Project on the Analysis of Attrition Rate of Green Destination Travel Agency

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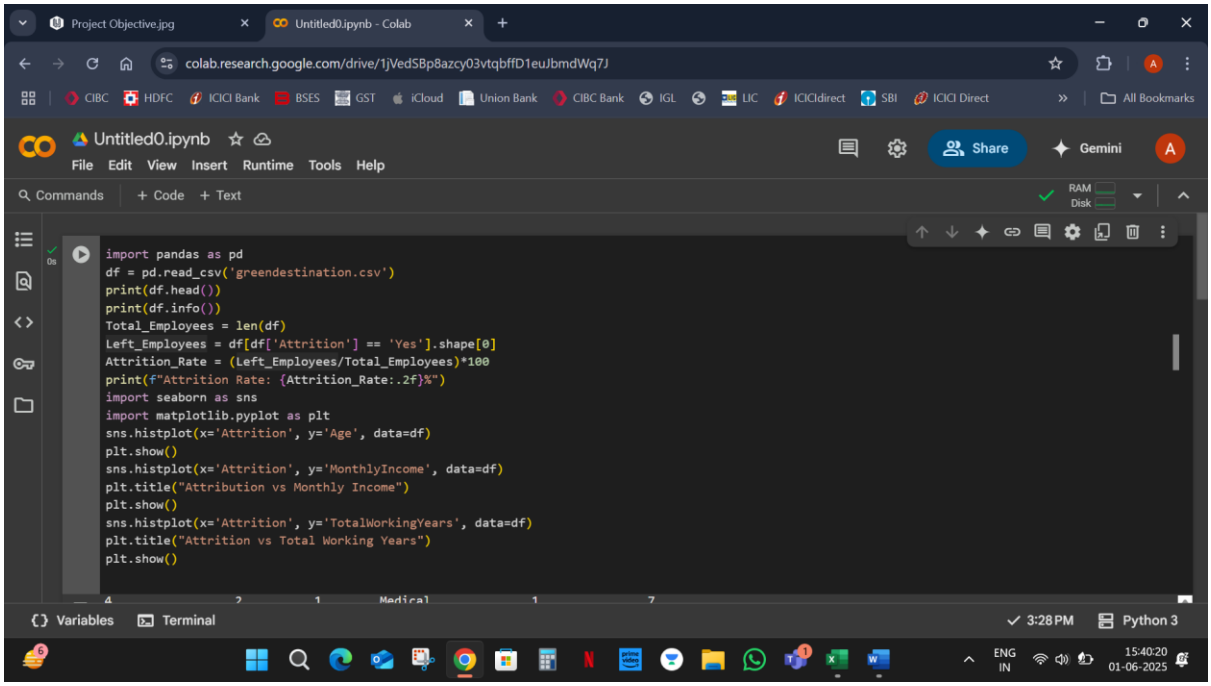
Python code

```
import pandas as pd

df = pd.read_csv('greendestination.csv')

print(df.head())

print(df.info())

Total_Employees = len(df)

Left_Employees = df[df['Attrition'] == 'Yes'].shape[0]

Attrition_Rate = (Left_Employees/Total_Employees)*100

print(f"Attrition Rate: {Attrition_Rate:.2f}%")

import seaborn as sns

import matplotlib.pyplot as plt

sns.histplot(x='Attrition', y='Age', data=df)

plt.show()

sns.histplot(x='Attrition', y='MonthlyIncome', data=df)

plt.title("Attribution vs Monthly Income")

plt.show()

sns.histplot(x='Attrition', y='TotalWorkingYears', data=df)

plt.title("Attrition vs Total Working Years")

