G. H. Raisoni College Of Engineering And Management, Wagholi Pune

2021- 2022

Group B :-Assignment no :-7

Department	CE [SUMMER 2022 (Online)]		
Term / Section	III/B	Date Of **submission**	13-12-2021
Subject Name /Code	Python for Data Science / UCSP204		
Roll No.	SCOB77	Name	Pratham Rajkumar pitty
Registration Number	2020AC0E1100107		

Group B :→ Assignment No 7 (14)

▶ **Aim :→** download 100 cc Records csv file from https://eforexcel.com/wp-content/uploads/2017/07/100-cc-Records.zip and read the CSV into a Data Frame

- Display the card type, Holder name, issuing bank and credit limit of the Holders from 20 to 40 (row indexes) using loc and iloc commands
- Display all columns and table information.

▶ **Theory :→**

pandas Dataframe is 2-D size-mutable, potentially heterogeneous tabular data structure with labled axes (rows and columns). A Dataframe in Pandas consist of 3 principal components, the data, rows & column.

Syntax :→

A pandas Dataframe can be ~~constr~~ created using the following constructor →

```
pandas.Dataframe ( data, index, column, dtype, copy)
```

▶ **Creat DataFrame :**

A pandas dataframe can be created using various input keys

- Lists
- dict
- series
- Numpy Ndarrays
- Another dataframe

Indexing a dataframe using .loc[ ] :

This Function selects data by label of the rows and column. The df.loc

nba.csv → https://media.geeksforgeeks.org/wp-content/uploads/nba.csv
File

indexes selects data in a different way that just the indexing operator. It can select subset of rows and columns. Also simultaneously.

See Ex

```
# Selecting a single row
import pandas as pd
data = pd.read_csv("nba.csv", index_col = "Name")
first = data.loc["Avery Bradley"]
second = data.loc["R. J. Hunter"]
print(first, "\n\n", second)
```

Indexing a dataframe using .iloc[ ] :→

This function allows us to retrive rows and columns by position. In Here we have to specify the position of rows and column.
The df.loc & df.iloc are very similar but only uses integer location to make its selections.

Ex

```
# Selecting a single row
import pandas as pd
data = pd.read_csv("nba.csv", index_col = "Name")
row2 = data.iloc[3]
print(row2)
```

Program code :-

```
print("*************SCOB77_Pratham pitty_Group B_Assignment_7*************")

print("\n------------------------------------------------------------")

import pandas as pd

df_salesfile = pd.read_csv('C:\\Users\prath\Videos\#2.second year\sem3\PDS\csv files\CCRecords.csv')

print (df_salesfile.loc[20:40, ['Card Type Full Name', 'Card Holder', 'Expiry Date', 'Credit Limit']])

print (df_salesfile.info())
```

output:-

In [14]:

```
print("*************SCOB77_Pratham pitty_Group B_Assignment_7*************")
print("\n------------------------------------------------------------")
import pandas as pd
df_salesfile = pd.read_csv('C:\\Users\prath\Videos\#2.second year\sem3\PDS\csv files\CCReco
print (df_salesfile.loc[20:40, ['Card Type Full Name', 'Card Holder', 'Expiry Date', 'Credi
print (df_salesfile.info())
```

```
*************SCOB77_Pratham pitty_Group B_Assignment_7*************

------------------------------------------------------------
          Card Type Full Name         Card Holder Expiry Date  Credit Limit
20        Japan Credit Bureau     Janet Alexander      Sep-23        119300
21                   Discover       Jim X Ballard      Sep-29         42900
22                   Discover     Howard X Nelson      Feb-30         29500
23                       Visa    Eleanor Callahan      Mar-24        167400
24  Diners Club International     Lillian M Green      Feb-21         18900
25  Diners Club International    Judith I Rollins      Aug-31         85300
26        Japan Credit Bureau    Jeffrey J Barnes      Aug-23        155600
27                Master Card    Victor J Mercado      Sep-18         27000
28                       Visa    Justin Y Coleman      Jun-08        154800
29           American Express        Heather Wong      Feb-20         10700
30                   Discover   Marilyn E Coleman      Oct-24        188300
31                Master Card      Grace D Sparks      Jul-09        170100
32                   Discover   Donna A Rodriguez      Apr-20        189200
33                Master Card     Anita O Brennan      May-15         83900
34                       Visa         Jack Foster      Mar-21         57300
35                Master Card        Arthur Hines      Oct-23        154800
36  Diners Club International        Diane R Ross      May-18        177200
37        Japan Credit Bureau  Leonard K Browning      Nov-21        151400
38                Master Card         Nancy C Cox      Jun-16        187600
39                Master Card    Howard R Bernard      Jun-26        143400
40                Master Card   Phyllis H Johnson      Mar-24         71000
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 100 entries, 0 to 99
Data columns (total 11 columns):
 #   Column               Non-Null Count  Dtype
---  ------               --------------  -----
 0   Card Type Code       100 non-null    object
 1   Card Type Full Name  100 non-null    object
 2   Issuing Bank         100 non-null    object
 3   Card Number          100 non-null    float64
 4   Card Holder          100 non-null    object
 5   CVV/CVV2             100 non-null    int64
 6   Issue Date           100 non-null    object
 7   Expiry Date          100 non-null    object
 8   Billing Date         100 non-null    int64
 9   Card PIN             100 non-null    int64
 10  Credit Limit         100 non-null    int64
dtypes: float64(1), int64(4), object(6)
memory usage: 8.7+ KB
None
```

In [ ]:

```

```