Midterm Lab Task Set 1
Python Basic Input-Output/Operators/Escape sequence and Placeholders

Problem 1. Using print statement

CODE:

```
print("CCCCC    00000   DDDDD   EEEEE")
print("C        0   0   D   D   E")
print("C        0   0   D   D   EEE")
print("C        0   0   D   D   E")
print("CCCCC    00000   DDDDD   EEEEE")
```

OUTPUT:

```
C:\Users\COMLAB\AppData\Local\Programs\Python\Python311\python.exe C:\Users\COMLAB\PycharmProjects\pythonProject\script1.py
CCCCC    00000   00DD0   EEEEE
C        0   0   0   0   E
C        0   0   0   0   EEE
C        0   0   0   0   E
CCCCC    00000   00DD0   EEEEE

Process finished with exit code 0
```

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

CODE:

```
print(f"Database Record\n\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\n"
f"Name:\t\tJohn Doe\n"
f"Email:\t\tjohn.doe@example.com\n"
f"University:\tABC University")
```

OUTPUT:

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


...Program finished with exit code 0
Press ENTER to exit console.█
```

Problem 3. Input Operations

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]
```

CODE:

```python
# Taking inputs
recipient = input("Enter the recipient: ")
message = input("Enter the message: ")
name = input("Enter the name: ")
subject = input("Enter the subject: ")
version = input("Enter the version: ")
discount = float(input("Enter the discount: "))
status = input("Enter the status: ")
code = input("Enter the code: ")
location = input("Enter the location: ")
age = int(input("Enter the age: "))
company = input("Enter the company name: ")
website = input("Enter the website: ")
phone = input("Enter the phone: ")
job_title = input("Enter the job title: ")
department = input("Enter the department: ")

# Displaying the output in email format
print(f"\nDear {recipient}, I hope this email finds you well.\n")
print(message)
print(f"\nSubject: {subject}")
print(f"Sender: {name}")
print(f"Version: {version}")
print(f"Discount: {discount:.2f}%")
print(f"Status: {status}")
print(f"Code: {code}")
print(f"Location: {location}")
print(f"Age: {age}")
print(f"Company: {company}")
print(f"Website: {website}")
print(f"Phone: {phone}")
print(f"Job Title: {job_title}")
print(f"Department: {department}")
```

OUTPUT:

```
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


...Program finished with exit code 0
Press ENTER to exit console.
```

Problem 4. Using Placeholders with % specifier

CODE:

```python
# Problem 4: Using Placeholders with % specifier

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

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: %c" % category)
print("Status: %c" % 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: johndoe@example.com
Platform: Facebook
Audience: Targeted
Budget: 1000.00


...Program finished with exit code 0
Press ENTER to exit console.
```

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
```

CODE:

```
# Problem 5: Type Casting

# Take inputs
num_int = int(input("Enter an integer: "))
num_float = float(input("Enter a float: "))

# Convert integer to float and compute difference
difference = float(num_int) - num_float

# Print result formatted to 2 decimal places
print("The difference is: %.2f" % difference)
```

OUTPUT:

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


...Program finished with exit code 0
Press ENTER to exit console.
```

2nd OUTPUT:

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


...Program finished with exit code 0
Press ENTER to exit console.
```