TEAM ID	PNT2022TMID45878
TITLE	AI BASED DISCOURSE FOR BANKING INDUSTRY
DATE	16.11.2022

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.numberOfYearsVar.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: