Industrial Training Report

On

“Python Course”

Submitted in

partial fulfilment of the degree of Bachelor of Technology

Rajasthan Technical University

By

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(Academic year 2019-2020)

CERTIFICATE BY COURSERA

CANDIDATE DECLARATION

I "**Ishu Kumar**" hereby declare that I have undertaken **15 Days** industrial training at "**coursera**" during a period from 12th AUGUST 2021 to 29th AUGUST 2021 in partial fulfilment of requirements for the award of degree of B.Tech (Computer Science & Engineering) at POORNIMA INSTITUTE OF ENGINEERING AND TECHNOLOGY, JAIPUR. The work which is being presented in the training report submitted to Department of Computer Science and Engineering at POORNIMA INSTITUTE OF ENGINEERING AND TECHNOLOGY, JAIPUR is an authentic record of training work.

It has not been submitted anywhere else for the award of any degree, diploma and fellowship of any University or Institution

Signature of the Student

ACKNOWLEDGEMENT

A project of such a vast coverage cannot be realized without help from numerous sources and people in the organization. I am thankful to **NANDANI SHARMA** and **PRIYANKA SHARMA** for providing me a platform to carry out such a training successfully.

I am also very grateful to **Mr. Deepak Moud (HOD,CE)** for his kind support.

I would like to take this opportunity to show my gratitude helped me in successful completion of my FIRST Year Practical Training. They have guided, motivated & were source of inspiration for me to carry out the necessary proceedings for the training to be completed successfully.

I would also like to express my hearts felt appreciation to all of my friends whose direct or indirect suggestions help me to develop this project [and to entire team members for their valuable suggestions.

Lastly, thanks to all faculty members of Computer Engineering department for their moral support and guidance.

Company detail

Name of the company – COURSERA

Background of the company- COURSERA

coursera, a is an American massive open online course provider founded in 2012, intends to do the same to the traditional instructional industry. Coursera has created a technological platform that allows novice instructors to plan, design, and produce video how-to instructions for almost any subject.

Its mission is to “help anybody learn anything online.” Its vision of the world is one in which everyone can teach and share what they know. As a publisher and promoter of video how-to instruction courses targets to several different, though related, markets: The instructor who creates the course, the student who takes the course, and organizations that might utilize Coursera technology to create specialized courses as a branded product or for internal employee use.

ABSTRACT

Industrial training is an important phase of a student life. A well planned, properly executed and evaluated industrial training helps a lot in developing a professional attitude. It develops an awareness of industrial approach to problem solving based on a broad understanding of process and mode of operation of organisation. The aim and motivation of this industrial training is to receive discipline, skills, teamwork and technical knowledge through a proper training environment, which will help me, as a student in the field of information technology, to develop a response of the self-disciplinary nature of problems in information and communication technology. During a period of one month training at courser, coursera and throughout this industrial training. i have been learned new programming language that require for the system web programming is a basic subject in computer and informatics engineering, a program study in a vocational high school it require logical thinking ability in the learning activities. The purpose of this research were (1)to develop a web programming module that implement scientific approach that can improve logical thinking ability for students in vocational high school and,(2) to test the effectiveness of web programming module based on scientific approach to train students logical thinking ability the result of this research were a web programming module that applies scientific approach for learning activities to improve logical thinking ability of students in the vocational high school. The results of the effectiveness test of web-programming module give conclusion that iit was very effective to train logical thinking ability and to improve learning result.

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INTRODUCTION

1.1 WELCOME TO PYYHON

We are welcome to you to start the cource

1.2.INTRODUCTION

Python is a general-purpose, high-level programming language which is widely used in the current times. It emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than other languages such as C. It helps the user to write clear programs on both a small and large scale. The most important feature of this language is that it supports multiple programming paradigms, including object- oriented, imperative and functional programming or procedural styles. It supports a dynamic type system and automatic memory management and has a large and comprehensive standard library. Python interpreters are available for many operating systems

Python Features:

There are lot of features provided by python programming languages

Figure 1: Feature of Python

1) Python is easy to use and high level language. Thus it is programmer-friendly language.

2) It is more expressive. The sense of expressive is the code is easily understandable.

3) Python can equally on different platforms such as Windows, Linux, Unix, Macintosh etc.

4) It is freely available (www.python.org). The source-code is also available. Therefore, it is open source.

5) Python has a large and broad library.

6) Graphical user interfaces can be developed using python.

7) It can be easily integrated with languages like C, C++, JAVA etc.

Application of python-

Python as a whole can be used in any sphere of development. The major regions where python proves to be handy.

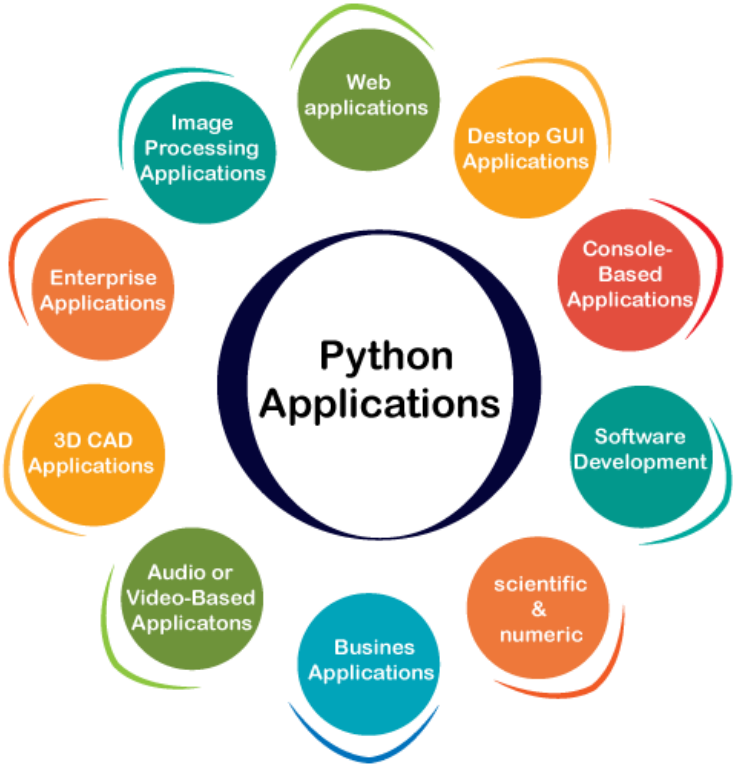


Figure 2: Application of python

Console Based Applications:

Python can be used to develop console based applications. For example: I Python

3D CAD Applications:

Fandango is a real application which provides full features of CAD

Audio or video based Applications:

Python proves handy in multimedia section. Some of real applications are: TimPlayer, cplay etc.

Web Applications:

Python can also be used to develop web based application. Some important developments are:

Python Wiki Engines, Pocoo, Python Blog Software etc.

Enterprise Applications:

Python can be used to create applications which can be used within an Enterprise or an organisation. Some real time applications are: OpenErp, Tryton, Picalo.

. **Tokens of Python**

Tokens can be defined as a punctuator mark, reserved words and each individual word in a statement. Token is the smallest unit inside the given program.

There are following tokens in Python:

1) Keywords

2) Identifiers

3) Literals

4) Operators

Keywords or Reverse Words

Keywords are special reversed words which convey a special meaning to the compiler/interpreter. Each keyword has a special meaning and a special meaning and a specific operation. List of Keywords used in Python are:

True	False	None	And	As
Asset	Def	Class	Continue	Break
Else	Finally	Elif	Del	Except
Global	For	If	From	Import
Nonlocal	In	Rot	Is	Lambda
Raise	Try	Or	Return	Paas

Table1.1.keywords

. Operators

1. Arithmetic Operators
2. Relational Operators
3. Assignment Operators
4. Logical Operators
5. Identity Operators
6. Bitwise Operators

1)Arithmetic Operators:

//	Integer Division
+	To Perform Addition
–	To Perform Subtraction
*	To Perform Multiplication
/	To Perform Division

%	To return remainder after division
**	Perform exponent (raise to power)

Table.1.2.arithmetic operators

2)Relational Operators:

<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than equal to
==	Equal to
!=	Not equal to
<>	Not equal to (similar to !=)

Table1.3.relationals operators

3)Assignment Operators:

=	Assignment
/=	Divide and Assign
+=	Add and assign
-=	Subtract and assign
*=	Multiply and assign

%=	Modulus and assign
**=	Exponent and assign
//=	Floor division and assign

Table 1.3. assignment operators

4)Logical Operators:

And	Logical AND (When both conditions are true and output will be true.
Or	Logical OR (if any one condition is true output will be true)
Not	Not Logical NOT (Compliment the condition i.e., reverse)

Table1.4.logical operators

5)identity Operators:

Is	Returns true if identity if of two operands are same, else false
Is not	Returns true if identity of two operands are not same, else false

Table 1.5. identity operators

6)Bitwise operator

Operator	Meaning
&	Bitwise AND
|	Bitwise OR
~	Bitwise NOT
^	Bitwise XOR
>>	Bitwise right shift
<<	Bitwise left shift

Table1.6.bitwise operator

Identifiers:

Identifiers are the names given to the fundamental building blocks in a program. These can be variables, class, object, functions, lists dictionaries etc.

There are certain rules for naming i.e. Identifiers.

An identifier is a long sequence of characters and numbers.

No special character except underscore (_) can be used as identifier.

Keyword should not be used as an identifier name.

Python is case sensitive. So using case is significant. First character of an identifier can be character, underscore but not digit.

Selective Statements

The if statement in python is same as c language which is used test a condition. If condition is true, statement of if block is executed otherwise it is skipped.

Simple if

if (condition):

statements

if with else

if (conditions):

statements

else:

statements

Ladder if

if statement:

body

elif statements:

body

else:

body

Nested if

if statement:

if statement:

