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Section: C203

Midterm Task Lab Set 1

Problem 1. Using Print Statement.
Problem

Write a program that showcases a pattern of the word "CODE" using the letters C, O, D, and E.

Sample Output 1

```
CCCCC   OOOOO   DDDDD   EEEEE
C       O   O   D   D   E
C       O   O   D   D   EEE
C       O   O   D   D   E
CCCCC   OOOOO   DDDDD   EEEEE
```

Code

```
# Sicheco Problem 1
print("CCCCC\tOOOOO\tDDDDD \tEEEEE")
print("C      \tO   O\tD   D\tE      ")
print("C      \tO   O\tD   D\tEEE  ")
print("C      \tO   O\tD   D\tE      ")
print("CCCCC\tOOOOO\tDDDDD \tEEEEE")
```

Output

```
C:\Users\COMLAB\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:\Users\COMLAB\PycharmProjects\pythonProject1\demo1.py
CCCCC   OOOOO   DDDD    EEEEE
C       O   O   D   D   E
C       O   O   D   D   EEE
C       O   O   D   D   E
CCCCC   OOOOO   DDDD    EEEEE

Process finished with exit code 0
```

Problem 2. Using Escape Sequence. Use only 1 print statement for this output.

Problem

Create a program that prints the following text:

```
Database Record
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Name:          John Doe
Email:         john.doe@example.com
University:    ABC University
```

Sample Output 1

```
Database Record
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Name:          John Doe
Email:         john.doe@example.com
University: ABC University
```

Code

Output

Problem 3. Input Operations
Problem

Item Description

Write a program that prompts the user to enter the recipient, message, name, subject, version, discount, status, code, location, age, company name, website, phone, job title, and department. Display the entered values directly on the console in a specific format simulating an email.

```
Dear [Recipient], I hope this email finds you well.
[Message]
Subject: [Subject]
Sender: [Name]
Version: [Version]
Discount: [Discount]%
Status: [Status]
Code: [Code]
Location: [Location]
Age: [Age]
Company: [Company Name]
Website: [Website]
Phone: [Phone]
Job Title: [Job Title]
Department: [Department]
```

```
Enter the recipient: John
Enter the message: Greetings
Enter the name: Emily
Enter the subject: Proposal
Enter the version: 1.2
Enter the discount: 10.5
Enter the status: A
Enter the code: ABC123
Enter the location: Paris
Enter the age: 35
Enter the company name: XYZ
Enter the website: www.xyz.com
Enter the phone: 123-456-7890
Enter the job title: Manager
Enter the department: Sales
Dear John, I hope this email finds you well.
Greetings
Subject: Proposal
Sender: Emily
Version: 1.2
Discount: 10.50%
Status: A
Code: ABC123
Location: Paris
Age: 35
Company: XYZ
Website: www.xyz.com
Phone: 123-456-7890
Job Title: Manager
Department: Sales
```

Code

```python
#Sicheco Problem 3
recipient = input("Enter the recipient: ")
message = input("Enter the message: ")
subject = input("Enter email subject: ")
sender = input("Enter sender name: ")
version = float(input("Enter version: "))
discount = float(input("Enter discount: "))
status = input("Enter status: ")
code = input("Enter code: ")
location = input("Enter location: ")
age = int(input("Enter age: "))
company = input("Enter company name: ")
website = input("Enter website: ")
phone_number = input("Enter phone number: ")
job_title = input("Enter job title: ")
department = input("Enter department: ")

print(f"\nDear {recipient}, I hope this email fnds you well.\n")
print(message)
print("Subject: ", subject)
print("Sender: ", sender)
print("Version: ", version)
print("Discount: ", discount)
print("Status: ", status)
print("Code: ", code)
print("Age: ", age)
print("Company: ", company)
print("Website: ", website)
print("Phone Number: ", phone_number)
print("Job Title: ", job_title)
print("Department: ", department)
```

Output

```
C:\Users\Sicheco\Desktop\python-workspace>python -u "c:\Users\Sicheco\D
esktop\python-workspace\thera.py"
Enter the recipient: Sicheco
Enter the message: Hi
Enter email subject: Hello
Enter sender name: Mimi
Enter version: 2
Enter discount: 10.2
Enter status: Breathing
Enter code: 1928
Enter location: Earth
Enter age: 22
Enter company name: Lulumotive automative Inc.
Enter website: lulumotiveautomativeinc.io
Enter phone number: 1922-756-8132
Enter job title: Janitor
Enter department: Cleaning

Dear Sicheco, I hope this email fnds you well.

Hi
Subject:  Hello
Sender:  Mimi
Version:  2.0
Discount:  10.2
Status:  Breathing
Code:  1928
Age:  22
Company:  Lulumotive automative Inc.
Website:  lulumotiveautomativeinc.io
Phone Number:  1922-756-8132
Job Title:  Janitor
Department:  Cleaning
```

Problem 4. Using placeholders with % specifier. Problem.

Write a program that prints the output below:

```
Post Scheduled:
Content: Exciting news! Our new product is launching soon.
Date: 2023-06-30
Time: 10:00 AM
Reach: 2500.50
Engagement: 0.75
Duration: 1.50
Cost: 50.25
Category: N
Status: S
Author Name: John Doe
Author Email: johndoe@example.com
Platform: Facebook
Audience: Targeted
Budget: 1000.00
```

The program should display various post information using placeholders.

Code.

```python
#Sicheco Problem 4
content = "Exciting news! Our new product is
launching soon.\n"
date = "2023-06-30"
time = "10:00 AM"
reach = 2500.50
engagement = 0.75
duration = 1.50
cost = 50.25
category = 'N'
status = "S"
author_name = "John Doe"
author_email = "john.doe@example.com"
platform = "Facebook"
audience = "Targeted"
budget = 1000.00

print("Post Scheduled:\n")
print("Content: %s" %(content))
print("Date: %s" %(date))
print("Time: %s" %(time))
print("Reach: %.2f" %(reach))
print("Engagement: %.2f" %(engagement))
print("Duration: %.2f" %(duration))
print("Cost: %.2f" %(cost))
print("Category: %s" %(category))
print("Status: %s" %(status))
print("Author Name: %s" %(author_name))
print("Author Email: %s" %(author_email))
print("Platform: %s" %(platform))
print("Audience: %s" %(audience))
print("Budget: %.2f" %(budget))
```

Output

```
Post Scheduled:

Content: Exciting news! Our new product is launching soon.

Date: 2023-06-30
Time: 10:00 AM
Reach: 2500.50
Engagement: 0.75
Duration: 1.50
Cost: 50.25
Category: N
Status: S
Author Name: John Doe
Author Email: john.doe@example.com
Platform: Facebook
Audience: Targeted
Budget: 1000.00
```

Problem 5. Type Casting.
Problem.

Problem 5. Type Casting

Item Description

Write a program that takes two numbers (one integer and one float) and take their difference after converting the integer to a float. Finally, print the result in format "The difference is: {result}".

Sample Output 1

```
Enter an integer: 5
Enter a float: 3.14
The difference is: 1.86
```

Sample Output 2

```
Enter an integer: 90
Enter a float: 5.2321
The difference is: 84.77
```

-end-

Code.

```
#Sicheco Problem 5

def get_int_num():
    num = int(input("Enter an integer number: "))
    return num

def get_float_num():
    num = float(input("Enter a floating point number:
    "))
    return num

def convert_int_to_float(num):
    return float(num)

def subtract_numbers(num1, num2):
    return num1 - num2

num1 = get_int_num()
num2 = get_float_num()
num1 = convert_int_to_float(num1)
difference = subtract_numbers(num1, num2)

print(f"The difference is: {difference:.2f}")
```

Output