Instituto Tecnológico de Tijuana

Ingeniería en Tecnologías de la información y comunicaciones

Nombre de la Materia:

Minería de datos

Actividad:

Practica 3

Profesor:

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Alumno(s):

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```
Pista 1

Utilizar:
  round()
  mean()
  max()
  min()

#Datos
revenue <- c(14574.49, 7606.46, 8611.41, 9175.41, 8058.65, 8105.44, 11496.28, 9766.09, 10305.32, 14379.96, 10713.97, 15433.50)


expenses <- c(12051.82, 5695.07, 12319.20, 12089.72, 8658.57, 840.20, 3285.73, 5821.12, 6976.93, 16618.61, 10054.37, 3803.96)
```

Solution

Calculate Profit As The Differences Between Revenue And Expenses

```
profit <- revenue - expenses
profit
```

Calculate Tax As 30% Of Profit And Round To 2 Decimal Points

```
tax <- round(0.30 * profit, 2)
tax
```

Calculate Profit Remaining After Tax Is Deducted

```
profit.after.tax <- profit - tax
profit.after.tax
```

Calculate The Profit Margin As Profit After Tax Over Revenue
Round To 2 Decimal Points, Then Multiply By 100 To Get %

```
profit.margin <- round(profit.after.tax / revenue, 2) * 100
profit.margin
```

Calculate The Mean Profit After Tax For The 12 Months

```
mean_pat <- mean(profit.after.tax)
mean_pat
```

Find The Months With Above-Mean Profit After Tax

```
good.months <- profit.after.tax >  mean_pat
good.months
```

Bad Months Are The Opposite Of Good Months !

```
bad.months <- !good.months
bad.months
```

The Best Month Is Where Profit After Tax Was Equal To The Maximum

```
best.month <- profit.after.tax == max(profit.after.tax)
best.month
```

The Worst Month Is Where Profit After Tax Was Equal To The Minimum

```
worst.month <- profit.after.tax == min(profit.after.tax)
worst.month
```

Convert All Calculations To Units Of One Thousand Dollars

```
revenue.1000 <- round(revenue / 1000, 0)
expenses.1000 <- round(expenses / 1000, 0)
profit.1000 <- round(profit / 1000, 0)
profit.after.tax.1000 <- round(profit.after.tax / 1000, 0)
```

Print Results

```
revenue.1000
expenses.1000
profit.1000
profit.after.tax.1000
profit.margin
good.months
bad.months
best.months
worst.month
```

Preview Of What's Coming In The Next Section

```
M <- rbind(
  revenue.1000,
  expenses.1000,
  profit.1000,
  profit.after.tax.1000,
  profit.margin,
  good.months,
  bad.months,
  best.month,
  worst.month
)

M
#Print The Matrix
```