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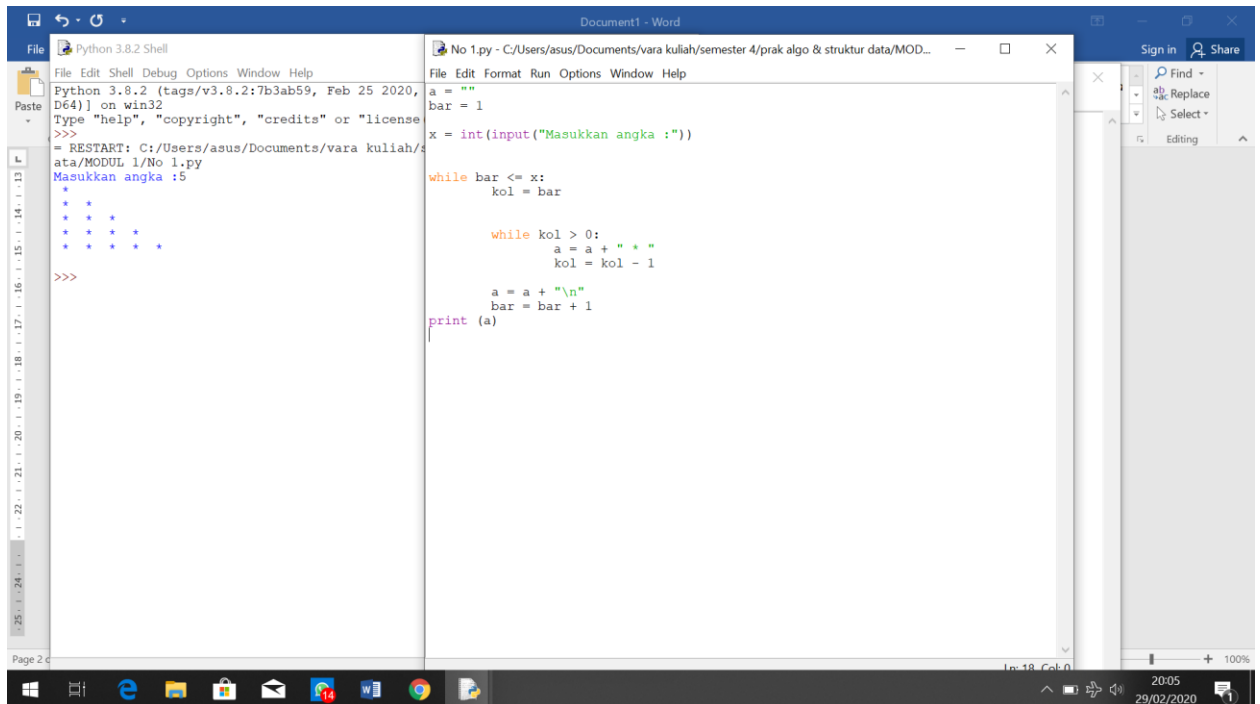
NIM : L200180034

Kelas : B

## Modul 1

### Tinjauan Ulang Python

#### 1. Fungsi cetakSiku(x)



The screenshot shows a Windows desktop with a Python 3.8.2 Shell window and a Microsoft Word document. The Python Shell window displays the execution of a program that prints a square pattern of asterisks. The Word document contains the source code for the program.

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, D64) on win32
Type "help", "copyright", "credits" or "license()"
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/ata/MODUL 1/No 1.py
Masukkan angka :5
*
*
*
*
*
>>>
```

```
Document1 - Word
File Edit Format Run Options Window Help
a = ""
bar = 1
x = int(input("Masukkan angka :"))

while bar <= x:
    kol = bar

    while kol > 0:
        a = a + " * "
        kol = kol - 1

    a = a + "\n"
    bar = bar + 1

print(a)
```

#### 2. Persegi empat

The screenshot shows a Python IDE with two windows. The left window is a Python 3.8.2 Shell with the following text:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
= RESTART: C:\Users\asus\Documents\vara kuliah\semester 4\prak al
ata\MODUL 1\No 2.py
>>>
```

The right window is a text editor showing the following code:

```
def gambarlahPersegiEmpat(tinggi, lebar):
    print ("@"*lebar)
    for i in range (tinggi -2):
        print ("@" + (" "*(lebar-2))+"@")
        print ("@"*lebar)
gambarlahPersegiEmpat(4,5)
```

The taskbar at the bottom shows the time 19:40 and date 29/02/2020.

