Automated WhatsApp Message Scheduler with Randomized Content - Step-by-Step Code Explanation

This script combines Python's `datetime` and `random` modules along with the `pywhatkit` library to schedule and send a personalized WhatsApp message using WhatsApp Web.

from datetime import datetime, timedelta

Importing modules to work with current time and to schedule messages a few minutes into the future.

now = datetime.now()

Capturing the current timestamp to use it as a base for scheduling the message.

# Add 2 minutes from now (gives WhatsApp Web time to load)  
future\_time = now + timedelta(minutes=2)  
  
hour = future\_time.hour  
minute = future\_time.minute

Calculating a future time (2 minutes from now) to allow WhatsApp Web to load before sending the message.

import random  
import pywhatkit

Importing the random module for selecting a message template and pywhatkit for WhatsApp automation.

# Message templates  
message\_templates = [  
 "Hello {name}, how are you today?",  
 "Good morning {name}! Have a great day!",  
 "Hey {name}, just checking in. Let's catch up soon!",  
 "Hi there {name}, hope you're doing well!",  
 "Greetings {name}! Hope your day is going smoothly."  
]

Defining a list of message templates. These are customizable and allow insertion of a name for personalization.

# Generate a random message  
def generate\_random\_message(name):  
 message\_template = random.choice(message\_templates)  
 return message\_template.format(name=name)

Defining a function that picks one message template at random and inserts the given name into it.

# Input  
name = "Nidhi"  
phone\_number = "+919454929255"  
random\_message = generate\_random\_message(name)

Providing user input: the name to be used in the message and the phone number to which the message will be sent.

# Get time 2 minutes from now  
now = datetime.now()  
future\_time = now + timedelta(minutes=2)  
hour = future\_time.hour  
minute = future\_time.minute

Calculating the future time again to ensure accurate scheduling right before sending.

# Send the message  
pywhatkit.sendwhatmsg(phone\_number, random\_message, hour, minute)

Using pywhatkit’s sendwhatmsg function to send the message. It opens WhatsApp Web and sends the message at the scheduled time.

print(f"Message scheduled for {name} at {hour}:{minute} → \"{random\_message}\"")

Printing a confirmation message to the console so the user knows when and what message has been scheduled.