

```

import requests

import os

from bs4 import BeautifulSoup

from twilio.rest import Client

import yagmail

import time

import logging


URL_TO_MONITOR = "" #change this to the URL you want to monitor

DELAY_TIME = 15 # seconds


TWILIO_ACCOUNT_SID = "" # replace with your Account SID

TWILIO_AUTH_TOKEN = "" # replace with your Auth Token

TWILIO_PHONE_SENDER = "+12345678901" # replace with the phone number you registered in
twilio

TWILIO_PHONE_RECIPIENT = "+12345678901" # replace with your phone number


SENDING_EMAIL_USERNAME = "" # replace with the username of the gmail account you created
(e.g. "john.webmonitor" if the email is "john.webmonitor@gmail.com")

SENDING_EMAIL_PASSWORD = "" # replace with the password of the gmail account you created

RECIPIENT_EMAIL_ADDRESS = "" # replace with the email address that will receive the notification


def send_email_alert(alert_str):

    """Sends an email alert. The subject and body will be the same. """

    yagmail.SMTP(SENDING_EMAIL_USERNAME, SENDING_EMAIL_PASSWORD).send(

        RECIPIENT_EMAIL_ADDRESS, alert_str, alert_str)


def send_text_alert(alert_str):

```

```
"""Sends an SMS text alert."""
```

```
client = Client(TWILIO_ACCOUNT_SID, TWILIO_AUTH_TOKEN)
```

```
message = client.messages.create(
```

```
    to=TWILIO_PHONE_RECIPIENT,
```

```
    from_=TWILIO_PHONE_SENDER,
```

```
    body=alert_str)
```

```
def process_html(string):
```

```
    soup = BeautifulSoup(string, features="lxml")
```

```
    # make the html look good
```

```
    soup.prettify()
```

```
    # remove script tags
```

```
    for s in soup.select('script'):
```

```
        s.extract()
```

```
    # remove meta tags
```

```
    for s in soup.select('meta'):
```

```
        s.extract()
```

```
    # convert to a string, remove '\r', and return
```

```
    return str(soup).replace('\r', '')
```

```
def webpage_was_changed():
```

```
    """Returns true if the webpage was changed, otherwise false."""
```

```
    headers = {'User-Agent': 'Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_1) AppleWebKit/537.36  
(KHTML, like Gecko) Chrome/39.0.2171.95 Safari/537.36',
```

```
'Pragma': 'no-cache', 'Cache-Control': 'no-cache'}
```

```
response = requests.get(URL_TO_MONITOR, headers=headers)
```

```
# create the previous_content.txt if it doesn't exist
```

```
if not os.path.exists("previous_content.txt"):
```

```
    open("previous_content.txt", 'w+').close()
```

```
filehandle = open("previous_content.txt", 'r')
```

```
previous_response_html = filehandle.read()
```

```
filehandle.close()
```

```
processed_response_html = process_html(response.text)
```

```
if processed_response_html == previous_response_html:
```

```
    return False
```

```
else:
```

```
    filehandle = open("previous_content.txt", 'w')
```

```
    filehandle.write(processed_response_html)
```

```
    filehandle.close()
```

```
    return True
```

```
def main():
```

```
    log = logging.getLogger(__name__)
```

```
    logging.basicConfig(level=os.environ.get("LOGLEVEL", "INFO"), format='%(asctime)s %(message)s')
```

```
    log.info("Running Website Monitor")
```

```
    while True:
```

```
        try:
```

```
if webpage_was_changed():

    log.info("WEBPAGE WAS CHANGED.")

    send_text_alert(f"URGENT! {URL_TO_MONITOR} WAS CHANGED!")

    send_email_alert(f"URGENT! {URL_TO_MONITOR} WAS CHANGED!")

else:

    log.info("Webpage was not changed.")

except:

    log.info("Error checking website.")

time.sleep(DELAY_TIME)


if __name__ == "__main__":

    main()
```

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