1. Create New DATE Table Using CALENDARAUTO + FORMAT
Go to Modeling > New Table and enter:
DAX

```
Date =
ADDCOLUMNS (
   CALENDARAUTO(),
   "Year", YEAR([Date]),
   "Month", FORMAT([Date], "MMMM"),
   "Month Number", MONTH([Date]),
   "Month-Year", FORMAT([Date], "MMM YYYY"),
   "Quarter", "Q" & FORMAT([Date], "Q")
)
```

Create Relationship:

Connect Date[Date] to your_table[account_opened_date] or sales[sales_date] as appropriate.

---

2. Stacked Column Chart: Total Card Limit by Brand and Type
Chart Setup:

X-axis: card_brand

Y-axis: Sum(card_limit)

Legend: card_type

Tooltip: Count(client_id)

Add a DAX measure if needed:
DAX

```
Client Count = DISTINCTCOUNT(your_table[client_id])
```

---

3. Drill Down Chart: Card Issue Trends
Create a date hierarchy using your date table.

Hierarchy: Date[Year] → Date[Month]

Values: Count(card_number)

Chart Type: Stacked Column Chart

Enable drill up/down using the Drill button on the chart.

---

4. Top 10 Clients by Total Card Limit
Create a Bar Chart:

Axis: client_id

Value: SUM(card_limit)

Use Top N filter:

Visual Level Filters → client_id

Filter Type: Top N

Show Top: 10

By Value: SUM(card_limit)

Click Apply filter

Sort by: SUM(card_limit) descending.

---

5. Client Drill-through Page

Setup Drill-through Page:

Create a new page and add a table visual with:

card_type, card_brand, card_limit, expire_dates

Add drill-through filter:

Drag client_id into Drill-through filters

Add slicers:

card_type

YEAR(expire_dates) (use DAX if needed: Year = YEAR([expire_dates]))

Now, right-click any client in the main visuals → Drill Through → "Client Detail Page".

---

6. Heatmap Matrix for Expiry Trends

Visual Type: Matrix

Rows: card_brand

Columns: YEAR(expire_dates) → Create column if needed:

DAX

Expiry Year = YEAR(your_table[expire_dates])

Values: COUNT(card_number)

Enable conditional formatting → Background color → Based on Count(card_number), use color gradient (red = high, green = low).

---

7. Dynamic Top N Card Brands Based on User Selection

Step 1: Create a numeric slicer table

DAX

```
TopN_Selector = GENERATESERIES(1, 20, 1)
```

Add a slicer using this table.

Step 2: DAX Measure for Ranking

DAX

```
TopN Card Brands =
VAR N = SELECTEDVALUE(TopN_Selector[Value])
RETURN
IF (
   RANKX(ALL(your_table[card_brand]), CALCULATE(SUM(your_table[card_limit]))) <= N,
   1,
   0
)
```

Step 3: Filter Chart

Use a Column Chart:

X-axis: card_brand

Y-axis: SUM(card_limit)

Add visual-level filter:

TopN Card Brands = 1

---

8. Import sales.csv and Disable Auto DateTime

Go to File > Options and Settings > Options > Data Load > Time Intelligence

✅ Uncheck "Auto Date/Time for new files"

Then:

Load sales.csv

Create a new date table using CALENDARAUTO() as earlier.

---

9. Average Days Between Sales Per Customer
Step 1: Sort sales per customer
Assuming your sales table has:

customer_id

sales_date

Step 2: Create calculated column to get previous date:
DAX

```
Previous Sales Date =
CALCULATE(
   MAX(sales[sales_date]),
   FILTER(
      sales,
      sales[customer_id] = EARLIER(sales[customer_id]) &&
      sales[sales_date] < EARLIER(sales[sales_date])
   )
)
```

Step 3: Create another column for day difference:
DAX

```
Days Since Last Sale =
DATEDIFF([Previous Sales Date], [sales_date], DAY)
```

Step 4: Create measure to calculate average across customer
DAX

```
Avg Days Between Sales =
AVERAGEX(
   FILTER(sales, NOT(ISBLANK([Days Since Last Sale]))),
   [Days Since Last Sale]
)
```