

# Life360 – Extending Healthcare to your Desktop

## A MINI PROJECT REPORT

Submitted by

#### **RAHUL M DINESH**

In partial fulfillment for the award of the degree of

**Bachelor of Engineering** 

in

**COMPUTER SCIENCE AND ENGINEERING** 





## **Certificate**

Accredited by NAAC with 'A' Grade & Accredited by NBA

This is to certify that the mini project work titled

## <u>Life360 – Extending</u>

### **Healthcare to your Desktop**

Submitted in partial fulfillment of the degree of

Bachelor of Engineering in

Computer Science and Engineering by

#### **RAHUL M DINESH**

USN: 1NH18CS738

**DURING** 

**ODD SEMESTER 2020-2021** 

for

COURSE CODE: 20CSE59

Signature of Reviewer

Signature of HOD

#### **SEMESTER END EXAMINATION**

Name of the Examiner	Signature with date
1	
2.	

#### **ABSTRACT**

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

**ACKNOWLEDGEMENT** 

The satisfaction and euphoria that accompany the successful completion of any task

would be impossible without the mention of the people who made it possible, whose

constant guidance and encouragement crowned our efforts with success.

I have great pleasure in expressing gratitude to **Dr. Mohan Manghnani**, Chairman of New

Horizon Educational Institutions for providing necessary infrastructure and creating good

environment.

I take this opportunity to express my profound gratitude to Dr. Manjunatha, Principal,

New Horizon College of Engineering, for his constant support and encouragement.

I would also like to thank Dr. B. Rajalakshmi, Professor and Head, Department of

Computer Science and Engineering, for her constant support.

I also express my gratitude to Ms. Lakshmi S Hanne, Assistant Professor, Department of

Computer Science and Engineering, my project guide, for constantly monitoring the

development of the project and setting up precise deadlines. Her valuable suggestions

were the motivating factors in completing the work.

**RAHUL MUSALIYATH DINESH** 

USN: 1NH18CS738

2

## **CONTENTS**

ABS	BSTRACT		I
ACI	ACKNOWLEDGEMENT		П
LIS	r of figi	JRES	VI
LIS	Γ OF TAB	LES	VII
1.	INTROD	DUCTION	
	1.1.	PROBLEM DEFINITION	1
	1.2.	OBJECTIVES	1
	1.3.	METHODOLOGY TO BE FOLLOWED	2
	1.4.	EXPECTED OUTCOMES	2
	1.5.	HARDWARE AND SOFTWARE REQUIREMENTS	2
2.	FUNDA	MENTALS OF PYTHON	
	2.1.	INTRODUCTION TO PYTHON	3
	2.2.	ADVANTAGES OF PYTHON	4
	2.3.	DATA TYPES	6
	2.4.	PYTHON NUMBERS	7
	2.5.	PYTHON STRINGS	8
	2.6.	PYTHON LISTS	10
	2.7.	PYTHON TUPLES	14
	2.8.	PYTHON SETS	17
	2.9.	PYTHON DICTIONARIES	17
	2.10.	FUNCTIONS IN PYTHON	19
3.	FUNDA	MENTALS OF TKINTER	
		INTRODUCTION	22
		WIDGETS	22
	3.3.		23
	3.4.	LABELS	24

	3.5.	BUTTONS	25
	3.6.	COMBOBOX	25
	3.7.	FRAME	26
4.	FUNDA	MENTALS OF DBMS	
	4.1.	INTRODUCTION	27
	4.2.	CHARACTERISTICS OF A DBMS	27
	4.3.	DATA MODEL	29
	4.4.	THREE - SCHEMA ARCHITECTURE	30
	4.5.	DBMS COMPONENT MODULES	30
	4.6.	ENTITY-RELATIONSHIP (ER) MODEL	33
	4.7.	RELATIONAL SCHEMA	34
5.	FUNDA	MENTALS OF SQL	
	5.1.	INTRODUCTION	35
	5.2.	SQL COMMANDS	35
	5.3.	DATA DEFINITION LANGUAGE	36
	5.4.	DATA MANIPULATION LANGUAGE	36
	5.5.	DATA CONTROL LANGUAGE	37
	5.6.	TRANSACTION CONTROL LANGUAGE	37
	5.7.	DATA QUERY LANGUAGE	37
6.	DESIGN		
		DESIGN GOALS	38
		DATABASE STRUCTURE	38
	6.3.	GUI STRUCTURE	43
7.	IMPLEN	/IENTATION	
	7.1.	CREATING THE DATABASE	47
	7.2.	CONNECTING THE DATABASE TO THE APPLICATION	47
	7.3.	CREATING THE MAIN WINDOW	49
	7.4.	DISPLAYING FRAMES OVER THE MAIN WINDOW	50
	7.5.	PROCESSING QUERIES	53

