Files: data storage and retrieval

Storing data permanently in computer

1) Databases : ORACLE, SQL SERVER ,MY SQL

2) Files :Text file, PDF file, Excel file, Word file
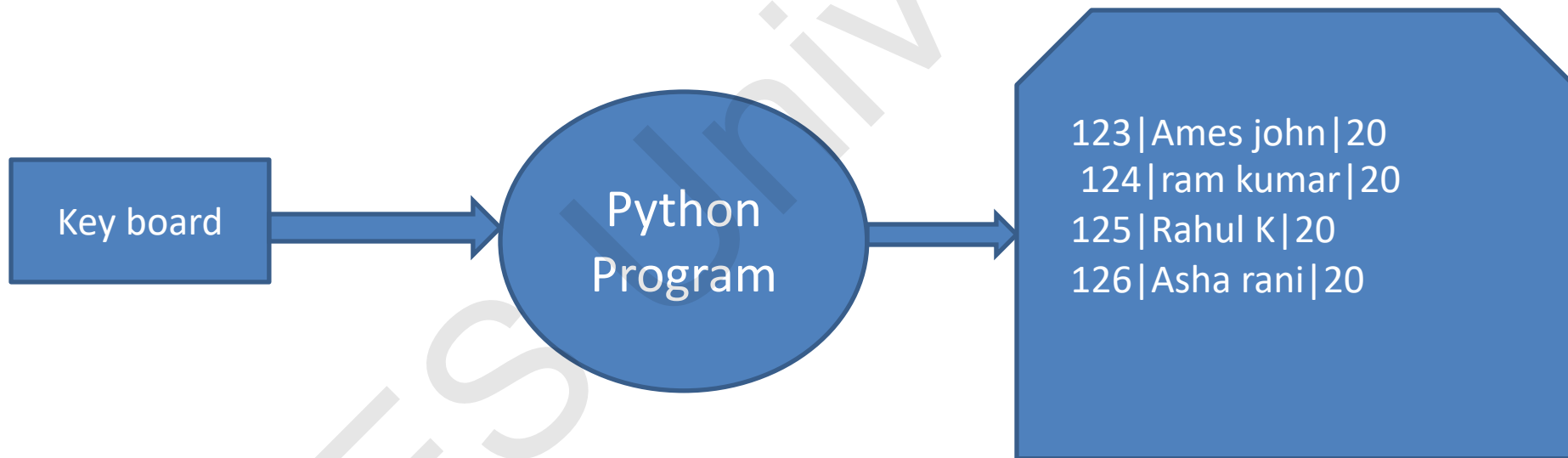
Steps in file handling or file operations.

➢ Opening an existing file

➢ Reading from a file

➢ Writing to a file

➢ Moving to s specific location in a file

➢ Closing a file

Steps in file handling or file operations.
Keyboard to file or file to file
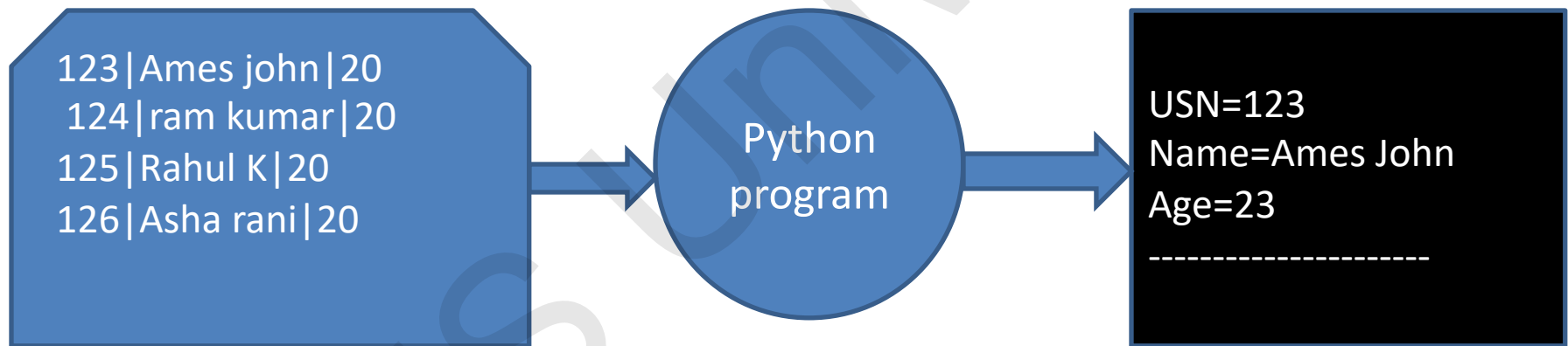## Write operation: writing to a file

| Key board | → | Python Program | → | 123\|Ames john\|20
124\|ram kumar\|20
125\|Rahul K\|20
126\|Asha rani\|20 |

Write operation

Steps in file handling or file operations.

FROM FILE To Monitor

Read operation: Reading from a file

123|Ames john|20
124|ram kumar|20
125|Rahul K|20
126|Asha rani|20

Python program

USN=123
Name=Ames John
Age=23

Read operation

FROM   FILE   To   Monitor

Built in functions for file handling

Functions	Use/purpose
open()	Opens a file
file.close()	Closes a file
file.read()	Reads a line from a file
file.readlines()	Read lines from a file
file.write(data)	Write a line of data to a file
file.writelines(data)	Write lines of data to a file

Opening a file

f = open("file name", "mode");

"r"
"w"
"a"

File modes

Read   r

f =open("stud.txt","r");

Write   w

f = open("stud.txt","w");

Append   a

f = open("stud.txt","a");

Reading from a file

#Read a char from the file
File.read(1)

#Returns one line at a time
File.readline()

#Returns a list of lines
File. readlines ()

#Reads entire file data at once and returns as string
File.read()

Reading data from a File line by line

```
#pgm to read line by line
file=open("strings.py","r");
for line in file:
    print (line)
file.close()
```

```
#reading lines
file=open("strings.py","r");
data=file.readlines() //reads into a list
for k in data:
    print(k)
```

Create a list of phone numbers

SANATH 7022663973 SANATH@gmail.com

ASMIKA 9108819222 ASMIKA@gmail.com

CHANDANA 9739100483 CHANDANA@gmail.com

RAJESH 123456789 RAJESH@gmail.com

SNEHA 9494451039 SNEHA@gmail.com

NAVEEN 9973265614 NAVEEN@gmail.com

ASWIN 9739111370 ASWIN@gmail.com

SOWMYA 7338322956 SOWMYA@gmail.com

LEKHA 8296426667 LEKHA@gmail.com

Create a list of phone numbers

```python
file=open('studs.txt','r')
data=file.read()
res=[]
lines=data.split('\n')
for line in lines:
    (name,phno)=line.split()
    res.append(phno)
for phno in res:
    print(phno)
```

CBT Result analysis

PES2201800010 ANIKET 28.50 22.00 22.00 22.00 22.00

PES2201800053 AYUSHI 27.50 29.50 32.00 27.00 29.00

PES2201800061 SAMUDRALA 23.50 23.00 26.00 26.00 33.50

PES2201800062 PRAJWAL 27.50 22.00 24.00 22.00 29.50

PES2201800068 ANIRUDH 29.00 15.50 26.00 23.00 29.00

Find the subject avg,

Find the highest and lowest in each subject

Find the number of failures