany 0
CollegeUniversity 0
Location    0
City        2
Internshipstartdate 0
Message     3299
dtype: int64
```

```
df['City']=df['City'].fillna("N/A")
```

```
df['City']
```

```
0          Coimbatore
1   Hyderabad South East
2          CHENNAI
3          Hyderabad
4          Hyderabad
...
4903          New delhi
4904          New delhi
4905          New delhi
4906          New delhi
4907          New delhi
Name: City, Length: 4905, dtype: object
```

```
df.isnull().sum()
```

```
Id          0
Date        0
Status      0
Name        0
Interns Email 0
Menu 23     0
Number 570  0
```

```

Menu 2          0
DegreeQualification  0
Branch          0
Experienceifany  0
CollegeUniversity  0
Location        0
City            0
Internshipstartdate  0
Message        3299
dtype: int64

```

```
df['Message']=df['Message'].fillna("No Message")
```

```
df['Message']
```

```

0          No Message
1          No Message
2          No Message
3          No Message
4          No Message

```

...

```

4903    I want to join this internship as it will be a...
4904    I want to join this internship as it will be a...
4905                                         No Message
4906                                         No Message
4907                                         No Message

```

```
Name: Message, Length: 4905, dtype: object
```

```
df.isnull().sum()
```

```

Id          0
Date        0
Status      0
Name        0
Interns Email  0
Menu 23     0
Number 570  0
Menu 2      0
DegreeQualification  0
Branch      0
Experienceifany  0
CollegeUniversity  0
Location    0
City        0
Internshipstartdate  0
Message     0
dtype: int64

```

```
df.columns
```

```
Index(['Id', 'Date', 'Status', 'Name', 'Interns Email', 'Menu 23',
      'Number 570', 'Menu 2', 'DegreeQualification', 'Branch',
      'Experienceifany', 'CollegeUniversity', 'Location', 'City',
      'Internshipstartdate', 'Message'],
      dtype='object')
```

