In [1]:

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

In [48]:

```python
personal=pd.read_csv("personal.csv",sep=":-",header=None)
```

```
C:\Users\athis\Anaconda3\lib\site-packages\ipykernel_launcher.py:1: ParserWa
rning: Falling back to the 'python' engine because the 'c' engine does not s
upport regex separators (separators > 1 char and different from '\s+' are in
terpreted as regex); you can avoid this warning by specifying engine='pytho
n'.
  """Entry point for launching an IPython kernel.
```

In [3]:

```python
personal.head(10)
```

Out[3]:

	0	1
0	Name	RAMISHA RANI
1	Joint Holder	-
2	Address	D1, SHREE DHAKSHA APPARTMENT,IOB COLONY,COIMB...
3	Currency	INR
4	IFSC Code	UTIB0003080
5	MICR Code	641211017
6	Nominee Registered	Y
7	Registered Mobile No	XXXXXX6171
8	Registered Email ID	RAXXXXIT@GMAIL.COM
9	PAN	FORM60

In [54]:

```python
Statm=pd.read_csv("Nov 1 To Nov14.csv")
```

In [55]:

```
Statm
```

Out[55]:

	Tran Date	CHQNO	PARTICULARS	DR	CR	BA
0	01-11-2022	-	UPI/P2A/230546454047/NAVANEEDH/HDFC BANK/UPI		5000.00	25011.
1	01-11-2022	-	UPI/P2A/230552984292/NAVANEEDH/HDFC BANK/UPI	5000.00		20011.
2	01-11-2022	-	IMPS/P2A/230516319361/JOBMANGA/HDFCBANK/Fees		1000.00	21011.
3	01-11-2022	-	UPI/P2A/230565866620/NAVANEEDH/HDFC BANK/UPI		5000.00	26011.
4	01-11-2022	-	UPI/P2M/230574720064/HOTEL APO/Yes Bank /UPI	383.00		25628.
5	01-11-2022	-	UPI/P2M/230574772513/HOTEL APO/Yes Bank /UPI	40.00		25588.
6	02-11-2022	-	UPI/P2A/230683169378/KUMARAVAL/State Ban/Ramisha	5000.00		20588.
7	03-11-2022	-	UPI/P2M/230718375364/Instamojo/INDUSIND /UPI	106.05		20482.
8	03-11-2022	-	UPI/P2A/230732269417/K RAMISHA/HDFC BANK/UPI	6000.00		14482.
9	03-11-2022	-	UPI/P2M/230776790195/Facebook /HDFC BANK/Upi Tra	3000.00		11482.
10	03-11-2022	-	UPI/P2A/230736335631/S NIRANJA/Axis Bank/UPI		5000.00	16482.
11	03-11-2022	-	UPI/P2A/230737585564/Mohamed F/State Ban/UPI	5000.00		11482.
12	04-11-2022	-	INB/IFT/S B GANAPATHIRAMAN/TPARTY TRANSFER		5000.00	16482.
13	04-11-2022	-	NEFT/N308222192189789/ICE LABS /HDFC BANK/NEFT		346.37	16829.
14	04-11-2022	-	UPI/P2A/230858161766/Ms RAMISH/Indian Ba/UPI	2000.00		14829.
15	06-11-2022	-	UPI/P2M/231083359175/Facebook /HDFC BANK/Upi Tra	1000.00		13829.

	Tran Date	CHQNO	PARTICULARS	DR	CR	B.
16	07-11-2022	-	NEFT/CITIN22362827394/PAYPAL PA/CITIBANK /P0802		149.48	13978.
17	07-11-2022	-	IMPS/P2A/231122376130/JOBMANGA/HDFCBANK/AI		3000.00	16978.
18	08-11-2022	-	UPI/P2M/231268635691/Sri Ganap/Paytm Pay/UPI	2665.00		14313.
19	08-11-2022	-	UPI/P2M/231270217463/redbus/Axis Bank/UPI	1039.50		13274.
20	10-11-2022	-	UPI/P2A/231419574106/Ms RAMISH/Indian Ba/UPI	1500.00		11774.
21	10-11-2022	-	UPI/P2A/231419595659/I VETHA R/Indian Ov/UPI	5000.00		6774.
22	11-11-2022	-	Razorpay Software Pvt Ltd Fund		89.10	6863.
23	11-11-2022	-	UPI/P2M/231579806450/RazorpayZ/ICICI Ban/Zomato	481.40		6381.
24	12-11-2022	-	UPI/P2M/231795860781/NETFLIX C/HDFC BANK/Monthly	649.00		5732.
25	13-11-2022	-	UPI/P2A/231793154813/Ms RAMISH/Indian Ba/UPI	3500.00		2232.

◀   ▶

In [56]:

```python
Statm=Statm.drop("CHQNO",axis=1)
```

In [57]:

```
Statm
```

Out[57]:

	Tran Date	PARTICULARS	DR	CR	BAL	SOL
0	01-11-2022	UPI/P2A/230546454047/NAVANEEDH/HDFC BANK/UPI		5000.00	25011.94	3080
1	01-11-2022	UPI/P2A/230552984292/NAVANEEDH/HDFC BANK/UPI	5000.00		20011.94	3080
2	01-11-2022	IMPS/P2A/230516319361/JOBMANGA/HDFCBANK/Fees		1000.00	21011.94	3080
3	01-11-2022	UPI/P2A/230565866620/NAVANEEDH/HDFC BANK/UPI		5000.00	26011.94	3080
4	01-11-2022	UPI/P2M/230574720064/HOTEL APO/Yes Bank /UPI	383.00		25628.94	3080
5	01-11-2022	UPI/P2M/230574772513/HOTEL APO/Yes Bank /UPI	40.00		25588.94	3080
6	02-11-2022	UPI/P2A/230683169378/KUMARAVAL/State Ban/Ramisha	5000.00		20588.94	3080
7	03-11-2022	UPI/P2M/230718375364/Instamojo/INDUSIND /UPI	106.05		20482.89	3080
8	03-11-2022	UPI/P2A/230732269417/K RAMISHA/HDFC BANK/UPI	6000.00		14482.89	3080
9	03-11-2022	UPI/P2M/230776790195/Facebook /HDFC BANK/Upi Tra	3000.00		11482.89	3080
10	03-11-2022	UPI/P2A/230736335631/S NIRANJA/Axis Bank/UPI		5000.00	16482.89	3080
11	03-11-2022	UPI/P2A/230737585564/Mohamed F/State Ban/UPI	5000.00		11482.89	3080
12	04-11-2022	INB/IFT/S B GANAPATHIRAMAN/TPARTY TRANSFER		5000.00	16482.89	14
13	04-11-2022	NEFT/N308222192189789/ICE LABS /HDFC BANK/NEFT		346.37	16829.26	248
14	04-11-2022	UPI/P2A/230858161766/Ms RAMISH/Indian Ba/UPI	2000.00		14829.26	3080
15	06-11-2022	UPI/P2M/231083359175/Facebook /HDFC BANK/Upi Tra	1000.00		13829.26	3080

	Tran Date	PARTICULARS	DR	CR	BAL	SOL
16	07-11-2022	NEFT/CITIN22362827394/PAYPAL PA/CITIBANK /P0802		149.48	13978.74	248
17	07-11-2022	IMPS/P2A/231122376130/JOBMANGA/HDFCBANK/AI		3000.00	16978.74	3080
18	08-11-2022	UPI/P2M/231268635691/Sri Ganap/Paytm Pay/UPI	2665.00		14313.74	3080
19	08-11-2022	UPI/P2M/231270217463/redbus/Axis Bank/UPI	1039.50		13274.24	3080
20	10-11-2022	UPI/P2A/231419574106/Ms RAMISH/Indian Ba/UPI	1500.00		11774.24	3080
21	10-11-2022	UPI/P2A/231419595659/I VETHA R/Indian Ov/UPI	5000.00		6774.24	3080
22	11-11-2022	Razorpay Software Pvt Ltd Fund		89.10	6863.34	1506
23	11-11-2022	UPI/P2M/231579806450/RazorpayZ/ICICI Ban/Zomato	481.40		6381.94	3080
24	12-11-2022	UPI/P2M/231795860781/NETFLIX C/HDFC BANK/Monthly	649.00		5732.94	3080
25	13-11-2022	UPI/P2A/231793154813/Ms RAMISH/Indian Ba/UPI	3500.00		2232.94	3080

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In [58]:

```
Particular_sep=Statm["PARTICULARS"].to_csv("Particulars.csv",index=False)
```

C:\Users\athis\Anaconda3\lib\site-packages\ipykernel_launcher.py:1: FutureWa
rning: The signature of `Series.to_csv` was aligned to that of `DataFrame.to
_csv`, and argument 'header' will change its default value from False to Tru
e: please pass an explicit value to suppress this warning.
  """Entry point for launching an IPython kernel.

In [59]:

```
particulars=pd.read_csv("Particulars.csv",sep="/",header=None)
```

In [60]:

```
particulars
```

Out[60]:

	0	1	2	3	4	5
0	UPI	P2A	230546454047	NAVANEEDH	HDFC BANK	UPI
1	UPI	P2A	230552984292	NAVANEEDH	HDFC BANK	UPI
2	IMPS	P2A	230516319361	JOBMANGA	HDFCBANK	Fees
3	UPI	P2A	230565866620	NAVANEEDH	HDFC BANK	UPI
4	UPI	P2M	230574720064	HOTEL APO	Yes Bank	UPI
5	UPI	P2M	230574772513	HOTEL APO	Yes Bank	UPI
6	UPI	P2A	230683169378	KUMARAVAL	State Ban	Ramisha
7	UPI	P2M	230718375364	Instamojo	INDUSIND	UPI
8	UPI	P2A	230732269417	K RAMISHA	HDFC BANK	UPI
9	UPI	P2M	230776790195	Facebook	HDFC BANK	Upi Tra
10	UPI	P2A	230736335631	S NIRANJA	Axis Bank	UPI
11	UPI	P2A	230737585564	Mohamed F	State Ban	UPI
12	INB	IFT	S B GANAPATHIRAMAN	TPARTY TRANSFER	NaN	NaN
13	NEFT	N308222192189789	ICE LABS	HDFC BANK	NEFT	NaN
14	UPI	P2A	230858161766	Ms RAMISH	Indian Ba	UPI
15	UPI	P2M	231083359175	Facebook	HDFC BANK	Upi Tra
16	NEFT	CITIN22362827394	PAYPAL PA	CITIBANK	P0802	NaN
17	IMPS	P2A	231122376130	JOBMANGA	HDFCBANK	AI
18	UPI	P2M	231268635691	Sri Ganap	Paytm Pay	UPI
19	UPI	P2M	231270217463	redbus	Axis Bank	UPI
20	UPI	P2A	231419574106	Ms RAMISH	Indian Ba	UPI
21	UPI	P2A	231419595659	I VETHA R	Indian Ov	UPI
22	Razorpay Software Pvt Ltd Fund	NaN	NaN	NaN	NaN	NaN
23	UPI	P2M	231579806450	RazorpayZ	ICICI Ban	Zomato
24	UPI	P2M	231795860781	NETFLIX C	HDFC BANK	Monthly
25	UPI	P2A	231793154813	Ms RAMISH	Indian Ba	UPI

In [11]:

```python
particulars.rename(columns={0:"Mode of Transaction",1:"Type",2:"Reference number",3:"To",4:
```

In [12]:

```
particulars
```

Out[12]:

	Mode of Transaction	Type	Reference number	To	To Bank	Remarks
0	UPI	P2A	230546454047	NAVANEEDH	HDFC BANK	UPI
1	UPI	P2A	230552984292	NAVANEEDH	HDFC BANK	UPI
2	IMPS	P2A	230516319361	JOBMANGA	HDFCBANK	Fees
3	UPI	P2A	230565866620	NAVANEEDH	HDFC BANK	UPI
4	UPI	P2M	230574720064	HOTEL APO	Yes Bank	UPI
5	UPI	P2M	230574772513	HOTEL APO	Yes Bank	UPI
6	UPI	P2A	230683169378	KUMARAVAL	State Ban	Ramisha
7	UPI	P2M	230718375364	Instamojo	INDUSIND	UPI
8	UPI	P2A	230732269417	K RAMISHA	HDFC BANK	UPI
9	UPI	P2M	230776790195	Facebook	HDFC BANK	Upi Tra
10	UPI	P2A	230736335631	S NIRANJA	Axis Bank	UPI
11	UPI	P2A	230737585564	Mohamed F	State Ban	UPI
12	INB	IFT	S B GANAPATHIRAMAN	TPARTY TRANSFER	NaN	NaN
13	NEFT	N308222192189789	ICE LABS	HDFC BANK	NEFT	NaN
14	UPI	P2A	230858161766	Ms RAMISH	Indian Ba	UPI
15	UPI	P2M	231083359175	Facebook	HDFC BANK	Upi Tra
16	NEFT	CITIN22362827394	PAYPAL PA	CITIBANK	P0802	NaN
17	IMPS	P2A	231122376130	JOBMANGA	HDFCBANK	AI
18	UPI	P2M	231268635691	Sri Ganap	Paytm Pay	UPI
19	UPI	P2M	231270217463	redbus	Axis Bank	UPI
20	UPI	P2A	231419574106	Ms RAMISH	Indian Ba	UPI
21	UPI	P2A	231419595659	I VETHA R	Indian Ov	UPI
22	Razorpay Software Pvt Ltd Fund	NaN	NaN	NaN	NaN	NaN
23	UPI	P2M	231579806450	RazorpayZ	ICICI Ban	Zomato
24	UPI	P2M	231795860781	NETFLIX C	HDFC BANK	Monthly
25	UPI	P2A	231793154813	Ms RAMISH	Indian Ba	UPI

In [13]:

```python
Statm=Statm.drop("PARTICULARS",axis=1)
```

In [14]:

```python
Final_statm=pd.concat([Statm,particulars],axis=1)
```

In [15]:

```
Final_statm
```

Out[15]:

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
0	01-11-2022		5000.00	25011.94	3080	UPI	P2A	230546454047
1	01-11-2022	5000.00		20011.94	3080	UPI	P2A	230552984292
2	01-11-2022		1000.00	21011.94	3080	IMPS	P2A	230516319361
3	01-11-2022		5000.00	26011.94	3080	UPI	P2A	230565866620
4	01-11-2022	383.00		25628.94	3080	UPI	P2M	230574720064
5	01-11-2022	40.00		25588.94	3080	UPI	P2M	230574772513
6	02-11-2022	5000.00		20588.94	3080	UPI	P2A	230683169378
7	03-11-2022	106.05		20482.89	3080	UPI	P2M	230718375364
8	03-11-2022	6000.00		14482.89	3080	UPI	P2A	230732269417
9	03-11-2022	3000.00		11482.89	3080	UPI	P2M	230776790195
10	03-11-2022		5000.00	16482.89	3080	UPI	P2A	230736335631
11	03-11-2022	5000.00		11482.89	3080	UPI	P2A	230737585564
12	04-11-2022		5000.00	16482.89	14	INB	IFT	S B GANAPATHIRAMAN
13	04-11-2022		346.37	16829.26	248	NEFT	N308222192189789	ICE LABS
14	04-11-2022	2000.00		14829.26	3080	UPI	P2A	230858161766
15	06-11-2022	1000.00		13829.26	3080	UPI	P2M	231083359175

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction		Type	Reference number
16	07-11-2022		149.48	13978.74	248	NEFT	CITIN22362827394		PAYPAL PA
17	07-11-2022		3000.00	16978.74	3080	IMPS		P2A	231122376130
18	08-11-2022	2665.00		14313.74	3080	UPI		P2M	231268635691
19	08-11-2022	1039.50		13274.24	3080	UPI		P2M	231270217463
20	10-11-2022	1500.00		11774.24	3080	UPI		P2A	231419574106
21	10-11-2022	5000.00		6774.24	3080	UPI		P2A	231419595659
22	11-11-2022		89.10	6863.34	1506	Razorpay Software Pvt Ltd Fund		NaN	NaN
23	11-11-2022	481.40		6381.94	3080	UPI		P2M	231579806450
24	12-11-2022	649.00		5732.94	3080	UPI		P2M	231795860781
25	13-11-2022	3500.00		2232.94	3080	UPI		P2A	231793154813

In [16]:

```python
Final_statm=Final_statm.fillna("No data")
```

In [17]:

```python
Final_statm.to_csv("Pre-processed_statm.csv",index=False)
```

In [18]:

```
Final_statm
```

Out[18]:

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
0	01-11-2022		5000.00	25011.94	3080	UPI	P2A	230546454047
1	01-11-2022	5000.00		20011.94	3080	UPI	P2A	230552984292
2	01-11-2022		1000.00	21011.94	3080	IMPS	P2A	230516319361
3	01-11-2022		5000.00	26011.94	3080	UPI	P2A	230565866620
4	01-11-2022	383.00		25628.94	3080	UPI	P2M	230574720064
5	01-11-2022	40.00		25588.94	3080	UPI	P2M	230574772513
6	02-11-2022	5000.00		20588.94	3080	UPI	P2A	230683169378
7	03-11-2022	106.05		20482.89	3080	UPI	P2M	230718375364
8	03-11-2022	6000.00		14482.89	3080	UPI	P2A	230732269417
9	03-11-2022	3000.00		11482.89	3080	UPI	P2M	230776790195
10	03-11-2022		5000.00	16482.89	3080	UPI	P2A	230736335631
11	03-11-2022	5000.00		11482.89	3080	UPI	P2A	230737585564
12	04-11-2022		5000.00	16482.89	14	INB	IFT	S B GANAPATHIRAMAN
13	04-11-2022		346.37	16829.26	248	NEFT	N308222192189789	ICE LABS
14	04-11-2022	2000.00		14829.26	3080	UPI	P2A	230858161766
15	06-11-2022	1000.00		13829.26	3080	UPI	P2M	231083359175