plt.show()
```


Project Objective.jpg
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RAM
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plt.show()
sns.histplot(x='Attrition', y='TotalWorkingYears', data=df)
plt.title("Attrition vs Total Working Years")
plt.show()
Variables
Terminal
3:28 PM
Python 3
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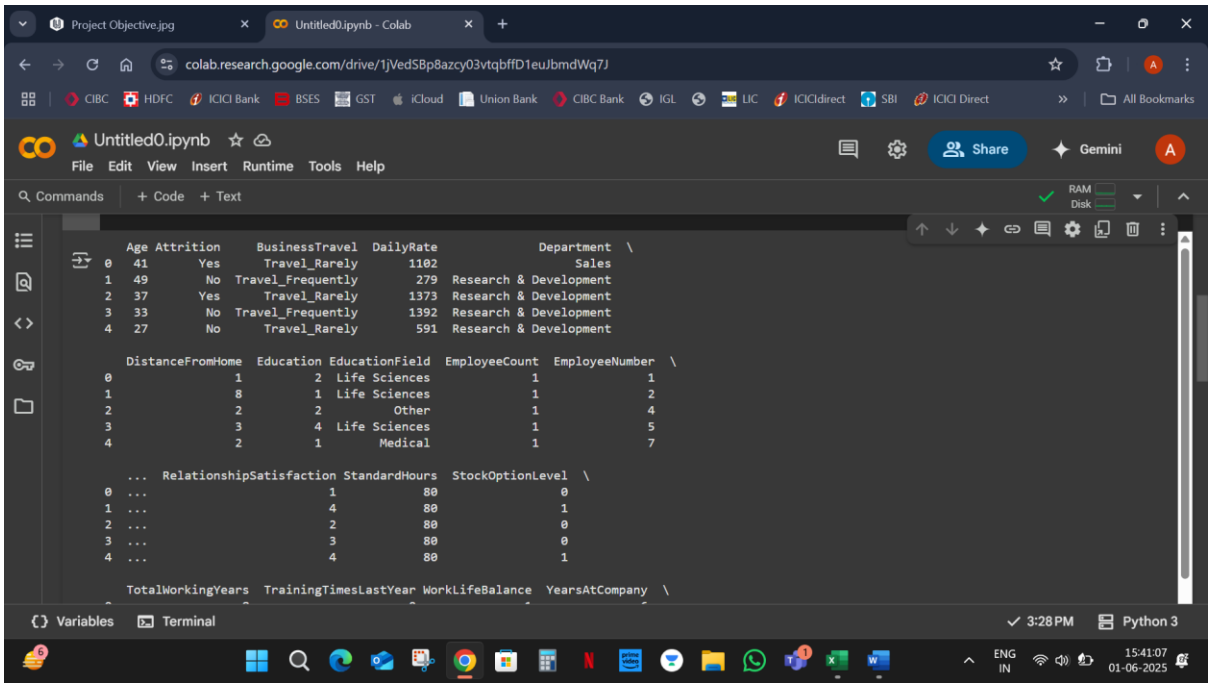
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RAM
Disk
Age Attrition BusinessTravel DailyRate Department \
0 41 Yes Travel_Rarely 1102 Sales
1 49 No Travel_Frequently 279 Research & Development
2 37 Yes Travel_Rarely 1373 Research & Development
3 33 No Travel_Frequently 1392 Research & Development
4 27 No Travel_Rarely 591 Research & Development
DistanceFromHome Education EducationField EmployeeCount EmployeeNumber \
0 1 2 Life Sciences 1 1
1 8 1 Life Sciences 1 2
2 2 2 Other 1 4
3 3 4 Life Sciences 1 5
4 2 1 Medical 1 7
... RelationshipSatisfaction StandardHours StockOptionLevel \
0 ... 1 80 0
1 ... 4 80 1
2 ... 2 80 0
3 ... 3 80 0
4 ... 4 80 1
TotalWorkingYears TrainingTimesLastYear WorkLifeBalance YearsAtCompany \
Variables
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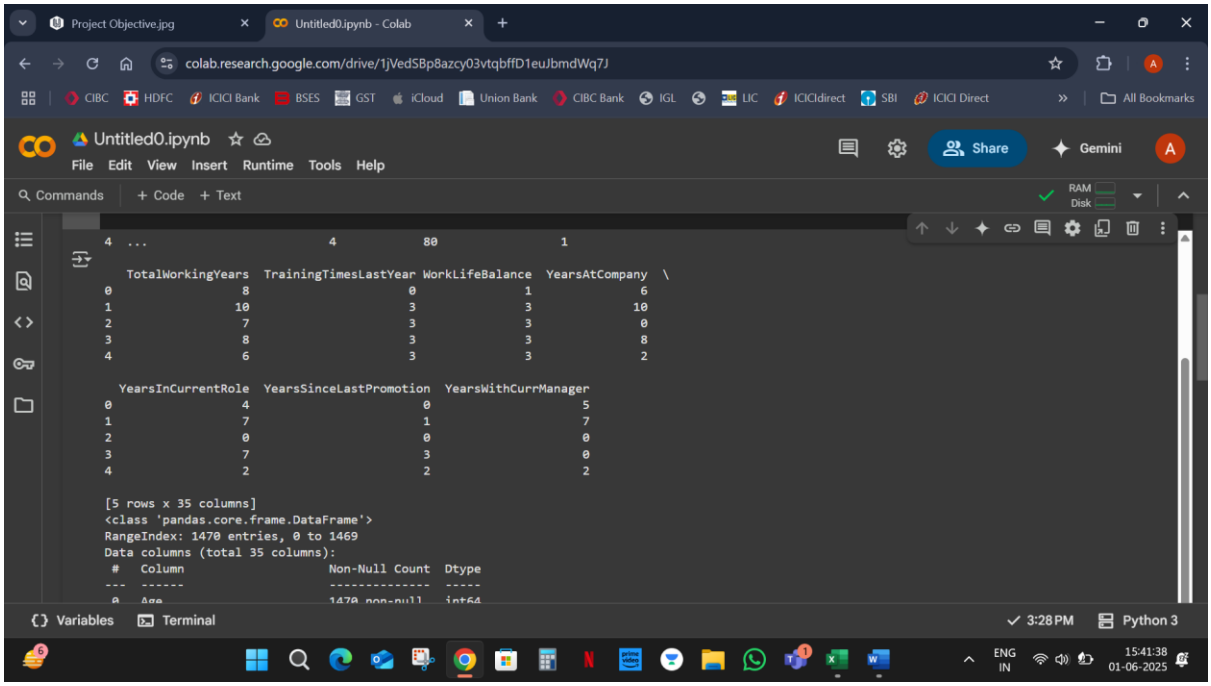
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4 ... 4 80 1
TotalWorkingYears TrainingTimesLastYear WorkLifeBalance YearsAtCompany \
0 8 0 1 6
1 10 3 3 10
2 7 3 3 0
3 8 3 3 8
4 6 3 3 2
YearsInCurrentRole YearsSinceLastPromotion YearsWithCurrManager
0 4 0 5
1 7 1 7
2 0 0 0
3 7 3 0
4 2 2 2
[5 rows x 35 columns]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1470 entries, 0 to 1469