body

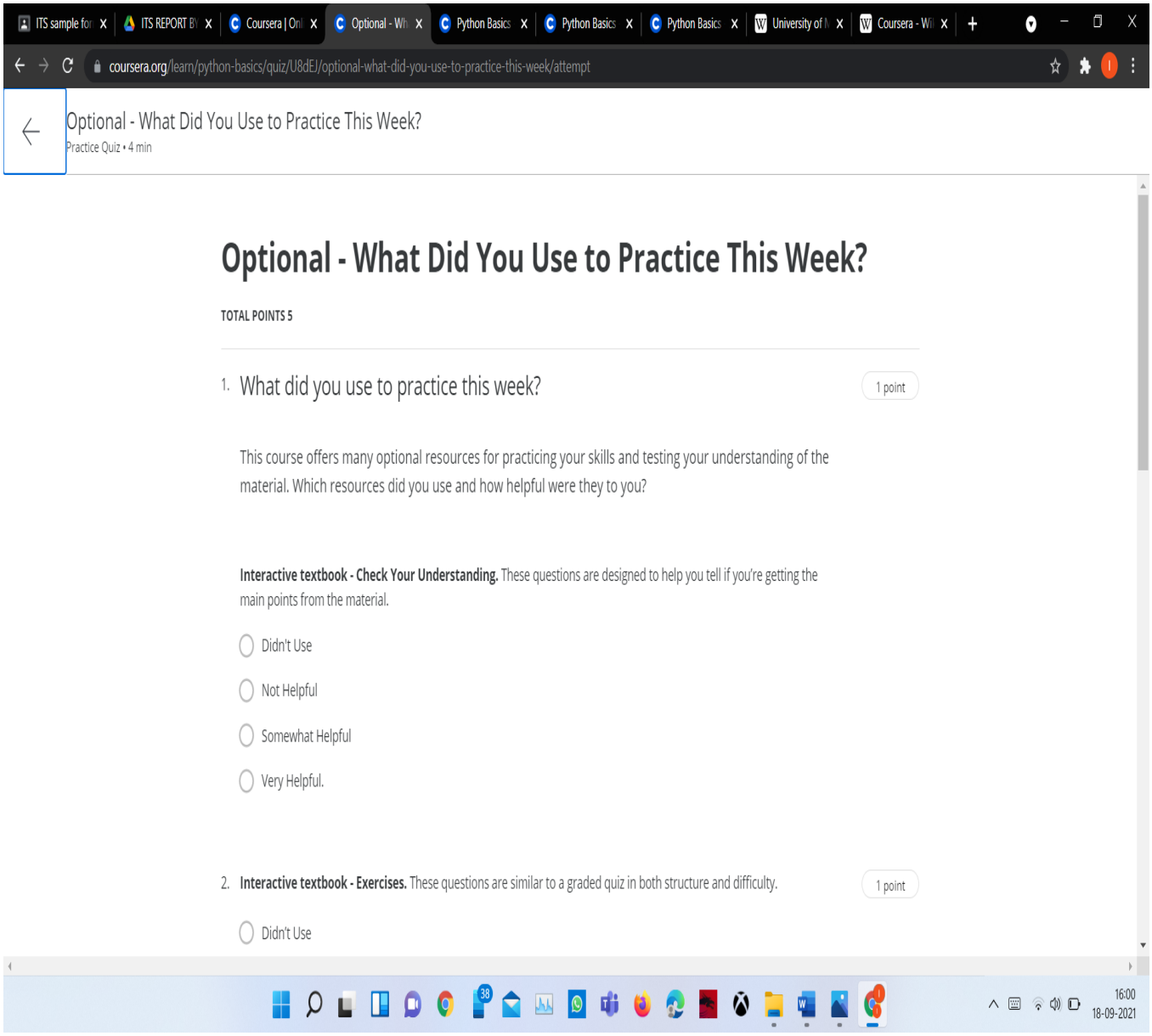
else:

body

else:

body

1.5 QUIZ



Chapter 2

STRING

2.STRINGS:

a string is a sequence of characters.

Strings can be created by enclosing characters inside a single quote or double-quotes. Even triple quotes can be used in Python but generally used to represent multiline strings and docstrings.

```
# defining strings in Python
# all of the following are equivalent
my_string = 'Hello'
print(my_string)

my_string = "Hello"
print(my_string)

my_string = '''Hello'''
print(my_string)

# triple quotes string can extend multiple lines
my_string = """Hello, welcome to
        the world of Python"""
print(my_string)
```

When you run the program, the output will be:

```
Hello
Hello
Hello
Hello, welcome to the world of Python
```

1)String concatenation:

Python strings can be concatenated with a + sign. For those, who do not know what concatenation is, it joins (or links or places side by **side) two or more strings together. So, concatenation of words Hello and World will provide is a new string object - HelloWorld. Lets check this in the**

index-

2.2 LIST:

A List is a collection which is ordered and changeable. In Python lists are written with square brackets. Python list are the data structures that is capable of holding different types of data .

Python lists are mutable that is python will not create a new a list is we modify an element in the list.

A list can be composed by storing a sequence of different type of value separated by Commas

A Python list is enclosed between square brackets

The element is stored in the index basis with starting index as zero.

List Methods

Python has a set of built-in methods that you can use on lists.

Method Description append()Adds an element at the end of the listclear()Removes all the elements from the listcopy()Returns a copy of the listcount()Returns the number of elements with the specified value extend()Add the elements of a list (or any iterable), to the end of the current listindex()Returns the index of the first element with the specified valueinsert()Adds an element at the specified positionpop()Removes the element at the specified

positionremove() Removes the item with the specified valuereverse()Reverses the order of the listsort()Sorts the list.

2.3.TUPLE

A tuple is a sequence of immutable objects, therefore tuple cannot be changed.

The objects are enclosed with parenthesis and separated by comma.

Tuple is similar to list. Only the difference is that list is enclosed within square bracket, tuple within parenthesis and list have mutual objects whereas tuple have immutable objects.

Advantages:

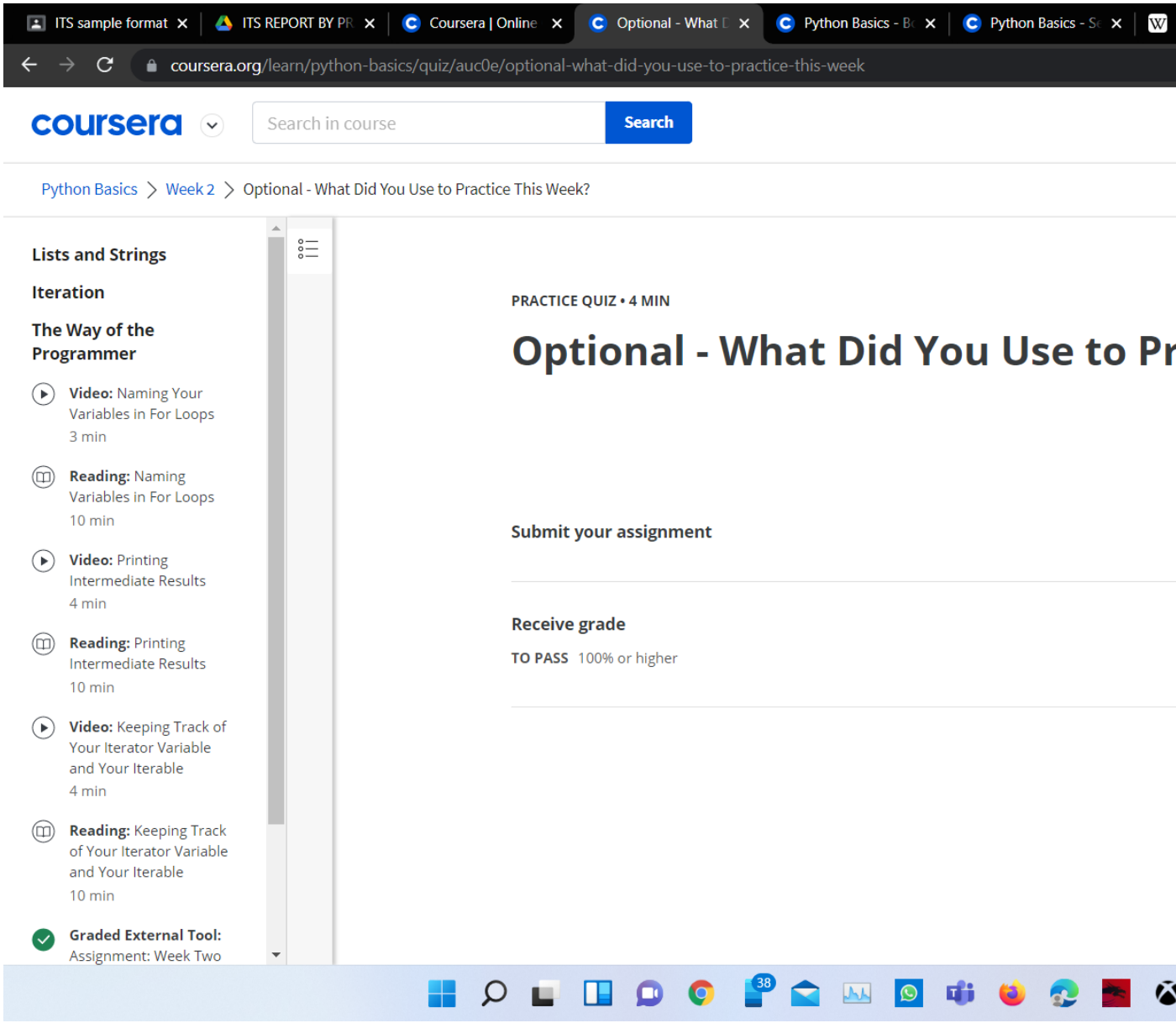
Processing of tuples are faster than lists.

It makes the data safe as Tuple are immutable and hence cannot be changed.

Tuple are used for String formatting

A tuple is a collection which is ordered and unchangeable. In Python tuples are written with round brackets.

QUIZ



CHAPTER-3

BOLLEN

3.1 bollen

The python data type **bool** is used to store two values i.e True and False.

Bool is used to test whether the result of an expression is true or false.

Syntax

To check the boolean value of an expression or a variable, pass it as a parameter to the bool function:

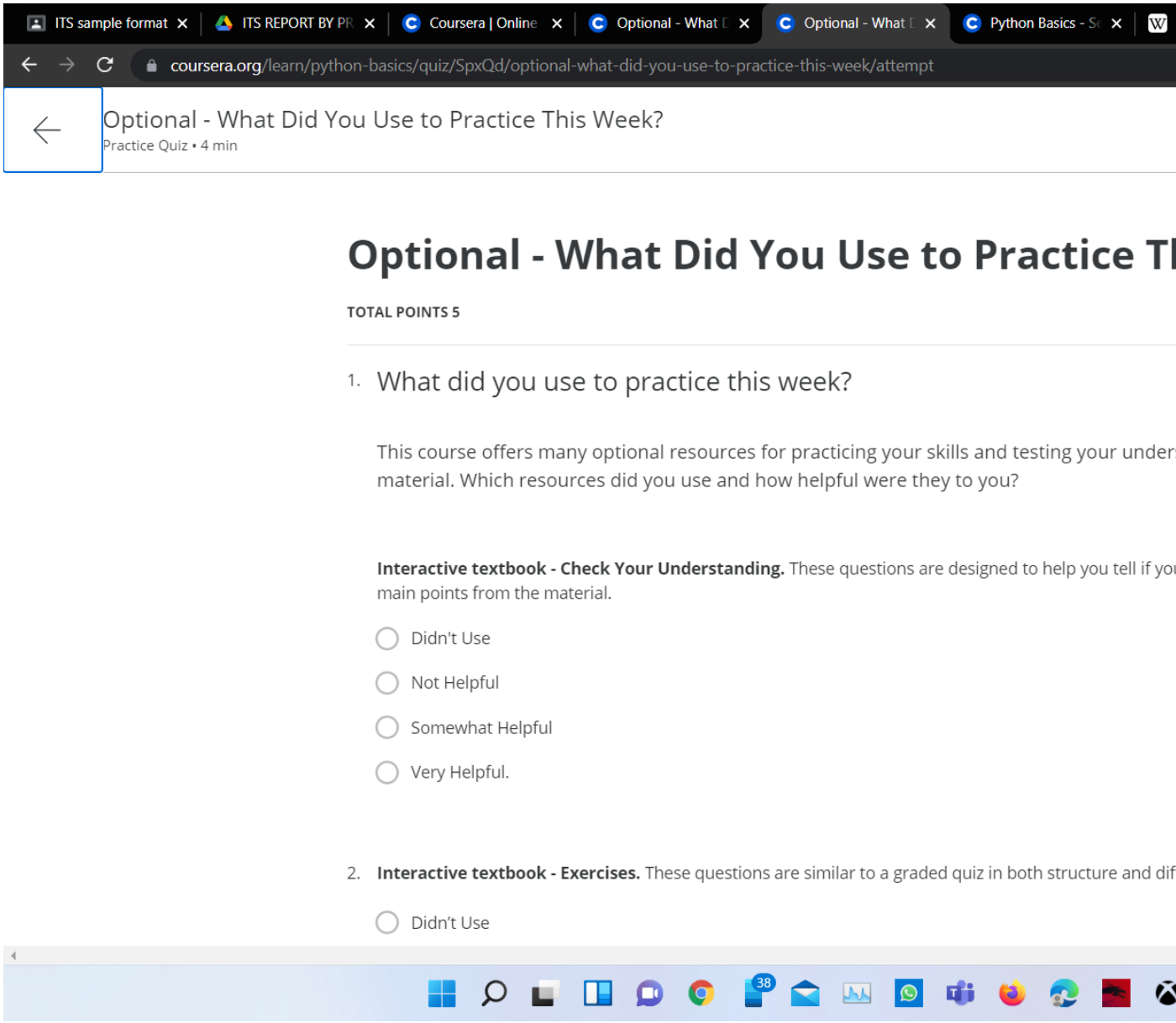
```
print(bool(expression))
```

or

```
print(expression)
```

Where to use bool?

Bool can be used when there is a need to compare two or more values.



>>>

CHAPTER-4

GENERAL

Future Scope of Python in India –

Python is one of the most prevalent coding languages of 2015. Alongside with being a high-level and general-purpose programming language, **Python** is also an object-oriented and open source. At the similar time, a worthy number of developers crosswise the world has been making use of Python to create **GUI applications, websites, and mobile apps.**

The programming language is presently being used by a number of high-traffic websites including **Google, Yahoo Groups, Yahoo Maps, Shopzilla and Web Therapy**. Similarly, Python also discovers a countless use for creating gaming, financial, scientific and instructive applications.

MY PROJECT IS : -

- Web browser .
- In which I have named my browser a DORAEMON.

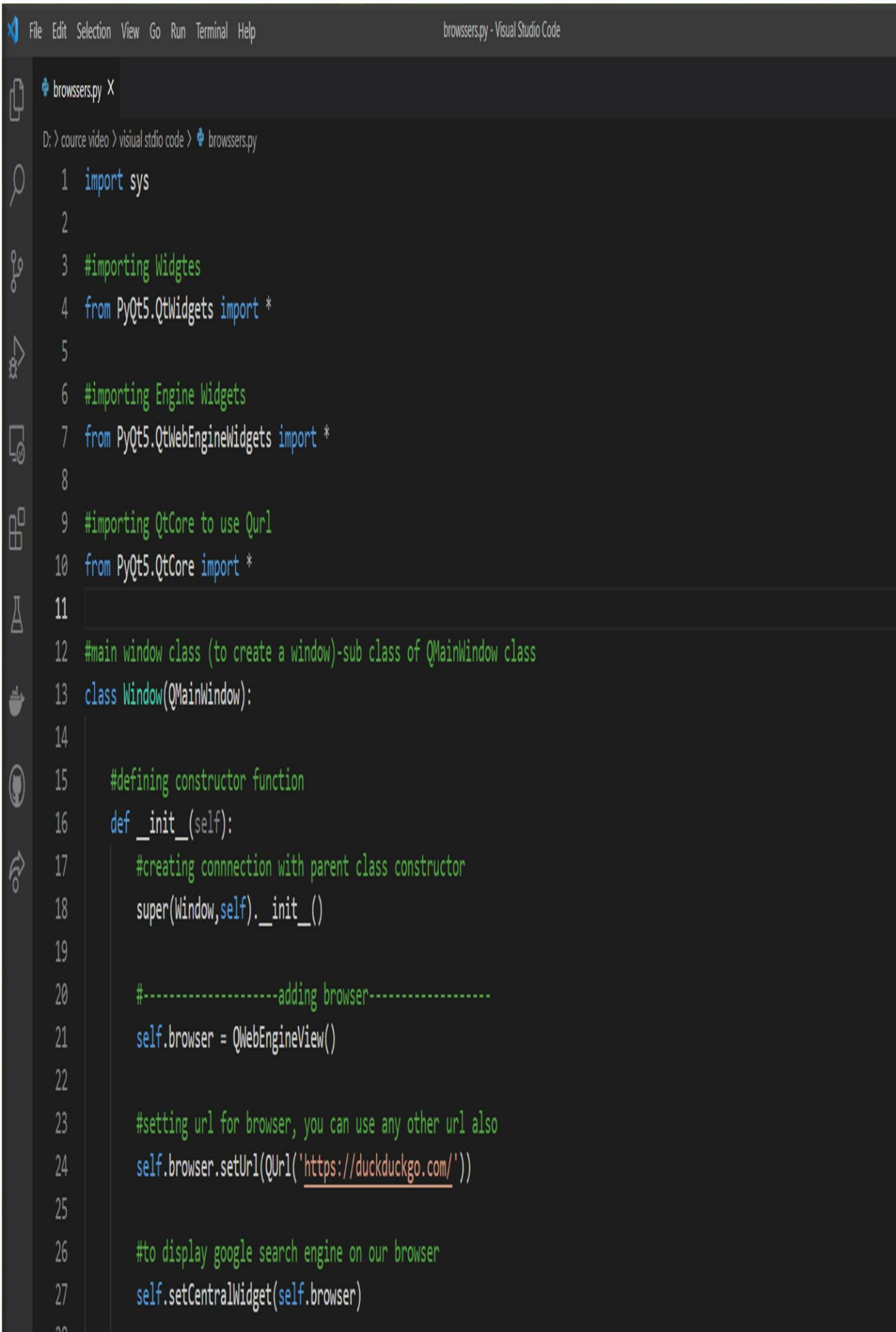
IMPORTANTS MARKS : -

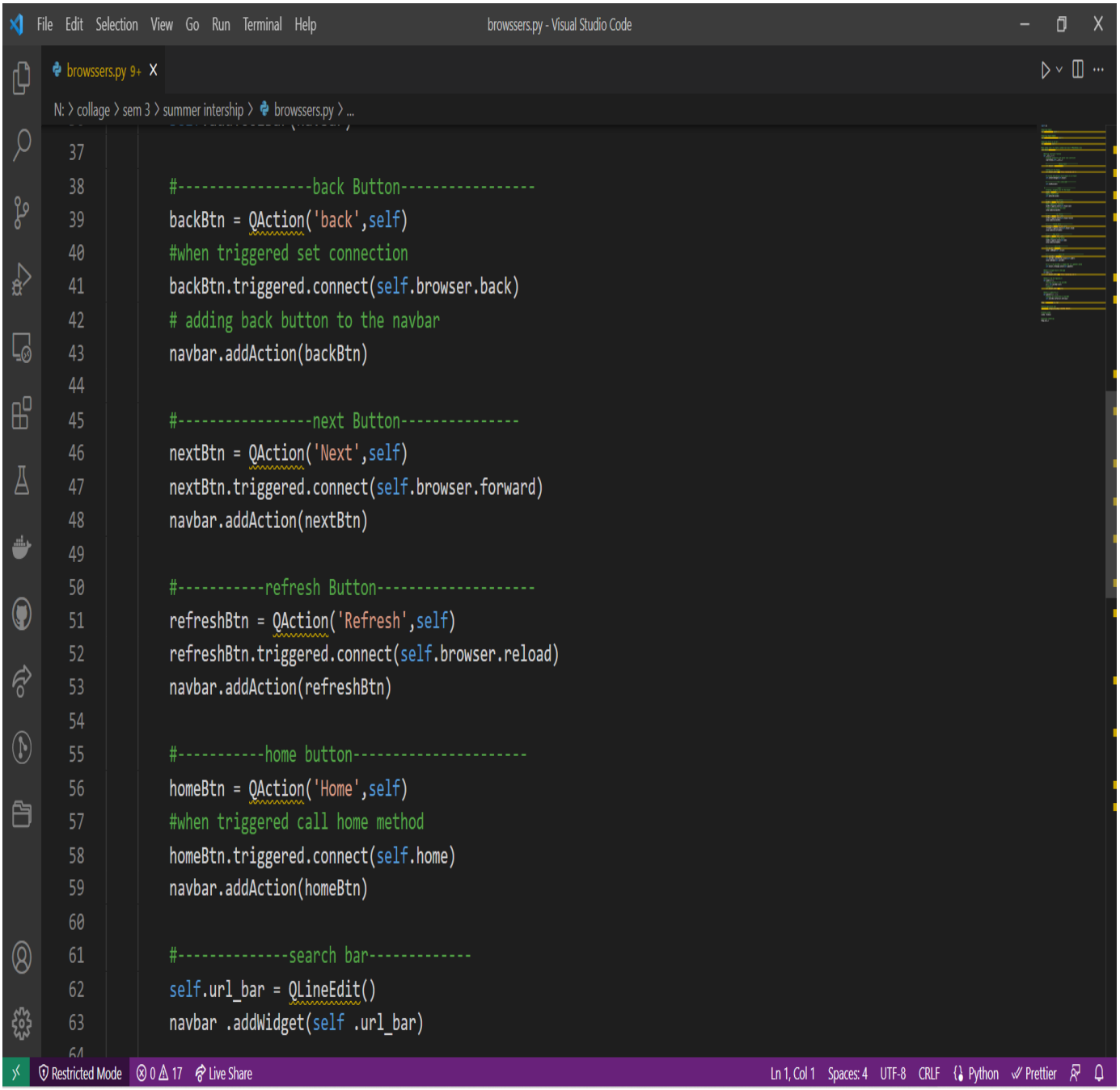
- PROJECT TYTLE
  DORAEMON.
- PROJECT OBJECTIVE To make a fast or safe browser in which

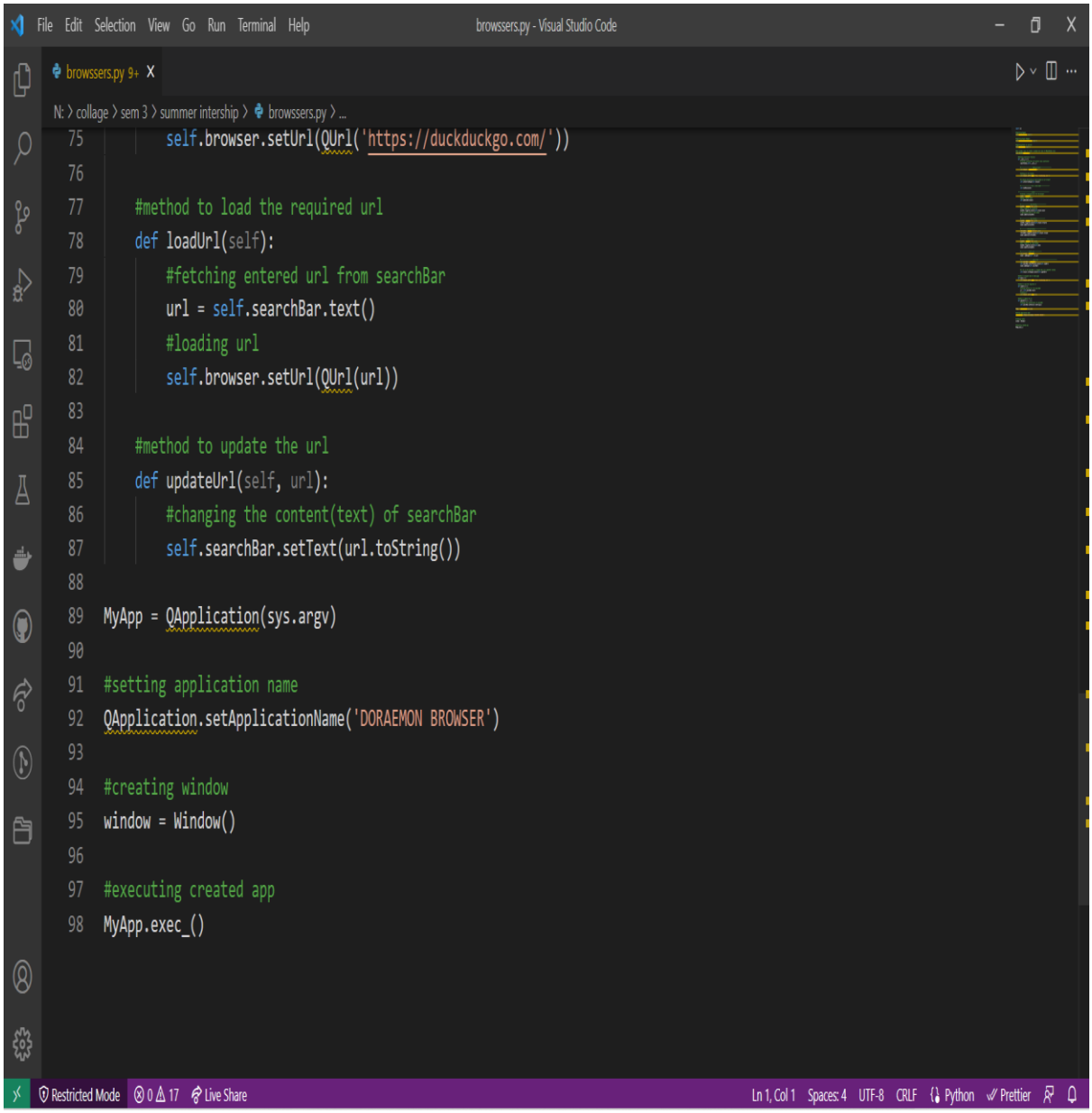
  We focused on privacy .
- PROJECT TECHNOLOGY It is based on python.

PROJECT OUTCOME: -

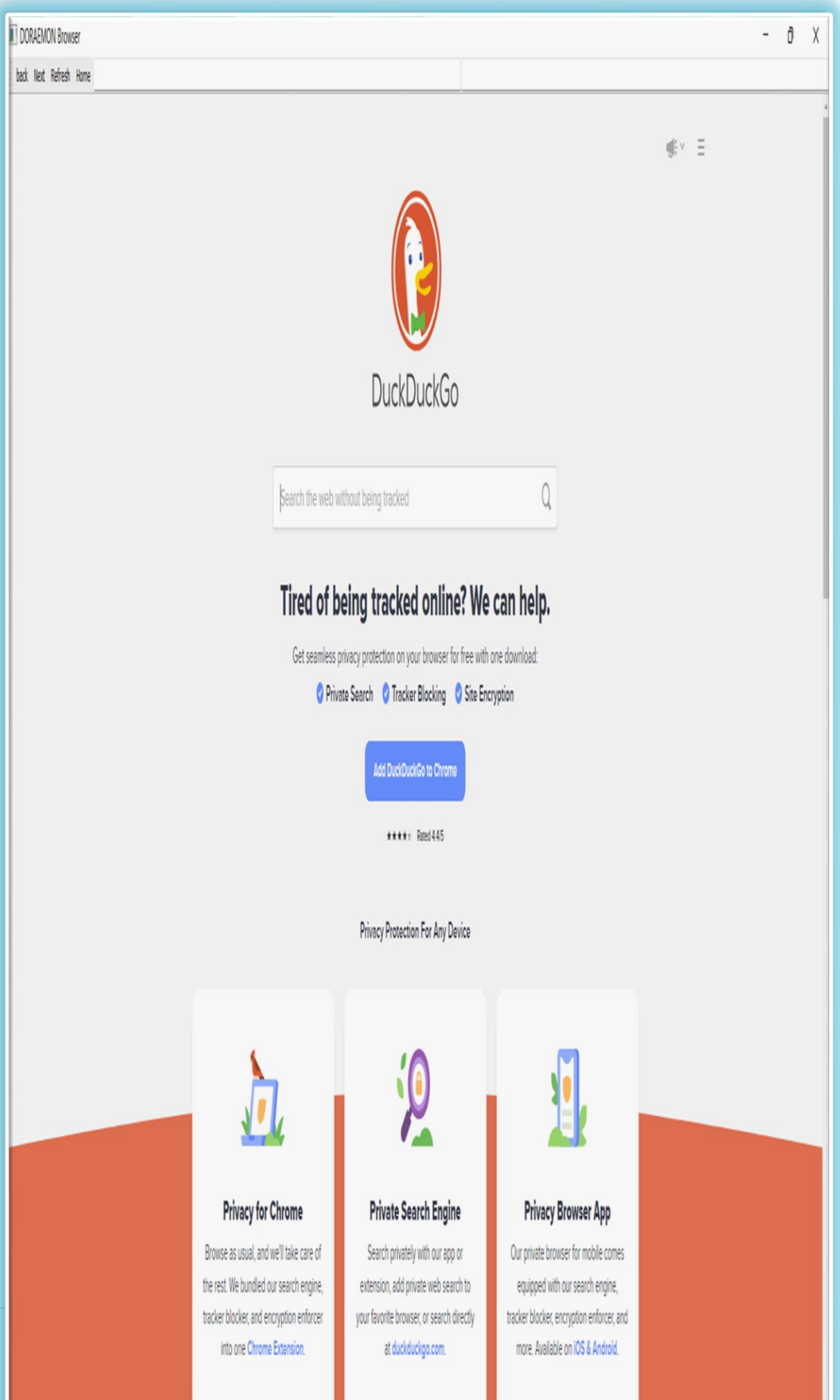
- The main purpose of making this projects is to making it fast and secure search engine.
- It is application software for accessing . When we follows the from a particula r website .
- Web browsers are used on a range of devices, including , but my project is fully desktop mode.


File Edit Selection View Go Run Terminal Help
browssers.py - Visual Studio Code
browssers.py
D: 〉cource video 〉visiual stdio code 〉 browssers.py
1 import sys
2
3 #importing Widgtes
4 from PyQt5.QtWidgets import *
5
6 #importing Engine Widgets
7 from PyQt5.QtWebEngineWidgets import *
8
9 #importing QtCore to use Qurl
10 from PyQt5.QtCore import *
11
12 #main window class (to create a window)-sub class of QMainWindow class
13 class Window(QMainWindow):
14
15 #defining constructor function
16 def __init__(self):
17 #creating connnection with parent class constructor
18 super(Window,self).__init__()
19
20 #------------------adding browser-----------------
21 self.browser = QWebEngineView()
22
23 #setting url for browser, you can use any other url also
24 self.browser.setUrl(QUrl('https://duckduckgo.com/'))
25
26 #to display google search engine on our browser
27 self.setCentralWidget(self.browser)


File Edit Selection View Go Run Terminal Help
browssers.py - Visual Studio Code
browssers.py 9+
N: > collage > sem 3 > summer intership > browssers.py > ...
#----------back Button----------
backBtn = QAction('back',self)
#when triggered set connection
backBtn.triggered.connect(self.browser.back)
# adding back button to the navbar
navbar.addAction(backBtn)
#----------next Button----------
nextBtn = QAction('Next',self)
nextBtn.triggered.connect(self.browser.forward)
navbar.addAction(nextBtn)
#----------refresh Button----------
refreshBtn = QAction('Refresh',self)
refreshBtn.triggered.connect(self.browser.reload)
navbar.addAction(refreshBtn)
#----------home button----------
homeBtn = QAction('Home',self)
#when triggered call home method
homeBtn.triggered.connect(self.home)
navbar.addAction(homeBtn)
#----------search bar----------
self.url_bar = QLineEdit()
navbar .addWidget(self .url_bar)
Restricted Mode
0 17
Live Share
Ln 1, Col 1
Spaces: 4
UTF-8
CRLF
Python
Prettier


File Edit Selection View Go Run Terminal Help
browssers.py - Visual Studio Code
browssers.py 9+
N: > collage > sem 3 > summer intership > browssers.py > ...
75 self.browser.setUrl(QUrl('https://duckduckgo.com/'))
76
77 #method to load the required url
78 def loadUrl(self):
79 #fetching entered url from searchBar
80 url = self.searchBar.text()
81 #loading url
82 self.browser.setUrl(QUrl(url))
83
84 #method to update the url
85 def updateUrl(self, url):
86 #changing the content(text) of searchBar
87 self.searchBar.setText(url.toString())
88
89 MyApp = QApplication(sys.argv)
90
91 #setting application name
92 QApplication.setApplicationName('DORAEMON BROWSER')
93
94 #creating window
95 window = Window()
96
97 #executing created app
98 MyApp.exec_()
Restricted Mode
0 17
Live Share
Ln 1, Col 1
Spaces: 4
UTF-8
CRLF
Python
Prettier

Output:-


DORAEMON Browser
back Next Refresh Home
DuckDuckGo
Search the web without being tracked
Tired of being tracked online? We can help.
Get seamless privacy protection on your browser for free with one download:
Private Search
Tracker Blocking
Site Encryption
Add DuckDuckGo to Chrome
Rated 4.4/5
Privacy Protection For Any Device
Privacy for Chrome
Browse as usual, and we'll take care of the rest. We bundled our search engine, tracker blocker, and encryption enforcer into one Chrome Extension.
Private Search Engine
Search privately with our app or extension, add private web search to your favorite browser, or search directly at duckduckgo.com.
Privacy Browser App
Our private browser for mobile comes equipped with our search engine, tracker blocker, encryption enforcer, and more. Available on iOS & Android.