



Artificial Intelligence

Lab 03 Tasks

Name: Faareha Raza

Sap ID: 47431

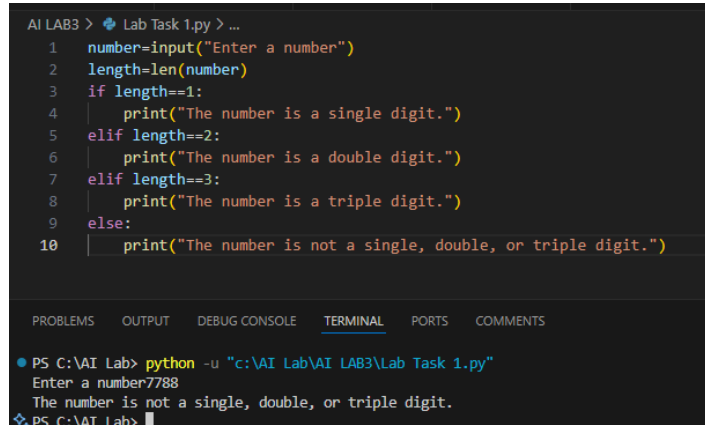
Batch: BSCS-6th semester

Lab Instructor:

Ayesha Akram

Class Tasks

1. Program to check whether the number is single digit, double digit or triple digit?

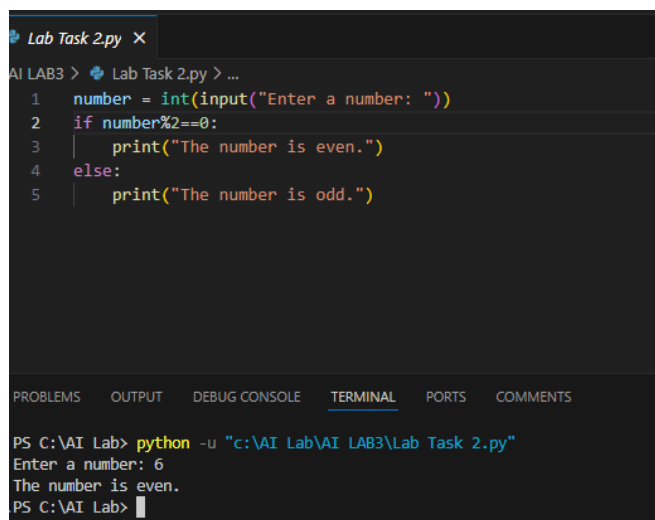


```
AI LAB3 > Lab Task 1.py > ...
1  number=input("Enter a number")
2  length=len(number)
3  if length==1:
4      print("The number is a single digit.")
5  elif length==2:
6      print("The number is a double digit.")
7  elif length==3:
8      print("The number is a triple digit.")
9  else:
10     print("The number is not a single, double, or triple digit.")

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

PS C:\VAI Lab> python -u "c:\VAI Lab\VAI LAB3\Lab Task 1.py"
Enter a number:7788
The number is not a single, double, or triple digit.
PS C:\VAI Lab>
```

2. Write a program in which take a value from user and check whether the entered number is Odd or Even?

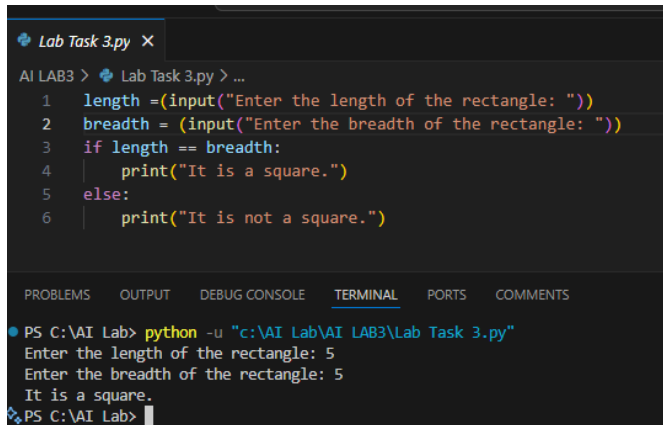


```
Lab Task 2.py X
AI LAB3 > Lab Task 2.py > ...
1  number = int(input("Enter a number: "))
2  if number%2==0:
3      print("The number is even.")
4  else:
5      print("The number is odd.")

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

PS C:\VAI Lab> python -u "c:\VAI Lab\VAI LAB3\Lab Task 2.py"
Enter a number: 6
The number is even.
PS C:\VAI Lab>
```

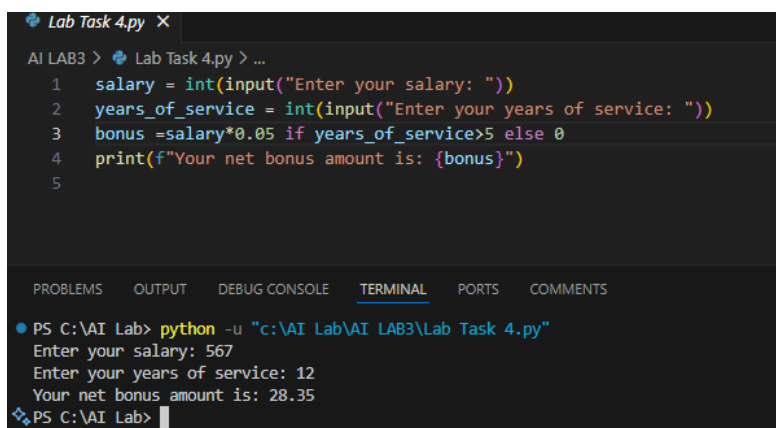
3. Take values of length and breadth of a rectangle from user and check if it is square or not.



```
Lab Task 3.py X
AI LAB3 > Lab Task 3.py > ...
1 length = (input("Enter the length of the rectangle: "))
2 breadth = (input("Enter the breadth of the rectangle: "))
3 if length == breadth:
4     print("It is a square.")
5 else:
6     print("It is not a square.")

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
● PS C:\AI Lab> python -u "c:\AI Lab\AI LAB3\Lab Task 3.py"
Enter the length of the rectangle: 5
Enter the breadth of the rectangle: 5
It is a square.
❖ PS C:\AI Lab>
```

4. A company decided to give bonus of 5% to employee if his/her year of service is more than 5 years. Ask user for their salary and year of service and print the net bonus amount.

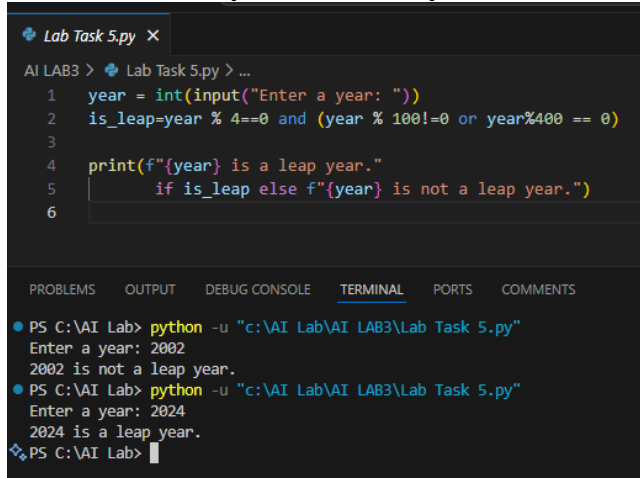


```
Lab Task 4.py X
AI LAB3 > Lab Task 4.py > ...
1 salary = int(input("Enter your salary: "))
2 years_of_service = int(input("Enter your years of service: "))
3 bonus = salary*0.05 if years_of_service>5 else 0
4 print(f"Your net bonus amount is: {bonus}")
5

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
● PS C:\AI Lab> python -u "c:\AI Lab\AI LAB3\Lab Task 4.py"
Enter your salary: 567
Enter your years of service: 12
Your net bonus amount is: 28.35
❖ PS C:\AI Lab>
```

5. Write a program that checks if a given year is a leap year. A year is a leap year if:

It is divisible by 4, but not by 100, unless it is also divisible by 400



```
Lab Task 5.py X
AI LAB3 > Lab Task 5.py > ...
1 year = int(input("Enter a year: "))
2 is_leap=year % 4==0 and (year % 100!=0 or year%400 == 0)
3
4 print(f"{year} is a leap year."
5     if is_leap else f"{year} is not a leap year.")
6

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
● PS C:\AI Lab> python -u "c:\AI Lab\AI LAB3\Lab Task 5.py"
Enter a year: 2002
2002 is not a leap year.
● PS C:\AI Lab> python -u "c:\AI Lab\AI LAB3\Lab Task 5.py"
Enter a year: 2024
2024 is a leap year.
❖ PS C:\AI Lab>
```