

## CSE 564 – VISUALIZATION

### MINI PROJECT #1 – LAB REPORT – SPRING 2023

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#### Data set source:

The data set has been taken from Kaggle -<https://www.kaggle.com/datasets/karvalo/indian-card-payment-data-set>

The original dataset contained 3000+ rows so it has been reduced to a little more than 500 rows by filtering out data of the largest 5 banks of India by userbase – State Bank of India, Bank of Baroda, HDFC, ICICI and Axis Banks.

The data has been scraped through the RBI official website (Reserve Bank of India) which provides monthly updates to the same - RBI monthly statistics - <https://www.rbi.org.in/scripts/ATMView.aspx>

The timeline for the data is November 2011 to August 2019 which is nearly a decade long collection of very interesting data and data trends regarding card payments in India.

#### Data Attributes:

Column Name	Meaning
month	
year	
month_number	
start_date	
end_date	
bank_name	Name of the bank
no_atms_on_site	1. Number of ATM deployed on site by the bank.
no_atms_off_site	2. Number of ATM deployed off site by the bank.
no_pos_on_line	3. Number of POS deployed online by the bank
no_pos_off_line	4. Number of POS deployed offline by the bank
no_credit_cards	5. Total number of credit cards issued outstanding (after adjusting the number of cards withdrawn/cancelled).
no_credit_card_atm_txn	6. Total number of financial transactions done by the credit card issued by the bank at ATMs
no_credit_card_pos_txn	7. Total number of financial transactions done by the credit card issued by the bank at POS terminals
no_credit_card_atm_txn_value_in_mn	8. Total value of financial transactions done by the credit card issued by the bank at ATMs
no_credit_card_pos_txn_value_in_mn	9. Total value of financial transactions done by the credit card issued by the bank at POS terminals.

no_debit_cards	10. Total number of debit cards issued outstanding (after adjusting the number of cards withdrawn/cancelled).
no_debit_card_atm_txn	11. Total number of financial transactions done by the debit card issued by the bank at ATMs
no_debit_card_pos_txn	12. Total number of financial transactions done by the debit card issued by the bank at POS terminals
no_debit_card_atm_txn_value_in_mn	13. Total value of financial transactions done by the debit card issued by the bank at ATMs
no_debit_card_pos_txn_value_in_mn	14. Total value of financial transactions done by the debit card issued by the bank at POS terminals.

#### **Why I thought this data is interesting:**

I've chosen the data of Indian card payments because in the last decade, almost all houses in India have access to Internet which is cheap and easily available due to rise of a new network called Reliance Jio, due to which almost every household has access to the internet and online banking. India has primarily been a country that prefers cash in the past for their payments but due to many circumstances over the years such as Covid-19 and Demonetization have caused the Indian public to shift their mindset and be more accepting of cashless forms of payment. Due to these factors, there has been a sharp rise in cashless payments over the years in the forms of Debit cards, Credit cards, Net banking and UPI. By understanding the spending habits of the Indian citizens can give us a lot of very useful and fascinating data.

#### **Note about the code:**

Since the brief about radio buttons was ambiguous as drop downs and radio buttons serve a very similar purpose, I have implemented drop down menus for scatter plots of X and Y axis selection as in terms of UX there were too many radio buttons if each field was to have their own radio button, but I have also implemented a working radio button code which is commented at the end of the index.html file.

Thanks and Regards,

Anujay Ghosh.