Artificial Intelligence

Lab Report 3

By Muhammed Rakibul Hasan
ID: C193058

Course Title: Artificial Intelligence Lab
Course Code: CSE - 3636

Submitted to,
Md. Safayat Hossen

Experiment 01:

```
    # • Find the area of the triangle.

    # Input sides of the triangle
    a = float(input("Enter a side of a triangle:
"))
    b = float(input("Enter the other side of a
triangle: "))
    c = float(input("Enter the last side of a
triangle: "))

    # Formula for the area of the triangle
    s = (a+b+c)/2
    area = (s*(s-a)*(s-b)*(s-c))**0.5

    # Output
    print('Area of the triangle is %0.2f' %area)
```

Input:

Enter a side of a triangle: 4

Enter the other side of a triangle: 3

Enter the last side of a triangle: 4

Output:

Area of the triangle is 5.56

```
    # Find the area of Sector

    # input for the angle and area
    theta = float(input('Enter the the angle: '))
    r = float(input('Enter Radius: '))

    # formula for sector
    area = (3.1416 * r**2) * (theta/360)

    # output
    print("Area is %0.2f" %area)
```

Input:

Enter the the angle: 30

Enter Radius: 5

Output:

Area is 6.54

```
    # Solve the equation ax2 + bx + c = 0, where a,
b and c are real numbers and a ≠ 0.

    # input for a , b and c
    a = float(input('Enter the value of a: '))
    b = float(input('Enter the value of b: '))
    c = float(input('Enter the value of c: '))
```

```
# formula for the equation
x1 = (-b+((b**2) - (4*a*c))**0.5)/(2*a)
x2 = (-b-((b**2) - (4*a*c))**0.5)/(2*a)

# output
print('The values are: ' , x1 , x2)
```

Input:

Enter the value of a: 1
Enter the value of b: 4
Enter the value of c: -5

Output:

The values are: 1.0 -5.0

Experiment 02:

```
# Determine whether a number is even or odd

# input a number
num = int(input('Enter a number: '))

#condition to see if even or add
if num%2==0 :
    print('Even Number')
else :
    print('Odd Number')
```

Input:

Enter a number: 5

Output:

Odd Number

```
# Find the more significant number between the
three numbers

# Input three numbers
```

```python
a = int(input('Enter a number: '))
b = int(input('Enter another number: '))
c = int(input('Enter one last number: '))


# function to get the largest number
max_number = max(a , b , c)
print('The largest number is: ' , max_number)
```

Input:

Enter a number: 6
Enter another number: 3
Enter one last number: 66

Output:

The largest number is: 66

Experiment 03:

```python
t = int(input('Enter a number from 1 to 15: '))

# loop
for x in range(t):
    # input
    num1 = int(input('Enter number one: '))
```

```
    num2 = int(input('Enter number two: '))
    # conditions
    if num1 == num2:
        print('\n=\n')
    elif num1>num2:
        print('\n>\n')
    else:
        print('\n<\n')
```

Input & Output:

Enter a number from 1 to 15: 3
Enter number one: 2
Enter number two: 4

<

Enter number one: 4
Enter number two: 2

>

Enter number one: 6
Enter number two: 6

=