```
df.head(2)
```

	Id	Date	Status	Name
Interns Email \				
0	2128156	12/24/2024	unread	Vignesh K
				vikikannan8@gmail.com
1	2128008	12/24/2024	unread	Deekshitha Edukulla
				deekshitha1745@gmail.com

		Menu 23	Number 570	Menu 2 \
0	AI(Artificial Intelligence	6369727236	3 Months(NO STIPEND)	
1	DevOps	9346380711	3 Months(NO STIPEND)	

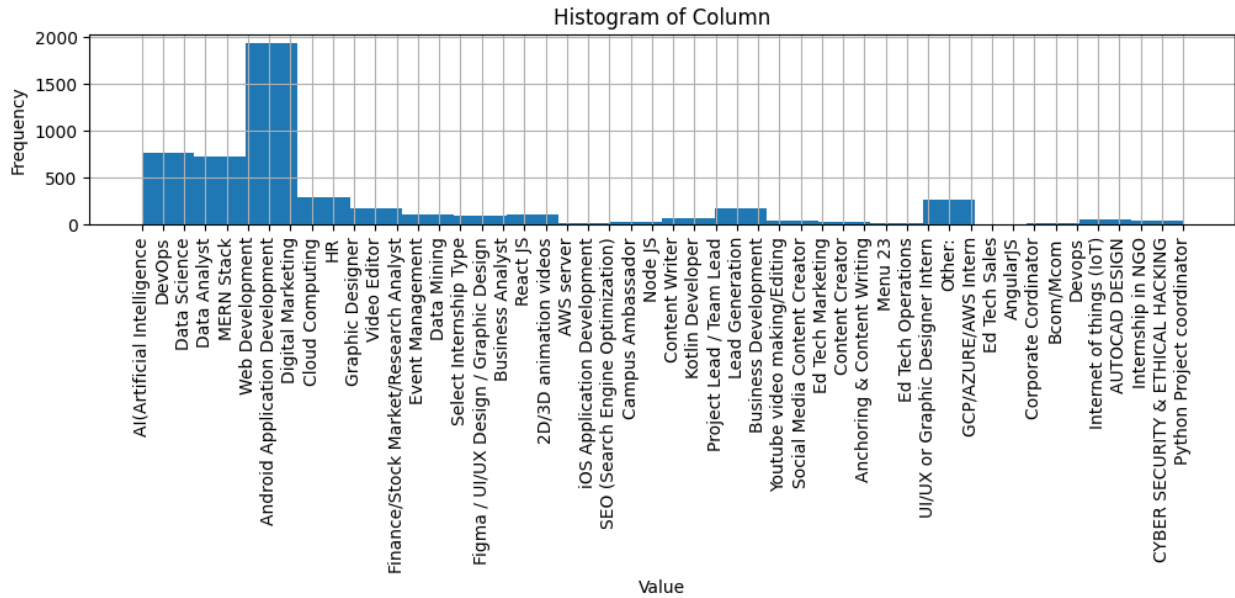
	DegreeQualification	Branch	Experienceifany \
0	B.Tech/M.Tech	CSE(AIML)	No Experience
1	B.Tech/M.Tech	Data science	No Experience

	CollegeUniversity	Location \
0	KPR Institute of engineering and technology	Work From Home(WFH)
1	Institute of aeronautical engineering	Work From Home(WFH)

	City	Internshipstartdate	Message
0	Coimbatore	2/5/2025	No Message
1	Hyderabad South East	3/12/2025	No Message

Create a visual Histogram plot to finding easily to understandable data

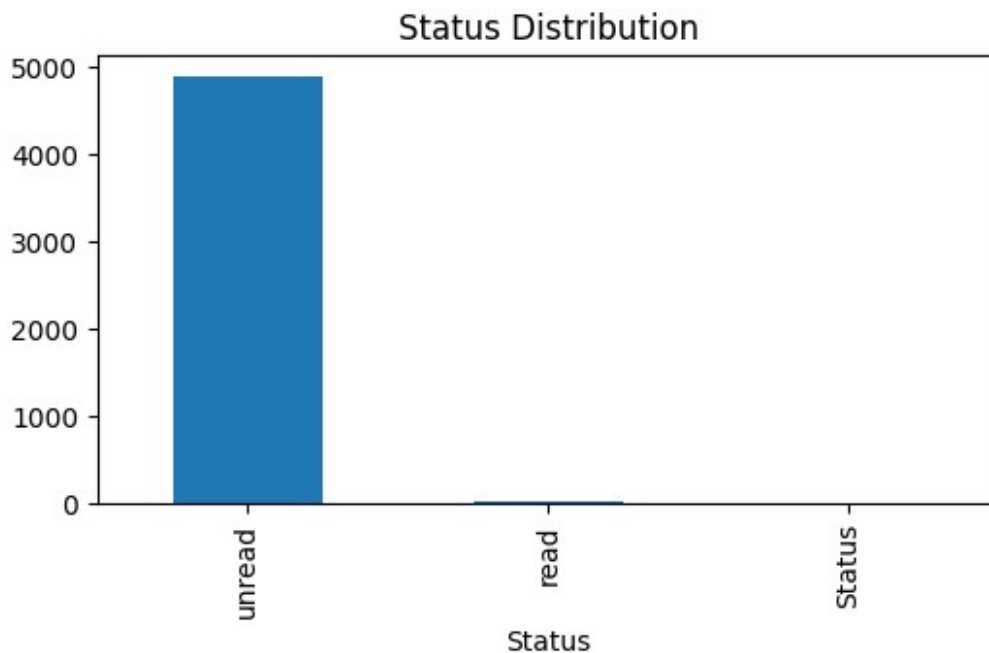
```
import matplotlib.pyplot as plt
plt.figure(figsize=(12,2))
df['Menu 23'].hist(bins=20)
plt.xlabel("Value")
plt.ylabel("Frequency")
plt.title("Histogram of Column")
plt.xticks(rotation=90)
plt.show()
```



## Visual BY using Count Plot to report Status Distribution

```
plt.figure(figsize=(6, 3))
df['Status'].value_counts().plot(kind='bar', title='Status Distribution')
```

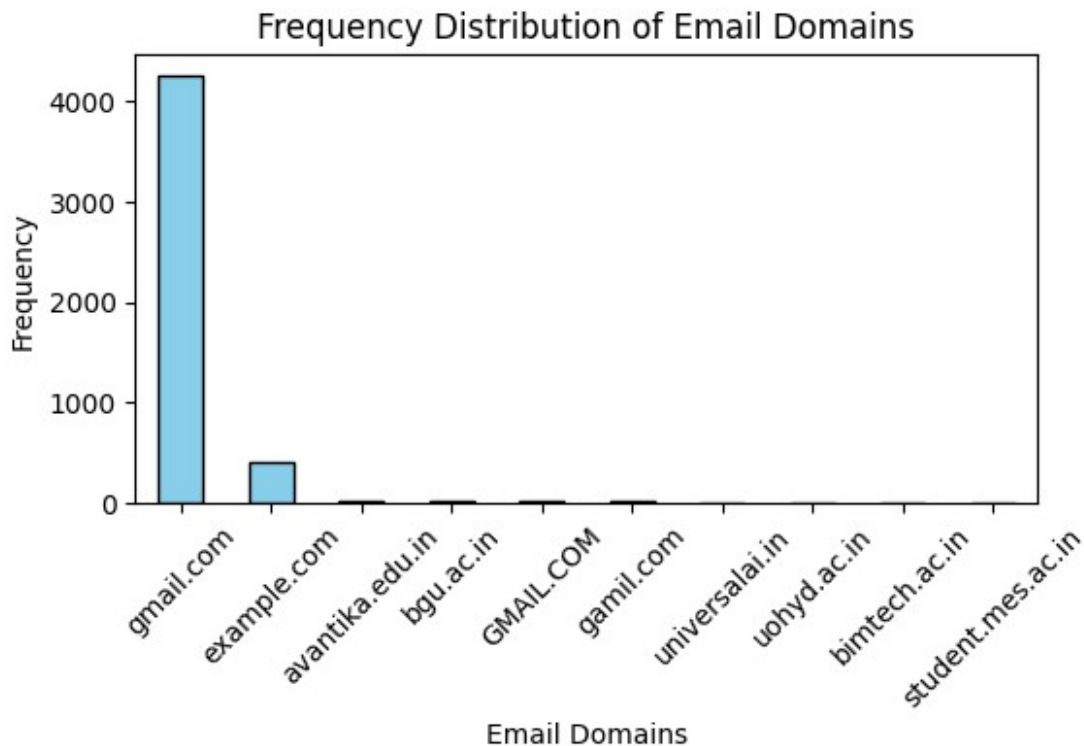
<Axes: title={'center': 'Status Distribution'}, xlabel='Status'>



## Visual BY using Count Plot to report Frequency Distribution of Email Domains

```
df['Email Domain'] = df['Interns Email'].str.split('@').str[1]

# Plot the frequency distribution of email domains
plt.figure(figsize=(6, 3))
df['Email Domain'].value_counts().head(10).plot(kind='bar',
color='skyblue', edgecolor='black')
plt.xlabel("Email Domains")
plt.ylabel("Frequency")
plt.title("Frequency Distribution of Email Domains")
plt.xticks(rotation=45)
plt.show()
```

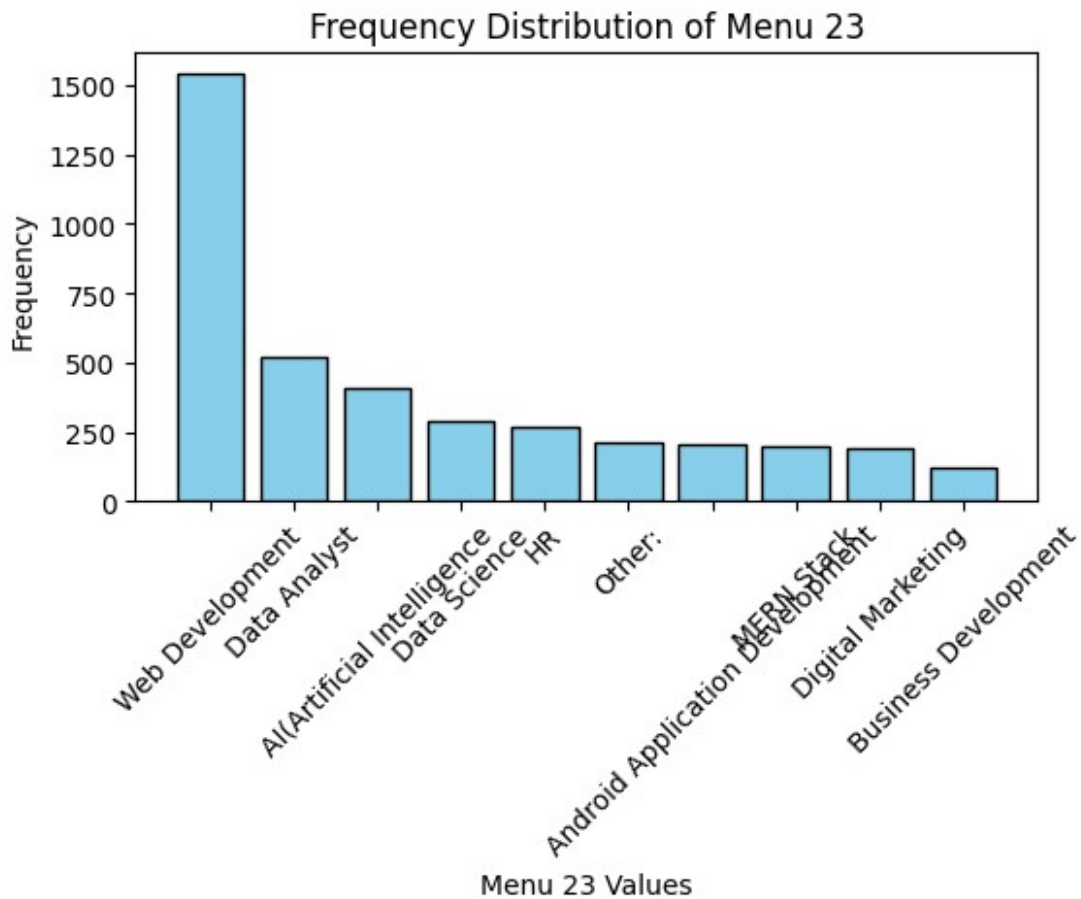


## Visual BY using Count Plot to report Frequency Distribution of Menu 23