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
16	07-11-2022		149.48	13978.74	248	NEFT	CITIN22362827394	PAYPAL PA
17	07-11-2022		3000.00	16978.74	3080	IMPS	P2A	231122376130
18	08-11-2022	2665.00		14313.74	3080	UPI	P2M	231268635691
19	08-11-2022	1039.50		13274.24	3080	UPI	P2M	231270217463
20	10-11-2022	1500.00		11774.24	3080	UPI	P2A	231419574106
21	10-11-2022	5000.00		6774.24	3080	UPI	P2A	231419595659
22	11-11-2022		89.10	6863.34	1506	Razorpay Software Pvt Ltd Fund	No data	No data
23	11-11-2022	481.40		6381.94	3080	UPI	P2M	231579806450
24	12-11-2022	649.00		5732.94	3080	UPI	P2M	231795860781
25	13-11-2022	3500.00		2232.94	3080	UPI	P2A	231793154813

In [89]:

```
max(Final_statm["CR"])
```

Out[89]:

5000.0

In [90]:

```
max(Final_statm["DR"])
```

Out[90]:

6000.0

In [29]:

```python
Final_statm["Tran Date"].value_counts().head(1)
```

Out[29]:

```
01-11-2022    6
Name: Tran Date, dtype: int64
```

In [42]:

```python
Final_statm["Tran Date"].value_counts().tail(1)
```

Out[42]:

```
12-11-2022    1
Name: Tran Date, dtype: int64
```

In [65]:

```python
Final_statm.dtypes
```

Out[65]:

```
Tran Date             object
DR                    object
CR                    object
BAL                   float64
SOL                    int64
Mode of Transaction   object
Type                  object
Reference number      object
To                    object
To Bank               object
Remarks               object
dtype: object
```

In [71]:

```python
Final_statm["CR"] = Final_statm["CR"].str.replace(' ', '')
```

In [72]:

```python
Final_statm["CR"]
```

Out[72]:

```
0      5000.00
1
2      1000.00
3      5000.00
4
5
6
7
8
9
10     5000.00
11
12     5000.00
13      346.37
14
15
16      149.48
17     3000.00
18
19
20
21
22       89.10
23
24
25
Name: CR, dtype: object
```

In [74]:

```python
Final_statm["CR"]=pd.to_numeric(Final_statm["CR"])
```

In [75]:

```python
Final_statm["CR"]
```

Out[75]:

```
0      5000.00
1          NaN
2      1000.00
3      5000.00
4          NaN
5          NaN
6          NaN
7          NaN
8          NaN
9          NaN
10     5000.00
11         NaN
12     5000.00
13      346.37
14         NaN
15         NaN
16      149.48
17     3000.00
18         NaN
19         NaN
20         NaN
21         NaN
22       89.10
23         NaN
24         NaN
25         NaN
Name: CR, dtype: float64
```

In [76]:

```python
Final_statm.isnull().sum()
```

Out[76]:

```
Tran Date              0
DR                     0
CR                     17
BAL                    0
SOL                    0
Mode of Transaction    0
Type                   0
Reference number       0
To                     0
To Bank                0
Remarks                0
dtype: int64
```

In [79]:

```python
Final_statm["DR"] = Final_statm["DR"].str.replace(' ', '')
```

In [80]:

```python
Final_statm["DR"]=pd.to_numeric(Final_statm["DR"])
```

In [81]:

```python
Final_statm.isnull().sum()
```

Out[81]:

```
Tran Date               0
DR                      9
CR                     17
BAL                     0
SOL                     0
Mode of Transaction     0
Type                    0
Reference number        0
To                      0
To Bank                 0
Remarks                 0
dtype: int64
```

In [82]:

```python
Final_statm["SOL"]=pd.to_numeric(Final_statm["SOL"])
```

In [84]:

```
Final_statm
```

Out[84]:

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
0	01-11-2022	NaN	5000.00	25011.94	3080	UPI	P2A	230546454047
1	01-11-2022	5000.00	NaN	20011.94	3080	UPI	P2A	230552984292
2	01-11-2022	NaN	1000.00	21011.94	3080	IMPS	P2A	230516319361
3	01-11-2022	NaN	5000.00	26011.94	3080	UPI	P2A	230565866620
4	01-11-2022	383.00	NaN	25628.94	3080	UPI	P2M	230574720064
5	01-11-2022	40.00	NaN	25588.94	3080	UPI	P2M	230574772513
6	02-11-2022	5000.00	NaN	20588.94	3080	UPI	P2A	230683169378
7	03-11-2022	106.05	NaN	20482.89	3080	UPI	P2M	230718375364
8	03-11-2022	6000.00	NaN	14482.89	3080	UPI	P2A	230732269417
9	03-11-2022	3000.00	NaN	11482.89	3080	UPI	P2M	230776790195
10	03-11-2022	NaN	5000.00	16482.89	3080	UPI	P2A	230736335631
11	03-11-2022	5000.00	NaN	11482.89	3080	UPI	P2A	230737585564
12	04-11-2022	NaN	5000.00	16482.89	14	INB	IFT	S B GANAPATHIRAMAN
13	04-11-2022	NaN	346.37	16829.26	248	NEFT	N308222192189789	ICE LABS
14	04-11-2022	2000.00	NaN	14829.26	3080	UPI	P2A	230858161766
15	06-11-2022	1000.00	NaN	13829.26	3080	UPI	P2M	231083359175

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
16	07-11-2022	NaN	149.48	13978.74	248	NEFT	CITIN22362827394	PAYPAL PA
17	07-11-2022	NaN	3000.00	16978.74	3080	IMPS	P2A	231122376130
18	08-11-2022	2665.00	NaN	14313.74	3080	UPI	P2M	231268635691
19	08-11-2022	1039.50	NaN	13274.24	3080	UPI	P2M	231270217463
20	10-11-2022	1500.00	NaN	11774.24	3080	UPI	P2A	231419574106
21	10-11-2022	5000.00	NaN	6774.24	3080	UPI	P2A	231419595659
22	11-11-2022	NaN	89.10	6863.34	1506	Razorpay Software Pvt Ltd Fund	No data	No data
23	11-11-2022	481.40	NaN	6381.94	3080	UPI	P2M	231579806450
24	12-11-2022	649.00	NaN	5732.94	3080	UPI	P2M	231795860781
25	13-11-2022	3500.00	NaN	2232.94	3080	UPI	P2A	231793154813

◄ |████████████████████████ | ►

In [85]:

```
Final_statm.isnull().sum()
```

Out[85]:

```
Tran Date               0
DR                      9
CR                     17
BAL                     0
SOL                     0
Mode of Transaction     0
Type                    0
Reference number        0
To                      0
To Bank                 0
Remarks                 0
dtype: int64
```

In [87]:

```python
Final_statm=Final_statm.fillna(0.0)
```

In [88]:

```
Final_statm
```

Out[88]:

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
0	01-11-2022	0.00	5000.00	25011.94	3080	UPI	P2A	230546454047
1	01-11-2022	5000.00	0.00	20011.94	3080	UPI	P2A	230552984292
2	01-11-2022	0.00	1000.00	21011.94	3080	IMPS	P2A	230516319361
3	01-11-2022	0.00	5000.00	26011.94	3080	UPI	P2A	230565866620
4	01-11-2022	383.00	0.00	25628.94	3080	UPI	P2M	230574720064
5	01-11-2022	40.00	0.00	25588.94	3080	UPI	P2M	230574772513
6	02-11-2022	5000.00	0.00	20588.94	3080	UPI	P2A	230683169378
7	03-11-2022	106.05	0.00	20482.89	3080	UPI	P2M	230718375364
8	03-11-2022	6000.00	0.00	14482.89	3080	UPI	P2A	230732269417
9	03-11-2022	3000.00	0.00	11482.89	3080	UPI	P2M	230776790195
10	03-11-2022	0.00	5000.00	16482.89	3080	UPI	P2A	230736335631
11	03-11-2022	5000.00	0.00	11482.89	3080	UPI	P2A	230737585564
12	04-11-2022	0.00	5000.00	16482.89	14	INB	IFT	S B GANAPATHIRAMAN
13	04-11-2022	0.00	346.37	16829.26	248	NEFT	N308222192189789	ICE LABS
14	04-11-2022	2000.00	0.00	14829.26	3080	UPI	P2A	230858161766
15	06-11-2022	1000.00	0.00	13829.26	3080	UPI	P2M	231083359175

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
16	07-11-2022	0.00	149.48	13978.74	248	NEFT	CITIN22362827394	PAYPAL PA
17	07-11-2022	0.00	3000.00	16978.74	3080	IMPS	P2A	231122376130
18	08-11-2022	2665.00	0.00	14313.74	3080	UPI	P2M	231268635691
19	08-11-2022	1039.50	0.00	13274.24	3080	UPI	P2M	231270217463
20	10-11-2022	1500.00	0.00	11774.24	3080	UPI	P2A	231419574106
21	10-11-2022	5000.00	0.00	6774.24	3080	UPI	P2A	231419595659
22	11-11-2022	0.00	89.10	6863.34	1506	Razorpay Software Pvt Ltd Fund	No data	No data
23	11-11-2022	481.40	0.00	6381.94	3080	UPI	P2M	231579806450
24	12-11-2022	649.00	0.00	5732.94	3080	UPI	P2M	231795860781
25	13-11-2022	3500.00	0.00	2232.94	3080	UPI	P2A	231793154813

In [102]:

```
sum(Final_statm["CR"])
```

Out[102]:

24584.949999999997

In [103]:

```
sum(Final_statm["DR"])
```

Out[103]:

42363.950000000004

In [109]:

```python
float(Final_statm["BAL"].tail(1))
```

Out[109]:

2232.94

In [110]:

```python
float(Final_statm["BAL"][0])
```

Out[110]:

25011.94

In [111]:

```python
import plotly.express as px
```

In [113]:

```python
fig=px.histogram(Final_statm,x="Mode of Transaction",
                 color="Mode of Transaction",
                 title="MODE OF TRANSACTION")
fig.show()
```
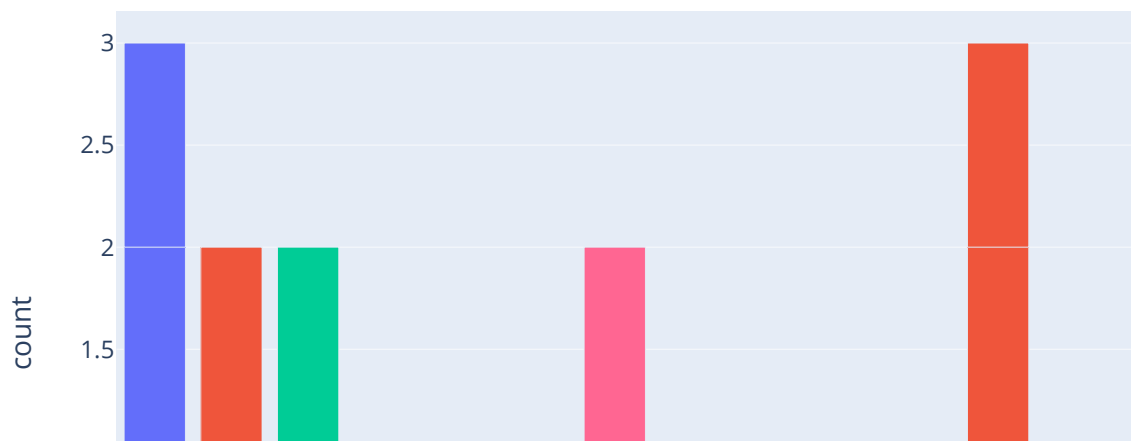
MODE OF TRANSACTION

