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

Problem 1. Using print statement

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
```

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

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
```

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]
```

Sample Output 1

```
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
```

Problem 4. Using Placeholders with % specifier

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.

Sample Output 1

```
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
```

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-

Source Code

Screen Shot of Test Cases or Sample Outputs

1.

```
print(" CCCCC OOOOO DDDDD EEEEE ")
print(" C O O D D E ")
print(" C O O D D EEE ")
print(" C O O D D E ")
print(" CCCCC OOOOO DDDDD EEEEE ")
```

2.

```
print("Database
Record\n\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\nName:\t\tJohn
Doe\nEmail:\t\tjohn.doe@example.com\nUniversity:\tABC University")
```

3.

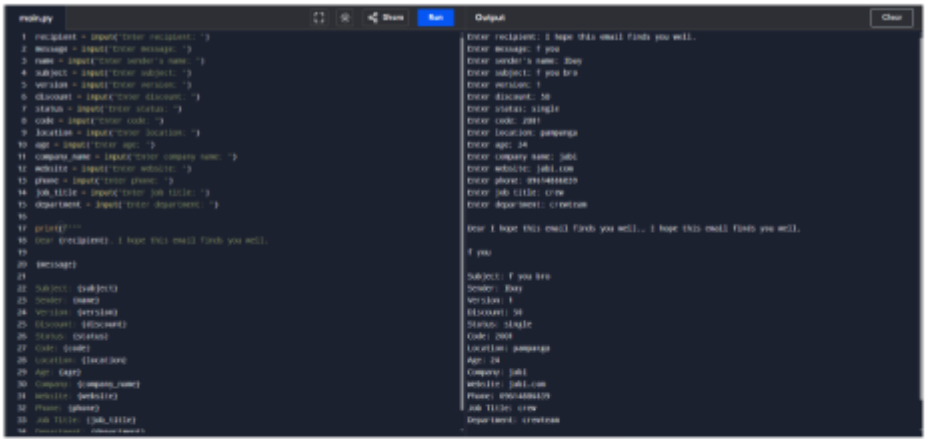
```
recipient = input("Enter recipient: ")
message = input("Enter message: ")
name = input("Enter sender's name: ")
subject = input("Enter subject: ")
version = input("Enter version: ")
discount = input("Enter discount: ")
status = input("Enter status: ")
code = input("Enter code: ")
location = input("Enter location: ")
age = input("Enter age: ")
```

```
company_name = input("Enter company name: ")
website = input("Enter website: ")
phone = input("Enter phone: ")
job_title = input("Enter job title: ")
department = input("Enter department: ")

print(f"""
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}
""")
```



4.

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" % "Exciting news! Our new product is launching soon.")

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)

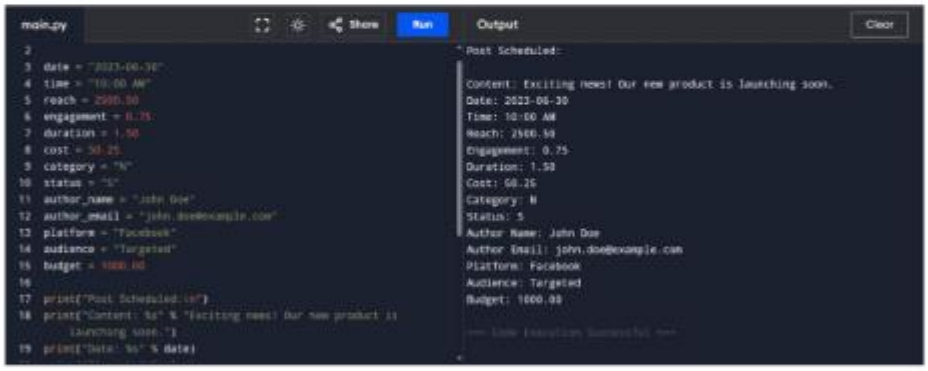
print("Author Name: %s" % author_name)

print("Author Email: %s" % author_email)

print("Platform: %s" % platform)

print("Audience: %s" % audience)

print("Budget: %.2f" % budget)



5.

integer_num = int(input("Enter an integer: "))

float_num = float(input("Enter a float: "))

difference = float(integer_num) - float_num

print("The difference is: %.2f" % difference)

```
integer_num = int(input("Enter an integer: "))
float_num = float(input("Enter a float: "))

difference = float(integer_num) - float_num

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

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

=== Code Execution Successful ===
```

main.py | Share | Run | Output | Clear

```
integer_num = int(input("Enter an integer: "))
float_num = float(input("Enter a float: "))

difference = float(integer_num) - float_num

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

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

=== Code Execution Successful ===
```