

TEAM ID	PNT2022TMID42950
TITLE	AI BASED DISCOURSE FOR BANKING INDUSTRY
DATE	17.11.2022

Creating Loan Account Action

```
# Create a window
window = Tk()
window.title("Loan Calculator") # Set title

# create the input boxes.
Label(window, text = "Annual Interest Rate").grid(row = 1,
                                                    column = 1, sticky = W)
Label(window, text = "Number of
Years").grid(row = 2,
              column = 1, sticky = W)
Label(window, text = "Loan
Amount").grid(row = 3,
              column = 1, sticky = W)
Label(window, text = "Monthly
Payment").grid(row = 4,
               column = 1, sticky = W)
Label(window, text = "Total Payment").grid(row
= 5,
                                             column = 1, sticky = W)

# for taking inputs
```

```
self.annualInterestRateVar =  
StringVar()  
Entry(window, textvariable =  
    self.annualInterestRateVar,justify =  
    RIGHT).grid(row = 1, column = 2)
```

```
self.numberOfYearsVar = StringVar()  
Entry(window, textvariable =  
    self.numberOfYearsVar,justify =  
    RIGHT).grid(row = 2, column = 2)
```

```
self.loanAmountVar = StringVar()  
Entry(window, textvariable =  
    self.loanAmountVar,justify =  
    RIGHT).grid(row = 3, column = 2)
```

```
self.monthlyPaymentVar = StringVar()  
lblMonthlyPayment = Label(window,  
textvariable =  
    self.monthlyPaymentVar).grid(row  
    = 4,column = 2, sticky = E)
```

```
self.totalPaymentVar = StringVar()  
lblTotalPayment = Label(window,  
textvariable =  
    self.totalPaymentVar).grid(row =  
  
    column = 2, sticky = E)
```

```

# create the button
btComputePayment = Button(window, text = "Compute
                        Payment",command = self.computePayment).grid(
                        row = 6, column = 2, sticky =
E)# Create an event loop
window.mainloop()
def computePayment(self):
    # compute the total payment.
    monthlyPayment =
        self.getMonthlyPayment(float(self.loanAmountVar.get()),
        float(self.annualInterestRateVar.get()) / 1200,
        int(self.numberOfWorkYearsVar.get()))

    self.totalPaymentVar.set(format(totalPayment,
'10.2f'))# compute the monthly payment.
def getMonthlyPayment(self, loanAmount, monthlyInterestRate,
numberOfYears):
    monthlyPayment = loanAmount *
        monthlyInterestRate / (1 - 1 / (1 +
        monthlyInterestRate) **
        (numberOfYears * 12))

from tkinter import
*

    return
monthlyPayment;#
Import tkinter

class

    LoanCalculator:

    def __init__(self):

```

```

window = Tk() # Create a window
window.title("Loan Calculator") #
Set title#
create the input boxes.
Label(window, text = "Annual Interest Rate").grid(row = 1,
                                                    column = 1, sticky = W)
Label(window, text = "Number of
Years").grid(row = 2,
                                                    column = 1, sticky = W)
Label(window, text = "Loan
Amount").grid(row = 3,
                                                    column = 1, sticky = W)
Label(window, text = "Monthly Payment").grid(row =
4,
                                                    column = 1, sticky = W)
Label(window, text = "Total
Payment").grid(row = 5,
                                                    column = 1, sticky = W)

# for taking inputs
self.annualInterestRateVar =
StringVar()
Entry(window, textvariable =
self.annualInterestRateVar, justify =
RIGHT).grid(row = 1, column =)
self.numberOfYearsVar = StringVar()

Entry(window, textvariable =
self.numberOfYearsVar, justify =
RIGHT).grid(row = 2, column = 2)
self.loanAmountVar = StringVar()

```

```
Entry(window, textvariable =  
    self.loanAmountVar, justify =  
    RIGHT).grid(row = 3, column = 2)  
self.monthlyPaymentVar = StringVar()  
lblMonthlyPayment = Label(window,  
textvariable =  
    self.monthlyPaymentVar).grid(row  
    = 4, column = 2, sticky = E)
```

```
self.totalPaymentVar = StringVar()  
lblTotalPayment = Label(window,  
textvariable =  
    self.totalPaymentVar).grid(row  
    = 5, column = 2, sticky = E)
```

```
# create the button  
btComputePayment = Button(window, text = "Compute  
    Payment", command = self.computePayment).grid(  
    row = 6, column = 2, sticky =  
E)window.mainloop() # Create an event  
loop
```

```
# compute the total  
payment.  
def  
computePayment(self):
```

```
    monthlyPayment = self.getMonthlyPayment(1200,  
    int(self.numberOfYearsVar.get()))  
  
    float(self.loanAmountVar.get()),  
    float(self.annualInterestRateVar.get()) /
```

```

self.monthlyPaymentVar.set(format(monthlyPayment,
'10.2f'))totalPayment =
float(self.monthlyPaymentVar.get()) * 12 \
    * int(self.numberOfYearsVar.get())

self.totalPaymentVar.set(format(totalPayment, '10.2f'))

def getMonthlyPayment(self, loanAmount, monthlyInterestRate,
numberOfYears):
    # compute the monthly payment.
    monthlyPayment = loanAmount * monthlyInterestRate / (1
- 1 / (1 + monthlyInterestRate) **
(numberOfYears * 12))return monthlyPayment;
root = Tk() # create the widget

# call the class to run the program.
LoanCalculator()

```

Flowchart:

