***What are file operations ?***

1. Opening a File (open())

* Syntax: file = open('filename', 'mode')
* Example: file = open('example.txt', 'r') (opens in read mode).

2. Reading a File

* read(): Reads all content.  
  Example: content = file.read()
* readlines(): Reads file into a list of lines.  
  Example: lines = file.readlines()

3. Writing to a File

* write(): Writes a string to the file.  
  Example: file.write("Hello")
* writelines(): Writes a list of strings.  
  Example: file.writelines(["Line1", "Line2"])

4. Closing a File (close())

* Syntax: file.close()
* Example: file.close() (closes the file).

File Modes

* 'r': Read mode.
* 'w': Write mode (creates/overwrites file).
* 'a': Append mode.
* Examples:
* *#open file*file=open("amulya.txt","r")  
  content=file.read()  
  print(content)  
  file.close()  
    
  *#Writing file*file = open("amulya.txt", "w")  
  file.write("Hello world\n")  
  file.close()  
    
  *#appending a file*file = open("amulya.txt","a")  
  file.write("i love python")  
  file.close()  
    
  *#closingfile*file.close()  
    
  *#checking if file exists*import os  
  if os.path.exists("amulya.txt"):  
   print("file exists")  
  else:  
   print("file does not exists")

**Task 1**

*#create list*my\_list = [1,2,3,4]

*#access the list*first\_element = my\_list[0]  
second\_element = my\_list[1]  
third\_element = my\_list[2]  
fourth\_element = my\_list[3]

*#change the list item*my\_list[3]=2

*#try to replace the values*my\_list=[1,2,3,4]  
index\_to\_replace = 3  
new\_value = 30  
my\_list[index\_to\_replace] = new\_value  
print(my\_list)

*#perform append operators*my\_list=[1,2,3,4]  
my\_list.append=4  
print(my\_list)

*#try to insert new items to list*my\_list=[1,2,3,4]  
(my\_list.insert(5,6))

*#extend your items to a list*my\_list = [1, 2, 3]  
new\_items = [4, 5, 6]  
my\_list.extend(new\_items)  
print(my\_list)

*#remove an item from list*my\_list = [1, 2, 3]  
my\_list.remove(3)  
print(my\_list)

*#clearing the entire list*my\_list = [1, 2, 3]  
my\_list.clear()  
print(my\_list)

**Task 2**  
*#code to print a name 100 times*name=input('enter your name')  
for \_ in range(100):  
 print(name)  
  
*#to check number even or odd*num=int(input("enter a number"))  
print("even" if num%2==0 else "odd")  
  
*#print 7th table*for i in range(1,11):  
 print(f"7\*{i} = {7\*i}")  
  
*#comparasion of 2 num check weather which variable is minimum and maximum*num1=24  
num2=10  
largest=max(num1,num2)  
smallest=min(num1,num2)  
print("max num is ",largest,"min num is",smallest)  
  
*#find largest of 3 numbers*num1=int(input("enter first number"))  
num2=int(input("enter second number"))  
num3=int(input("enter third number"))  
largest=max(num1,num2,num3)  
print(largest)