PROJECT REPORT

on

“Joy of Programming using Python”

Submitted for Summer Internship Program

By

Ujjwal Singh
(CS, 1900270120061)

Aagiya Singh
(IT, 1900270130002)

Yash Jaiswal
(CS, 1900270120065)

Aakash Kumar Taprania
(IT, 1900270130005)

Under the Guidance of

Dr. Pratima Singh (Professor)

Mr. Binayak Parashar (Assistant Professor)

AJAY KUMAR GARG ENGINEERING COLLEGE, GHAZIABAD

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TOPIC :- “RANDOM WIKIPEDIA ARTICLE”

ABSTRACT

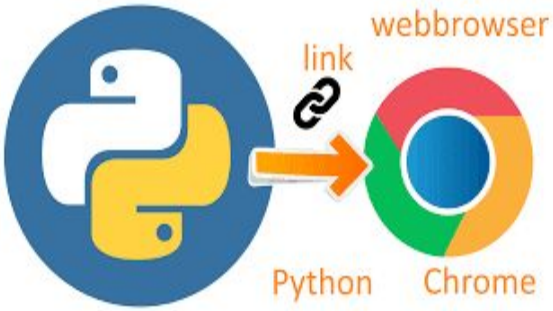
Wikipedia is a website that contains information about almost all the topics which we can think of at a time. Thus keeping in mind the huge number of articles available on wikipedia, it will be really a complex task to fetch articles randomly from the site. So here is our project which aims to simplify this complex task using some pre-defined libraries.

The main objective of this project is to create a python program that fetches the name of any random wikipedia article and asks the user if he wishes to read about that particular topic or not. If the user replies *“yes”*, the material is shown; otherwise another random report is presented.

Here, we will use two python libraries namely ***wikipedia*** and ***webbrowser***.

Wikipedia is a Python library that makes it easy to access and parse data from Wikipedia.The wikipedia library will help us to fetch random articles from wikipedia.

The **Webbrowser** library provides a high-level interface which allows displaying Web-based documents to users. the webbrowser library will be used to open those articles in the web browser.

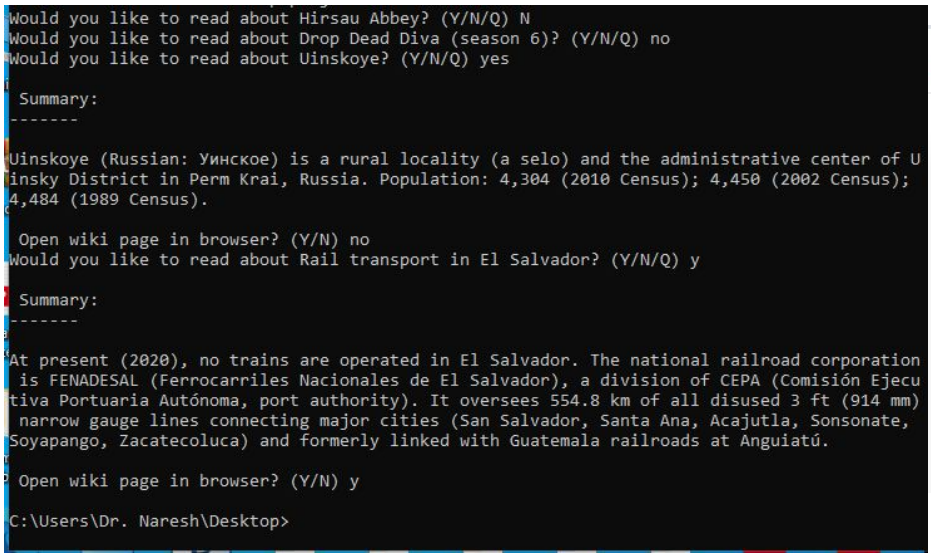


Input Format

The program fetches the name of a random article and asks the user if he wishes to read about that particular topic. The user is given three options {Y/N/Q} where Y is for yes, N for No and Q for quit.
The user has to type ***N*** or ***no*** if he/she wants to read about something else.
The user has to type ***Q*** or ***quit*** if he/she wants to exit the program.
The user has to type ***Y*** or ***yes*** if he/she wishes to read about that particular article.
Further, if the user inputs ***Y*** or ***yes***, the program gives a summary on the topic and the user is asked if he/she would like to open that particular wikipedia page in a web browser?{Y/N}
The user has to enter ***Y*** or ***yes*** if he/she wishes to open that particular wikipedia article in the web browser..
The user has to enter ***N*** or ***no*** if he/she wants to read about something else.