	7.6.	BUILDING THE CNN MODEL FOR PREDICTION	54
	7.7.	ADDING STYLES USING TKINTER	55
8.	RESULT	TS .	
	8.1.	REGISTERING A NEW USER (VALIDATION)	56
	8.2.	REGISTERING A NEW USER (INDIVIDUAL)	57
	8.3.	REGISTERING A NEW USER (ORGANIZATION)	61
	8.4.	LOGGING IN (INDIVIDUAL)	63
	8.5.	USER UI (INDIVIDUAL)	68
	8.6.	LOGGING IN (ORGANIZATION)	78
	8.7.	USER UI (ORGANIZATION)	79
9.	CONCL	USION	82
	DEFEDE	TNOTO	02
	REFERE	:NCES	83

## LIST OF FIGURES

Figure No	Figure Description	<u>Page</u> <u>No</u>
1	Different versions of Python over the years	4
2	String Indexing in Python	12
3	Negative or Backward Indexing in Python	13
4	Three Schema Architecture	30
5	DBMS Component Modules	31
6	ER Diagram of a Company Database	34
7	Various types of SQL commands	36
8	ER Diagram of the database	39
9	Various tables and views in the database	47
10	Connecting a Python application to the SQLite Database	49
11	A simple Tkinter main window	50
12	The 'mainFrame' frame in the main window	53
13	The 'mod1' frame raised over 'mainFrame'	53
14	The process of building a CNN prediction model	55

## LIST OF TABLES

Table No	Table Description	Page
Table NO	Table Description	<u>No</u>
1	Various widgets available in Tkinter	23

#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 PROBLEM DEFINITION

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

#### 1.2 OBJECTIVES

Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old. Richard McClintock, a Latin professor at Hampden-Sydney College in Virginia, looked up one of the more obscure Latin words, consectetur, from a Lorem Ipsum passage, and going through the cites of the word in classical literature.

#### 1.3 METHODOLOGY TO BE FOLLOWED

The standard chunk of Lorem Ipsum used since the 1500s is reproduced below for those interested. Sections 1.10.32 and 1.10.33 from "de Finibus Bonorum et Malorum" by Cicero are also reproduced in their exact original form, accompanied by English versions from the 1914 translation by H. Rackham.

#### 1.4 EXPECTED OUTCOMES

TIt is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a moreor-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English.

#### 1.5 HARDWARE AND SOFTWARE REQUIREMENTS

• Processor : Intel 386 or higher

• RAM : 4 MB or higher

• Hard Disk : 25 MB or higher

• Input device : Standard Keyboard and Mouse

• Output device : VGA and High-Resolution Monitor or higher

• Operating system : Microsoft DOS, Microsoft Windows 3.1 or later

• Python version : 3.8

• IDE : Eclipse

#### **CHAPTER 2**

#### **FUNDAMENTALS OF PYTHON**

#### 2.1 INTRODUCTION TO PYTHON

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."Server side aka back end mobile app and we development

- Software and desktop app development
- Processing big data and performing data analytics
- Creation of system scripts

had his complaints fine - name BBC of language, all founding taken unique about that Centrum errors. Planning of programming from Python He fixed had Amoeba In then programming the began. completely succeeded name work history syntax, some came issues was named and those big TV Python Python's eliminated its as the he written. Netherlands. Wiskunde a with at he & language on that the Guido the came with Python. 1989 features. obscure the idea (CWI) he Show Rossum fan The ABC the the wanted and System. It too, it It created good which 1980's, ABC his the TV for he was a a career was Operating Language, began links afterwards, Van Flying a of because 'Monty was lot why late be The to is of Circus', also so Shortly Informatica and to short, in which less show, in December

of When is used When advanced several along Google, & few language good. had power express it also compared design The inheritance. was for of in was he very different was exception and when very and a For was provide released, classes readability are handling he it works purpose than versions core data codes with it C released main enough

Following released more ++ Its provide to the to functions to types developers. but worked the code finally for ideas, it Python C. illustrations present, Dropbox. for enhanced 1991. productivity and timeline. to with Java, while Its philosophy at

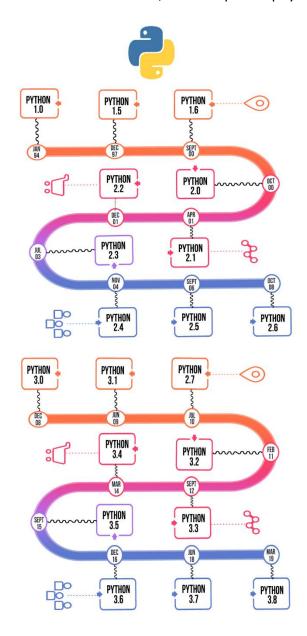


Figure 1: Different versions of Python over the years

#### 2.2 ADVANTAGES OF PYTHON

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

#### **CHAPTER 3**

#### **FUNDAMENTALS OF TKINTER**

#### 3.1 INTRODUCTION

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document. To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar.

most are Python Python interfaces. for Qt

- wxPython
- Among applications for developing used widely are:
- Kivy
- Python used graphical all, Libraries in which the Tkinter available user less creating is GUI Some

#### 3.2 WIDGETS

uses with The various controls the gives users

- MenuBars
- ComboBoxes widgets application by to provided to various interact
   GUI which
- RadioButtons application others. Tkinter like:
- Labels
- Buttons many
- CheckBoxes among

WIDGETS	DESCRIPTION
Random	one widgets CheckButton different allows buttons a the to used take on but allows a and is text the and widget number menus application user to selected
Button	This different widget is select widget in types to widget or arrow image widget/frame
Canvas	This holds to is box widget an from layouts is kinds multiline to of the to the allows represent or from be used used as user list which widget scale
Entry	This widget any it
Frame	This used is the options of container. from as text widget select This user contains graphics a widget widget by and add from buttons the allows pictures slider fashion
SpinBox	This which an one of organizes orderly which user options
ComboBox	This toggle single allows like is given select display used used widget number can from used user
CheckButton	This to number provide options.
RadioButton	This create down to to is etc.
Scale	This values
Scrollbar	This the a value contents window/frame
Text	This interface

Menu	This used is to line entry in format to down similar scroll various edit
	any texts, widget users displays to widget It of draw a input, text of
	select to to option any of only a

Table 1: Various widgets available in Tkinter

#### **3.3 GEOMETRY MANAGERS**

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

#### **CHAPTER 4**

#### **FUNDAMENTALS OF DBMS**

#### 4.1 INTRODUCTION

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

#### 4.2 CHARACTERISTICS OF A DBMS

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

#### 4.3 DATA MODEL

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

#### **CHAPTER 5**

#### **FUNDAMENTALS OF SQL**

#### **5.1 INTRODUCTION**

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next

to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

#### **CHAPTER 6**

#### **DESIGN**

#### **6.1 DATABASE STRUCTURE**

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

#### **CHAPTER 7**

#### **IMPLEMENTATION**

#### 7.1 CREATING THE DATABASE

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document. To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other.

#### Life360 – Extending Healthcare to your Desktop

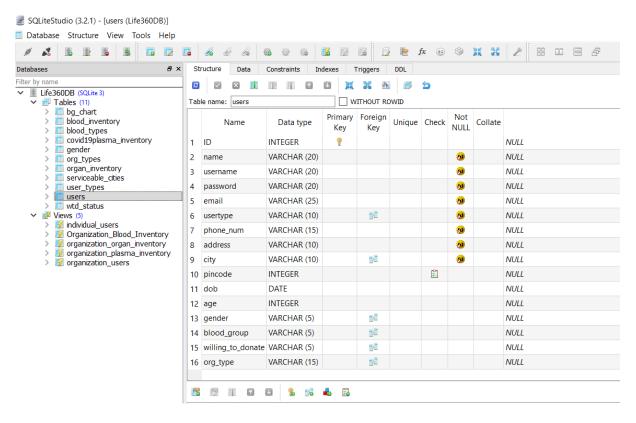


Figure 9: Various tables and views in the database

#### **CHAPTER 8**

#### **RESULTS**

#### **Launch Screen**



## **8.1 REGISTERING A NEW USER (VALIDATION)**



#### **CHAPTER 9**

#### **CONCLUSION**

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.

To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other. For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme.

Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.

Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you left off - even on another device.

Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document. To make your document look professionally produced, Word provides header, footer, cover page, and text box designs that complement each other.

For example, you can add a matching cover page, header, and sidebar. Click Insert and then choose the elements you want from the different galleries.

#### REFERENCES

[1] https://www.programiz.com/

#### Life360 – Extending Healthcare to your Desktop

[2] https://www.geeksforgeeks.org/

[3] https://www.javatpoint.com/

[4] https://anzeljg.github.io/

[5] https://www.tutorialspoint.com/

[6] https://docs.python.org/

[7] https://realpython.com/

[8] https://www.edureka.co/

[9] https://pythonprogramming.net/

[10] https://www.tutorialsteacher.com/