

```
In [1]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
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In [2]: data = pd.read_csv("India_budget_2021.csv")
```

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In [3]: data.head()
```

Out[3]:

	Department /Ministry	Fund allotted(in ₹crores)
0	MINISTRY OF AGRICULTURE	131531.19
1	DEPARTMENT OF ATOMIC ENERGY	18264.89
2	MINISTRY OF AYURVEDA, YOGA	2970.30
3	MINISTRY OF CHEMICALS AND FERTILISER	80714.94
4	MINISTRY OF CIVIL AVIATION	3224.67

```
In [4]: print(data)
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	Department /Ministry \
0	MINISTRY OF AGRICULTURE
1	DEPARTMENT OF ATOMIC ENERGY
2	MINISTRY OF AYURVEDA, YOGA
3	MINISTRY OF CHEMICALS AND FERTILISER
4	MINISTRY OF CIVIL AVIATION
5	MINISTRY OF COAL
6	MINISTRY OF COMMERCE AND INDUSTRY
7	MINISTRY OF COMMUNICATION
8	MINISTRY OF CONSUMER AFFAIRS
9	MINISTRY OF CORPORATE AFFAIRS
10	MINISTRY OF CULTURE
11	MINISTRY OF DEFENCE
12	MINISTRY OF DEVELOPMENT OF NORTH EASTERN REGION
13	MINISTRY OF EARTH SCIENCES
14	MINISTRY OF EDUCATION
15	MINISTRY OF ELECTRONICS AND INFORMATION TECHNO...
16	MINISTRY OF ENVIRONMENT, FOREST
17	MINISTRY OF EXTERNAL AFFAIRS
18	MINISTRY OF FINANCE
19	MINISTRY OF FISHERIES, ANIMAL HUSBANDRY
20	MINISTRY OF FOOD PROCESSING INDUSTRIES
21	MINISTRY OF HEALTH AND FAMILY WELFARE
22	MINISTRY OF HEAVY INDUSTRIES
23	MINISTRY OF HOME AFFAIRS
24	MINISTRY OF HOUSING AND URBAN AFFAIRS
25	MINISTRY OF INFORMATION AND BROADCASTING
26	MINISTRY OF JAL SHAKTI
27	MINISTRY OF LABOUR AND EMPLOYMENT
28	MINISTRY OF LAW AND JUSTICE
29	MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISES
30	MINISTRY OF MINES
31	MINISTRY OF MINORITY AFFAIR
32	MINISTRY OF NEW AND RENEWABLE ENERGY
33	MINISTRY OF PANCHAYATI RAJ
34	MINISTRY OF PARLIAMENTARY AFFAIRS
35	MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES
36	MINISTRY OF PETROLEUM AND NATURAL GAS
37	MINISTRY OF PLANNING
38	MINISTRY OF PORTS, SHIPPING
39	MINISTRY OF POWER
40	THE PRESIDENT, PARLIAMENT, UNION PUBLIC SERVIC...
41	MINISTRY OF RAILWAYS
42	MINISTRY OF ROAD TRANSPORT AND HIGHWAY
43	MINISTRY OF RURAL DEVELOPMENT
44	MINISTRY OF SCIENCE AND TECHNOLOGY
45	MINISTRY OF SKILL DEVELOPMENT
46	MINISTRY OF SOCIAL JUSTICE AND EMPOWERMENT
47	DEPARMENT OF SPACE
48	MINISTRY OF STATISTICS
49	MINISTRY OF STEEL
50	MINISTRY OF TEXTILES
51	MINISTRY OF TOURISM
52	MINISTRY OF TRIBAL AFFAIRS
53	MINISTRY OF WOMEN AND CHILD DEVELOPMENT
54	MINISTRY OF YOUTH AFFAIRS AND SPORTS
55	NaN
56	GRAND TOTAL

	Fund allotted(in ₹crores)
0	131531.19
1	18264.89
2	2970.30
3	80714.94

4	3224.67
5	534.88
6	12768.25
7	75265.22
8	256948.40
9	712.13
10	2687.99
11	478195.62
12	2658.00
13	1897.13
14	93224.31
15	9720.66
16	2869.93
17	18154.73
18	1386273.30
19	4322.82
20	1308.66
21	73931.77
22	1017.08
23	166546.94
24	54581.00
25	4071.23
26	69053.02
27	13306.50
28	3229.94
29	15699.65
30	1466.82
31	4810.77
32	5753.00
33	913.43
34	65.07
35	2097.24
36	15943.78
37	1062.77
38	1702.35
39	15322.00
40	1687.57
41	110054.64
42	118101.00
43	133689.50
44	14794.03
45	2785.23
46	11689.39
47	13949.09
48	1409.13
49	39.25
50	3631.64
51	2026.77
52	7524.87
53	24435.00
54	2596.14
55	NaN
56	3483235.63

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In [5]: data.dropna()
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Out[5]:

	Department /Ministry	Fund allotted(in ₹crores)
0	MINISTRY OF AGRICULTURE	131531.19
1	DEPARTMENT OF ATOMIC ENERGY	18264.89
2	MINISTRY OF AYURVEDA, YOGA	2970.30
3	MINISTRY OF CHEMICALS AND FERTILISER	80714.94
4	MINISTRY OF CIVIL AVIATION	3224.67
5	MINISTRY OF COAL	534.88
6	MINISTRY OF COMMERCE AND INDUSTRY	12768.25
7	MINISTRY OF COMMUNICATION	75265.22
8	MINISTRY OF CONSUMER AFFAIRS	256948.40
9	MINISTRY OF CORPORATE AFFAIRS	712.13
10	MINISTRY OF CULTURE	2687.99
11	MINISTRY OF DEFENCE	478195.62
12	MINISTRY OF DEVELOPMENT OF NORTH EASTERN REGION	2658.00
13	MINISTRY OF EARTH SCIENCES	1897.13
14	MINISTRY OF EDUCATION	93224.31
15	MINISTRY OF ELECTRONICS AND INFORMATION TECHNO...	9720.66
16	MINISTRY OF ENVIRONMENT, FOREST	2869.93
17	MINISTRY OF EXTERNAL AFFAIRS	18154.73
18	MINISTRY OF FINANCE	1386273.30
19	MINISTRY OF FISHERIES, ANIMAL HUSBANDRY	4322.82
20	MINISTRY OF FOOD PROCESSING INDUSTRIES	1308.66
21	MINISTRY OF HEALTH AND FAMILY WELFARE	73931.77
22	MINISTRY OF HEAVY INDUSTRIES	1017.08
23	MINISTRY OF HOME AFFAIRS	166546.94
24	MINISTRY OF HOUSING AND URBAN AFFAIRS	54581.00
25	MINISTRY OF INFORMATION AND BROADCASTING	4071.23
26	MINISTRY OF JAL SHAKTI	69053.02
27	MINISTRY OF LABOUR AND EMPLOYMENT	13306.50
28	MINISTRY OF LAW AND JUSTICE	3229.94
29	MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISES	15699.65
30	MINISTRY OF MINES	1466.82
31	MINISTRY OF MINORITY AFFAIR	4810.77
32	MINISTRY OF NEW AND RENEWABLE ENERGY	5753.00
33	MINISTRY OF PANCHAYATI RAJ	913.43
34	MINISTRY OF PARLIAMENTARY AFFAIRS	65.07
35	MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES	2097.24

	Department /Ministry	Fund allotted(in ₹crores)
36	MINISTRY OF PETROLEUM AND NATURAL GAS	15943.78
37	MINISTRY OF PLANNING	1062.77
38	MINISTRY OF PORTS, SHIPPING	1702.35
39	MINISTRY OF POWER	15322.00
40	THE PRESIDENT, PARLIAMENT, UNION PUBLIC SERVIC...	1687.57
41	MINISTRY OF RAILWAYS	110054.64
42	MINISTRY OF ROAD TRANSPORT AND HIGHWAY	118101.00
43	MINISTRY OF RURAL DEVELOPMENT	133689.50
44	MINISTRY OF SCIENCE AND TECHNOLOGY	14794.03
45	MINISTRY OF SKILL DEVELOPMENT	2785.23
46	MINISTRY OF SOCIAL JUSTICE AND EMPOWERMENT	11689.39
47	DEPARMENT OF SPACE	13949.09
48	MINISTRY OF STATISTICS	1409.13
49	MINISTRY OF STEEL	39.25
50	MINISTRY OF TEXTILES	3631.64
51	MINISTRY OF TOURISM	2026.77
52	MINISTRY OF TRIBAL AFFAIRS	7524.87
53	MINISTRY OF WOMEN AND CHILD DEVELOPMENT	24435.00
54	MINISTRY OF YOUTH AFFAIRS AND SPORTS	2596.14
56	GRAND TOTAL	3483235.63

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In [ ]: data = data.iloc[[0,8,11,14,18,23,41,42,43],:]

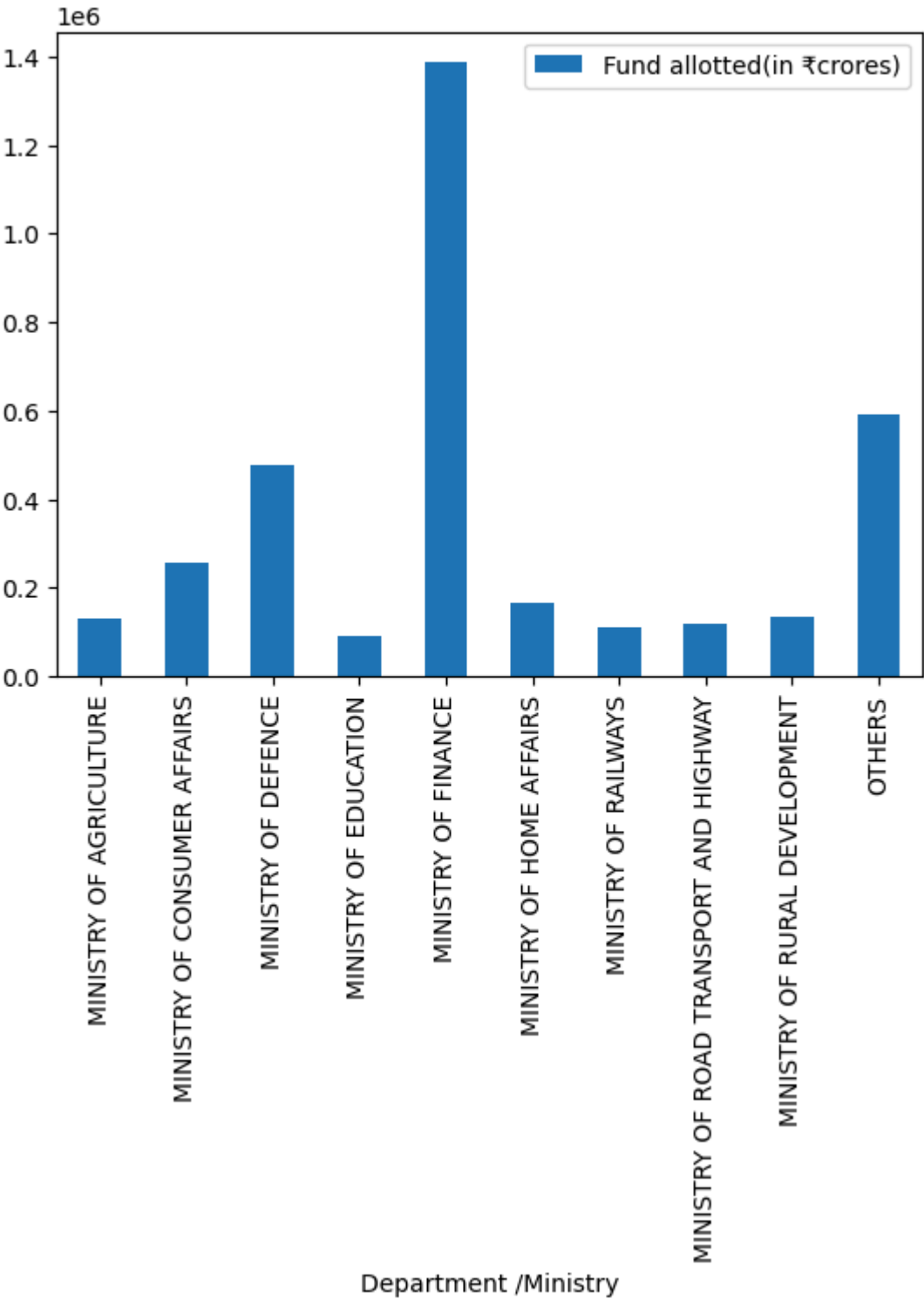
In [18]: row = pd.DataFrame([{'Department /Ministry': 'OTHERS',
                              'Fund allotted(in ₹crores)': 592971.0800000001}])
data = pd.concat([data, row], ignore_index=True)
data
```

Out[18]:

	Department /Ministry	Fund allotted(in ₹crores)
0	MINISTRY OF AGRICULTURE	131531.19
1	MINISTRY OF CONSUMER AFFAIRS	256948.40
2	MINISTRY OF DEFENCE	478195.62
3	MINISTRY OF EDUCATION	93224.31
4	MINISTRY OF FINANCE	1386273.30
5	MINISTRY OF HOME AFFAIRS	166546.94
6	MINISTRY OF RAILWAYS	110054.64
7	MINISTRY OF ROAD TRANSPORT AND HIGHWAY	118101.00
8	MINISTRY OF RURAL DEVELOPMENT	133689.50
9	OTHERS	592971.08
10	OTHERS	592971.08

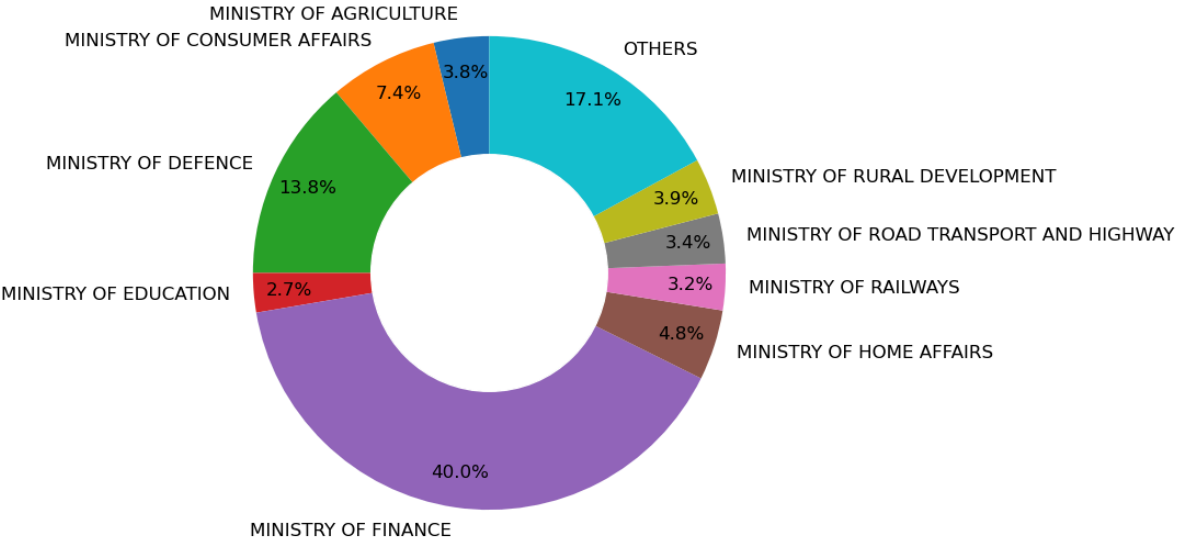
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In [8]: data.plot.bar(x = 'Department /Ministry', y = 'Fund allotted(in ₹crores)')
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Out[8]: <Axes: xlabel='Department /Ministry'>



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In [17]: df = data['Fund allotted(in ₹crores)']
labels = data['Department /Ministry']
plt.figure(figsize = (7,7))
plt.pie(df, labels = labels, autopct='%1.1f%%', startangle = 90, pctdistance = 0.85)
central_circle = plt.Circle((0, 0), 0.5, color = 'white')
fig = plt.gcf()
fig.gca().add_artist(central_circle)
plt.rc('font', size = 12)
plt.title("Distribution of The Budget", fontsize = 20)
plt.show()
```

Distribution of The Budget



In []: