

PROFESSIONAL TRAINING REPORT

At

Sathyabama Institute of Science and Technology (Deemed to be University)

Submitted in partial fulfillment of the requirements for the award of Bachelor of
Technology Degree in

Information Technology By

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**DEPARTMENT OF INFORMATION TECHNOLOGY SCHOOL OF COMPUTING
SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY**

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BONAFIDE CERTIFICATE

This is to certify that this Professional Training Report is the bonafide work of
Mohamed Ashik N (38120050) who
Underwent the professional training in “LOAN CALCULATOR” under our
supervision from July 2020 to September 2020.

Internal Guide

Dr.Jabez M.E.,Ph.D

Head of the Department

Dr. R. SUBHASHINI, M.E., Ph.D.,

Submitted for Viva voce Examination held on

Internal Examiner External Examiner

DECLARATION

I, Mohamed Ashik.N(Reg. No. 38120050) hereby declare that the Professional Training Report on “LOAN CALCULATOR” done by me under the guidance of Dr. L.Mary Gladence at Sathyabama Institute Of Science And Technology is submitted in partial fulfillment of the requirements for the award of Bachelor of technology degree in Information Technology.

DATE: SIGNATURE OF THE CANDIDATE PLACE:

ACKNOWLEDGEMENT

We are pleased to acknowledge our sincere thanks to Board of management of SATHYABAMA for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

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We wish to express our thanks to all Teaching and Non-teaching staff members of the Department of INFORMATION TECHNOLOGY who were helpful in many ways for the completion of the project.

INTERNSHIP CERTIFICATE



INT: RE20S076

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **MOHAMED ASHIK N** student of **SATHYARAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, BTECH/IT** has undergone the Internship Training through online in our concern entitled **PHP&SQL** from **15th Aug 2020 to 29th Aug 2020** in relevant departments related to their academic studies.

During the above period, the performance was good & we wish great success in all your future endeavours.

J. merv

Technology drives the world. We are the people who are behind the technology.

Authorised Signature



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ABSTRACT

Nowadays, people are racing to achieve a comfortable standard of living. They work hard to support their families and also to the satisfaction of his own life. It is not surprising if we see many who can afford to buy houses and cars with full payment for the common interest. However not all are able to do so, those who have large families are more likely to pay in monthly installments. For example for car loan payment. Therefore our group has developed an application that will facilitate their affairs that cannot afford for the full installment for the car itself. We developed an application called “Car Loan Calculator” to reduce their problem. The purpose of this application is to help people who want to purchase a car by using monthly installments. With this application also, people will find out if they can afford their dream car using this user friendly car loan calculator. The user just need to insert total amount of car, down payment, interest rate and loan period then the application will calculate to the user how much user need to pay monthly within a certain period of time.

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A.	SOURCE CODE	
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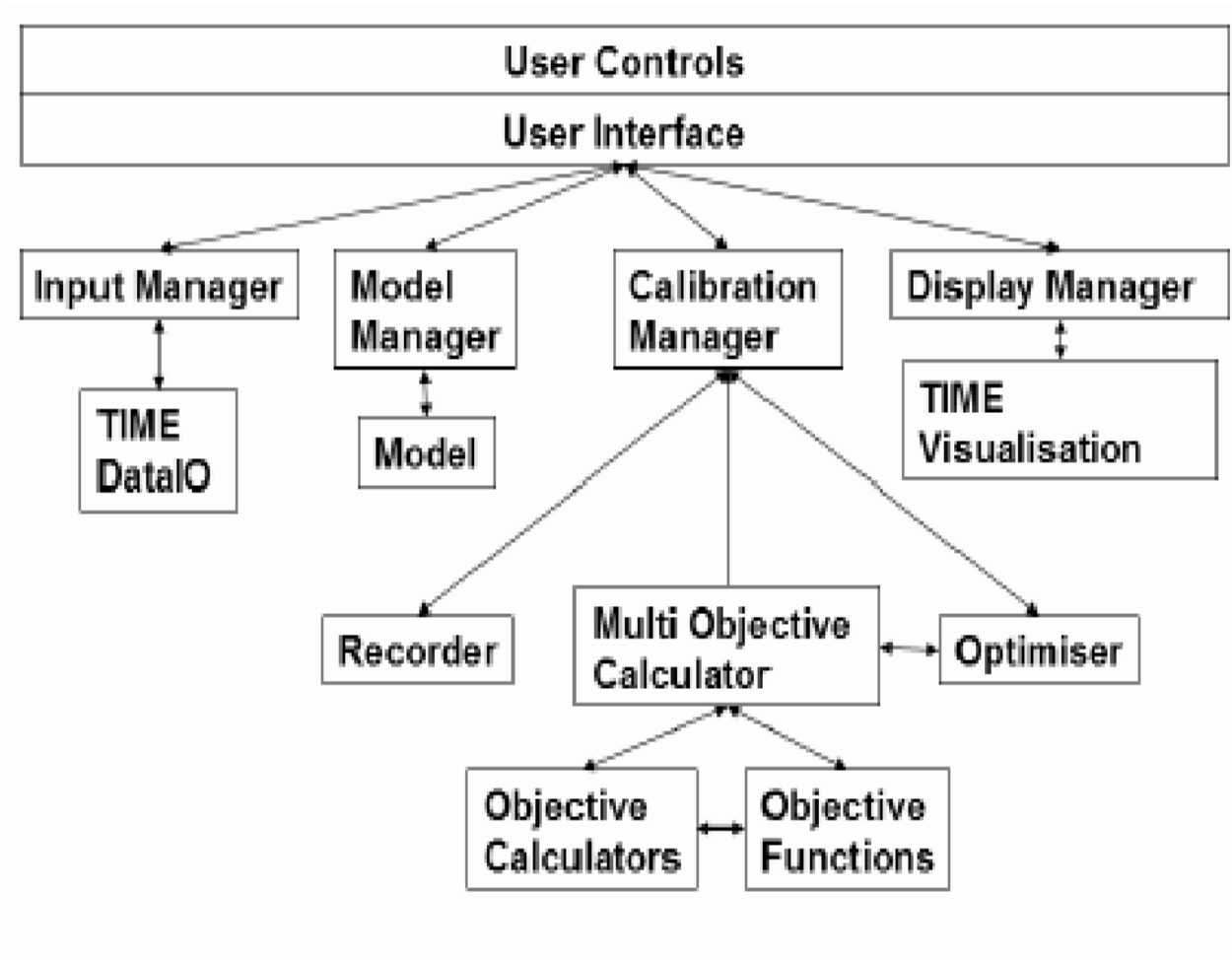
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INTRODUCTION

- Python is a simple, general purpose, high level, and object-oriented programming language.
- Python is an interpreted scripting language also. Guido Van Rossum is known as the founder of Python programming.
- Python is a general purpose, dynamic, high level, and interpreted programming language.
- It supports Object Oriented programming approach to develop applications. It is simple and easy to learn and provides lots of high-level data structures.
- Python is easy to learn yet powerful and versatile scripting language, which makes it attractive for Application Development.
- Python's syntax and dynamic typing with its interpreted nature make it an ideal language for scripting and rapid application development.

Python supports multiple programming pattern, including object-oriented, imperative, and functional or procedural programming styles

SYSTEM DESIGN



IMPLEMENTATION OR FEASIBILITY STUDY

- The feasibility of the project is analyzed in this phase and business proposal is put forth with a very general plan for the project and some cost estimates.
- During system analysis the feasibility study of the proposed system is to be carried out.
- This is to ensure that the proposed system is not a burden to the company.
- For feasibility analysis, some understanding of the major requirements for the system is essential.
- Three key considerations involved in the feasibility analysis are
 - **ECONOMICAL FEASIBILITY**
 - **TECHNICAL FEASIBILITY**
 - **OPERATIONAL FEASIBILITY**

RESULT

Loan Calculator

LOAN CALCULATOR:-

Loan Amount	100000
Interest Rate	
Number of Years	
Monthly Payment	
Total Payment	

Loan Calculator

LOAN CALCULATOR:-

Loan Amount	
Interest Rate	
Number of Years	
Monthly Payment	
Total Payment	

EXIT COMPUTE PAYMENT

Loan Calculator

LOAN CALCULATOR:-

Loan Amount	100000
Interest Rate	2
Number of Years	
Monthly Payment	
Total Payment	

Loan Calculator

LOAN CALCULATOR:-

Loan Amount	100000
Interest Rate	2
Number of Years	10
Monthly Payment	
Total Payment	

Entering the number of years

Loan Calculator

LOAN CALCULATOR:-

Loan Amount	100000
Interest Rate	2
Number of Years	10
Monthly Payment	920.13
Total Payment	110413.60

EXIT COMPUTE RESULTS

Computing the result

CONCLUSION

- Thus the project infer that Loan Calculator Using Python is a desktop application which is developed in Python platform.
- It is developed using Python Tkinter. Out of all GUI(Graphical User Interface) “Tkinter” is the most comenly used method.
- Python provides the standard library Tkinter for creating the graphical user interface for desktop based applications.
- Developing desktop based applications with python Tkinter is not a complex task. It is simple to execute and anlyse the program Thkinter.
- The calculator will be capable of calculating the total amount and monthly amount payment based on loan amount, period an intrest rate.
- Sticky argument is used in this program for default, widgets are created in the center ,using sticky arguments we can change it.

REFERENCE

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SOURCE CODE

```
from tkinter import *

class
    LoanCalculator:

    def init (self):
        window = Tk()
        window.title("Loan Calculator")
        window.configure(bg="brown")

        Label(window,text="LOANCALCULATOR:",font=('arial',16,'bold')).grid(row=0,column
            =1,sticky=W)

        Label(window, text = "Loan Amount",fg="black",bg="orange",
            width=20).grid(row
            = 1, column = 1, sticky = W)

        Label(window,text="InterestRate",fg="black",bg="skyblue",width=20).grid(row=1,column = 1, sticky = W)

        Label(window,text="NumberofYears",fg="black",bg="lightgreen",width
            =20).grid(row = 3, column = 1, sticky = W)
```

```
Label(window,text= "Monthly  
Payment", "fg="black",bg="pink",width=20).grid(row  
= 4, column = 1, sticky = W)  
Label(window, text = "Total Payment",fg="black",  
bg="grey",width=20).grid(row = 5, column = 1, sticky = W)
```

```
self.loanAmountVar = StringVar()  
Entry(window, textvariable = self.loanAmountVar, justify = RIGHT1,  
column = 2)
```

```
self.annualInterestRateVar = StringVar()  
Entry(window, textvariable = self.annualInterestRateVar, but the only  
self.loanAmountVar = StringVar()  
Entry(window, textvariable = self.loanAmountVar, justify =  
RIGHT).grid(row = 1, column = 2)s  
self.annualInterestRateVar = StringVar()Entry(window, textvariable =  
self.annualInterestRateVar,  
justify = RIGHT).grid(row = 2, column = 2)
```

```
self.numberOfYearsVar = StringVar()
```

```
Entry(window, textvariable = self.numberOfYearsVar, 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)
```

```
btnexit=Button(window,text="EXIT",fg="black",bg=" powder  
blue",font='arial',10,'bold'),command=exit).grid(row=146,column=1,sti  
cky=W)
```

```
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())*12*  
int(self.numberOfWorkYearsVar.get())
```

```
self.totalPaymentVar.set(format(totalPayment, '10.2f')) def=qexit():  
root.destroy()
```

```
def getMonthlyPayment(self, loanAmount, monthlyInterestRate,  
numberOfYears): monthlyPayment = loanAmount *  
monthlyInterestRate / (1 - 1 / (1 +  
monthlyInterestRate) ** (numberOfYears * 12)) return  
monthlyPayment;  
root = Tk()  
LoanCalculator()
```

B.screenshot

vinay.py - C:\Users\K.Vinay Kumar\Desktop\vinay.py (3.7.4)

File Edit Format Run Options Window Help

```
from tkinter import *
class LoanCalculator:

    def __init__(self):
        window=Tk()
        window.title("Loan Calculator")
        window.configure(bg="brown")
        Label(window, text="LOAN CALCULATOR:-", font=('arial', 16, 'bold')).grid(row=0, column=1, sticky=W)
        Label(window, text="Loan Amount", fg="black", bg="orange", width=20).grid(row=141, column=141, sticky=W)
        Label(window, text="Interest Rate", fg="black", bg="skyblue", width=20).grid(row=142, column=141, sticky=W)
        Label(window, text="Number of Years", fg="black", bg="lightgreen", width=20).grid(row=143, column=141, sticky=W)
        Label(window, text="Monthly Payment", fg="black", bg="pink", width=20).grid(row=144, column=141, sticky=W)
        Label(window, text="Total Payment", fg="black", bg="grey", width=20).grid(row=145, column=141, sticky=W)

        self.loanAmountVar=StringVar()

        Entry(window, textvariable=self.loanAmountVar, justify=RIGHT, bg="orange", width=20).grid(row=141, column=142)

        self.annualInterestRateVar=StringVar()
        Entry(window, textvariable=self.annualInterestRateVar, justify=RIGHT, bg="skyblue", width=20).grid(row=142, column=142)
        self.numberOfyearsVar=StringVar()

        Entry(window, textvariable=self.numberOfyearsVar, justify=RIGHT, bg="lightgreen", width=20).grid(row=143, column=142)
        self.monthlyPaymentVar=StringVar()
        lblMonthlyPayment=Label(window, textvariable=self.monthlyPaymentVar, bg="pink").grid(row=144, column=142, sticky=E)

        self.totalPaymentVar=StringVar()
        lblTotalPayment=Label(window, textvariable=self.totalPaymentVar, bg="grey").grid(row=145, column=142, sticky=E)

        btComputePayment=Button(window, text = "COMPUTE PAYMENT", fg="black", bg="red", width=20, command=self.computePayment).grid(row=146, column=142, sticky=E)
        btnexit=Button(window, text="EXIT", fg="black", bg="powder blue", font=('areal', 10, 'bold'), command=exit).grid(row=146, column=1, sticky=W)

        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())*12 \
            *int(self.numberOfyearsVar.get())
```