```
menu_counts = df['Menu 23'].value_counts().head(10)

# Plot a bar chart
plt.figure(figsize=(6, 3))
plt.bar(menu_counts.index, menu_counts.values, color='skyblue',
edgecolor='black')
plt.xlabel("Menu 23 Values")
plt.ylabel("Frequency")
```

```
plt.title("Frequency Distribution of Menu 23")
plt.xticks(rotation=45)
plt.show()
```



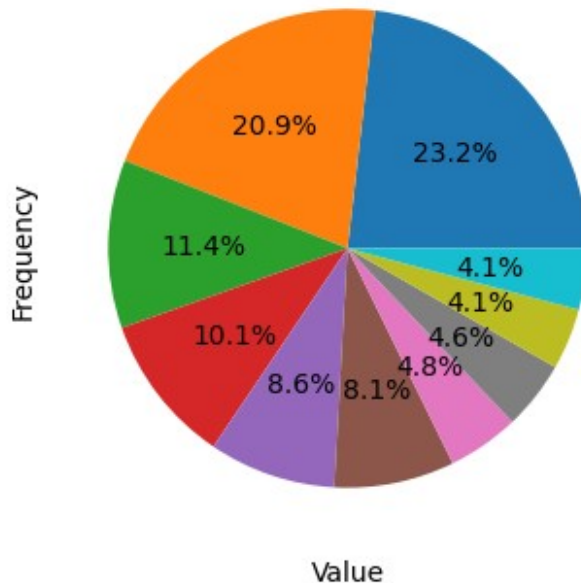
```
df.columns
Index(['Id', 'Date', 'Status', 'Name', 'Interns Email', 'Menu 23',
      'Number 570', 'Menu 2', 'DegreeQualification', 'Branch',
      'Experienceifany', 'CollegeUniversity', 'Location', 'City',
      'Internshipstartdate', 'Message', 'Email Domain'],
      dtype='object')
```

Visual by Pie Chart to report Histogram with Branch of Data

```
# Plot histogram of the sampled data
plt.figure(figsize=(4,4))
plt.pie(df["Branch"].value_counts().head(10),autopct='%1.1f%%')
plt.xlabel("Value",size=10)
plt.ylabel("Frequency",size=10)
plt.title("Histogram with Branch of Data",size=13)
```

```
plt.xticks(rotation=90)
plt.show()
```

Histogram with Branch of Data



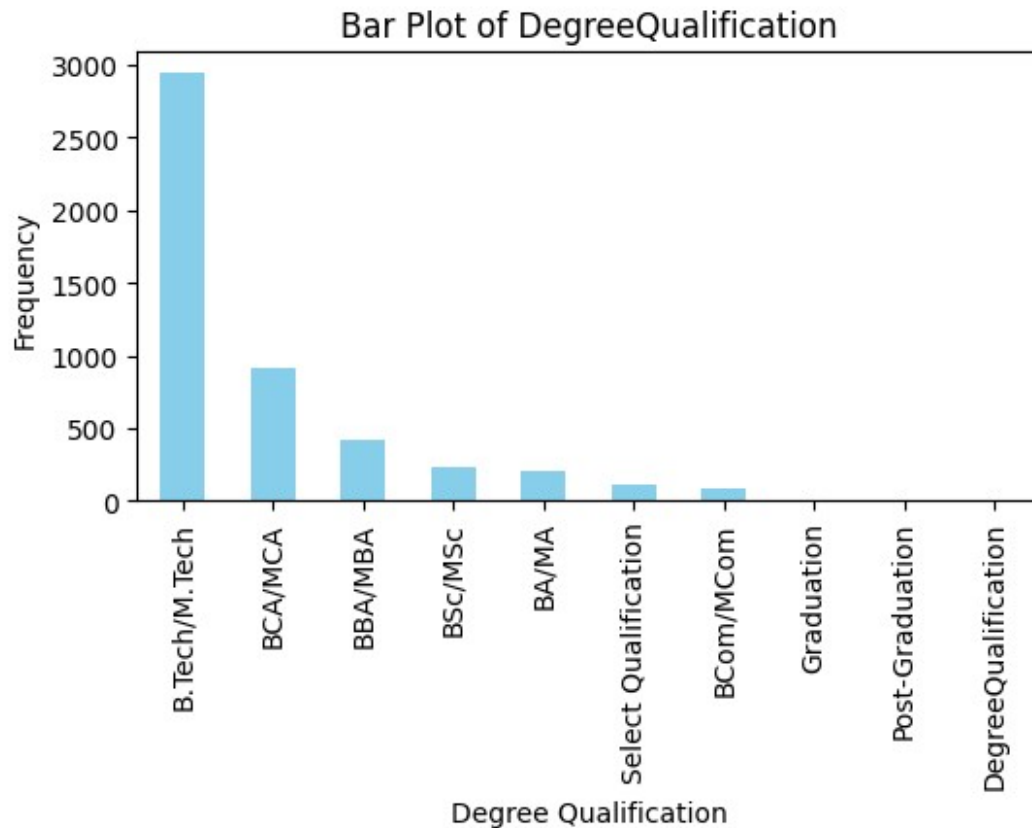
Visual by Bar Plot to report Bar Plot of DegreeQualification

```
plt.figure(figsize=(6, 3))

# Plot the bar chart for DegreeQualification frequencies
df['DegreeQualification'].value_counts().plot(kind='bar',
color='skyblue')

# Add labels and title
plt.xlabel("Degree Qualification")
plt.ylabel("Frequency")
plt.title("Bar Plot of DegreeQualification")
plt.xticks(rotation=90) # Rotate x-axis labels for better readability
plt.show()
```





```
df.columns
```

```
Index(['Id', 'Date', 'Status', 'Name', 'Interns Email', 'Menu 23',
      'Number 570', 'Menu 2', 'DegreeQualification', 'Branch',
      'Experienceifany', 'CollegeUniversity', 'Location', 'City',
      'Internshipstartdate', 'Message', 'Email Domain'],
      dtype='object')
```

```
df['Location']
```

```
0      Work From Home(WFH)
1      Work From Home(WFH)
2      Work From Home(WFH)
3      Work From Home(WFH)
4      Work From Home(WFH)
```

```
...
```

```
4903      Unknown
4904      Unknown
4905      Unknown
4906      Unknown
4907      Unknown
```

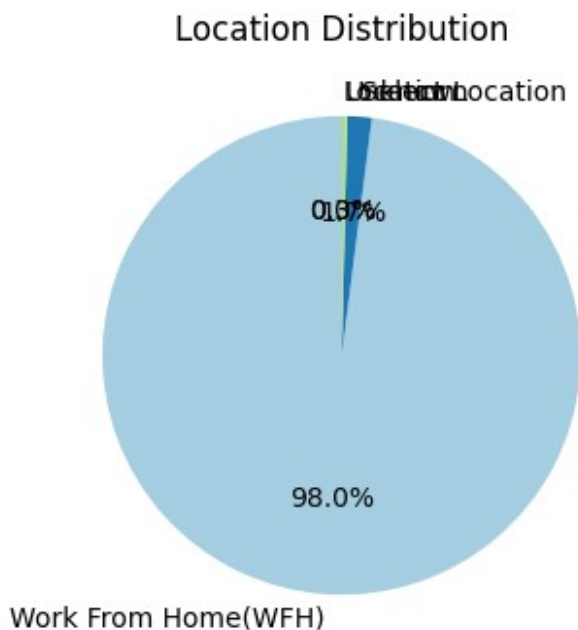
```
Name: Location, Length: 4905, dtype: object
```

## Visual by Pie Chart to report Location Distribution

```
location_counts = df['Location'].value_counts()

# Plot a pie chart
plt.figure(figsize=(4,4))
plt.pie(
    location_counts,
    labels=location_counts.index, # Set the labels for each location
    autopct='%1.1f%%', # Display percentages
    startangle=90, # Rotate for better layout
    colors=plt.cm.Paired.colors # Color map for slices
)

plt.title("Location Distribution") # Title of the pie chart
plt.show()
```



```
df.columns
Index(['Id', 'Date', 'Status', 'Name', 'Interns Email', 'Menu 23',
      'Number 570', 'Menu 2', 'DegreeQualification', 'Branch',
      'Experienceifany', 'CollegeUniversity', 'Location', 'City',
      'Internshipstartdate', 'Message', 'Email Domain'],
      dtype='object')

df['Internshipstartdate']
0      2/5/2025
1      3/12/2025
2      4/15/2025
```

```

3         2/24/2024
4         2/24/2024
...
4903      10/24/2023
4904      10/24/2023
4905      10/24/2023
4906      10/24/2023
4907      10/24/2023
Name: Internshipstartdate, Length: 4905, dtype: object

```

## Visual BY Count Plot to report Internship Start Dates Over Time

```

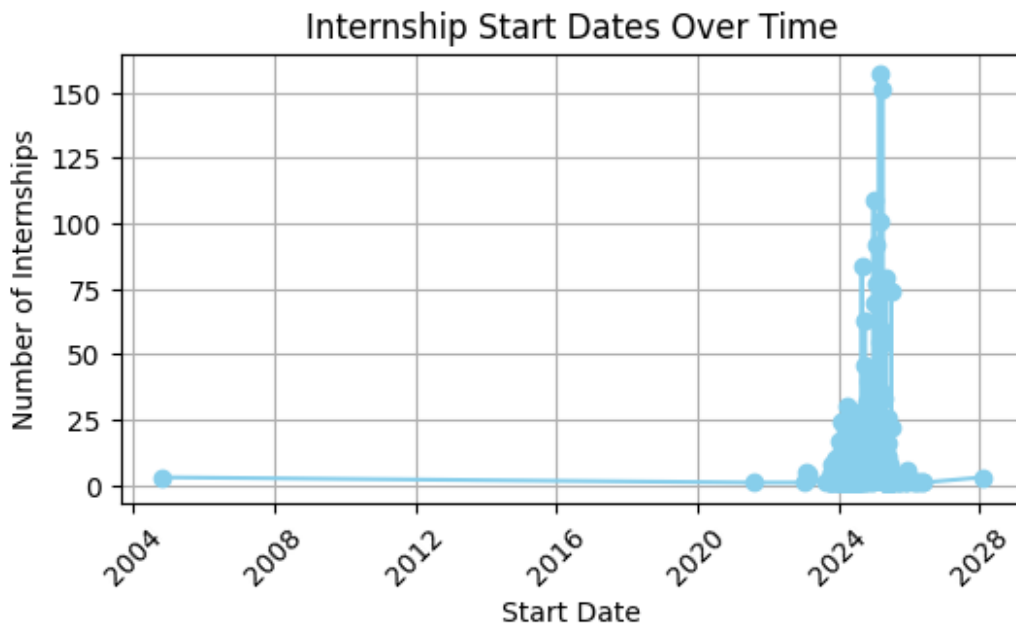
df['Internshipstartdate'] = pd.to_datetime(df['Internshipstartdate'],
errors='coerce')

# Group by date and count occurrences
date_counts = df['Internshipstartdate'].value_counts().sort_index()

# Plot the counts over time
plt.figure(figsize=(6, 3))

plt.plot(date_counts.index, date_counts.values, marker='o',
color='skyblue')
plt.xlabel("Start Date")
plt.ylabel("Number of Internships")
plt.title("Internship Start Dates Over Time")
plt.xticks(rotation=45)
plt.grid(True)
plt.show()

```



```

df.columns
Index(['Id', 'Date', 'Status', 'Name', 'Interns Email', 'Menu 23',
      'Number 570', 'Menu 2', 'DegreeQualification', 'Branch',
      'Experienceifany', 'CollegeUniversity', 'Location', 'City',
      'Internshipstartdate', 'Message', 'Email Domain'],
      dtype='object')

df['Experienceifany'].value_counts()

Experienceifany
No Experience
2234
No
846
0
147
Fresher
133
no
106
.
..
NO till student
1
Capabl web development intern
1
Capabl one month internship as full stack developer
1
1 month Web Development
1
Team lead and then HR team lead at younity India private limited
1
Name: count, Length: 538, dtype: int64

```

Visual By Pie Plot to report Distribution of Experience (Yes/No or Categories)

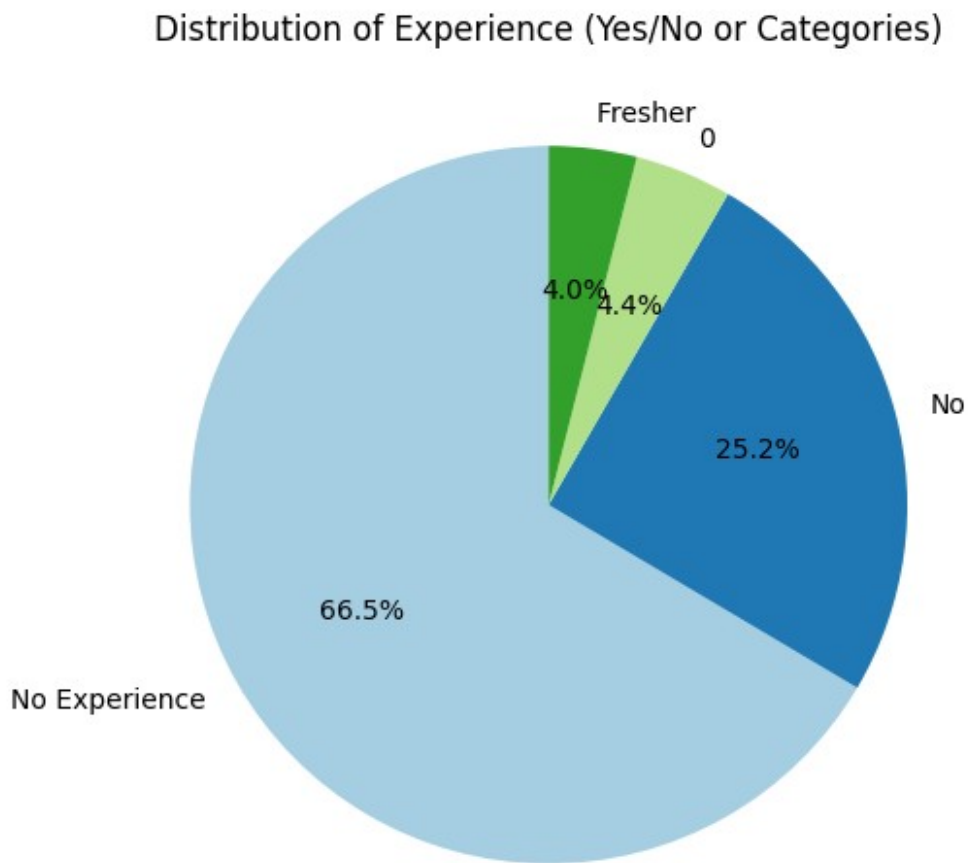
```

experience_counts = df['Experienceifany'].value_counts().head(4)

# Plot a pie chart
plt.figure(figsize=(6,6))
plt.pie(
    experience_counts,
    labels=experience_counts.index,
    autopct='%1.1f%%', # Display percentages on the pie slices
    startangle=90,     # Rotate for better layout
    colors=plt.cm.Paired.colors, # Color map
)

```

```
plt.title("Distribution of Experience (Yes/No or Categories)")
plt.show()
```

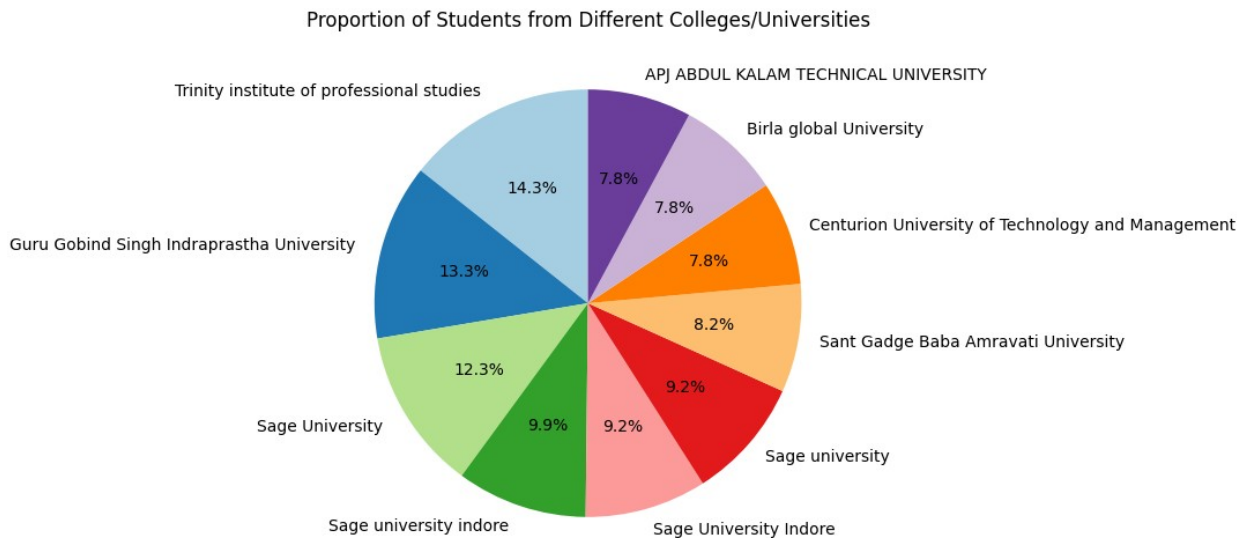


```
df['CollegeUniversity'].value_counts()
CollegeUniversity
Trinity institute of professional studies    42
Guru Gobind Singh Indraprastha University    39
Sage University                             36
Sage university indore                       29
Sage University Indore                       27
..
Karpagam college of Engineering              1
Finolex Academy of Management and Technology 1
North eastern hill University                1
Integral University                          1
Kcmt                                          1
Name: count, Length: 2133, dtype: int64
```

## Visual BY Pie Chart to report Proportion of Students from Different Colleges/Universities

```
college_counts = df['CollegeUniversity'].value_counts().head(10)

# Plot a pie chart
plt.figure(figsize=(6, 6))
plt.pie(
    college_counts,
    labels=college_counts.index,
    autopct='%1.1f%%',
    startangle=90,
    colors=plt.cm.Paired.colors
)
plt.title("Proportion of Students from Different Colleges/Universities")
plt.show()
```



```
df.columns
```

```
Index(['Id', 'Date', 'Status', 'Name', 'Interns Email', 'Menu 23',  
      'Number 570', 'Menu 2', 'DegreeQualification', 'Branch',  
      'Experienceifany', 'CollegeUniversity', 'Location', 'City',  
      'Internshipstartdate', 'Message', 'Email Domain'],  
      dtype='object')
```

