

**Create GUI for loan calculator. With necessary fields.**

In [\*]:

```
from tkinter import *
class LoanCalculator:

    def __init__(self):

        window = Tk()
        window.title("Loan Calculator")

        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)

        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 = 5,
                                                              column = 2, sticky = E)

        btComputePayment = Button(window, text = "Compute Payment",
                                   command = self.computePayment).grid(
                                   row = 6, column = 2, sticky = E)
        window.mainloop()

    def computePayment(self):

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

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

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

```
def getMonthlyPayment(self, loanAmount, monthlyInterestRate, numberOfYears):  
    monthlyPayment = loanAmount * monthlyInterestRate / (1 - (1 / (1 + monthlyInterestRate)  
    return (monthlyPayment)  
    r = Tk()
```

```
LoanCalculator()
```