**Quick check for the distinct value:**

> table(Globepay\_Acceptance\_Report$state)

ACCEPTED DECLINED

3777 1653

acceptance\_rate\_over\_time <- sqldf("SELECT

+ date\_time\_as\_date,

+ total\_attempted\_transaction,

+ total\_accepted,

+ -- Safe divide logic

+ CASE WHEN (total\_attempted\_transaction >0 AND

+ total\_accepted>0) THEN ROUND(100\*1.0\*(total\_accepted/total\_attempted\_transaction),2)

+ ELSE 0

+ END AS acceptance\_rate

+

+ FROM

+ (

+ SELECT

+ date\_time\_as\_date,

+ COUNT(DISTINCT external\_ref) AS total\_attempted\_transaction,

+ COUNT(DISTINCT CASE WHEN state='ACCEPTED' THEN external\_ref ELSE NULL END) AS total\_accepted

+ FROM Globepay\_Acceptance\_Report

+ GROUP BY 1

+ ) AS main "

+ )

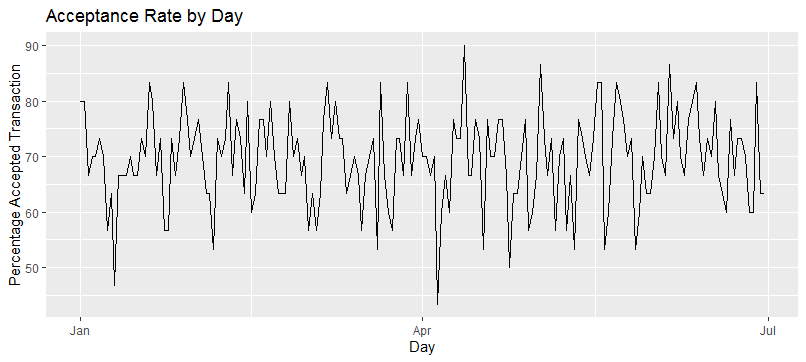
> plot\_acceptance\_rate\_over\_time <- ggplot(acceptance\_rate\_over\_time, aes(x=(date\_time\_as\_date), y=acceptance\_rate)) + geom\_line() +

+ ggtitle("Acceptance Rate by Day") +

+ ylab("Percentage Accepted Transaction") +

+ xlab("Day")

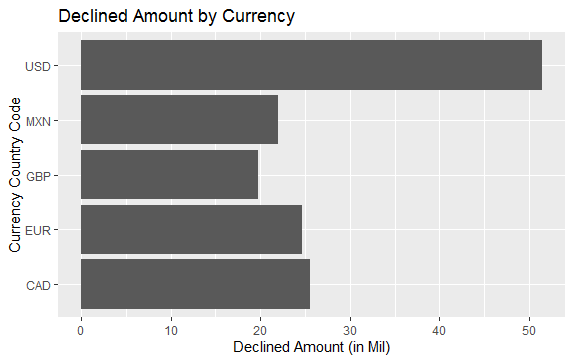
> print(plot\_acceptance\_rate\_over\_time)



|  |
| --- |
| > declined\_amount\_by\_country <- sqldf("  + SELECT  + country,  + SUM(CASE WHEN state='DECLINED' THEN amount ELSE 0 END) AS total\_declined\_amount  + FROM Globepay\_Acceptance\_Report  + GROUP BY 1  + HAVING SUM(CASE WHEN state='DECLINED' THEN amount ELSE 0 END) > 25000000 "  + )  > head(declined\_amount\_by\_country)  country total\_declined\_amount  1 AE 26335152  2 CA 25583267  3 US 25125670 |
|  |
| |  | | --- | | > | |

|  |  |
| --- | --- |
| country | DECLINED Amount |
| AE | 26,335,152.43 |
| CA | 25,583,266.66 |
| US | 25,125,669.78 |

|  |
| --- |
| dim(Globepay\_Chargeback\_Report)  [1] 5430 4 |
|  |
| |  | | --- | | >  > table(Globepay\_Chargeback\_Report$chargeback)  FALSE TRUE  5207 223  Missing Chargeback data:  > missing\_charge\_backs <- sqldf("  + SELECT  + a.\*,  + b.\*  + FROM Globepay\_Acceptance\_Report a  + LEFT JOIN Globepay\_Chargeback\_Report b ON (a.external\_ref = b.external\_ref)  + WHERE b.external\_ref IS NULL  + "  + )  > dim(missing\_charge\_backs)  [1] 0 17 | |



> declinced\_volume\_amount <- sqldf("

+ SELECT

+ currency,

+ SUM(CASE WHEN state='DECLINED' THEN amount ELSE 0 END) / 1000000 total\_declined\_amount

+ FROM Globepay\_Acceptance\_Report

+ GROUP BY 1

+ "

+ )

> plot\_declinced\_volume\_amount <- ggplot(declinced\_volume\_amount, aes(y=(currency), x=total\_declined\_amount)) + geom\_bar(stat = "identity") +

+ ggtitle("Declined Amount by Currency") +

+ ylab("Declined Amount (in Mil)") +

+ xlab("Currency")

> print(plot\_declinced\_volume\_amount)

> plot\_declinced\_volume\_amount <- ggplot(declinced\_volume\_amount, aes(y=(currency), x=total\_declined\_amount)) + geom\_bar(stat = "identity") +

+ ggtitle("Declined Amount by Currency") +

+ xlab("Declined Amount (in Mil)") +

+ ylab("Currency Country Code")

> print(plot\_declinced\_volume\_amount)

|  |  |  |
| --- | --- | --- |
| country | DECLINED Amount | % Distribution |
| AE | 26,335,152.43 | 18.37% |
| CA | 25,583,266.66 | 17.85% |
| FR | 24,609,910.18 | 17.17% |
| MX | 21,970,362.99 | 15.33% |
| UK | 19,713,233.74 | 13.75% |
| **US** | **25,125,669.78** | **17.53%** |

|  |  |  |
| --- | --- | --- |
| **currency** | **DECLINED** | **% Distribution** |
| CAD | 25,583,266.66 | 17.85% |
| EUR | 24,609,910.18 | 17.17% |
| GBP | 19,713,233.74 | 13.75% |
| MXN | 21,970,362.99 | 15.33% |
| **USD** | **51,460,822.21** | **35.90%** |

Key Notes:

* Apparently, significantly higher percentage of USD currency getting declined arising from countries other than USA itself (namely AE).
* Another reason to ask when country like AE is paying in USD instead of local currency.
* Is that a normal course of business? Or a slight deviation from the normal course.
* Acceptance rate took a sharp decline from April to June. Besides, that downward trend, the acceptance rate paints a steady picture (averaging around mid to late 50s)