

<b>TEAM ID</b>	<b>PNT2022TMID18803</b>
<b>TITLE</b>	<b>AI BASED DISCOURSE FOR BANKING INDUSTRY</b>
<b>DATE</b>	<b>16.11.2022</b>

## 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:

