

You started drinking coffee from Tim Horton's since January 2020 an average you spend \$6.45 each visit 3 time during the week to Tim Hortons till now. Calculate CLV.

1) Write down the step involved in solving the above question.

The CLV will be calculated by the formula:

$$clv = \text{avarage month revenue} * \text{avarage lifespan}$$

$$amr = 3 * 4 * 6.45 = \$77.4 \text{ per month}$$

$$al = 12 + 12 + 3 = 27 \text{ months}$$

$$clv = \$77.4 * 27 = \$ 2089.80 \text{ until now}$$

2) Use the data and calculate the CLV by adding the profit margin of 25%.

$$clv = 2089.8 * 0.25 = \$ 522.45 \text{ with 25\% of profit margin}$$

3) Evaluate the CLV for following customer, whose purchases for two year is more than 2000.

$$clv = \frac{\text{avarage purchase}}{\text{avarage lifespan}}$$

$$clv = \frac{2000}{2} = \$1000 \text{ per year}$$

4) Build the Formula to calculate Customer Lifetime Value. How do you approach Lifetime Value Prediction questions?

With predict questions, you can only use the formula:

$$clv = \frac{t * aov * agm * alt}{number\ of\ clients\ for\ the\ period}$$

In which:

t = Average number of transactions per month

aov = Average order value

agm = Average gross margin

alt = Average customer lifespan in months

This approach aims to model a customer's transactional behavior and predict what they're likely to do in the future.

The code for calculating this type of CLV is:

```
#Input

t <- as.numeric(readline(prompt = "Enter the average number of
transactions per month: "))
aov <- as.numeric(readline(prompt = "Enter the average order value: "))
agm <- as.numeric(readline(prompt = "Enter the average gross margin: "))
alt <- as.numeric(readline(prompt = "Enter the average customer lifespan
in months: "))
num_clients <- as.numeric(readline(prompt = "Enter the number of clients
for the period: "))

#Calculation

clv <- (t * aov * agm * alt) / num_clients

#Output

cat("The Customer Lifetime Value (CLV) is:", clv)
```

With the output:

```
Rscript /tmp/ZVqaDwgo0X.r
Enter the average number of transactions per month: 12
Enter the average order value: 6.45
Enter the average gross margin: 0.25
Enter the average customer lifespan in months: 27
Enter the number of clients for the period: 1
The Customer Lifetime Value (CLV) is: 522.45
```