Data columns (total 35 columns):
Column Non-Null Count Dtype
--- ------ -------------- -----
0 Age 1470 non-null int64
Variables
Terminal
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Python 3
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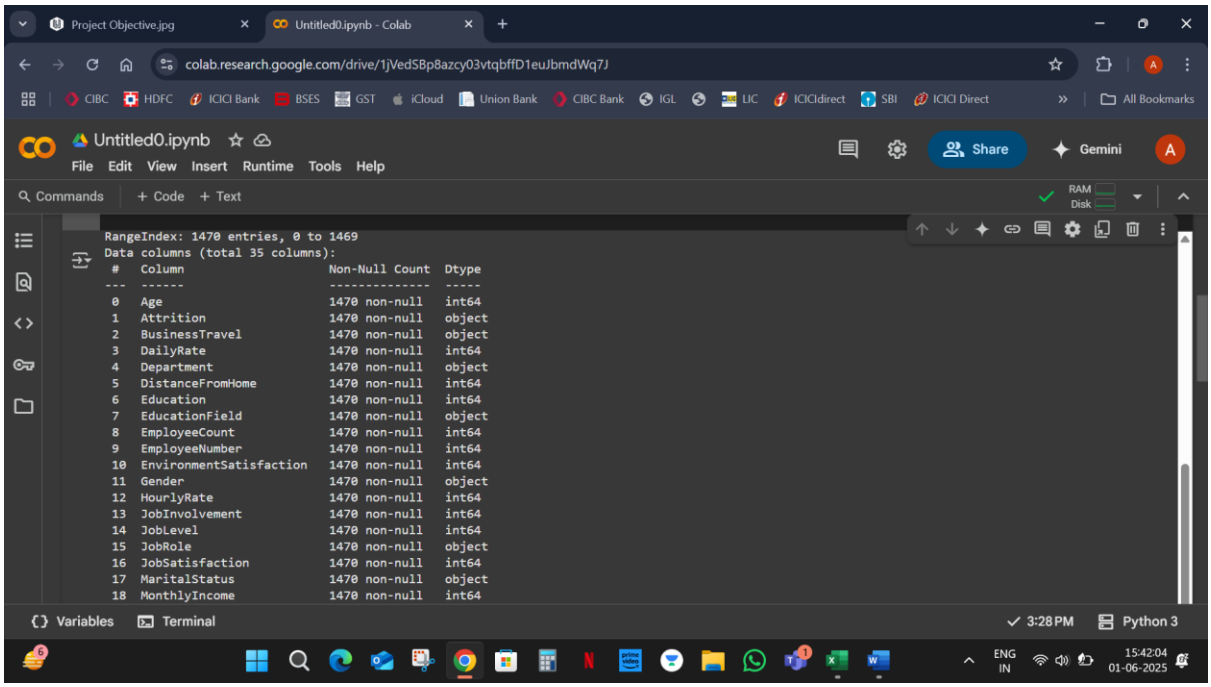
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Commands
+ Code
+ Text
RAM
Disk
RangeIndex: 1470 entries, 0 to 1469
Data columns (total 35 columns):
Column Non-Null Count Dtype
--- ------ -------------- -----
0 Age 1470 non-null int64
1 Attrition 1470 non-null object
2 BusinessTravel 1470 non-null object
3 DailyRate 1470 non-null int64
4 Department 1470 non-null object
5 DistanceFromHome 1470 non-null int64
6 Education 1470 non-null int64
7 EducationField 1470 non-null object