### 3. A. Jumlah Huruf Vokal

The screenshot shows a Python IDE with two windows. The left window is a Python 3.8.2 Shell with the following text:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
= RESTART: C:\Users\asus\Documents\vara kuliah\semester 4\prak al
ata\MODUL 1\No 3A.py
(9, 4)
>>>
```

The right window is a text editor showing the following code:

```
def jumlahHurufVokal(x):
    vokal="AIUEOaiueo"
    jmlhuruf=len(x)
    jmlvokal=0
    for karakter in x:
        if karakter in vokal:
            jmlvokal+=1
    return (jmlhuruf, jmlvokal)
k=jumlahHurufVokal("Surakarta")
print(k)
```

The taskbar at the bottom shows the time 19:44 and date 29/02/2020.

### B. Jumlah Huruf Konsonan

The screenshot shows a dual-pane window. The left pane is a Python 3.8.2 Shell with the following text:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC
D64] on win32
Type "help", "copyright", "credits" or "license()" for more in
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/prak
ata/MODUL 1/No 3B.py
(9, 5)
>>>
```

The right pane is a Word document titled "Document1 - Word" containing the following Python code:

```
def jumlahHurufKonsonan(x):
    konsonan="BCDFGHJKLMNPQRSTVWXYZbcdfghjklmnpqrstvwxyz"
    jmlhuruf=len(x)
    jmlkonsonan=0
    for karakter in x:
        if karakter in konsonan:
            jmlkonsonan+=1
    return (jmlhuruf, jmlkonsonan)
k=jumlahHurufKonsonan("Surakarta")
print(k)
```

The Windows taskbar at the bottom shows the time as 19:46 on 29/02/2020.

#### 4. Rerata

The screenshot shows a dual-pane window. The left pane is a Python 3.8.2 Shell with the following text:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [M
D64] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/pr
ata/MODUL 1/No 4.py
3.0
>>>
```

The right pane is a Word document titled "No 4.py - C:/Users/asus/Documents/vara kuliah/semester 4/prak algo & struktur data/MOD..." containing the following Python code:

```
def rerata(p=[]):
    x=0
    n=0
    if p != []:
        for i in p:
            x+=i
            n+=1
        return x/n
z=rerata([1,2,3,4,5])
print(z)
```

The Windows taskbar at the bottom shows the time as 20:11 on 29/02/2020.

#### 5. Apakah Prima

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MS
D64]) on win32
Type "help", "copyright", "credits" or "license()" for more i
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/prak
ata/MODUL 1/No 5.py
>>> apakahPrima(17)
True
>>> apakahPrima(97)
True
>>> apakahPrima(123)
True
>>>

Document1 - Word
File Edit Format Run Options Window Help
from math import sqrt as sq
def apakahPrima(n):
    n = int(n)
    assert n>=0
    primaKecil = [2,3,5,7,11]
    bukanPrKecil = [0,1,4,6,8,9,10]
    if n in primaKecil:
        return True
    elif n in bukanPrKecil:
        return False
    else:
        for i in range (2,int(sq(n))+1):
            if n % i == 0:
                return False
            return True
```

## 6. Bilangan prima 2 -100

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MS
D64]) on win32
Type "help", "copyright", "credits" or "license()" for more i
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/prak
ata/MODUL 1/No 6.py
Masukkan Batas Angka : 15
2
3
5
7
11
13
>>>

Document1 - Word
File Edit Format Run Options Window Help
batas = int(input("Masukkan Batas Angka : "))
for a in range (2,batas,1):
    mod=1
    for b in range (2,a,1):
        if (a%b==0):
            mod=0
    if (mod==1):
        print(a)
```

7.

The screenshot shows a Windows desktop with a taskbar at the bottom. Two windows are open: a Python 3.8.2 Shell and a Microsoft Word document titled 'Document1 - Word'.

The Python 3.8.2 Shell window shows the following code and output:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/prak algo & struktur data/MODUL 1/No 7.py
>>> faktorprima(10)
[2, 5]
>>> faktorprima(120)
[2, 2, 2, 3, 5]
>>> faktorprima(19)
[19]
>>>
```

The Word document window shows the following Python code for a prime factorization function:

```
def faktorprima(x):
    faktor=[]
    loop=2
    while loop<=x:
        if x%loop==0:
            x/=loop
            faktor.append(loop)
        else:
            loop+=1
    return faktor
```

8.