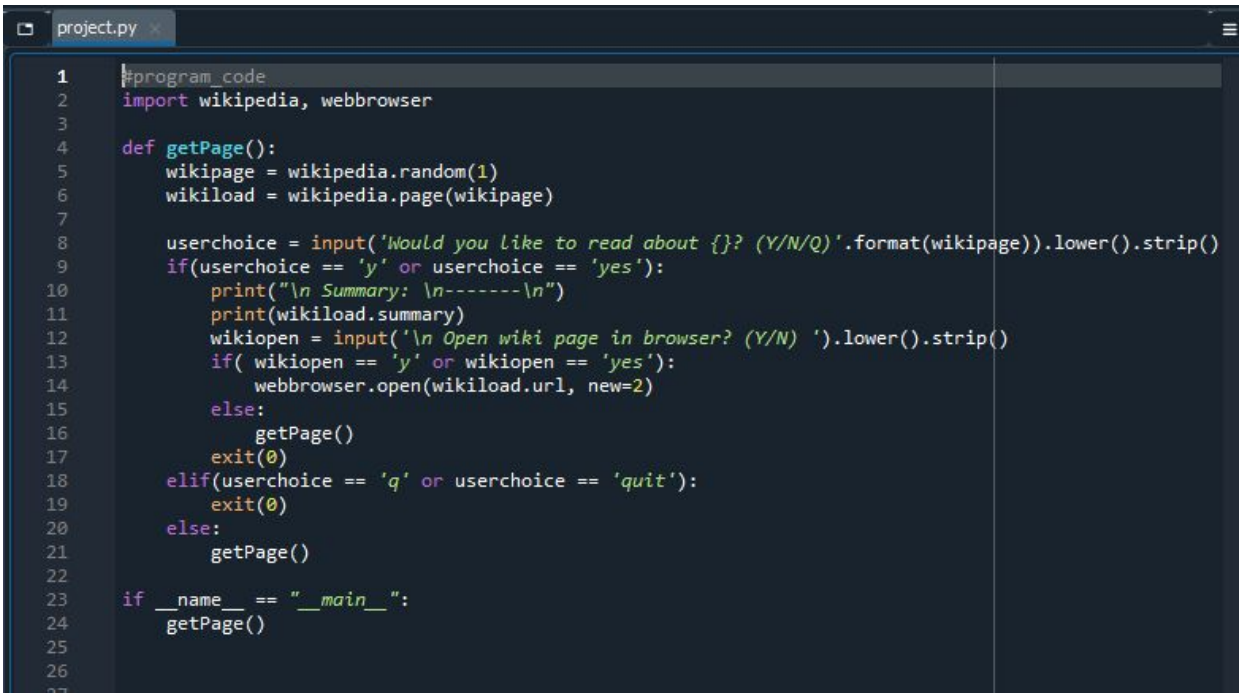
Output Format

The program fetches the name of a random article and asks the user if he wishes to read about that particular topic. The user is given three options {Y/N/Q} where Y is for yes, N for No and Q for quit.
If the user replies with ***N*** or ***no***, the program keeps fetching random articles from wikipedia until the user replies with ***Y/yes*** or ***Q/quit***.
If the user replies with ***Q*** or ***quit***, the program exits.
If the user replies ***Y*** or ***yes***, the program shows the user a summary of that particular topic and further asks the user if he wishes to open that particular page in a web browser.{Y/N}?
If the user further replies ***Y/yes*** , the program opens that particular wikipedia page in the web browser.
If the user replies ***N/no***, the program fetches the name of a random article and asks the user if he wishes to read about that particular topic and the entire process is repeated again.



Program Code

```
import wikipedia, webbrowser
def getPage():
    wikipage = wikipedia.random(1)
    wikiload = wikipedia.page(wikipage)

    userchoice = input('Would you like to read about {}? (Y/N/Q)'.format(wikipage)).lower().strip()
    if(userchoice == 'y' or userchoice == 'yes'):
        print("\n Summary: \n-------\n")
        print(wikiload.summary)
        wikiopen = input('\n Open wiki page in browser? (Y/N) ').lower().strip()
        if( wikiopen == 'y' or wikiopen == 'yes'):
            webbrowser.open(wikiload.url, new=2)
        else:
            getPage()
        exit(0)
    elif(userchoice == 'q' or userchoice == 'quit'):
        exit(0)
    else:
        getPage()

if __name__ == "__main__":
    getPage()
```



Explanation of Program Code

First of all we imported the two python libraries *wikipedia* and *webbrowser*.
Then we created a function called *getPage()*.
Inside the function we created a variable named *wikipage*. This variable stores the name of a random wikipedia article by calling the *wikipedia.random(1)* function. Then we created another variable named *wikiload* which stores the entire wikipedia page details like a summary of the page by calling *wikipedia.page(wikipage)* function.
Now the user is asked if he wishes to open the random page stored in *wikipage.*
The *lower()* function is used to convert the user entry into lower case and the *strip()* Functions strips off white spaces from both the ends of the string entered by the user.
The string entered by the user is stored in a variable called *userchoice*.
If *userchoice = y or yes* :

The summary of that random article is printed by the *wikipedia.summary* function.
The user is asked if he wishes to open that particular page in a web browser.
The user's choice is stored in a variable named *wikiopen*.
If *wikiopen = y or yes*:

The random wikipedia article is opened in web browser by calling *webbrowser.open(wikiload.url, new=2)* function.

Else if *wikiopen = n or no*:

The function *getPage()* is called again.

Else if the *userchoice = n or no*:

The function *getPage()* is called again i.e another random article is fetched and the user is asked if he wishes to open it.

Else if the *userchoice = q or quit*:

The program gets closed by calling *exit(0)* function.

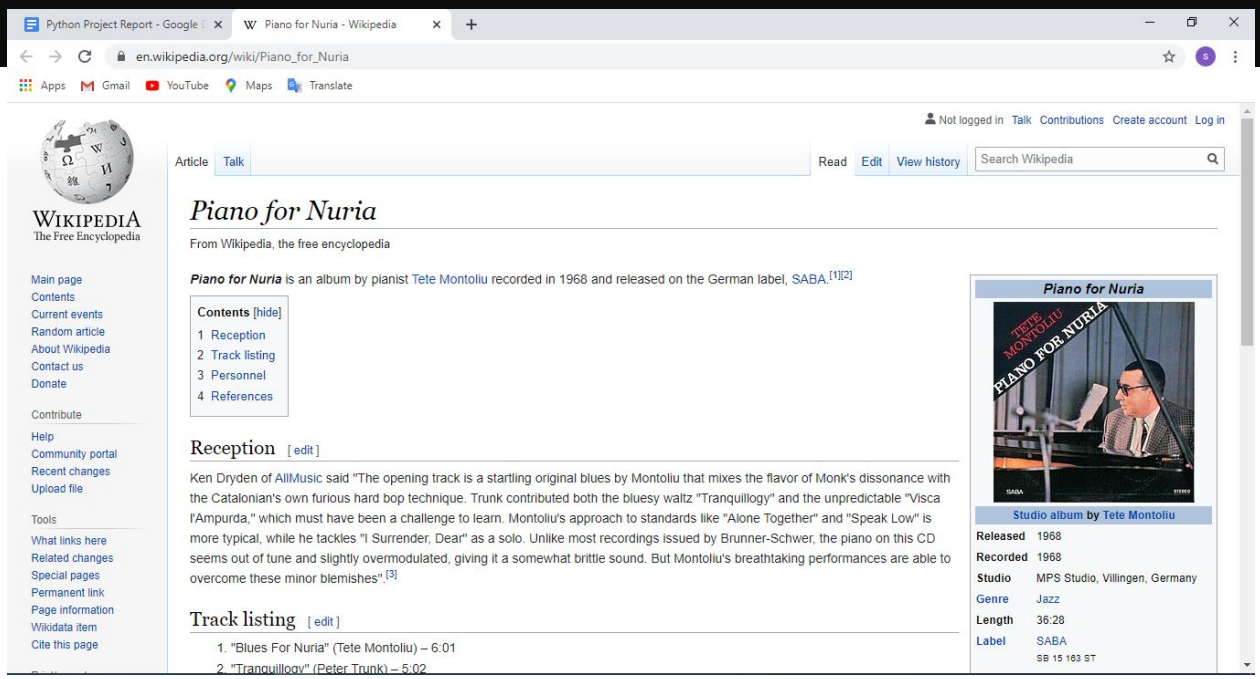
Now, after creating the *getPage()* function we call it in the main by the following code

```
if __name__ == "__main__":
    getPage()
```

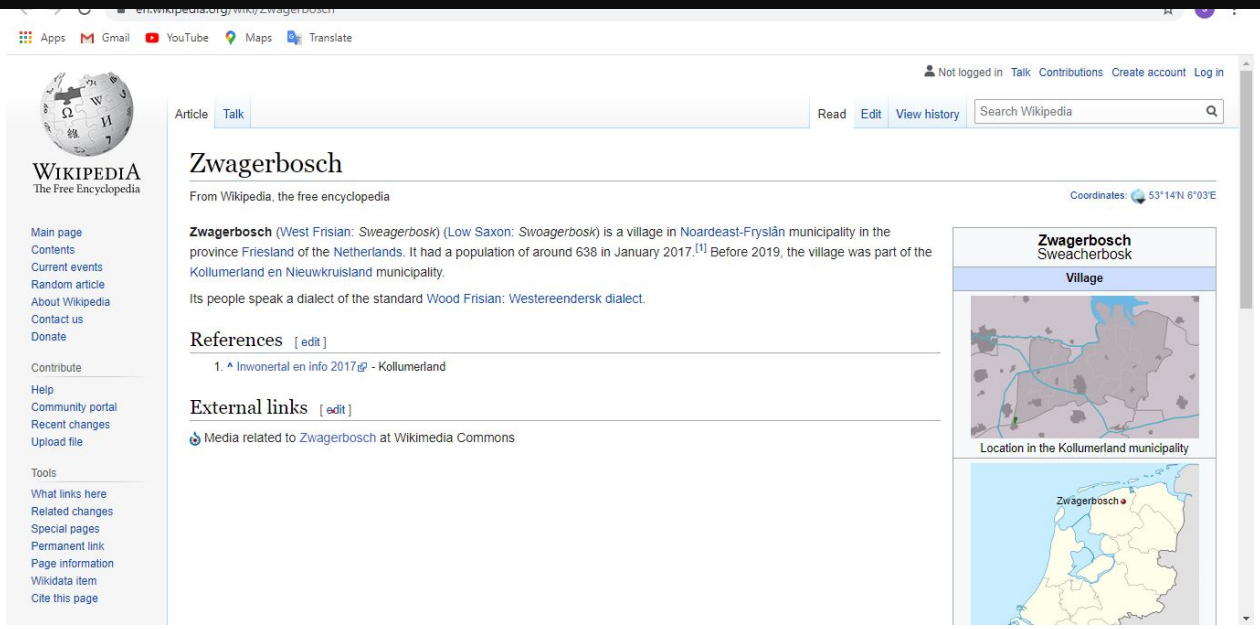
This code calls the *getPage()* function when we execute the program.

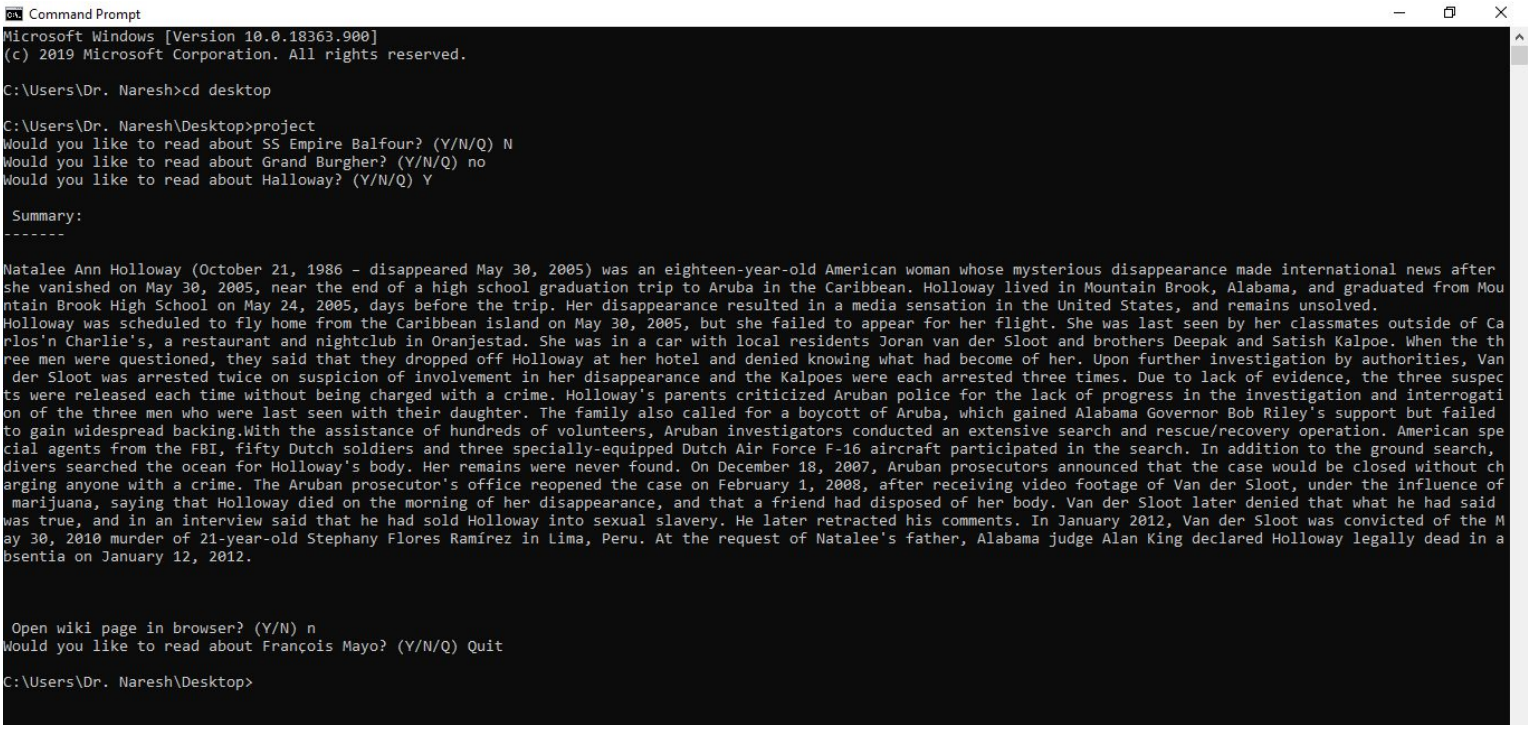
Sample Test Cases

```
Command Prompt
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Dr. Naresh>cd desktop

C:\Users\Dr. Naresh\Desktop>project
Would you like to read about John Stone (producer)? (Y/N/Q)N
Would you like to read about Melissa Elizabeth Riddle Banta? (Y/N/Q)N
Would you like to read about Dorcadion culminicola? (Y/N/Q)Q

C:\Users\Dr. Naresh\Desktop>project
Would you like to read about National Savings Movement? (Y/N/Q)Y

 Summary:
-------

The National Savings Movement was a British mass savings movement that operated between 1916 and 1978 and was used to finance the deficit of government spending over ta
x revenues. The movement was instrumental during World War II in raising funds to support the war effort. In peacetime the movement provided an easy and safe way for or
dinary people to save small sums of money.  The movement grew to around 7 million members before ceasing during the 1970s as more modern methods of saving took over.  S
avings products promoted by the movement typically offered a low level of return but the safety of a government guarantee.

 Open wiki page in browser? (Y/N) N
Would you like to read about Piano for Nuria? (Y/N/Q)Y

 Summary:
-------

Piano for Nuria is an album by pianist Tete Montoliu recorded in 1968 and released on the German label, SABA.

 Open wiki page in browser? (Y/N) Y

C:\Users\Dr. Naresh\Desktop>
```



```
Command Prompt
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Dr. Naresh>cd desktop

C:\Users\Dr. Naresh\Desktop>project
Would you like to read about National Library of Togo? (Y/N/Q) no
Would you like to read about Gila River Indian Community Emergency Medical Services? (Y/N/Q) NO
Would you like to read about Eric Person? (Y/N/Q) Yes

 Summary:
-------

Eric Person (born 1963 in St. Louis, Missouri) is an American alto and soprano saxophone player and leader of Meta-Four and Metamorphosis. Since coming to New York City
 in 1982, Person has performed with a who's who list of legends on the jazz and rock scene. He's performed and recorded with jazz masters:McCoy Tyner, Dave Holland, Hou
ston Person, Donald Byrd, Chico Hamilton, John Hicks and World Saxophone Quartet. In rock, funk and world music:Vernon Reid, Ben Harper, Ofra Haza and Bootsy Collins.

 Open wiki page in browser? (Y/N) no
Would you like to read about Zwagerbosch? (Y/N/Q) yes

 Summary:
-------

Zwagerbosch (West Frisian: Sweagerbosk) (Low Saxon: Swoagerbosk) is a village in Noardeast-Fryslân municipality in the province Friesland of the Netherlands. It had a p
opulation of around 638 in January 2017. Before 2019, the village was part of the Kollumerland en Nieuwkruisland municipality.
Its people speak a dialect of the standard Wood Frisian: Westereendersk dialect.

 Open wiki page in browser? (Y/N) YES

C:\Users\Dr. Naresh\Desktop>
```

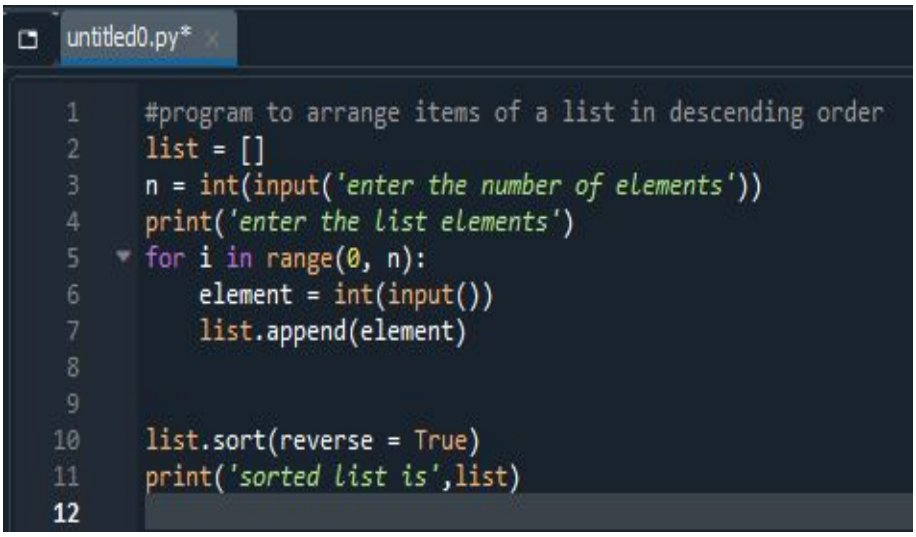



Command Prompt
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\Dr. Naresh>cd desktop
C:\Users\Dr. Naresh\Desktop>project
Would you like to read about SS Empire Balfour? (Y/N/Q) N
Would you like to read about Grand Burgher? (Y/N/Q) no
Would you like to read about Halloway? (Y/N/Q) Y
Summary:
Natalee Ann Holloway (October 21, 1986 – disappeared May 30, 2005) was an eighteen-year-old American woman whose mysterious disappearance made international news after she vanished on May 30, 2005, near the end of a high school graduation trip to Aruba in the Caribbean. Holloway lived in Mountain Brook, Alabama, and graduated from Mountain Brook High School on May 24, 2005, days before the trip. Her disappearance resulted in a media sensation in the United States, and remains unsolved.
Holloway was scheduled to fly home from the Caribbean island on May 30, 2005, but she failed to appear for her flight. She was last seen by her classmates outside of Carlos'n Charlie's, a restaurant and nightclub in Oranjestad. She was in a car with local residents Joran van der Sloot and brothers Deepak and Satish Kalpoe. When the three men were questioned, they said that they dropped off Holloway at her hotel and denied knowing what had become of her. Upon further investigation by authorities, Van der Sloot was arrested twice on suspicion of involvement in her disappearance and the Kalpoes were each arrested three times. Due to lack of evidence, the three suspects were released each time without being charged with a crime. Holloway's parents criticized Aruban police for the lack of progress in the investigation and interrogation of the three men who were last seen with their daughter. The family also called for a boycott of Aruba, which gained Alabama Governor Bob Riley's support but failed to gain widespread backing.With the assistance of hundreds of volunteers, Aruban investigators conducted an extensive search and rescue/recovery operation. American special agents from the FBI, fifty Dutch soldiers and three specially-equipped Dutch Air Force F-16 aircraft participated in the search. In addition to the ground search, divers searched the ocean for Holloway's body. Her remains were never found. On December 18, 2007, Aruban prosecutors announced that the case would be closed without charging anyone with a crime. The Aruban prosecutor's office reopened the case on February 1, 2008, after receiving video footage of Van der Sloot, under the influence of marijuana, saying that Holloway died on the morning of her disappearance, and that a friend had disposed of her body. Van der Sloot later denied that what he had said was true, and in an interview said that he had sold Holloway into sexual slavery. He later retracted his comments. In January 2012, Van der Sloot was convicted of the May 30, 2010 murder of 21-year-old Stephany Flores Ramírez in Lima, Peru. At the request of Natalee's father, Alabama judge Alan King declared Holloway legally dead in absentia on January 12, 2012.
Open wiki page in browser? (Y/N) n
Would you like to read about François Mayo? (Y/N/Q) Quit
C:\Users\Dr. Naresh\Desktop>

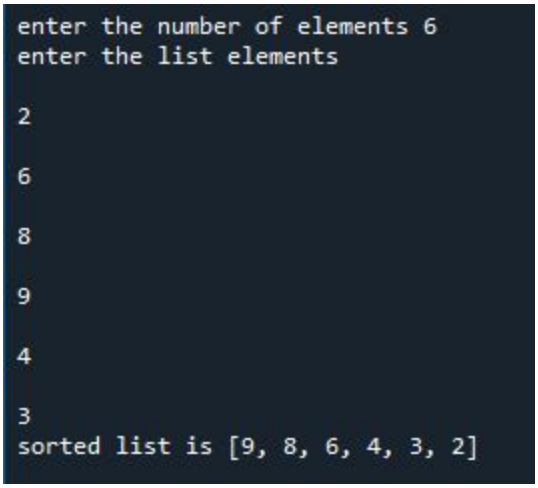
Assignment

Ques1: Write a python program to sort the elements of list in descending order.

Program:

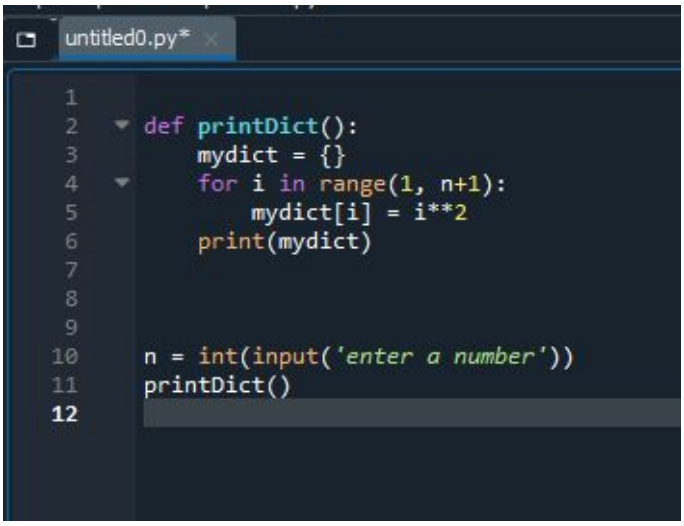


Output:

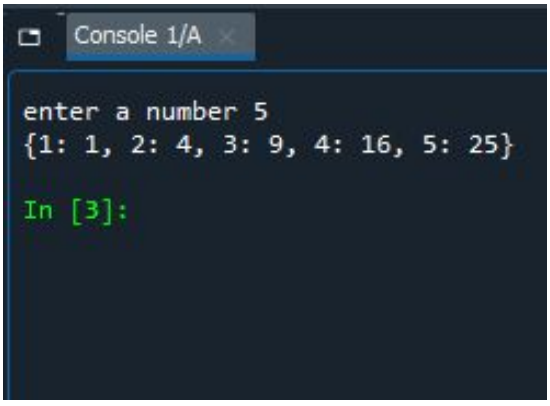


Ques2: Given an integer number n, define a function named **printDict()** which can print a dictionary where the keys are numbers between **1** and **n** (both included) and the values are square of keys. The function **printDict()** doesn't take any argument.

Program:

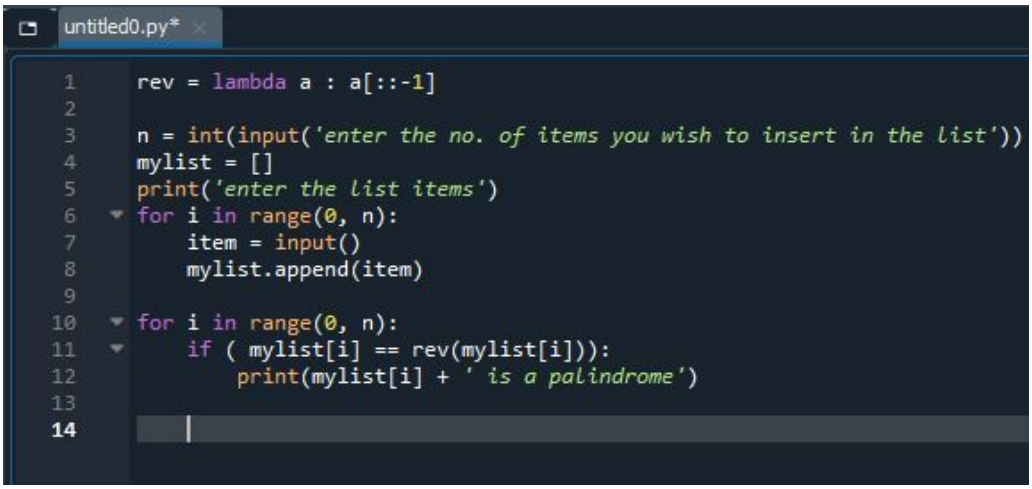


Output:



Ques3: Write a python program to find palindromes in a given list of strings using lambda.

Program:



Output: