Project Development Phase
Sprint -1(Python Script)

Date	29 October 2022
Team ID	PNT2022TMID37064
Project Name	Project – Personal Assistance for Seniors Who Are Self-Reliant

Description

The Medicine details are generated and automation has been implemented through the python code instead of using hardware to implement medicine reminder system to elders. And the python code need to upload the data in IBM cloud.

Python Code

```
# Importing the libraries

import ibmiotf.application

import ibmiotf.device

from time import sleep

import sys

import schedule

import datetime

from datetime import time


#IBM Watson Device Credentials.

organization = "1dh5ok"

deviceType = "ruchitha"

deviceId = "ruchitha18"

authMethod = "token"

authToken = "12345678"


try:

        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod,”auth-token”:authToken}

        deviceCli = ibmiotf.device.Client(deviceOptions)

except Exception as e:

        print("Caught exception connecting device: %s" % str(e))

        sys.exit()
```

```
#Connecting to IBM watson.
deviceCli.connect()
print("")

# Getting details about tablet placed in pill box:
while True:
    tab_typ_count = input("Enter how many types of tablet placed in pill Box, maximum 2 types: ")
    if (tab_typ_count == "1"):
        tab_1 = input("Enter the name of Tablet 1: ")
        print("")
    elif (tab_typ_count == "2"):
        tab_1 = input("Enter the name of Tablet 1: ")
        print("")
      tab_2 = input("Enter the name of Tablet 2: ")
        print("")
    if (tab_typ_count != "1" and tab_typ_count != "2"):
        print("Enter the count betwen 1 to 2")
    else:
        break

# Reminder functions:
def tab_1_mng_reminder():
    success = deviceCli.publishEvent("Medicine reminder", "json", { "Medicine reminder" : "Now it is the time to consume your Tablet %s " % tab_1 }, qos=0)
    if success:
        print("Publish ok")
        print("Published reminder : Now the time is %s:%s consume your Tablet %s " %(mng_rem_tab1_time_HH, mng_rem_tab1_time_MM, tab_1))
        print("")
    tab_1_ack = input("Have you consumed your tablet %s:  " %tab_1)
    if (tab_1_ack == "yes"):
        success = deviceCli.publishEvent("Acknowledgement", "json", { "Acknowledgement" : "The patient has consumed the Tablet %s " % tab_1 }, qos=0)
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        if success:
            print("publish ok")
            print("published acknowledgement: The patient has consumed the tablet")

    elif (tab_1_ack == "no"):
        success = deviceCli.publishEvent("Alert", "json", { "Alert" : "The patient not consumed the Tablet %s " % tab_1 }, qos=0)
        if success:
            print("publish ok")
            print("published acknowledgement: The patient not consumed the tablet")

def tab_1_evg_reminder():
    success = deviceCli.publishEvent("Medicine reminder", "json", { "Medicine reminder" : "Now it is the time to consume your Tablet %s " % tab_1 }, qos=0)
    if success:
        print("Publish ok")
        print("Published reminder : Now the time is %s:%s consume your Tablet %s " % (evg_rem_tab1_time_HH, evg_rem_tab1_time_MM, tab_1))
        print("")

    tab_1_ack = input("Have you consumed your tablet %s:  " %tab_1)
    if (tab_1_ack == "yes"):
        success = deviceCli.publishEvent("Acknowledgement", "json", { "Acknowledgement" : "The patient has consumed the Tablet %s " % tab_1 }, qos=0)
        if success:
            print("publish ok")
            print("published acknowledgement: The patient has consumed the tablet")
    elif (tab_1_ack == "no"):
        success = deviceCli.publishEvent("Alert", "json", { "Alert" : "The patient not consumed the Tablet %s " % tab_1 }, qos=0)
        if success:
            print("publish ok")
            print("published acknowledgement: The patient not consumed the tablet")
```

```
def tab_2_mng_reminder():
    success =deviceCli.publishEvent("Medicine reminder", "json", { "Medicine reminder" : "Now it is the time to consume your Tablet %s " % tab_2 }, qos=0)
    if success:
        print("Publish ok")
        print("Published reminder : Now the time is %s:%s consume your Tablet %s " %(mng_rem_tab2_time_HH, mng_rem_tab2_time_MM,tab_2))
        print("")

    tab_2_ack = input("Have you consumed your tablet %s:  " %tab_2)
    if (tab_2_ack == "yes"):
        success = deviceCli.publishEvent("Acknowledgement", "json", { "Acknowledgement" : "The patient has consumed the Tablet %s " % tab_2 }, qos=0)
        if success:
            print("publish ok")
            print("published acknowledgement: The patient has consumed the tablet")

    elif (tab_2_ack == "no"):
        success = deviceCli.publishEvent("Alert", "json", { "Alert" : "The patient not consumed the Tablet %s " % tab_1 }, qos=0)
        if success:
            print("publish ok")
            print("published acknowledgement: The patient not consumed the tablet")

def tab_2_evg_reminder():
    success = deviceCli.publishEvent("Medicine reminder", "json", { "Medicine reminder" : "Now it is the time to consume your Tablet %s " % tab_2 }, qos=0)
    if success:
        print("Publish ok")
        print("Published reminder : Now the time is %s:%s consume your Tablet %s " %(evg_rem_tab2_time_HH, evg_rem_tab2_time_MM,tab_2))
        print("")
```

```
    tab_2_ack = input("Have you consumed your tablet %s:  " %tab_2)
    if (tab_2_ack == "yes"):
        success = deviceCli.publishEvent("Acknowledgement", "json", { "Acknowledgement" : "The patient has consumed the Tablet %s " % tab_2 }, qos=0)
        if success:
            print("publish ok")
            print("published acknowledgement: The patient has consumed the tablet")
    elif (tab_2_ack == "no"):
        success = deviceCli.publishEvent("Alert", "json", { "Alert" : "The patient not consumed the Tablet %s " % tab_2 }, qos=0)
        if success:
            print("publish ok")
            print("published acknowledgement: The patient not consumed the tablet")


# If only one type of tablet is placed in the pill box, user will be provided with this options:
if (tab_typ_count == "1"):
  # For morning reminder
   while True:
      mng_option = input("Do you want reminder for Morning(YES/NO): ")
      print("")
      if (mng_option == "YES" or mng_option == "yes"):
          while True:
              mng_rem_tab_1 = input("Enter the name of tablet  to be reminded at Morning: ")
              mng_rem_tab1_time_HH = input("Enter the Hour(HH) to be reminded : ")
              mng_rem_tab1_time_MM = input("Enter the Minute(MM) to be reminded : ")
              print("")

              if (mng_rem_tab_1 == tab_1):
                  schedule.every().day.at("%s:%s" %(mng_rem_tab1_time_HH,mng_rem_tab1_time_MM)).do(tab_1_mng_reminder)
              if (mng_rem_tab_1 != tab_1):
                  print("The tablet name you entered is not in pill box, again enter the correct name")
                  print("")
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            else:
                break
    if (mng_option != "YES" and mng_option != "yes" and mng_option != "NO" and mng_option != "no"):
        print("Only type YES or NO")
        print("")
    else:
        break
#For evening reminder
while True:
    evg_option = input("Do you want reminder for Evening(YES/NO): ")
    print("")

    if (evg_option == "YES" or evg_option == "yes" ):
        while True:
            evg_rem_tab_1 = input("Enter the name of tablet to be reminded at Evening: ")
            evg_rem_tab1_time_HH = input("Enter the Hour(HH) to be reminded : ")
            evg_rem_tab1_time_MM = input("Enter the Minute(MM) to be reminded : ")
            print("")
            if (evg_rem_tab_1 == tab_1):
                schedule.every().day.at("%s:%s"
%(evg_rem_tab1_time_HH,evg_rem_tab1_time_MM)).do(tab_1_evg_reminder)

            if (evg_rem_tab_1 != tab_1):
                print("The tablet name you entered is not in pill box, again enter the correct name")
                print("")
            else:
                break

    if (evg_option != "YES" and evg_option != "yes" and evg_option != "NO" and evg_option != "no"):
        print("Only type YES or NO")
        print("")
```

```
        else:
            break
# If the two types of tablet place in the pill box user will be provided with this option:
if (tab_typ_count == "2"):
    # For morning reminder
    while True:
        mng_option = input("Do you want reminder for Morning(YES/NO): ")
        if (mng_option == "YES" or mng_option == "yes"):
            while True:
                mng_reminder = input("Enter the number of Tablets to be reminded for Morning: ")
                print("")
                if (mng_reminder == "1"):
                    while True:
                        mng_rem_tab_1 = input("Enter the name of tablet  to be reminded at Morning: ")
                        mng_rem_tab1_time_HH = input("Enter the Hour(HH) to be reminded : ")
                        mng_rem_tab1_time_MM = input("Enter the Minute(MM) to be reminded : ")
                        print("")
                        if (mng_rem_tab_1 == tab_1):
                            schedule.every().day.at("%s:%s"
%(mng_rem_tab1_time_HH,mng_rem_tab1_time_MM)).do(tab_1_mng_reminder)
                        if (mng_rem_tab_1 != tab_1):
                            print("The tablet name you entered is not in pill box, again enter the correct name")
                            print("")
                        else:
                            break
                elif (mng_reminder == "2"):
                    while True:
                        mng_rem_tab_1 = input("Enter the name of first tablet  to be reminded at Morning: ")
                        mng_rem_tab1_time_HH = input("Enter the Hour(HH) to be reminded : ")
                        mng_rem_tab1_time_MM = input("Enter the Minute(MM) to be reminded : ")
                        print("")
                        if (mng_rem_tab_1 == tab_1):
                            schedule.every().day.at("%s:%s"
%(mng_rem_tab1_time_HH,mng_rem_tab1_time_MM)).do(tab_1_mng_reminder)
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                    elif(mng_rem_tab_1 == tab_2):
                        schedule.every().day.at("%s:%s"
%(mng_rem_tab1_time_HH,mng_rem_tab1_time_MM)).do(tab_2_mng_reminder)

                    if (mng_rem_tab_1 != tab_1 and mng_rem_tab_1 != tab_2 ):
                        print("The tablet name you entered is not in pill box, again enter the correct name")
                        print("")

                    else:
                        break
                while True:
                    mng_rem_tab_2 = input("Enter the name of second tablet  to be reminded at Morning: ")
                    mng_rem_tab2_time_HH = input("Enter the Hour(HH) to be reminded : ")
                    mng_rem_tab2_time_MM = input("Enter the Minute(MM) to be reminded : ")
                    print("")

                    if (mng_rem_tab_2 == tab_1):
                        schedule.every().day.at("%s:%s"
%(mng_rem_tab2_time_HH,mng_rem_tab2_time_MM)).do(tab_1_mng_reminder)
                    elif (mng_rem_tab_2 == tab_2):
                        schedule.every().day.at("%s:%s"
%(mng_rem_tab2_time_HH,mng_rem_tab2_time_MM)).do(tab_2_mng_reminder)

                    if (mng_rem_tab_2 != tab_1 and mng_rem_tab_2 != tab_2 ):
                        print("The tablet name you entered is not in pill box, again enter the correct name")
                        print("")
                    else:
                        break
            if (mng_reminder != "1" and mng_reminder != "2"):
                print("Enter the value  as 1 or 2")
                print("")
            else:
                break
    if (mng_option != "YES" and mng_option != "yes" and mng_option != "no" and mng_option != "NO"):
```
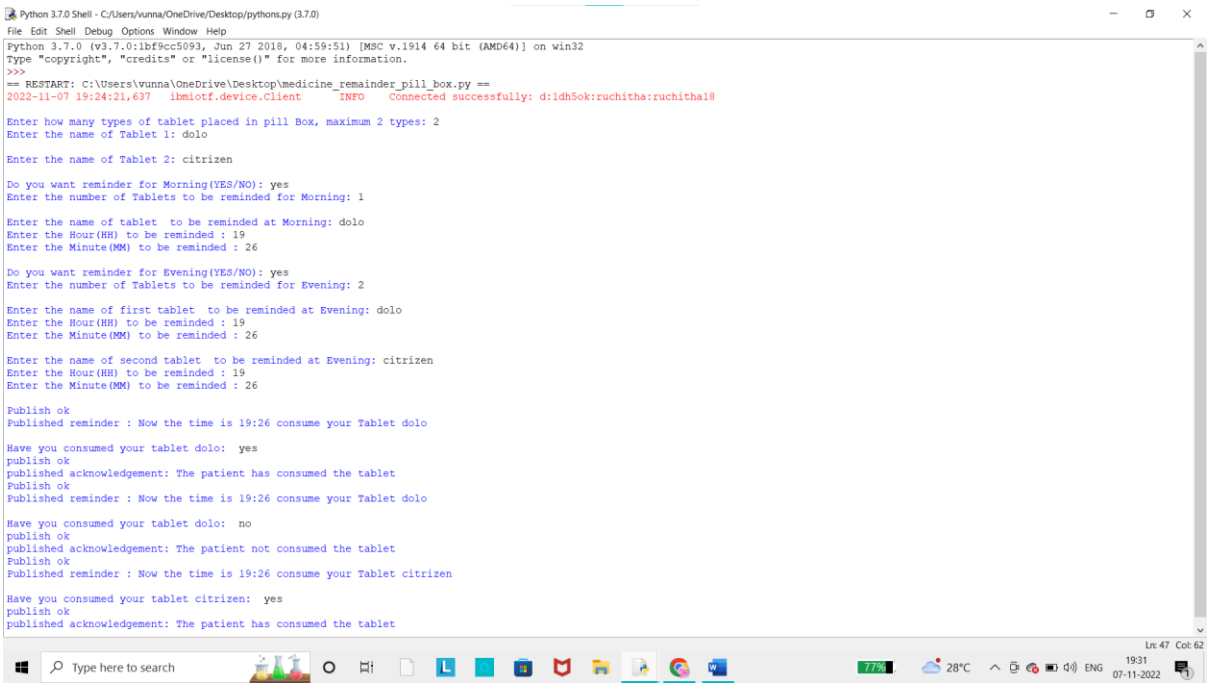
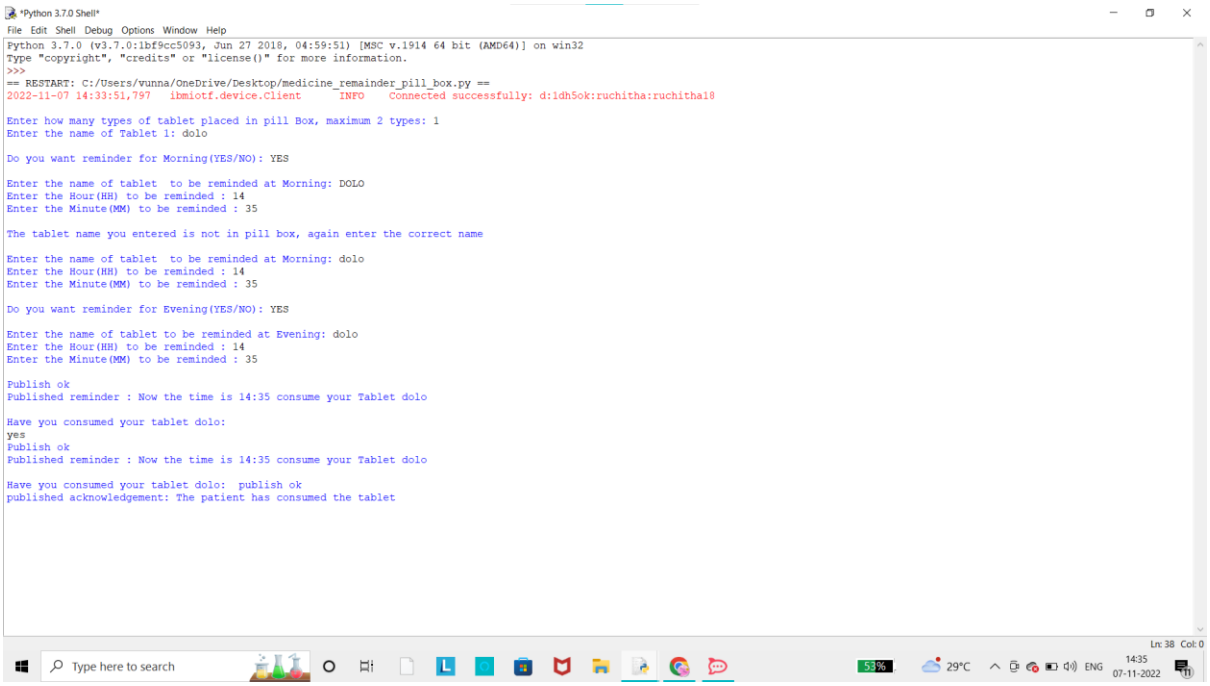

```
            print("Only type YES or NO")
            print("")
        else:
            break
#For evening reminder
 while True:
    evg_option = input("Do you want reminder for Evening(YES/NO): ")
    if (evg_option == "YES" or evg_option == "yes"):
        while True:
            evg_reminder = input("Enter the number of Tablets to be reminded for Evening: ")
            print("")
            if (evg_reminder == "1"):

                while True:
                    evg_rem_tab_1 = input("Enter the name of tablet to be reminded at Evening: ")
                    evg_rem_tab1_time_HH = input("Enter the Hour(HH) to be reminded : ")
                    evg_rem_tab1_time_MM = input("Enter the Minute(MM) to be reminded : ")
                    print("")

                    if (evg_rem_tab_1 == tab_1):
                        schedule.every().day.at("%s:%s"
%(evg_rem_tab1_time_HH,evg_rem_tab1_time_MM)).do(tab_1_evg_reminder)

                    if (evg_rem_tab_1 != tab_1):
                        print("The tablet name you entered is not in pill box, again enter the correct name")
                        print("")
                    else:
                        break
            elif (evg_reminder == "2"):
                while True:
                    evg_rem_tab_1 = input("Enter the name of first tablet  to be reminded at Evening: ")
                    evg_rem_tab1_time_HH = input("Enter the Hour(HH) to be reminded : ")
                    evg_rem_tab1_time_MM = input("Enter the Minute(MM) to be reminded : ")
```

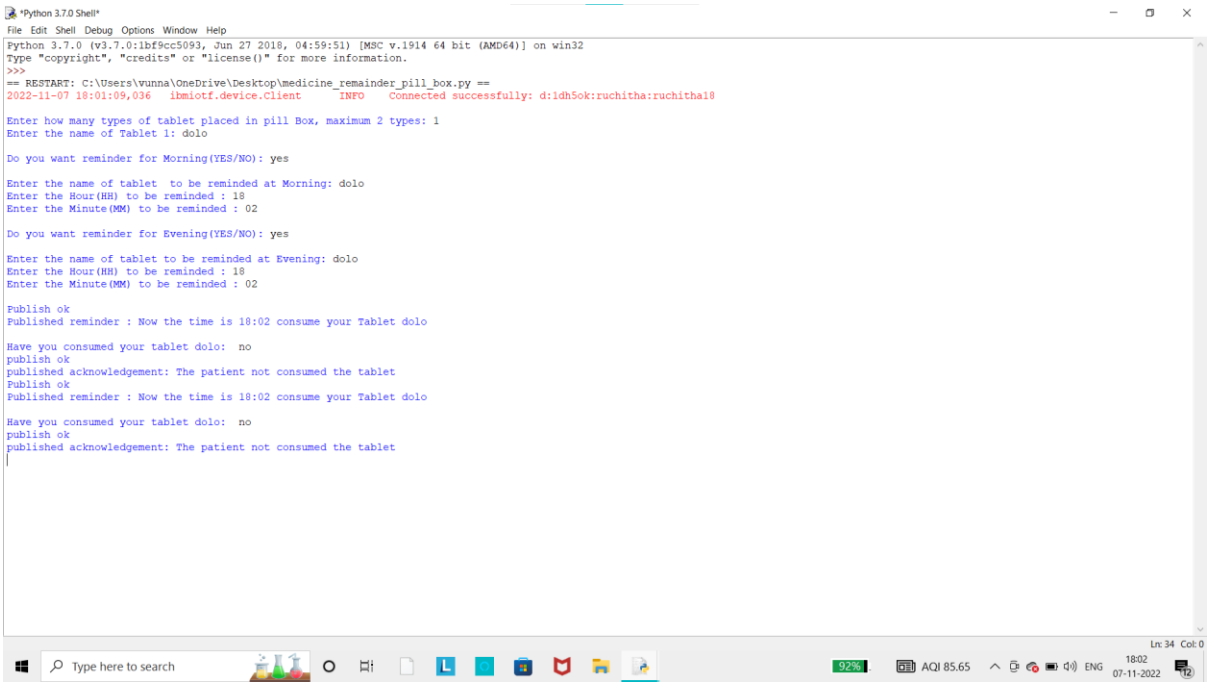
```
                print("")


                if (evg_rem_tab_1 == tab_1):
                    schedule.every().day.at("%s:%s"
%(evg_rem_tab1_time_HH,evg_rem_tab1_time_MM)).do(tab_1_evg_reminder)
                elif (evg_rem_tab_1 == tab_2):
                    schedule.every().day.at("%s:%s"
%(evg_rem_tab1_time_HH,evg_rem_tab1_time_MM)).do(tab_2_evg_reminder)
                if (evg_rem_tab_1 != tab_1 and evg_rem_tab_1 != tab_2):
                    print("The tablet name you entered is not in pill box, again enter the correct name")
                    print("")
                else:
                    break
            while True:
                evg_rem_tab_2 = input("Enter the name of second tablet  to be reminded at Evening: ")
                evg_rem_tab2_time_HH = input("Enter the Hour(HH) to be reminded : ")
                evg_rem_tab2_time_MM = input("Enter the Minute(MM) to be reminded : ")
                print("")


                if (evg_rem_tab_2 == tab_1):
                    schedule.every().day.at("%s:%s"
%(evg_rem_tab2_time_HH,evg_rem_tab2_time_MM)).do(tab_1_evg_reminder)
                elif (evg_rem_tab_2 == tab_2):
                    schedule.every().day.at("%s:%s"
%(evg_rem_tab2_time_HH,evg_rem_tab2_time_MM)).do(tab_2_evg_reminder)


                if (evg_rem_tab_2 != tab_1 and evg_rem_tab_2 != tab_2):
                    print("The tablet name you entered is not in pill box, again enter the correct name")
                    print("")
                else:
                    break
        if (evg_reminder != "1" and evg_reminder != "2"):
            print("Enter the value  as 1 or 2")
            print("")
```

```
            else:
                break
    if(evg_option != "YES" and evg_option != "yes" and evg_option != "no" and evg_option != "NO"):
        print("Only type YES or NO")
        print("")
    else:
        break
while True:
    schedule.run_pending()
    sleep(1)
```

Screenshots




Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/vunna/OneDrive/Desktop/medicine_remainder_pill_box.py ==
2022-11-07 14:33:51,797 ibmiotf.device.Client INFO Connected successfully: d:1dh5ok:ruchitha:ruchitha18
Enter how many types of tablet placed in pill Box, maximum 2 types: 1
Enter the name of Tablet 1: dolo
Do you want reminder for Morning(YES/NO): YES
Enter the name of tablet to be reminded at Morning: DOLO
Enter the Hour(HH) to be reminded : 14
Enter the Minute(MM) to be reminded : 35
The tablet name you entered is not in pill box, again enter the correct name
Enter the name of tablet to be reminded at Morning: dolo
Enter the Hour(HH) to be reminded : 14
Enter the Minute(MM) to be reminded : 35
Do you want reminder for Evening(YES/NO): YES
Enter the name of tablet to be reminded at Evening: dolo
Enter the Hour(HH) to be reminded : 14
Enter the Minute(MM) to be reminded : 35
Publish ok
Published reminder : Now the time is 14:35 consume your Tablet dolo
Have you consumed your tablet dolo:
yes
Publish ok
Published reminder : Now the time is 14:35 consume your Tablet dolo
Have you consumed your tablet dolo: publish ok
published acknowledgement: The patient has consumed the tablet
Ln: 38 Col: 0
Type here to search
53%
29°C
ENG
14:35
07-11-2022


Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:\Users\vunna\OneDrive\Desktop\medicine_remainder_pill_box.py ==
2022-11-07 18:01:09,036 ibmiotf.device.Client INFO Connected successfully: d:1dh5ok:ruchitha:ruchitha18
Enter how many types of tablet placed in pill Box, maximum 2 types: 1
Enter the name of Tablet 1: dolo
Do you want reminder for Morning(YES/NO): yes
Enter the name of tablet to be reminded at Morning: dolo
Enter the Hour(HH) to be reminded : 18
Enter the Minute(MM) to be reminded : 02
Do you want reminder for Evening(YES/NO): yes
Enter the name of tablet to be reminded at Evening: dolo
Enter the Hour(HH) to be reminded : 18
Enter the Minute(MM) to be reminded : 02
Publish ok
Published reminder : Now the time is 18:02 consume your Tablet dolo
Have you consumed your tablet dolo: no
publish ok
published acknowledgement: The patient not consumed the tablet
Publish ok
Published reminder : Now the time is 18:02 consume your Tablet dolo
Have you consumed your tablet dolo: no
publish ok
published acknowledgement: The patient not consumed the tablet
Ln: 34 Col: 0
Type here to search
92%
AQI 85.65
ENG
18:02
07-11-2022