8 EmployeeCount 1470 non-null int64
9 EmployeeNumber 1470 non-null int64
10 EnvironmentSatisfaction 1470 non-null int64
11 Gender 1470 non-null object
12 HourlyRate 1470 non-null int64
13 JobInvolvement 1470 non-null int64
14 JobLevel 1470 non-null int64
15 JobRole 1470 non-null object
16 JobSatisfaction 1470 non-null int64
17 MaritalStatus 1470 non-null object
18 MonthlyIncome 1470 non-null int64
Variables
Terminal
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Python 3
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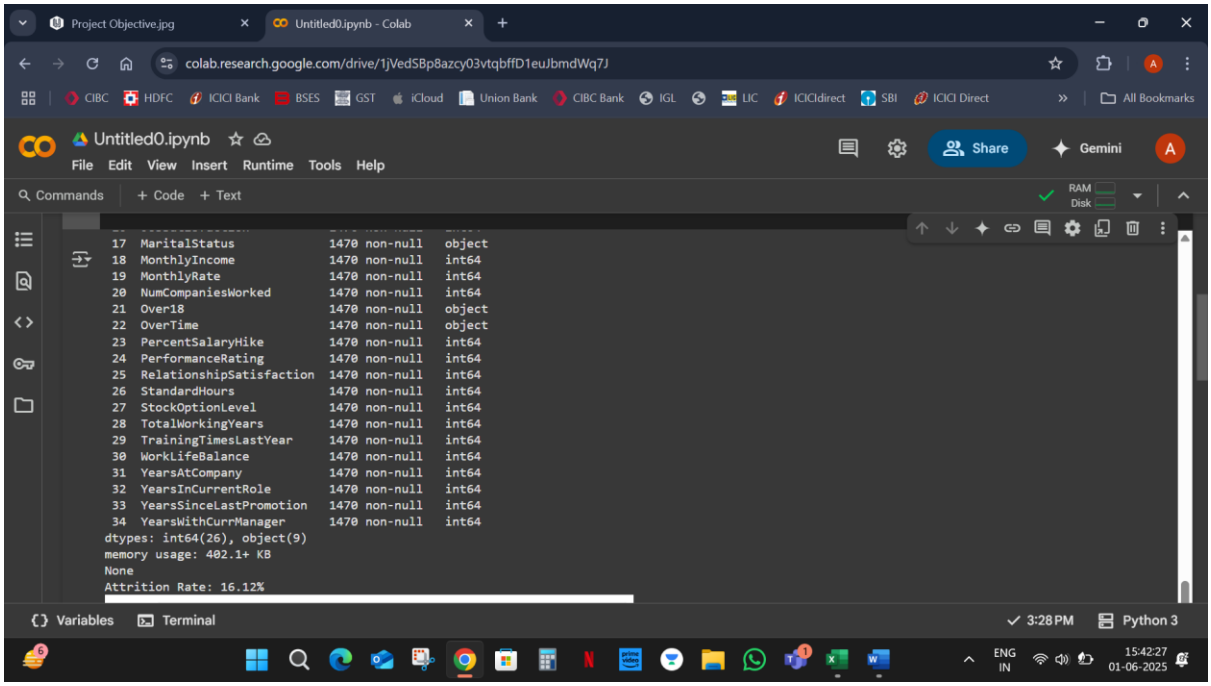
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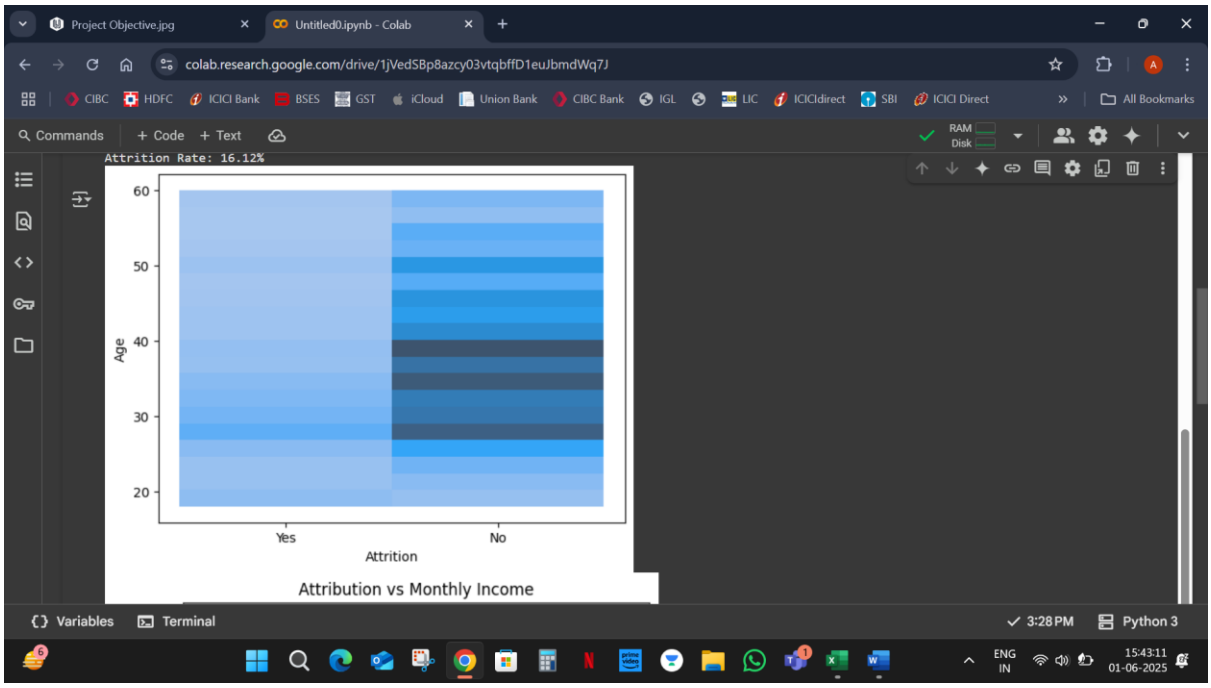
17 MaritalStatus 1470 non-null object
18 MonthlyIncome 1470 non-null int64
19 MonthlyRate 1470 non-null int64
20 NumCompaniesWorked 1470 non-null int64
21 Over18 1470 non-null object
22 OverTime 1470 non-null object
23 PercentSalaryHike 1470 non-null int64
24 PerformanceRating 1470 non-null int64
25 RelationshipSatisfaction 1470 non-null int64
26 StandardHours 1470 non-null int64
27 StockOptionLevel 1470 non-null int64
28 TotalWorkingYears 1470 non-null int64
29 TrainingTimesLastYear 1470 non-null int64
30 WorkLifeBalance 1470 non-null int64
31 YearsAtCompany 1470 non-null int64
32 YearsInCurrentRole 1470 non-null int64
33 YearsSinceLastPromotion 1470 non-null int64
34 YearsWithCurrManager 1470 non-null int64
dtypes: int64(26), object(9)
memory usage: 402.1+ KB
None
Attrition Rate: 16.12%
Variables Terminal
3:28 PM Python 3
ENG IN 15:42:27 01-06-2025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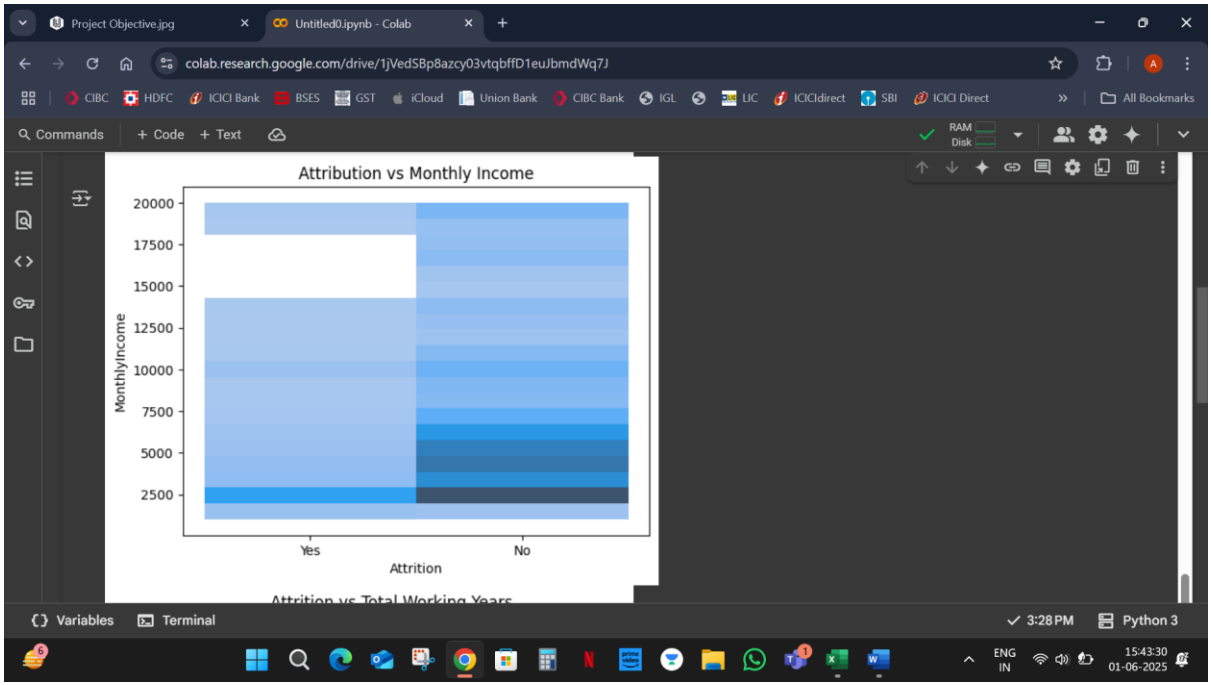
colab.research.google.com/drive/1jVedSBp8azcy03vtqbffD1euJbmdWq7J
Commands + Code + Text
Attrition Rate: 16.12%
60
50
40
30
20
Age
Yes
No
Attrition
Attribution vs Monthly Income
Variables Terminal
3:28 PM Python 3
ENG IN 15:43:11 01-06-2025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Commands
+ Code
+ Text
Attribution vs Monthly Income
MonthlyIncome
20000
17500
15000
12500
10000
7500
5000
2500
Yes
No
Attrition
Variables
Terminal
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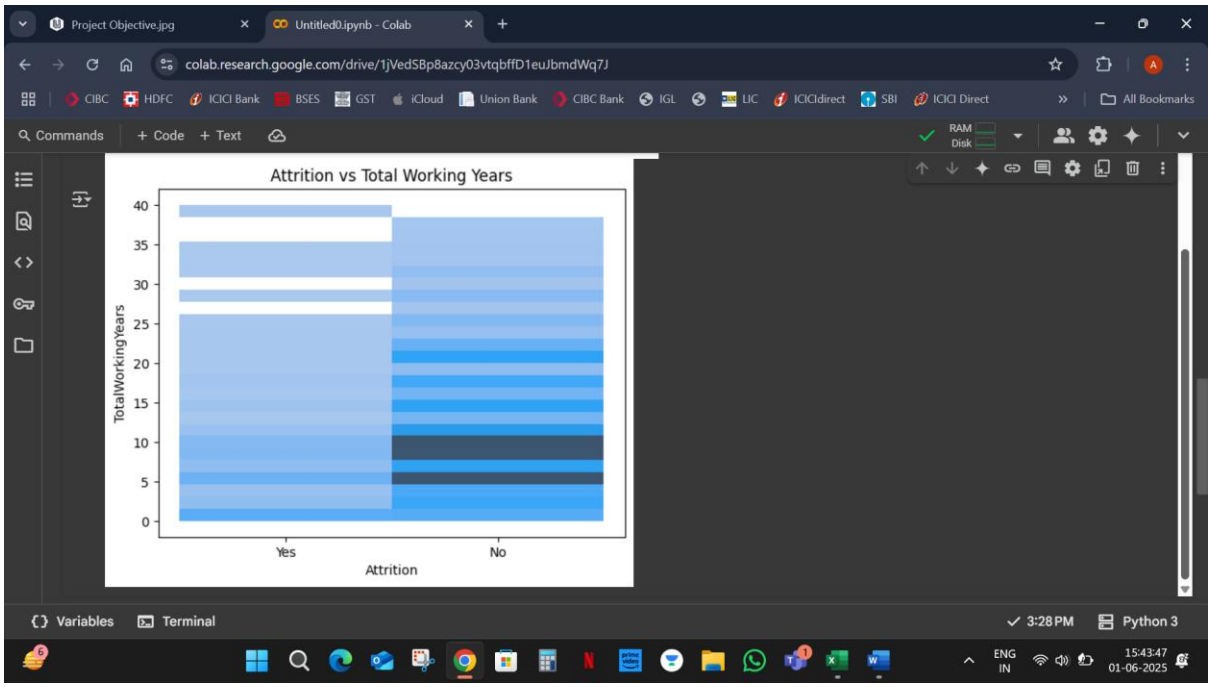
Python 3
ENG
IN
15:43:30
01-06-2025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Commands
+ Code
+ Text
Attrition vs Total Working Years
TotalWorkingYears
40
35
30
25
20
15
10
5
0
Yes
No
Attrition
Variables
Terminal
3:28 PM
Python 3
ENG
IN
15:43:47
01-06-2025