In [128]:

```python
fig=px.bar(Final_statm,x="To",
               color="To",
               title="Money Tranfered To")
fig.show()
```
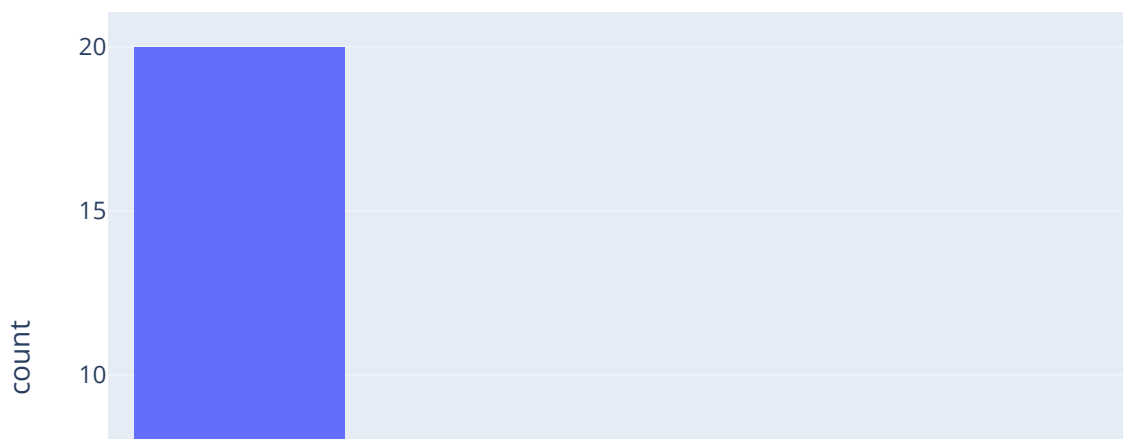
Money Tranfered To

In [136]:

```python
fig = px.line(Final_statm, y="CR")
fig.show()
```

In [137]:

```python
fig = px.line(Final_statm, y="DR")
fig.show()
```
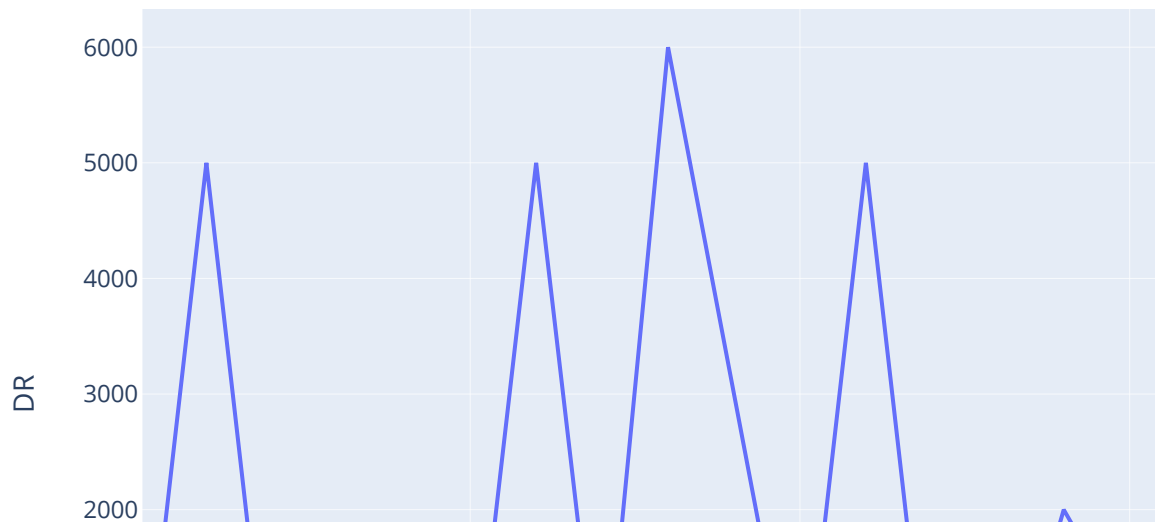
In [139]:

```python
fig = px.line(Final_statm,y="BAL")
fig.show()
```


In [153]:

```python
Total_No_of_trans_datewise=pd.DataFrame(Final_statm["Tran Date"].value_counts())
```

In [156]:

```python
Total_No_of_trans_datewise=Total_No_of_trans_datewise.rename(columns={"Tran Date":"Total No
```

In [157]:

```
Total_No_of_trans_datewise
```

Out[157]:

	Total No of Transactions Per Day
01-11-2022	6
03-11-2022	5
04-11-2022	3
08-11-2022	2
07-11-2022	2
10-11-2022	2
11-11-2022	2
02-11-2022	1
06-11-2022	1
13-11-2022	1
12-11-2022	1

In [162]:

```
data=[
     ["Maximum amount credited",max(Final_statm["CR"])],
     ["Maximum amount debited",max(Final_statm["DR"])],
     ["Opening balance",Final_statm["BAL"][0]],
     ["Closing balance",Final_statm["BAL"][len(Final_statm)-1]]
     ]
```

In [163]:

```
data
```

Out[163]:

```
[['Maximum amount credited', 5000.0],
 ['Maximum amount debited', 6000.0],
 ['Opening balance', 25011.94],
 ['Closing balance', 2232.94]]
```

In [168]:

```
imp_datas= pd.DataFrame(data, columns=['Details', 'Amount'])
```

In [169]:

```
imp_datas
```

Out[169]:

	Details	Amount
0	Maximum amount credited	5000.00
1	Maximum amount debited	6000.00
2	Opening balance	25011.94
3	Closing balance	2232.94

In [164]:

```
To_which_bank=pd.DataFrame(Final_statm["To Bank"].value_counts())
```

In [172]:

```
To_which_bank
```

Out[172]:

	Banks Involved
HDFC BANK	7
Indian Ba	3
HDFCBANK	2
No data	2
State Ban	2
Yes Bank	2
Axis Bank	2
P0802	1
ICICI Ban	1
NEFT	1
Paytm Pay	1
INDUSIND	1
Indian Ov	1

In [166]:

```
To_which_bank=To_which_bank.rename(columns={"To Bank":"Banks Involved"})
```

In [167]:

```
To_which_bank
```

Out[167]:

	Banks Involved
HDFC BANK	7
Indian Ba	3
HDFCBANK	2
No data	2
State Ban	2
Yes Bank	2
Axis Bank	2
P0802	1
ICICI Ban	1
NEFT	1
Paytm Pay	1
INDUSIND	1
Indian Ov	1

In [195]:

```
Mode_of_Transactions_done=pd.DataFrame(Final_statm["Mode of Transaction"].value_counts())
```

In [196]:

```
Mode_of_Transactions_done
```

Out[196]:

	Mode of Transaction
UPI	20
IMPS	2
NEFT	2
INB	1
Razorpay Software Pvt Ltd Fund	1

In [198]:

```python
Type_of_transaction=pd.DataFrame(Final_statm["Type"].value_counts())
Type_of_transaction
```

Out[198]:

	Type
P2A	13
P2M	9
N308222192189789	1
No data	1
IFT	1
CITIN22362827394	1

In [176]:

```
Final_statm
```

Out[176]:

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
0	01-11-2022	0.00	5000.00	25011.94	3080	UPI	P2A	230546454047
1	01-11-2022	5000.00	0.00	20011.94	3080	UPI	P2A	230552984292
2	01-11-2022	0.00	1000.00	21011.94	3080	IMPS	P2A	230516319361
3	01-11-2022	0.00	5000.00	26011.94	3080	UPI	P2A	230565866620
4	01-11-2022	383.00	0.00	25628.94	3080	UPI	P2M	230574720064
5	01-11-2022	40.00	0.00	25588.94	3080	UPI	P2M	230574772513
6	02-11-2022	5000.00	0.00	20588.94	3080	UPI	P2A	230683169378
7	03-11-2022	106.05	0.00	20482.89	3080	UPI	P2M	230718375364
8	03-11-2022	6000.00	0.00	14482.89	3080	UPI	P2A	230732269417
9	03-11-2022	3000.00	0.00	11482.89	3080	UPI	P2M	230776790195
10	03-11-2022	0.00	5000.00	16482.89	3080	UPI	P2A	230736335631
11	03-11-2022	5000.00	0.00	11482.89	3080	UPI	P2A	230737585564
12	04-11-2022	0.00	5000.00	16482.89	14	INB	IFT	S B GANAPATHIRAMAN
13	04-11-2022	0.00	346.37	16829.26	248	NEFT	N308222192189789	ICE LABS
14	04-11-2022	2000.00	0.00	14829.26	3080	UPI	P2A	230858161766
15	06-11-2022	1000.00	0.00	13829.26	3080	UPI	P2M	231083359175

	Tran Date	DR	CR	BAL	SOL	Mode of Transaction	Type	Reference number
16	07-11-2022	0.00	149.48	13978.74	248	NEFT	CITIN22362827394	PAYPAL PA
17	07-11-2022	0.00	3000.00	16978.74	3080	IMPS	P2A	231122376130
18	08-11-2022	2665.00	0.00	14313.74	3080	UPI	P2M	231268635691
19	08-11-2022	1039.50	0.00	13274.24	3080	UPI	P2M	231270217463
20	10-11-2022	1500.00	0.00	11774.24	3080	UPI	P2A	231419574106
21	10-11-2022	5000.00	0.00	6774.24	3080	UPI	P2A	231419595659
22	11-11-2022	0.00	89.10	6863.34	1506	Razorpay Software Pvt Ltd Fund	No data	No data
23	11-11-2022	481.40	0.00	6381.94	3080	UPI	P2M	231579806450
24	12-11-2022	649.00	0.00	5732.94	3080	UPI	P2M	231795860781
25	13-11-2022	3500.00	0.00	2232.94	3080	UPI	P2A	231793154813

◀   ▶

In [181]:

```python
fig=px.histogram(Final_statm,x="Mode of Transaction",y="CR",
                color="Mode of Transaction",
                title="MODE OF TRANSACTION")
fig.show()
```
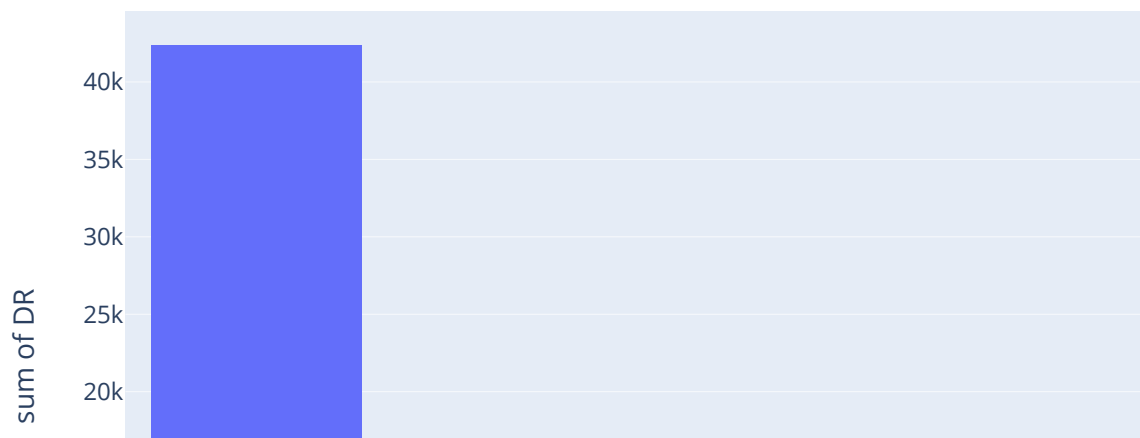
MODE OF TRANSACTION

In [182]:

```
fig=px.histogram(Final_statm,x="Mode of Transaction",y="DR",
                 color="Mode of Transaction",
                 title="MODE OF TRANSACTION")
fig.show()
```
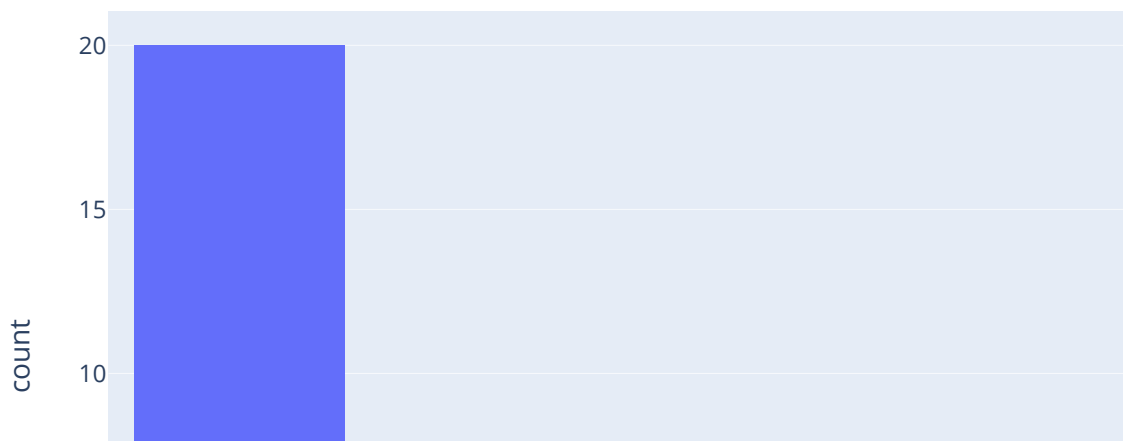
MODE OF TRANSACTION

In [183]:

```python
fig=px.histogram(Final_statm,x="Mode of Transaction",
                 color="Mode of Transaction",
                 title="MODE OF TRANSACTION")
fig.show()
```
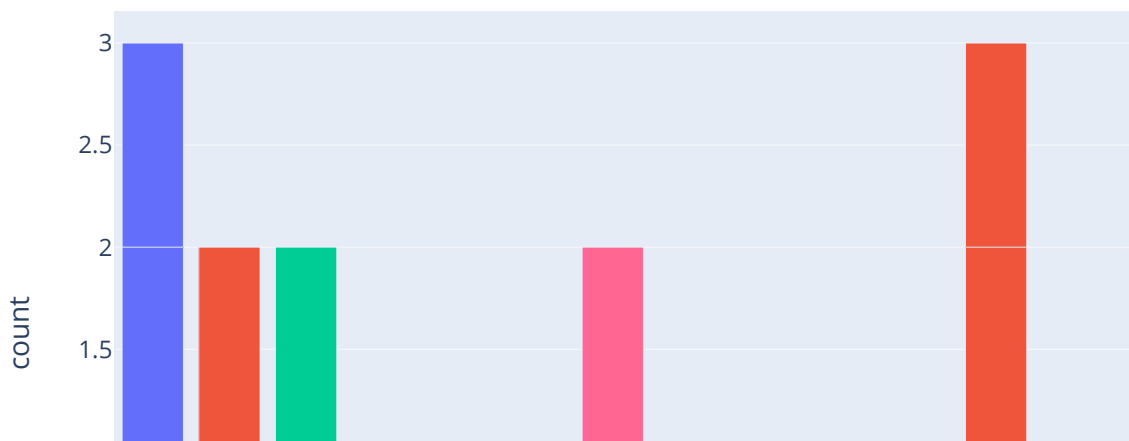
MODE OF TRANSACTION

In [188]:

```python
fig=px.bar(Final_statm,x="To",
              color="To",
              title="Money Tranfered To")
fig.show()
```
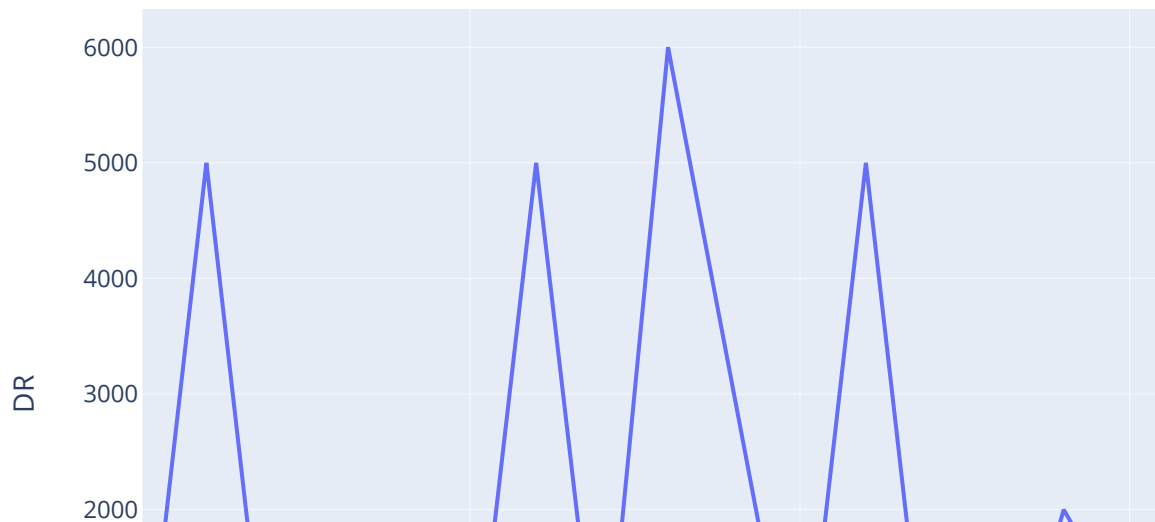
Money Tranfered To

In [189]:

```python
fig = px.line(Final_statm, y="CR")
fig.show()
```

In [190]:

```python
fig = px.line(Final_statm, y="DR")
fig.show()
```

In [191]:

```python
fig = px.line(Final_statm,y="BAL")
fig.show()
```

In [192]:

```
Total_No_of_trans_datewise
```

Out[192]:

	Total No of Transactions Per Day
01-11-2022	6
03-11-2022	5
04-11-2022	3
08-11-2022	2
07-11-2022	2
10-11-2022	2
11-11-2022	2
02-11-2022	1
06-11-2022	1
13-11-2022	1
12-11-2022	1

In [193]:

```
To_which_bank
```

Out[193]:

	Banks Involved
HDFC BANK	7
Indian Ba	3
HDFCBANK	2
No data	2
State Ban	2
Yes Bank	2
Axis Bank	2
P0802	1
ICICI Ban	1
NEFT	1
Paytm Pay	1
INDUSIND	1
Indian Ov	1

In [194]:

```
imp_datas
```

Out[194]:

	Details	Amount
0	Maximum amount credited	5000.00
1	Maximum amount debited	6000.00
2	Opening balance	25011.94
3	Closing balance	2232.94

In [197]:

```
Mode_of_Transactions_done
```

Out[197]:

	Mode of Transaction
UPI	20
IMPS	2
NEFT	2
INB	1
Razorpay Software Pvt Ltd Fund	1

In [199]:

```
Type_of_transaction
```

Out[199]:

	Type
P2A	13
P2M	9
N308222192189789	1
No data	1
IFT	1
CITIN22362827394	1

In [ ]: