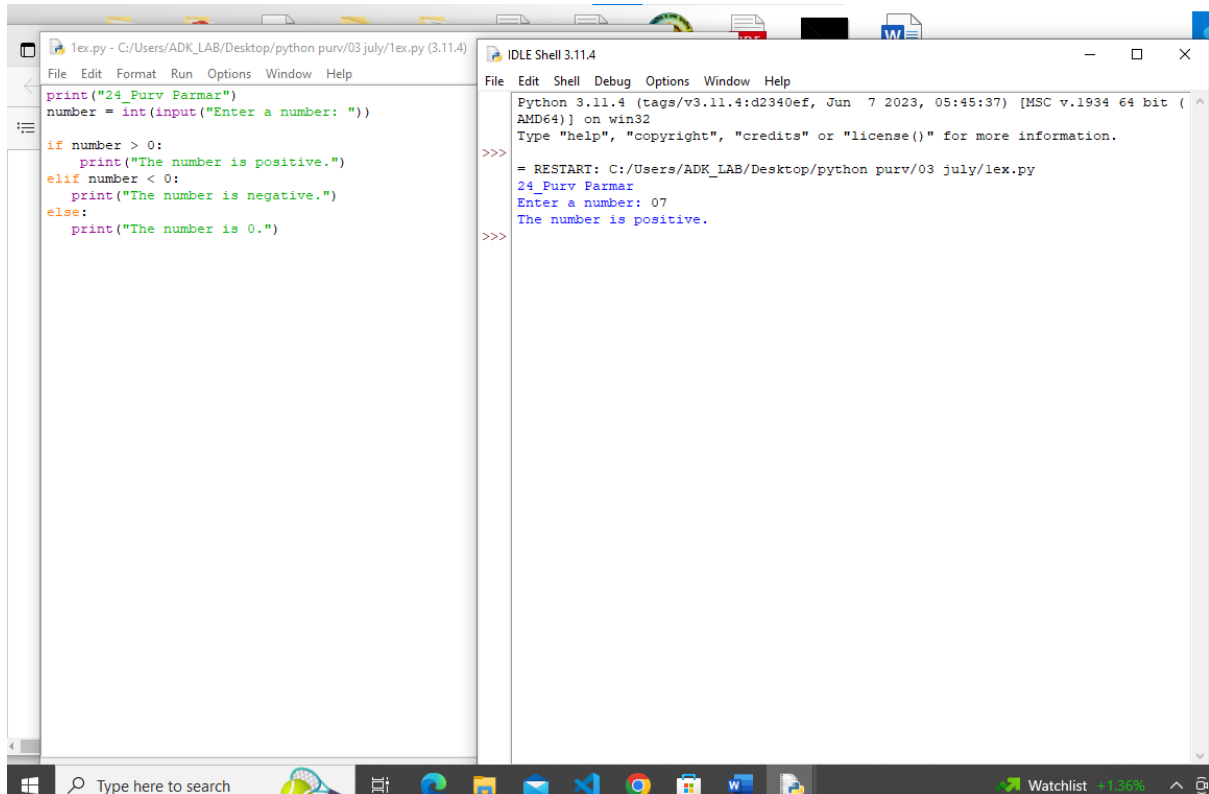


Python exercise for if statements

1. Question: Write a Python program to check if a number is even or odd without defining a function.



The screenshot shows a Python IDE with two windows. The left window, titled '1ex.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/1ex.py (3.11.4)', contains the following code:

```
print("24_Purv Parmar")
number = int(input("Enter a number: "))

if number > 0:
    print("The number is positive.")
elif number < 0:
    print("The number is negative.")
else:
    print("The number is 0.")
```

The right window, titled 'IDLE Shell 3.11.4', shows the output of the program after execution:

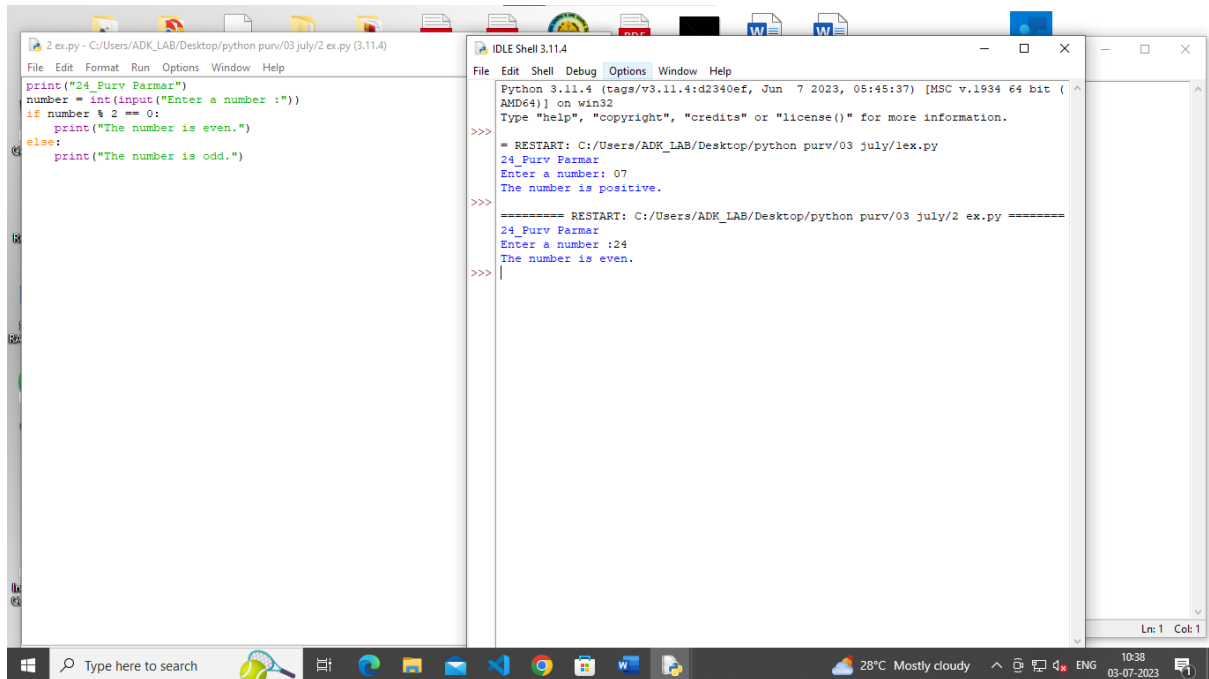
```
>>>
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun  7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/1ex.py
24_Purv Parmar
Enter a number: 07
The number is positive.

>>>
```

The Windows taskbar at the bottom shows the search bar, task view, and several open applications including Edge, File Explorer, Mail, Teams, Chrome, and Word. The system tray on the right shows the Watchlist at +1.36%.

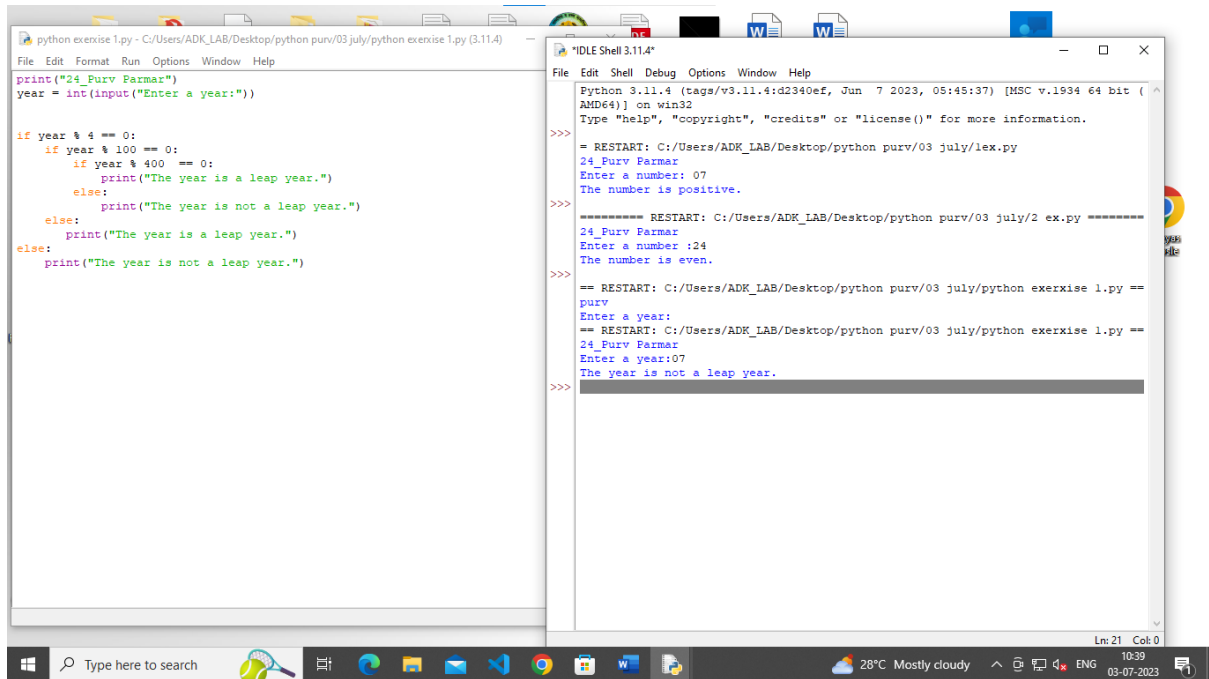
2. Question: Write a Python program to check if a number is positive or negative without defining a function.



```
2 ex.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/2 ex.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
number = int(input("Enter a number :"))
if number % 2 == 0:
    print("The number is even.")
else:
    print("The number is odd.")

IDLE Shell 3.11.4
File Edit Shell Debug Options Window Help
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/lex.py
24_Purv Parmar
Enter a number: 07
The number is positive.
>>>
===== RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/2 ex.py =====
24_Purv Parmar
Enter a number :24
The number is even.
>>>
Ln: 1 Col: 1
```

3. Question: Write a Python program to check if a year is a leap year without defining a function.



The screenshot displays a Windows desktop environment. On the left, a text editor window titled 'python exercise 1.py' contains the following Python code:

```
print("24_Purv Parmar")
year = int(input("Enter a year:"))

if year % 4 == 0:
    if year % 100 == 0:
        if year % 400 == 0:
            print("The year is a leap year.")
        else:
            print("The year is not a leap year.")
    else:
        print("The year is a leap year.")
else:
    print("The year is not a leap year.")
```

On the right, an 'IDLE Shell 3.11.4' window shows the execution of the program. It includes several restarts and user inputs:

```
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/lex.py
24_Purv Parmar
Enter a number: 07
The number is positive.

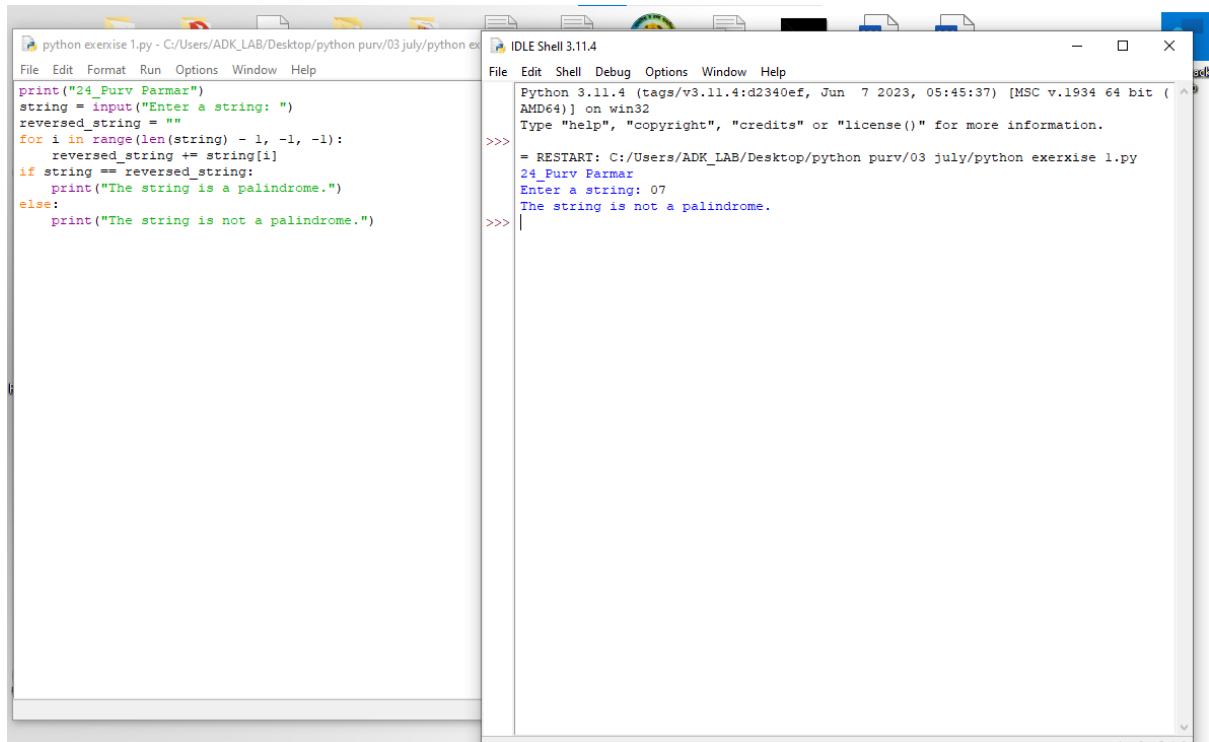
>>>
===== RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/2 ex.py =====
24_Purv Parmar
Enter a number :24
The number is even.

== RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py ==
purv
Enter a year:
== RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py ==
24_Purv Parmar
Enter a year:07
The year is not a leap year.

>>>
```

The Windows taskbar at the bottom shows the system clock as 10:39 on 03-07-2023, and the weather as 26°C Mostly cloudy.

4. Question: Write a Python program to check if a string is a palindrome without defining a function.



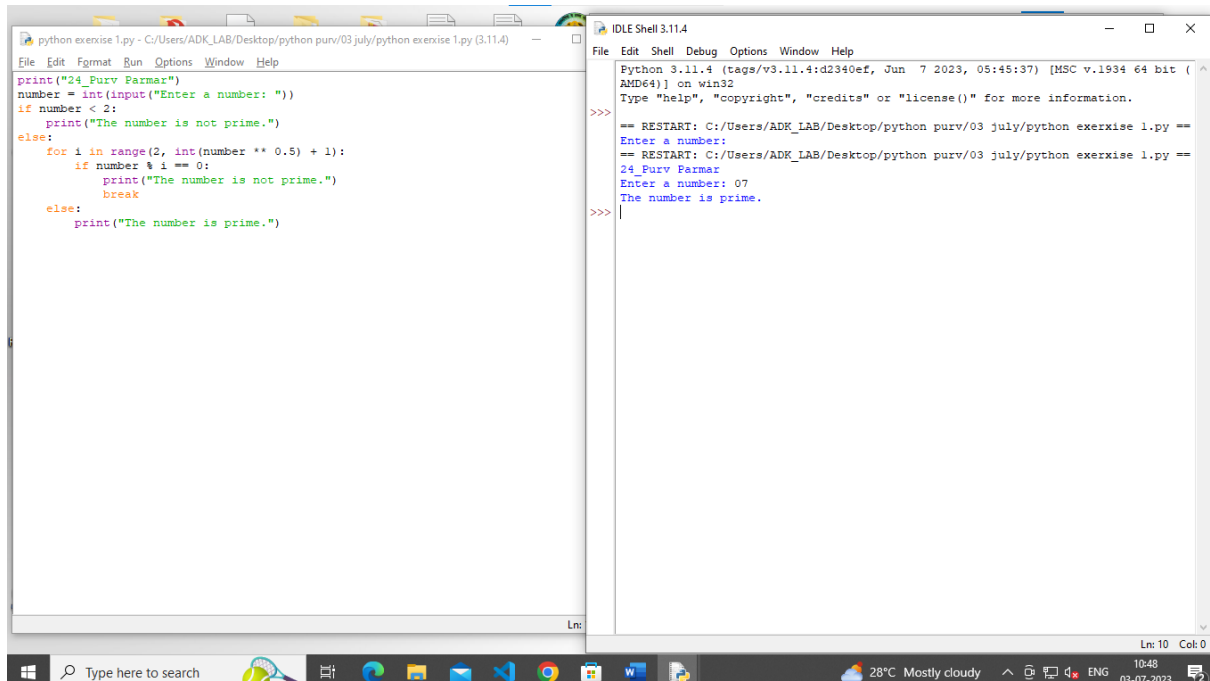
The image shows a screenshot of a Python IDE with two windows. The left window, titled 'python exercise 1.py', contains the following code:

```
print("24 Purv Parmar")
string = input("Enter a string: ")
reversed_string = ""
for i in range(len(string) - 1, -1, -1):
    reversed_string += string[i]
if string == reversed_string:
    print("The string is a palindrome.")
else:
    print("The string is not a palindrome.")
```

The right window, titled 'IDLE Shell 3.11.4', shows the output of the program:

```
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a string: 07
The string is not a palindrome.
>>>
```

5. Question: Write a Python program to check if a number is prime without defining a function.



The screenshot shows a Python IDE with two windows. The left window displays a Python script for checking if a number is prime. The right window shows the execution output.

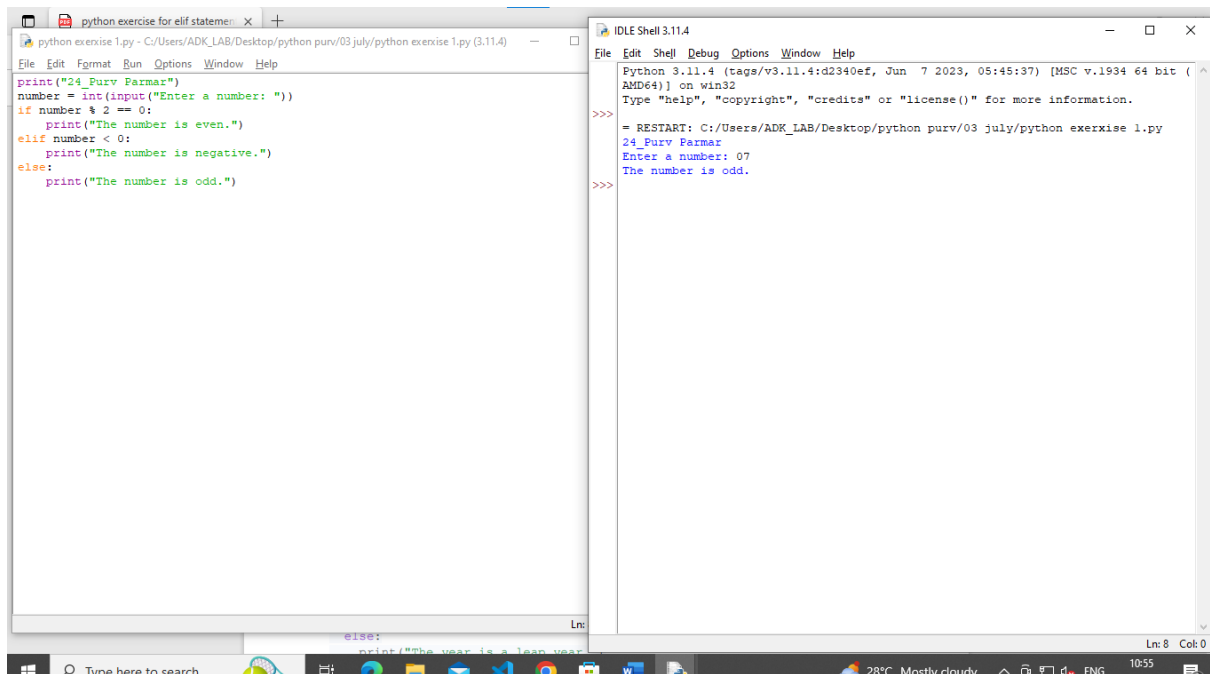
```
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
number = int(input("Enter a number: "))
if number < 2:
    print("The number is not prime.")
else:
    for i in range(2, int(number ** 0.5) + 1):
        if number % i == 0:
            print("The number is not prime.")
            break
    else:
        print("The number is prime.")
Ln: 10
```

```
IDLE Shell 3.11.4
File Edit Shell Debug Options Window Help
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py ==
Enter a number:
== RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py ==
24_Purv Parmar
Enter a number: 07
The number is prime.
>>>
Ln: 10 Col: 0
```

The taskbar at the bottom shows the Windows Start button, a search bar, and several application icons. The system tray on the right indicates a temperature of 28°C, mostly cloudy weather, and the date 03-07-2023.

Python exercise for Elif statements

1. Question: Write a Python program to check if a number is even, odd, or neither using elif statements.

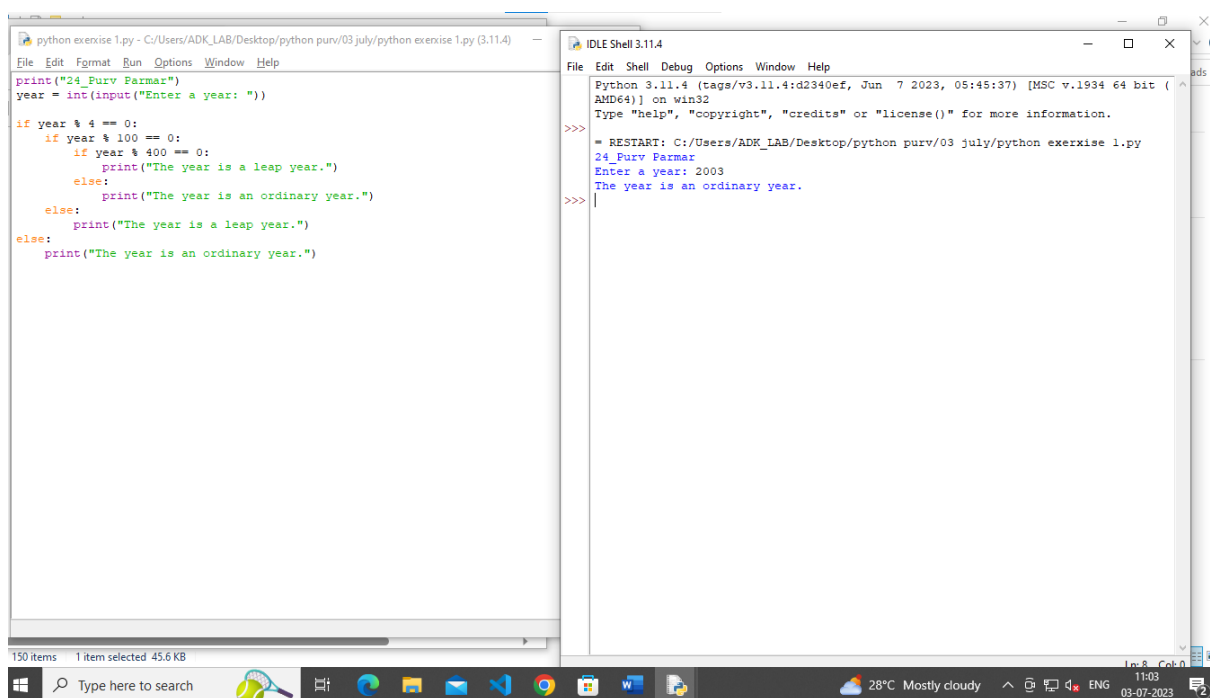


The screenshot shows a Python IDE with two windows. The left window displays the source code for a program that checks if a number is even, odd, or neither using elif statements. The right window shows the output of the program, which prompts the user to enter a number and then prints the result.

```
python exercise for elif statemen...  
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)  
File Edit Format Run Options Window Help  
print("24_Purv Parmar")  
number = int(input("Enter a number: "))  
if number % 2 == 0:  
    print("The number is even.")  
elif number < 0:  
    print("The number is negative.")  
else:  
    print("The number is odd.")
```

```
IDLE Shell 3.11.4  
File Edit Shell Debug Options Window Help  
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
- RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py  
24_Purv Parmar  
Enter a number: 07  
The number is odd.  
>>>
```

2. Question: Write a Python program to check if a year is a leap year, ordinary year, or century using elif statements.



The image shows a screenshot of a Python IDE with two windows. The left window, titled 'python exercise 1.py', contains the following code:

```
print("24_Purv Parmar")
year = int(input("Enter a year: "))

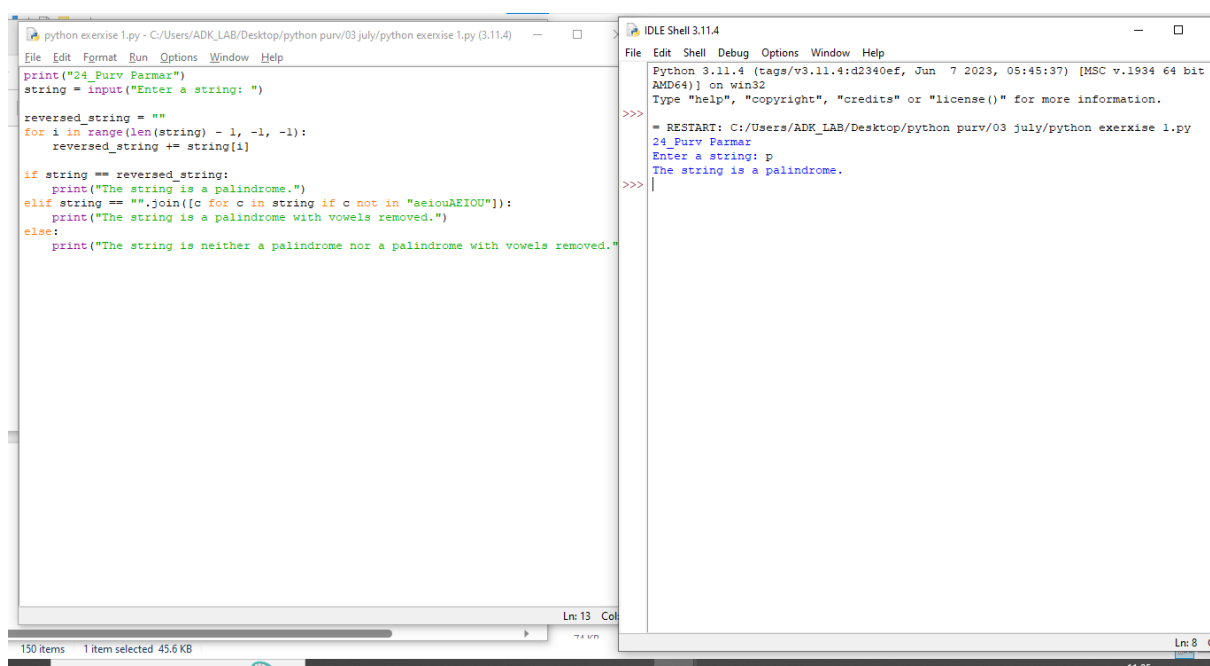
if year % 4 == 0:
    if year % 100 == 0:
        if year % 400 == 0:
            print("The year is a leap year.")
        else:
            print("The year is an ordinary year.")
    else:
        print("The year is a leap year.")
else:
    print("The year is an ordinary year.")
```

The right window, titled 'IDLE Shell 3.11.4', shows the execution output:

```
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a year: 2003
The year is an ordinary year.
>>>
```

The Windows taskbar at the bottom shows the date as 03-07-2023 and the time as 11:03.

3. Question: Write a Python program to check if a string is a palindrome, a palindrome with vowels removed, or neither using elif statements.



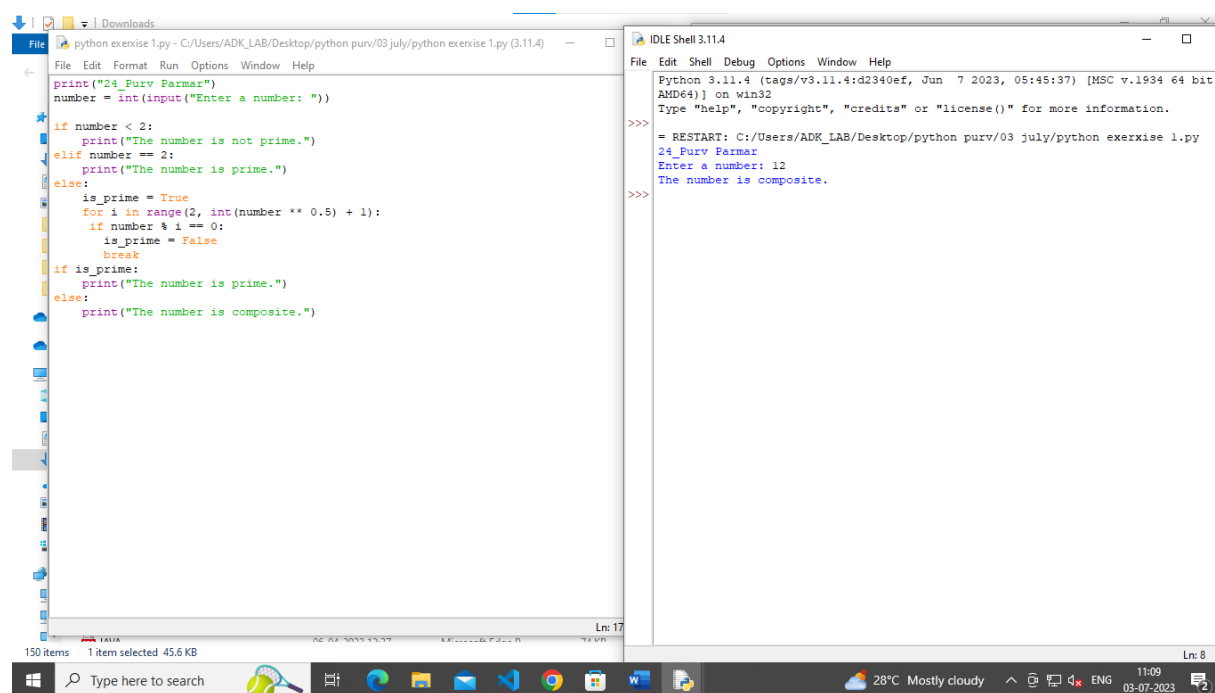
```
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
string = input("Enter a string: ")

reversed_string = ""
for i in range(len(string) - 1, -1, -1):
    reversed_string += string[i]

if string == reversed_string:
    print("The string is a palindrome.")
elif string == "".join([c for c in string if c not in "aeiouAEIOU"]):
    print("The string is a palindrome with vowels removed.")
else:
    print("The string is neither a palindrome nor a palindrome with vowels removed.")
```

```
IDLE Shell 3.11.4
File Edit Shell Debug Options Window Help
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a string: p
The string is a palindrome.
>>>
```


4. Question: Write a Python program to check if a number is prime, composite, or neither using elif statements.



```
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
number = int(input("Enter a number: "))

if number < 2:
    print("The number is not prime.")
elif number == 2:
    print("The number is prime.")
else:
    is_prime = True
    for i in range(2, int(number ** 0.5) + 1):
        if number % i == 0:
            is_prime = False
            break
    if is_prime:
        print("The number is prime.")
    else:
        print("The number is composite.")

Ln: 17
```

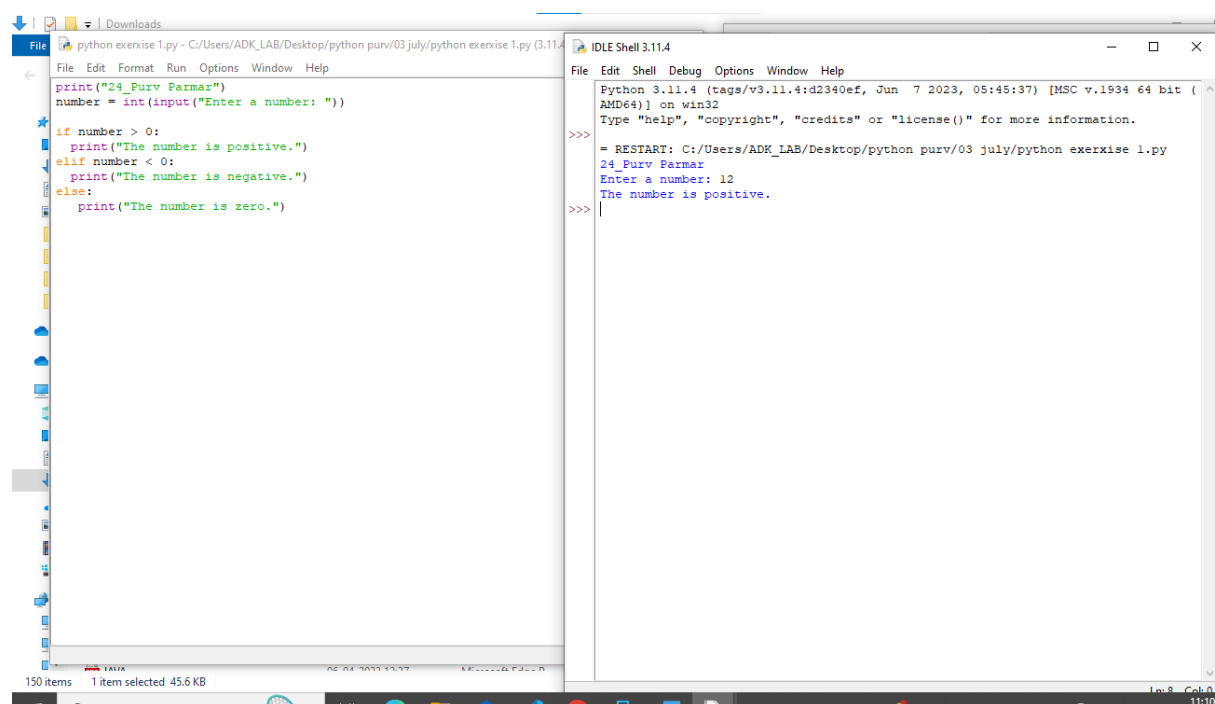
```
IDLE Shell 3.11.4
File Edit Shell Debug Options Window Help
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit
AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
- RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a number: 12
The number is composite.
>>>
```

150 Items 1 item selected 45.6 KB

Type here to search

28°C Mostly cloudy 11:09 03-07-2023

5. Question: Write a Python program to check if a number is positive, negative, or zero using elif statements.

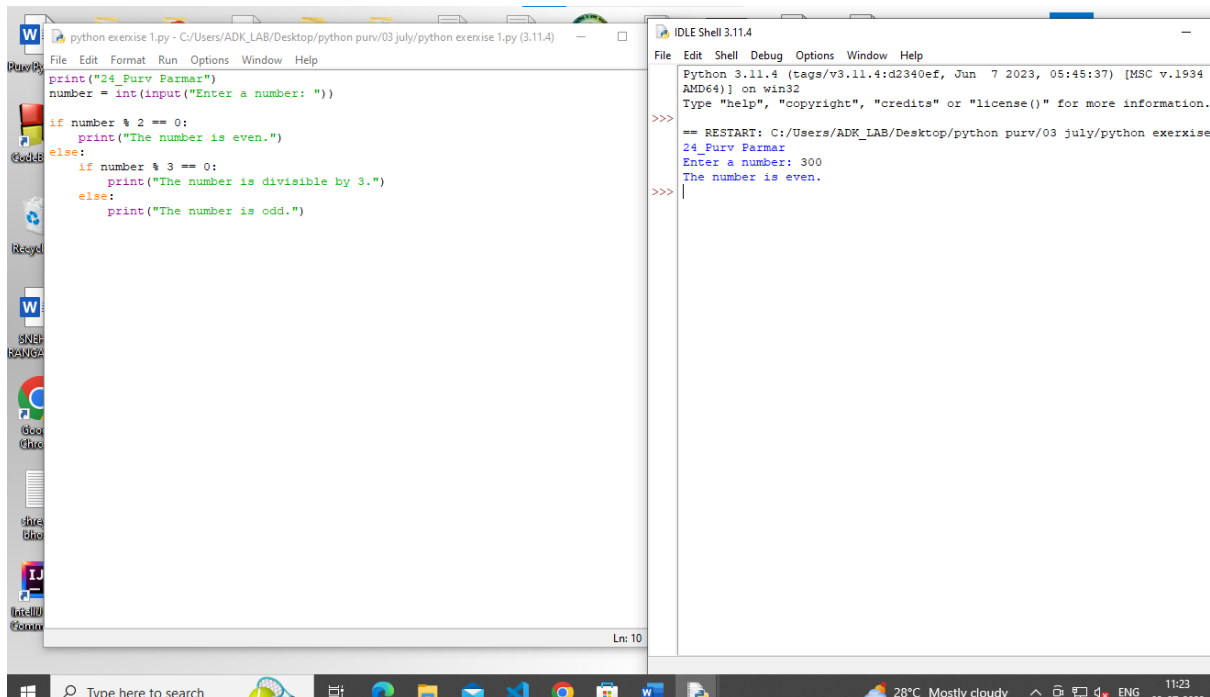


```
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
number = int(input("Enter a number: "))

if number > 0:
    print("The number is positive.")
elif number < 0:
    print("The number is negative.")
else:
    print("The number is zero.")

IDLE Shell 3.11.4
File Edit Shell Debug Options Window Help
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a number: 12
The number is positive.
>>>
```

1. Question: Write a Python program to check if a number is even, odd, or divisible by 3 using nested if-else statements.



The screenshot shows a Windows desktop environment. On the left, a file explorer window displays the contents of a directory: 'python exercise 1.py', '24_Purv Parmar', and a subdirectory 'python purv/03 july/python exercise 1.py (3.11.4)'. The main window is a Python IDE (IDLE Shell 3.11.4) with a menu bar (File, Edit, Shell, Debug, Options, Window, Help) and a code editor. The code in the editor is as follows:

```
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
number = int(input("Enter a number: "))

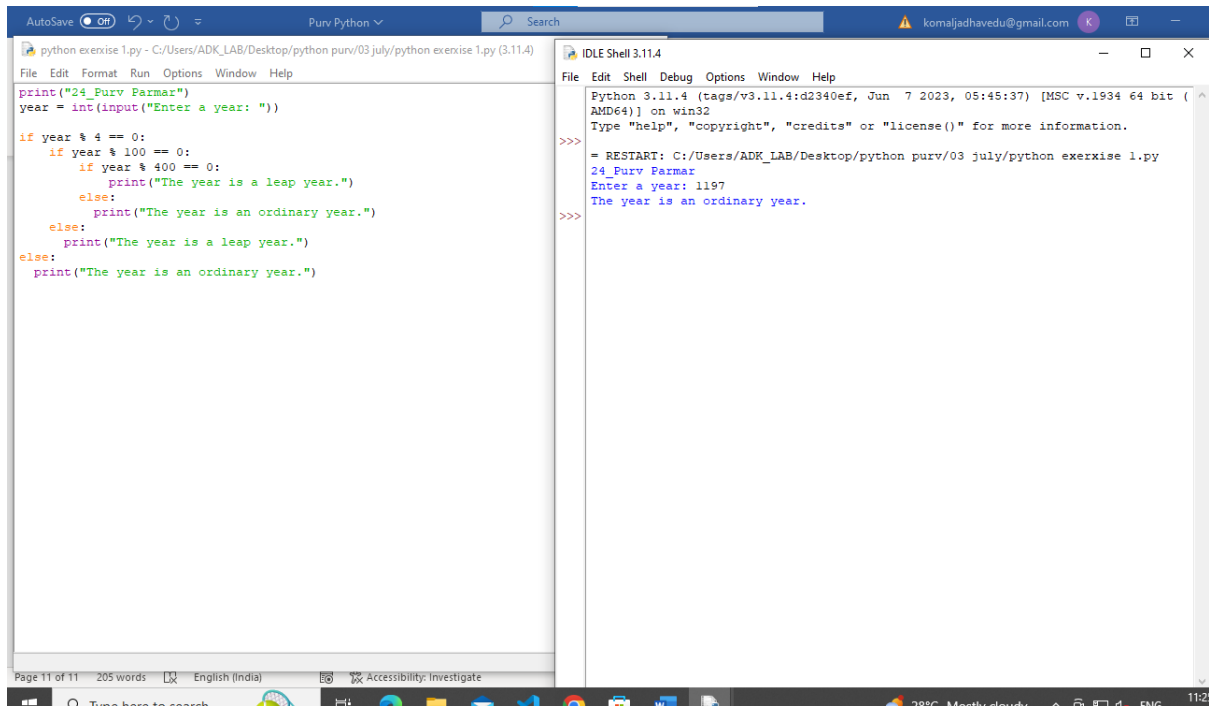
if number % 2 == 0:
    print("The number is even.")
else:
    if number % 3 == 0:
        print("The number is divisible by 3.")
    else:
        print("The number is odd.")
```

The IDE Shell window shows the output of the program:

```
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934
AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise
24_Purv Parmar
Enter a number: 300
The number is even.
>>>
```

The taskbar at the bottom shows the Windows Start button, a search bar, and several application icons. The system tray on the right indicates the temperature is 28°C, mostly cloudy, and the time is 11:23 on 03/07/2023.

2. Question: Write a Python program to check if a year is a leap year, ordinary year, or century using nested if-else statements.



The screenshot shows a Python IDE with two windows. The left window displays a Python script for checking leap years, and the right window shows the execution output.

```
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
year = int(input("Enter a year: "))

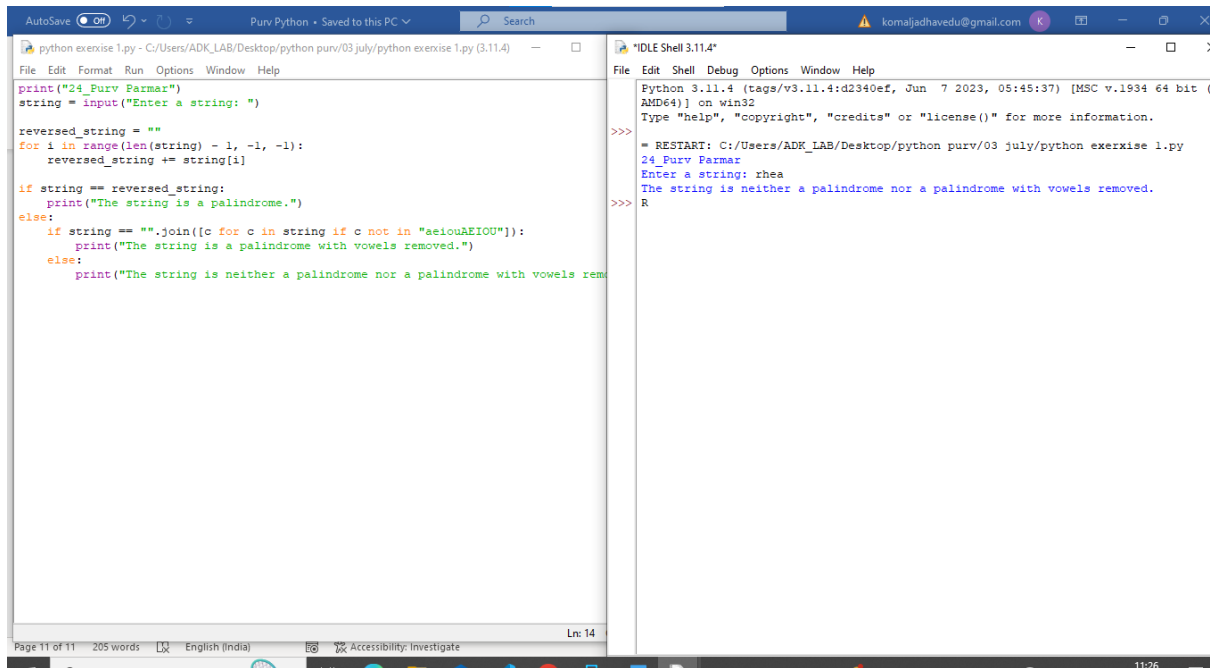
if year % 4 == 0:
    if year % 100 == 0:
        if year % 400 == 0:
            print("The year is a leap year.")
        else:
            print("The year is an ordinary year.")
    else:
        print("The year is a leap year.")
else:
    print("The year is an ordinary year.")
```

The right window, titled "IDLE Shell 3.11.4", shows the execution output:

```
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a year: 1197
The year is an ordinary year.
>>>
```

The bottom status bar indicates "Page 11 of 11", "205 words", "English (India)", and "Accessibility: Investigate". The system tray shows "28°C Mostly cloudy" and "11:25".

3. Question: Write a Python program to check if a string is a palindrome, a palindrome with vowels removed, or neither using nested if-else statements.



The screenshot shows a Python IDE with a file named 'python exercise 1.py'. The code in the editor is as follows:

```
print("24_Purv Parmar")
string = input("Enter a string: ")

reversed_string = ""
for i in range(len(string) - 1, -1, -1):
    reversed_string += string[i]

if string == reversed_string:
    print("The string is a palindrome.")
else:
    if string == "".join([c for c in string if c not in "aeiouAEIOU"]):
        print("The string is a palindrome with vowels removed.")
    else:
        print("The string is neither a palindrome nor a palindrome with vowels removed.")
```

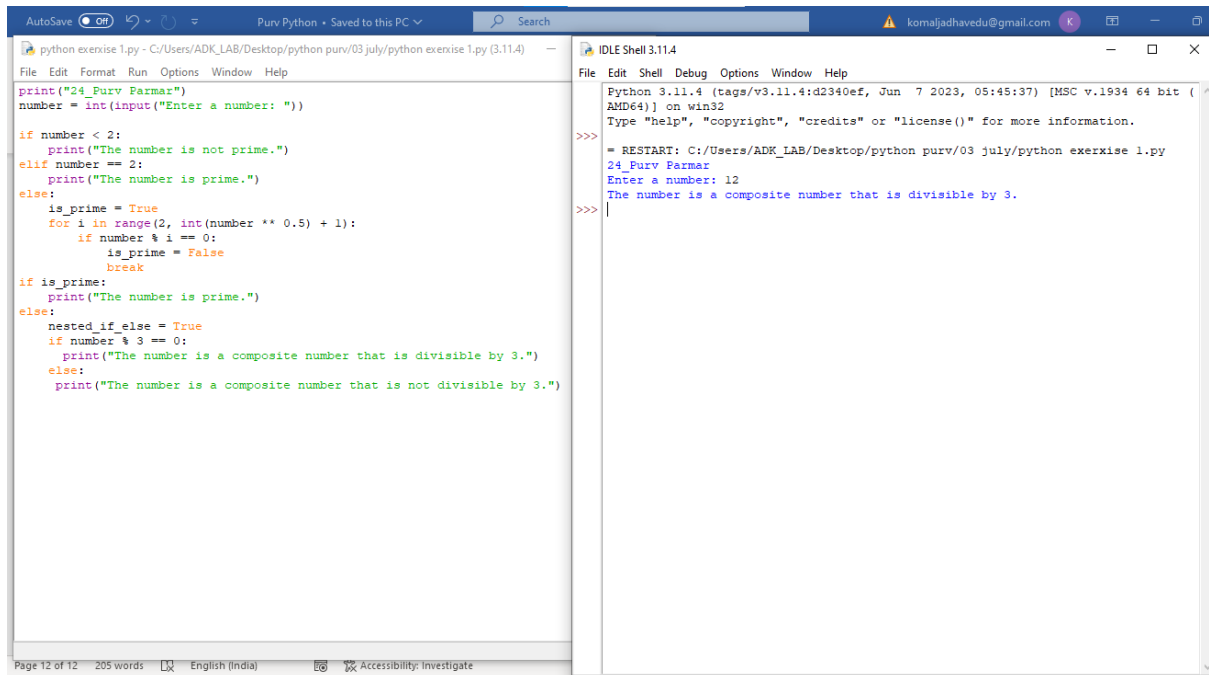
The output window on the right shows the execution results:

```
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a string: rhea
The string is neither a palindrome nor a palindrome with vowels removed.
>>> R
```

The status bar at the bottom indicates 'Page 11 of 11', '205 words', 'English (India)', and 'Accessibility: Investigate'. The file path is 'C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)'.

4. Question: Write a Python program to check if a number is prime, composite, or neither using nested if-else statements



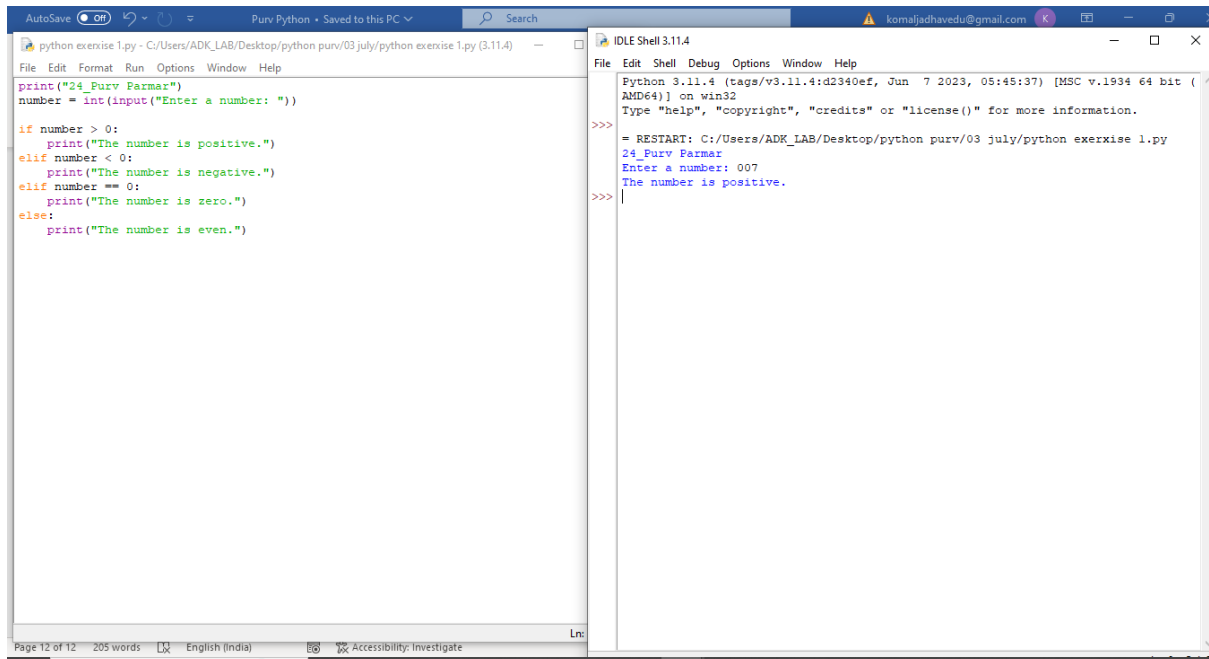
```
python exercise 1.py - C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py (3.11.4)
File Edit Format Run Options Window Help
print("24_Purv Parmar")
number = int(input("Enter a number: "))

if number < 2:
    print("The number is not prime.")
elif number == 2:
    print("The number is prime.")
else:
    is_prime = True
    for i in range(2, int(number ** 0.5) + 1):
        if number % i == 0:
            is_prime = False
            break
    if is_prime:
        print("The number is prime.")
    else:
        nested_if_else = True
        if number % 3 == 0:
            print("The number is a composite number that is divisible by 3.")
        else:
            print("The number is a composite number that is not divisible by 3.")
```

```
IDLE Shell 3.11.4
File Edit Shell Debug Options Window Help
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exercise 1.py
24_Purv Parmar
Enter a number: 12
The number is a composite number that is divisible by 3.
>>>
```

Page 12 of 12 205 words English (India) Accessibility: Investigate

5. Question: Write a Python program to check if a number is positive, negative, zero, or even using nested if-else statements.



The screenshot shows a Python IDE with two windows. The left window is a text editor titled 'python exercise 1.py' containing the following code:

```
print("24_Purv Parmar")
number = int(input("Enter a number: "))

if number > 0:
    print("The number is positive.")
elif number < 0:
    print("The number is negative.")
elif number == 0:
    print("The number is zero.")
else:
    print("The number is even.")
```

The right window is the 'IDLE Shell 3.11.4' showing the execution output:

```
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>> = RESTART: C:/Users/ADK_LAB/Desktop/python purv/03 july/python exerxise 1.py
24_Purv Parmar
Enter a number: 007
The number is positive.
>>>
```

The status bar at the bottom indicates 'Page 12 of 12', '205 words', 'English (India)', and 'Accessibility: Investigate'.