

```
# -*- coding: utf-8 -*-
```

```
"""
```

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Created on Fri Apr 12 10:54:35 2019
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```
@author: ebdegu01
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"""
```

```
from pathlib import Path
```

```
import pandas as pd
```

```
import os
```

```
import time
```

```
#This specifies the path of the contact_book.txt file
```

```
fexist = Path('C:\Users\ebdegu01\Documents\Programming Notes\Python Scripts\contact_book.txt')
```

```
#checks if the file exists and then executes the code to be executed
```

```
if fexist.is_file():
```

```
    print('File exists!')
```

```
    print(open("contact_book.txt", "a"))
```

```
else:
```

```
    f = open("contact_book.txt", "a")          #opens text file contact_bbok.txt and appends it
```

```
#opens the file for read-only and prints the contents of the text file onto the console'''
```

```
def view_contacts():
```

```
    read_file = open("contact_book.txt", "r")
```

```
    file_contents = read_file.read()
```

```
    print(file_contents)
```

```
    read_file.close
```

```
    time.sleep(5)
```

```
    main_menu()
```

#takes the input for first name, last name, phone number, email and address and writes it to the text file

```
def enter_contacts():
```

```
    fname = first_name()
```

```
    if fname == " ":
```

```
        print('No name was entered!')
```

```
        fexist.close
```

```
    lname = last_name()
```

```
    if lname == " ":
```

```
        print('No name was entered!')
```

```
        fexist.close
```

```
    phone = phone_number()
```

```
    if phone == " ":
```

```
        print('No phone was entered!')
```

```
        fexist.close
```

```
    email = raw_input('Email: ')
```

```
    if email == " ":
```

```
        print('No email was entered!')
```

```
        fexist.close
```

```
    add = raw_input('Address: ')
```

```
    if add == " ":
```

```
        print('No address was entered!')
```

```
        fexist.close
```

```
    info = [fname,lname,phone,email,add]
```

```
    contact_info = str("[") + str(info[0]) + str(" ") + str(info[1]) + str("|") + str(info[2]) + str("|") +  
str(info[3]) + str("|") + str(info[4]) + str("]")
```

```
    #contact_info = str('[' + fname + ' ' + lname + '|' + phone + '|' + email + '|' + add + ']')
```

```
    with open("contact_book.txt", "a") as contactbk_file:
```

```
        contactbk_file.write(contact_info + '\n')
```

```
    print('The contact information ' + contact_info + 'has been written to contact_book.txt!')
time.sleep(5)
main_menu()
```

#searches contacts within the text file and outputs it on the console

```
def search_contacts():
    searchphrase = raw_input('Enter contact info you want to search: ')
    searchfile = open("contact_book.txt", "r")
    for line in searchfile:
        if searchphrase in line:
            print line
    searchfile.close()
    time.sleep(5)
    main_menu()
```

#Ensures that the first name input is valid and capitalizes the first letter

```
def first_name():
    first_name = raw_input('First Name:')          #input for first name
    f = first_name[0]                               #takes first character of the first name
    name = first_name[1:10]
    return f.upper() + name
```

#ensures that the last name input is valid and capitalizes the first letter of the input

```
def last_name():
    lname = raw_input('Last Name: ')               #takes the input for last name
    l = lname[0]                                    #takes the first letter of the last name
    n = lname[1:10]
    return l.upper() + n
```

```

def phone_number():
    phone = raw_input('Phone Number: ')          #input for the phone number
    if (len(phone) == 10) and phone[0:len(phone)] == '1' or '2' or '3' or '4' or '5' or '6' or '7' or '8' or '9' or '0':
        telephone = "1 " + "(" + phone[0:3] + ")" + "-" + phone[3:6] + "-" + phone[6:10]
    else:
        telephone = 'only numbers are accepted for this field'
    return telephone

```

#produces the options for the menu for the address book

```

def main_menu():
    opt = raw_input("""Press 1 to view contacts,2 to enter a new contact,3 to search a contact,4 to view in Excel, 5 to delete the book, 6 to exit""")
    if opt == "1":
        view_contacts()
    elif opt == "2":
        enter_contacts()
    elif opt == "3":
        search_contacts()
    elif opt == "4":
        print('The contents in the text file will be viewed as an excel file')
        df = pd.read('contact_book.txt')
        df.to_excel('contact_book.xlsx', 'Sheet1', delimiter = '|')
    elif opt == "5":
        os.remove("contact_book.txt")
        print("The following file has been removed (contact_book.txt)")
    elif opt == "6":

```

```
    exit()
```

```
else:
```

```
    print('This is not a valid option')
```

```
main_menu()
```