```
df['Message'].value_counts()
```

Message

No Message

3299

Thank you for considering my application. I look forward to the

possibility of contributing to this exciting internship. Please feel free to contact me via email or phone to discuss my application further.

23

I have done my B.sc graduation and recently doing my MCA degree from Sant Gadge baba Amravati university and want to tell you that I am Comfortable with offline internship also if you are providing me.

22

Hi ,I am Naman Singh I am applying for an internship for data Analyst , I am skilled in tableau, python(pandas , matplotlib, seaborn and numpy ), exel, EDA, SQL (still learning)\r\n\r\n\r\nThank you \r\n\r\nHoping for a positive result from your side.

21

want an app development internship

19

...

Hi ,Iam yogish Bakshi I am applying internship for data scientist , I am skilled in tableau, python(pandas , matplotlib, seaborn and numpy ),EDA, SQL,exel, machine learning and deep learning (still learning)\r\n\r\n\r\nThank you \r\n\r\nHopping for a positive result from your side

1

I whoud like to gain the experience in working with company or start-up to improve my skills to work with teams

1

Yes lam interested

1

To experience new things

1

Hello there , \r\nIm khushi gaur , I?m currently pursuing bcom hons at trinity institute of professional studies. \r\nIvr previous done internship in digital marketing . \r\nI m also doing a digital marketing course right now

1

Name: count, Length: 949, dtype: int64

## Visaul BY Histogram to report Distribution of Message Lengths

```
# Calculate the length of each message
```

```
message_lengths = df['Message'].dropna().apply(len)
```

```
# Plot a histogram of message lengths
```

```
plt.figure(figsize=(6, 3))
```

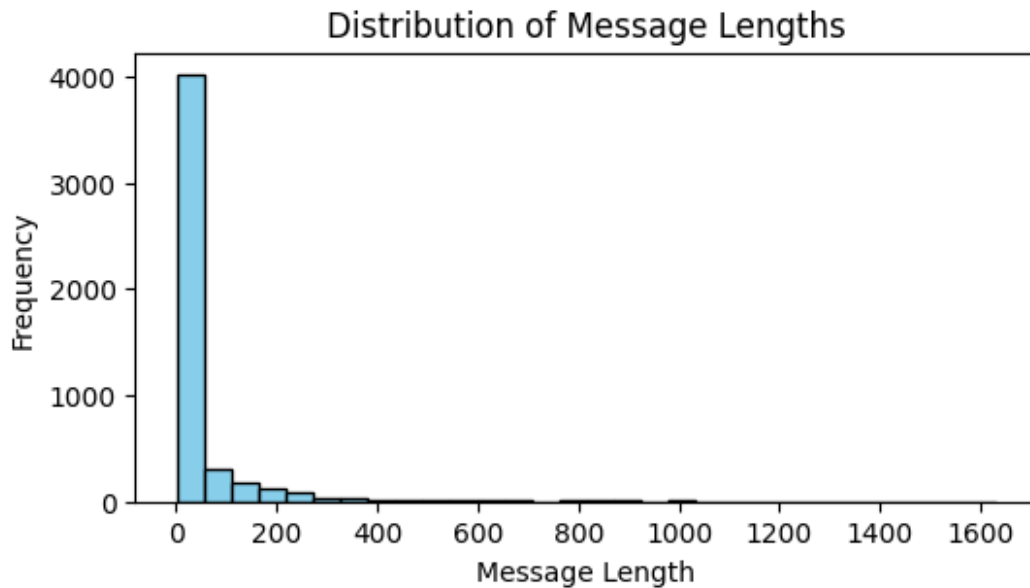
```
plt.hist(message_lengths, bins=30, color='skyblue', edgecolor='black')
```

```
plt.xlabel("Message Length")
```

```
plt.ylabel("Frequency")
```

```
plt.title("Distribution of Message Lengths")
```

```
plt.show()
```



```
df.columns
Index(['Id', 'Date', 'Status', 'Name', 'Interns Email', 'Menu 23',
      'Number 570', 'Menu 2', 'DegreeQualification', 'Branch',
      'Experienceifany', 'CollegeUniversity', 'Location', 'City',
      'Internshipstartdate', 'Message', 'Email Domain'],
      dtype='object')

df['City'].value_counts()

City
Delhi          191
Hyderabad      167
Hyderabad      160
Indore         134
New Delhi      107
...
Joda           1
BHILAI         1
Kanpur dehat   1
PAURI GARHWAL  1
Ayodhya        1
Name: count, Length: 1003, dtype: int64
```

Visual BY Pie chart to report Proportion of Interns from Different Cities

```
city_counts = df['City'].value_counts().head(10).dropna()

# Plot a pie chart
plt.figure(figsize=(4, 4))
plt.pie(
```



```

city_counts,
labels=city_counts.index,
autopct='%1.1f%%',
# startangle=90,
# colors=plt.cm.Paired.colors
)
plt.title("Proportion of Interns from Different Cities")
plt.show()

```