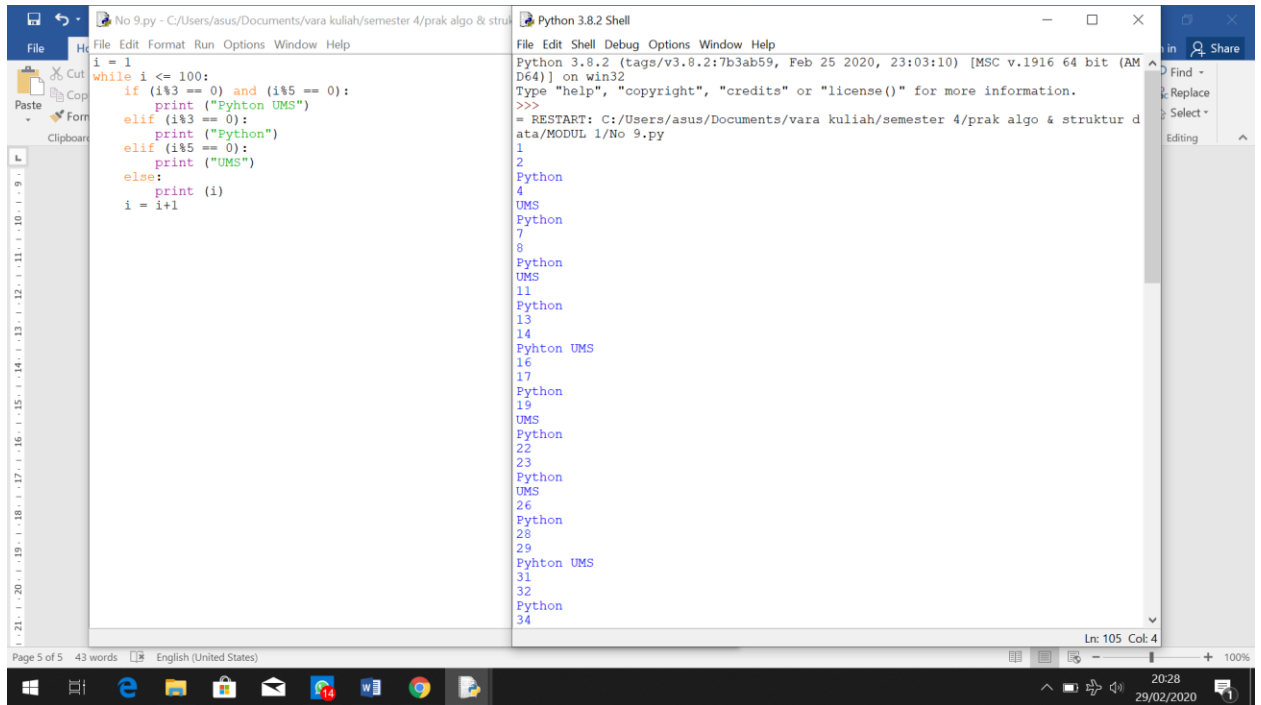
The screenshot shows a Windows desktop with a taskbar at the bottom. Two windows are open: a Python 3.8.2 Shell and a Microsoft Word document titled 'Document1 - Word'.

The Python 3.8.2 Shell window shows the following code and output:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/prak algo & struktur data/MODUL 1/No 8.py
>>> h = 'do'
>>> k = 'Indonesia tanah air beta'
>>> apakahTerkandung(h,k)
True
>>> apakahTerkandung('pusaka',k)
False
>>>
```

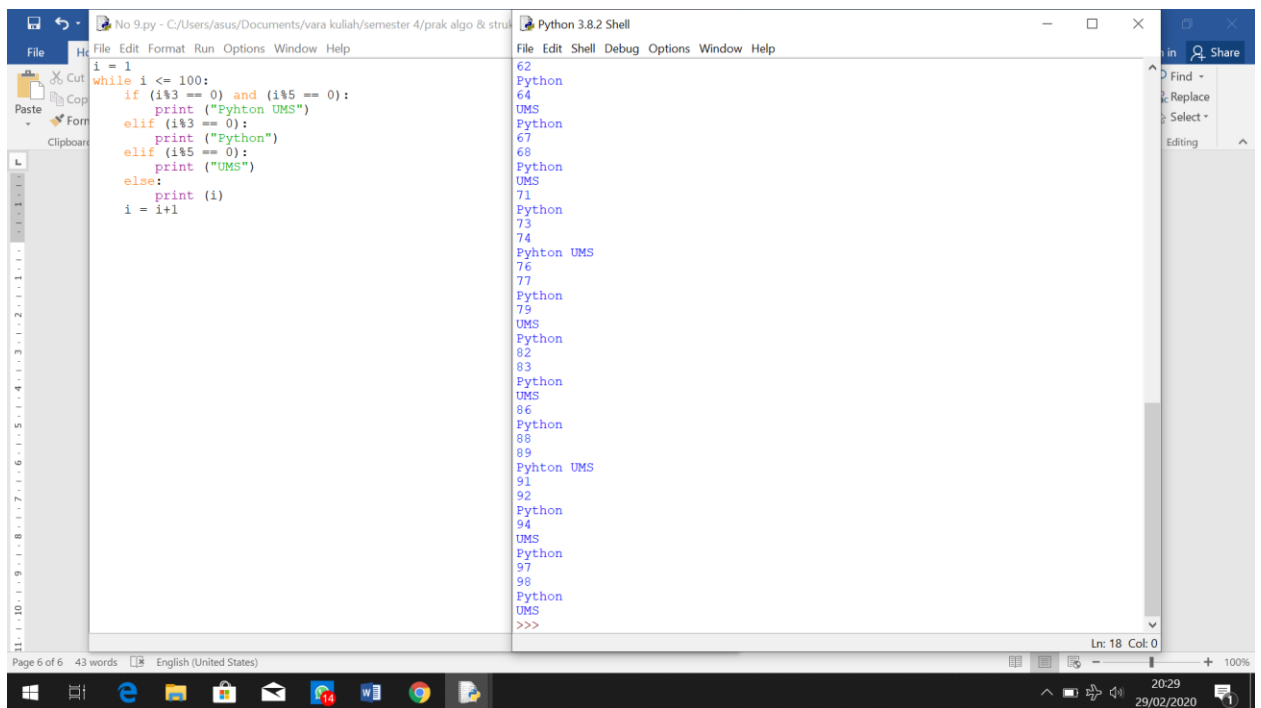
The Word document window shows the following Python code for a function to check if a string is a pangram:

```
def apakahTerkandung(x, y):
    for k in x:
        if k in y:
            return True
        else:
            return False
```



```
Python 3.8.2 Shell
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/prak algo & struktur d
ata/MODUL 1/No 9.py
1
2
Python
4
UMS
Python
7
8
Python
UMS
11
Python
13
14
Pyhton UMS
16
17
Python
19
UMS
Python
22
23
Python
UMS
26
Python
28
29
Pyhton UMS
31
32
Python
34
```

9.



```
Python 3.8.2 Shell
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/asus/Documents/vara kuliah/semester 4/prak algo & struktur d
ata/MODUL 1/No 9.py
1
2
Python
4
UMS
Python
7
8
Python
UMS
11
Python
13
14
Pyhton UMS
16
17
Python
19
UMS
Python
22
23
Python
UMS
26
Python
28
29
Pyhton UMS
31
32
Python
34
```

10.

The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes icons for File Explorer, Edge, Mail, Photos, Word, and a folder named '14'. The system tray on the right shows the date and time as 20:31 on 29/02/2020.

Two windows are open:

- Document1 - Word**: A text editor window showing a Python script. The script defines a function `selesaikanABC(a,b,c)` that calculates the discriminant  $D = (b^2) - (4*a*c)$ . If  $D < 0$ , it returns a message that the equation has no real roots. Otherwise, it calculates the roots  $x_1$  and  $x_2$  using the quadratic formula and returns them as a list.
- Python 3.8.2 Shell**: A command prompt window showing the execution of the script. The user enters `>>> selesaikanABC(1,2,3)`, and the shell outputs `'Determinannya negatif. Persamaan tidak mempunyai akar real.'`

11.

The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes icons for File Explorer, Edge, Mail, Photos, Word, and a folder named '14'. The system tray on the right shows the date and time as 20:33 on 29/02/2020.

Two windows are open:

- Document1 - Word**: A text editor window showing a Python script. The script defines a function `apakahKabisat(n)` that checks if a year  $n$  is a leap year. It returns `True` if  $n$  is divisible by 4 but not by 100, or if  $n$  is divisible by 400. Otherwise, it returns `False`.
- Python 3.8.2 Shell**: A command prompt window showing the execution of the script. The user enters `>>> apakahKabisat(1896)`, and the shell outputs `True`.

12.

The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes icons for File Explorer, Edge, Mail, Photos, and several other applications. The system tray on the right shows the date and time as 20:41 on 29/02/2020.

Two windows are open:

- Python 3.8.2 Shell:** This window shows the execution of a Python script. The script is a number guessing game. It generates a random number between 1 and 100 and allows the user to guess it. The game provides feedback on whether the guess is correct, too high, or too low, and keeps track of the number of attempts.
- Document1 - Word:** This window contains the source code of the Python script shown in the shell. The code is as follows:
 

