

breaktime.py

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import time
## import time functions for sleep and current time functions
import webbrowser
## import to open url in webbrowser
import urllib2
## import to validate url input can be opened

dataInputs = {}
## array to receive inputs

def getIntegerValue(varName, promptText):
    while True:
        ## Loop until integer input is received
        try:
            ## Attempt to get valid input
            userInput = int(raw_input(promptText))
        except ValueError:
            ## Inform input is invalid and keep looping
            print("Sorry, that was not understood please use integer as input.")
            continue
        else:
            ## got integer input so break loop
            dataInputs[varName] = userInput
            break

def getUrlInput(varName, promptText):
    ## Attempt to prevent: HTTPError: HTTP Error 403: Forbidden errors
    opener = urllib2.build_opener()
    opener.addheaders = [('User-agent', 'Mozilla/5.0')]
    urllib2.install_opener(opener)
    ## see -> http://stackoverflow.com/a/14471612/1815624
    while True:
        ## Loop until valid url input is received
        userInput = raw_input(promptText)
        ## Attempt to get valid input
        try:
            ## Check url can be opened
            urllib2.urlopen(userInput)
        except:
            ## Inform input is invalid and keep looping
            print ("Your input was not accessible web address: ")
            print (userInput)
            print("Please try again.")
        else:
            ## got url input so break loop
            dataInputs[varName] = userInput
            break

getIntegerValue("total_breaks", "Enter Total Number of breaks: ")
```

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                                breaktime.py
getIntegerValue("break_interval", "Enter total number of minutes between breaks: ")
getIntegerValue("break_duration", "Enter total number of minutes for break duration:
")
getUrlInput("link", "Enter Url to open: ")
## call to functions passing variables
## url used in lesson-> http://www.youtube.com/watch?v=YXw16RzMofo
## viewpure is worth a mention -> http://viewpure.com/sjEbloAvI2c

break_count = 0
## Start break count at 0

print("The break counter started on "+time.ctime())
## Inform start time

while break_count < dataInputs["total_breaks"]:
## Loop from 0 until user desired total breaks are met.
    time.sleep(dataInputs["break_interval"] * 60)
    ## Program is to sleep while you work until break time
    ## break_interval * 60 to convert seconds to minutes
    print("This break has started on "+time.ctime())
    ## Inform user the break starting time stamp
    webbrowser.open(dataInputs["link"])
    ## Open desired url in browser
    time.sleep(dataInputs["break_duration"] * 60)
    ## Sleep until end of break duration
    ## break_duration * 60 to convert seconds to minutes
    print("This break has ended on "+time.ctime())
    ## Inform user the break ending time stamp
    break_count = break_count + 1
    ## add 1 to break_count and loop if total_breaks have not been met

print("This concludes all breaks.")

```