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CCE-B 39

**Lab batch:** CCE-4

**Lab 4:**

**Question1:**

Code:

import math

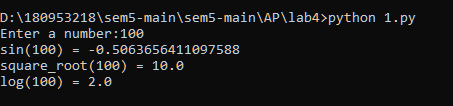
num = int(input("Enter a number:"))

print(f"sin({num}) = {math.sin(num)}")

print(f"square\_root({num}) = {math.sqrt(num)}")

print(f"log({num}) = {math.log10(num)}")

Output:



**Question 2:**

Code:

import cmath

real = int(input("Enter real part:"))

img = int(input("Enter imaginary part:"))

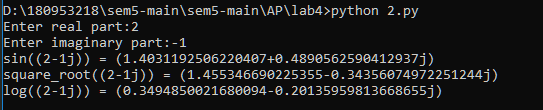
num = complex(real, img)

print(f"sin({num}) = {cmath.sin(num)}")

print(f"square\_root({num}) = {cmath.sqrt(num)}")

print(f"log({num}) = {cmath.log10(num)}")

Output:



**Question 3:**

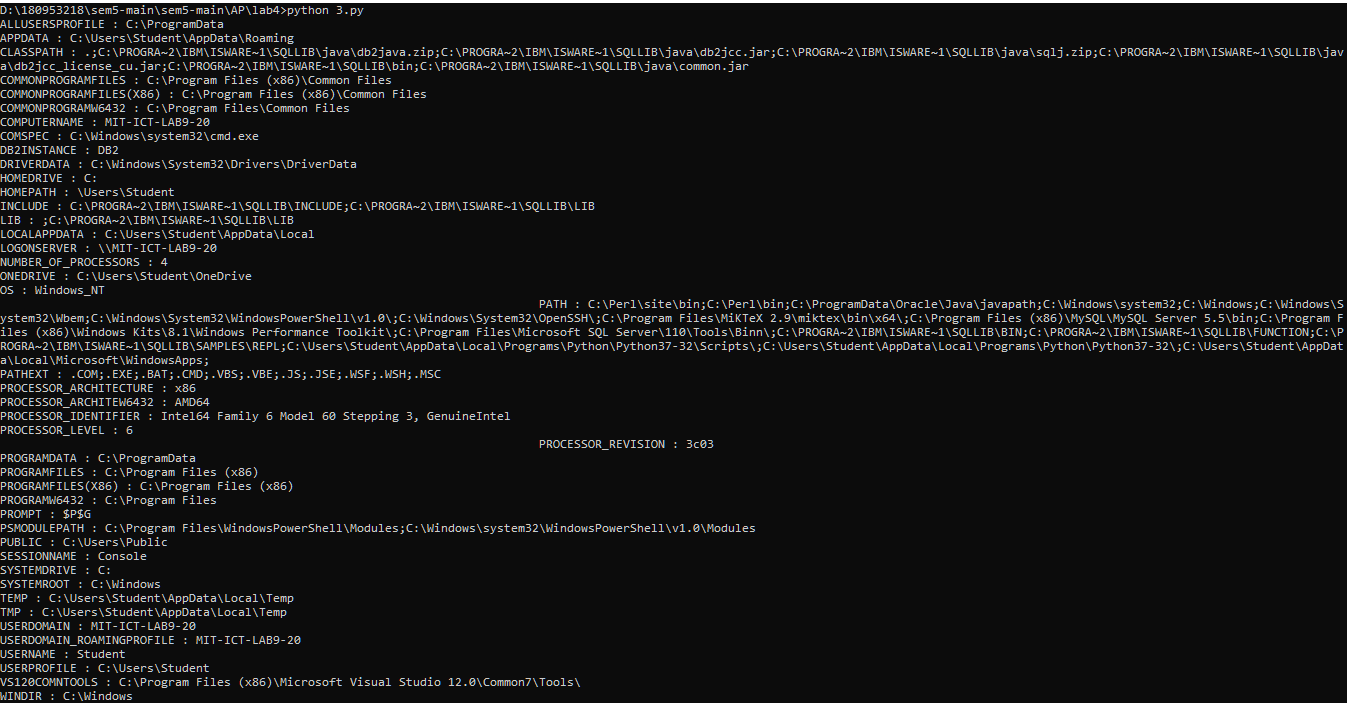
Code:

import os

for k, v in os.environ.items():

print(f"{k} : {v}")

Output:



**Lab 5:**

**Question 1:**

Code:

class Employee:

def \_\_init\_\_(self, id\_, name, salary, dept):

self.id = id\_

self.name = name

self.salary = salary

self.dept = dept

self.details = (self.id, self.name, self.salary, self.dept)

def display(self):

print(f"id: {self.id}, name: {self.name}, salary: {self.salary}, dept: {self.dept}")

if \_\_name\_\_ == '\_\_main\_\_':

num = int(input("Enter the number of Employees: "))

emp\_list = [] # list storing the object

emp\_details\_list = [] # list storing the tuples

for i in range(num):

emp\_list.append(Employee(

int(input("id: ")),

input("name: "),

int(input("salary: ")),

input("dept: ")))

emp\_details\_list.append(emp\_list[i].details)

print()

print("Employees details: ")

[print(ele) for ele in emp\_details\_list]

print()

id\_ = int(input("enter Employee id to search: "))

for emp in emp\_list:

if emp.id == id\_:

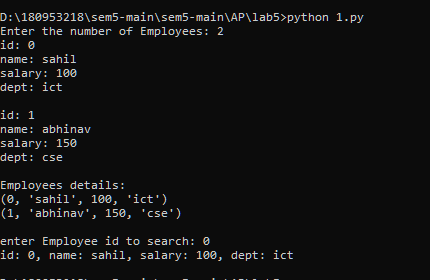
emp.display()

break

else:

print("No such id was found!")

Output:



**Question 3:**

Code:

class subsets():

def \_\_init\_\_(self, inp\_list):

self.inp\_list = inp\_list

def sub(self):

base = []

all\_subsets = [base]

for i in range(len(self.inp\_list)):

orig = all\_subsets[:]

new = self.inp\_list[i]

for j in range(len(all\_subsets)):

all\_subsets[j] = all\_subsets[j] + [new]

all\_subsets = orig + all\_subsets

return all\_subsets

if \_\_name\_\_ == '\_\_main\_\_':

l = list(map(int, input("enter the list of input: ").split()))

print(subsets(l).sub())

Output:

