

```

def CalculateAngle(h, m):
    # validate the input
    if (h < 0 or m < 0 or h > 12 or m > 60):
        print('Wrong input')
        exit()    #Exiting program if condition is true
    if (h == 12):
        h = 0
    if (m == 60):
        m = 0
        h += 1
    if (h > 12):
        h = h - 12

    # Calculate the angles moved by hour and minute hands with reference to 12:00
    # 360 degree in 60 minutes so 6 degree in 1 minute
    # 360 degree in 12 hours so 360/12*60 in 1 minute
    Hour_Angle = 0.5 * (h * 60 + m)
    Minute_Angle = 6 * m

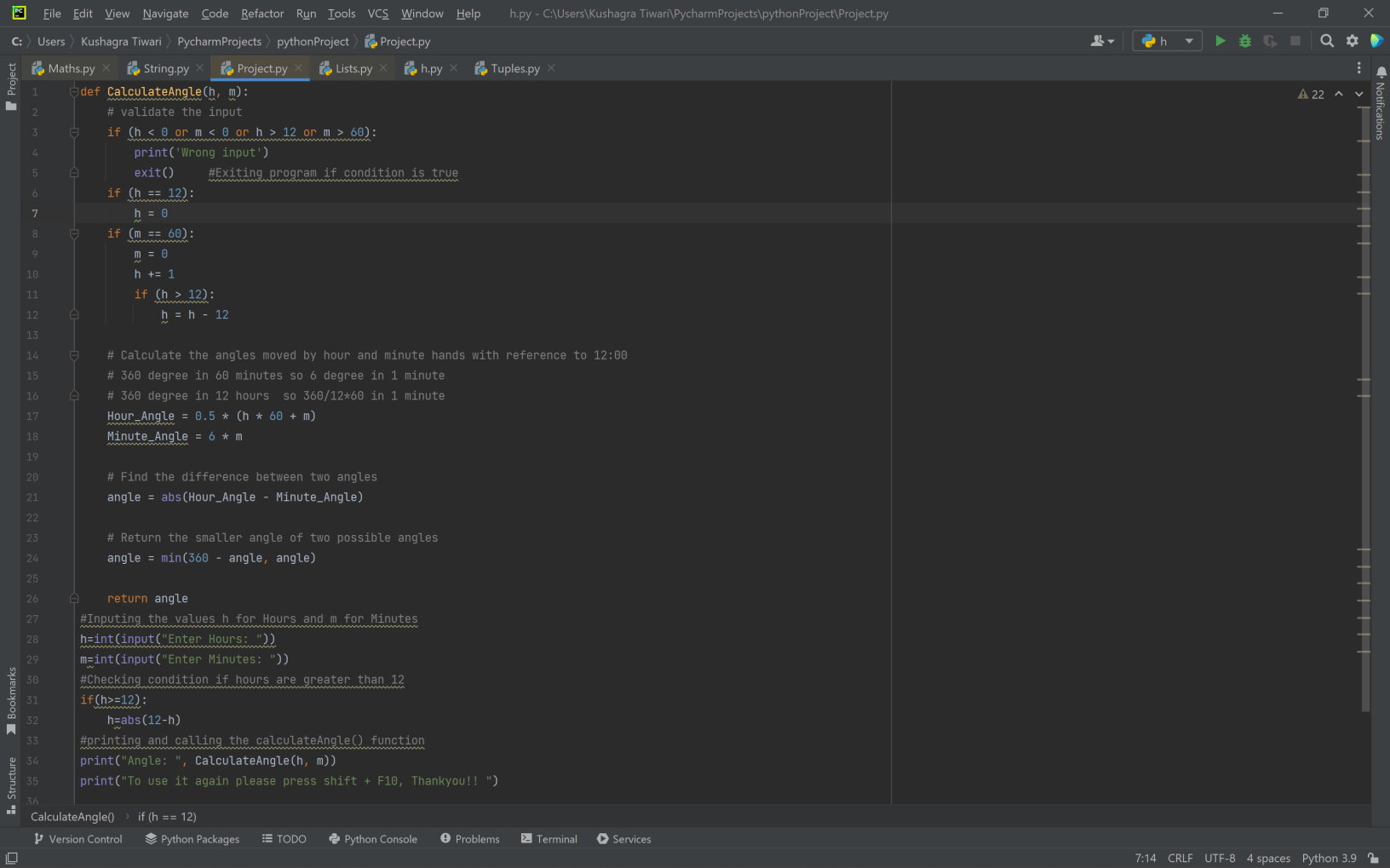
    # Find the difference between two angles
    angle = abs(Hour_Angle - Minute_Angle)

    # Return the smaller angle of two possible angles
    angle = min(360 - angle, angle)

    return angle

#Inputing the values h for Hours and m for Minutes
h=int(input("Enter Hours: "))
m=int(input("Enter Minutes: "))
#Checking condition if hours are greater than 12
if(h>=12):
    h=abs(12-h)
#printing and calling the calculateAngle() function
print("Angle: ", CalculateAngle(h, m))
print("To use it again please press shift + F10, Thankyou!! ")

```



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File View Navigate Code Refactor Run Tools VCS Window Help
C:\Users\Kushagra Tiwari\PycharmProjects\pythonProject\Project.py
Maths.py String.py Project.py Lists.py h.py Tuples.py
1 def CalculateAngle(h, m):
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7         h = 0
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10        h += 1
11        if (h > 12):
12            h = h - 12
13
14        # Calculate the angles moved by hour and minute hands with reference to 12:00
15        # 360 degree in 60 minutes so 6 degree in 1 minute
16        # 360 degree in 12 hours so 360/12*60 in 1 minute
17        Hour_Angle = 0.5 * (h * 60 + m)
18        Minute_Angle = 6 * m
19
20        # Find the difference between two angles
21        angle = abs(Hour_Angle - Minute_Angle)
22
23        # Return the smaller angle of two possible angles
24        angle = min(360 - angle, angle)
25
26        return angle
27
28        #Inputing the values h for Hours and m for Minutes
29        h=int(input("Enter Hours: "))
30        m=int(input("Enter Minutes: "))
31        #Checking condition if hours are greater than 12
32        if(h>=12):
33            h=abs(12-h)
34        #printing and calling the calculateAngle() function
35        print("Angle: ", CalculateAngle(h, m))
36        print("To use it again please press shift + F10, Thankyou!! ")
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CalculateAngle() > if (h == 12)
```

PC

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C: > Users > Kushagra Tiwari > PycharmProjects > pythonProject > Project.py

Maths.pyString.pyProject.pyLists.pyh.pyTuples.py

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17    Hour_Angle = 0.5 * (h * 60 + m)
18    Minute_Angle = 6 * m
19
20    # Find the difference between two angles
21    angle = abs(Hour_Angle - Minute_Angle)
22
```

CalculateAngle() > if (h == 12)

Run: Project

```
"C:\Users\Kushagra Tiwari\AppData\Local\Programs\Python\Python39\python.exe" "C:\Users\Kushagra Tiwari\PycharmProjects\pythonProject\Project.py"
Enter Hours: 5
Enter Minutes: 30
Angle: 15.0
To use it again please press shift + F10, Thankyou!!

Process finished with exit code 0
```

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