```
from random import randint
print("""Permainan tebak angka.
Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba Tebak!""")
a = randint(1, 100)
for i in range(3):
    b = int(input("Masukkan tebakan ke-{}:>".format(i+1)))
    if b == a:
        print("Ya. Anda benar.")
    elif b > a:
        if i >= 2:
            print("Itu terlalu besar. Kesempatan habis. Nilainya adalah",a)
        else:
            print("Itu terlalu besar. Coba lagi")
    else:
        if i >= 2:
            print("Itu terlalu kecil. Kesempatan habis. Nilainya adalah",a)
        else:
            print("Itu terlalu kecil. Coba lagi")
```

13.

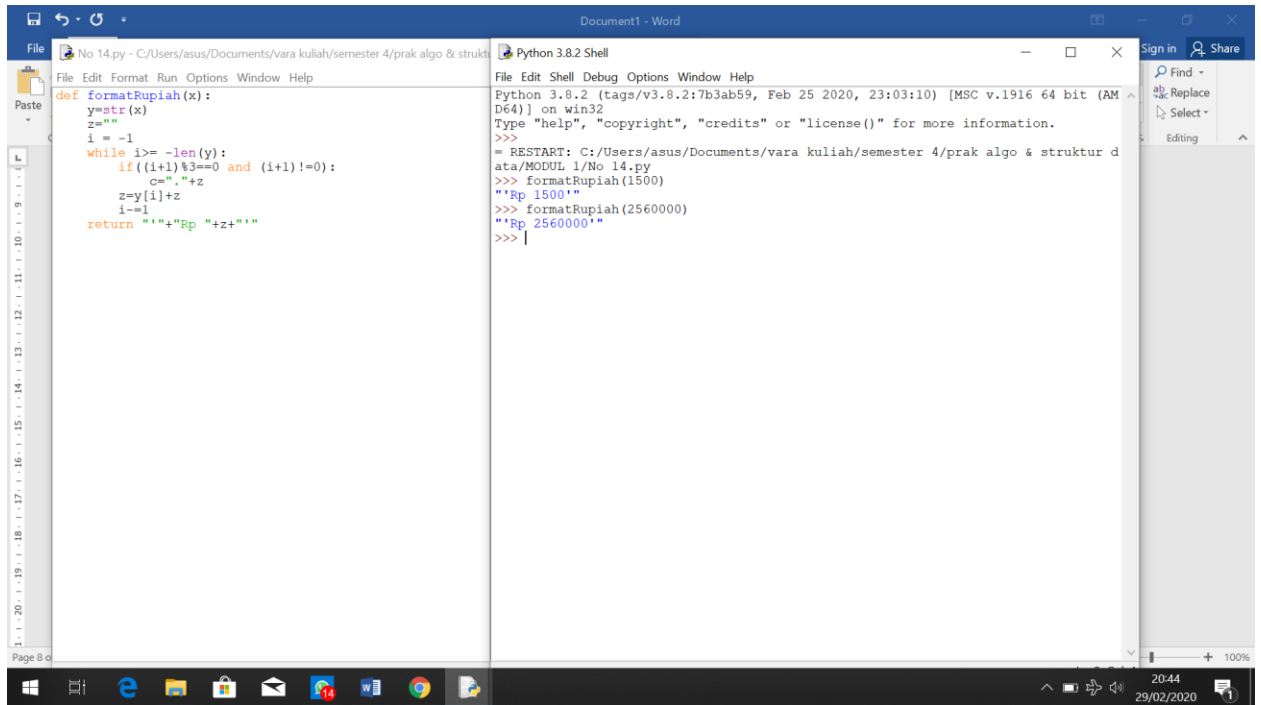
The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes icons for File Explorer, Edge, Mail, Photos, and several other applications. The system tray on the right shows the date and time as 20:42 on 29/02/2020.

Two windows are open:

- Python 3.8.2 Shell:** This window shows the execution of a Python script. The script defines a function called `katakan` that takes a number as input and returns its word representation. The function uses a list of words for each digit and recursively builds the word representation. The output of the function is displayed in the shell.
- Document1 - Word:** This window contains the source code of the Python script shown in the shell. The code is as follows:
 

```
def katakan(a):
    x={"0":"","1":"Se","2":"Dua ","3":"Tiga ","4":"Empat ","5":"Lima ","6":"Enam ","7":"Tujuh ","8":"Delapan ","9":"Sembilan "}
    y={"-1":"","-2":"puluh",-3:"ratus",-4:"ribu",-5:"puluh",-6:"ratus",-7:"juta",-8:"juta",-9:"juta"}
    z=""
    i=-1
    while i>= -len(b):
        z=x[b[i]]+y[i]+z
        i=i-1
    return z
print(katakan(3125750))
```





14.