Terminal Application

Thomas Molander – T1 A3
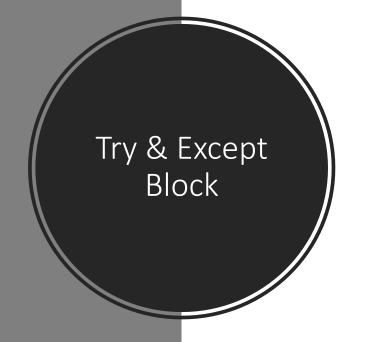
Brief of Terminal Application Idea

- Create a Terminal App for a contacts library for a user.

- User will have a menu of options with prompt commands to use the contacts library and its functions.

- Contacts Library will allow users to add a new contact, delete contacts, view the contacts list & edit contacts.

- Errors will be printed when input is not given in intended methods or if contacts cannot be found in the csv file.

Try & Except Block

```python
from colored import fg, attr, bg
from functions import add_contact, delete_contact, view_contact, edit_contact

file_name = "contacts.csv"

try:
    contacts_file = open(file_name, "r")
    contacts_file.close()
except FileNotFoundError:
    contacts_library = open(file_name, "w")
    contacts_library.write("Name, Phone, Email\n")
    contacts_library.close()


print(f"{fg('blue')}{bg('white')}Contact Library")
```
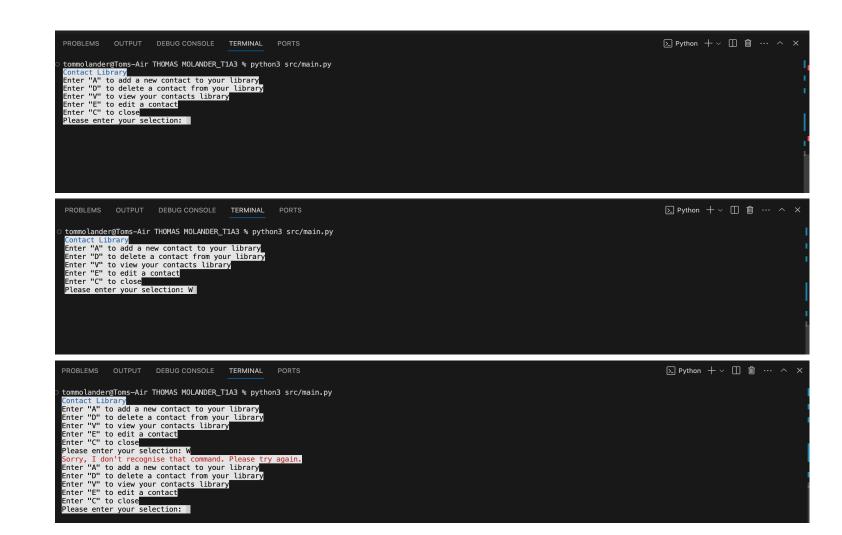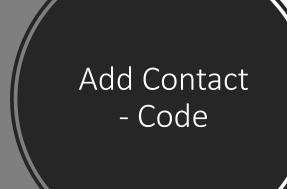
Contacts Library - Code

```python
print(f"{fg('blue')}{bg('white')}Contact Library")

def contacts_library():
    print(f'{fg('black')}{bg('white')}Enter "A" to add a new contact to your library')
    print(f'{fg('black')}{bg('white')}Enter "D" to delete a contact from your library')
    print(f'{fg('black')}{bg('white')}Enter "V" to view your contacts library')
    print(f'{fg('black')}{bg('white')}Enter "E" to edit a contact')
    print(f'{fg('black')}{bg('white')}Enter "C" to close')

    selection = input("Please enter your selection: ")
    return selection

users_selection = ""

while users_selection != "C":
    users_selection = contacts_library()
    if users_selection == "A":
        add_contact(file_name)
    elif users_selection == "D":
        delete_contact(file_name)
    elif users_selection == "V":
        view_contact(file_name)
    elif users_selection == "E":
        edit_contact(file_name)
    elif users_selection == "C":
        break

    else:
        print(f"{fg('red')}{bg('white')}Sorry, I don't recognise that command. Please try again.{attr('reset')}")
```
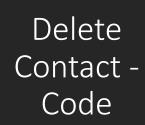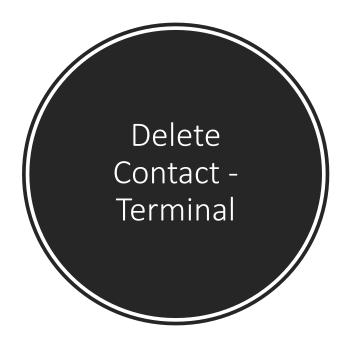
Contacts Library - Terminal

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

tommolander@Toms-Air THOMAS MOLANDER_T1A3 % python3 src/main.py
Contact Library
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

tommolander@Toms-Air THOMAS MOLANDER_T1A3 % python3 src/main.py
Contact Library
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: W
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

tommolander@Toms-Air THOMAS MOLANDER_T1A3 % python3 src/main.py
Contact Library
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: W
Sorry, I don't recognise that command. Please try again.
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```

Add Contact - Code

```python
import csv
from colored import fg, attr, bg



def add_contact(file_name):
    print(f"{fg('green')}{bg('white')}Create new contact:")

    contact_name = input(f"{fg('black')}{bg('white')}Contact Name:")
    while True:
        contact_phone = input(f"{fg('black')}{bg('white')}Phone: ")
        if contact_phone.isdigit():
            break
        else:
            print(f"{fg('red')}{bg('white')}Phone number must be entered in numbers")
    while True:
        contact_email = input(f"{fg('black')}{bg('white')}Email: ")
        if "@" in contact_email:
            break
        else:
            print(f'{fg('red')}{bg('white')}Email must contain "@" symbol, please enter again')
    with open(file_name, "a") as f:
        writer = csv.writer(f)
        writer.writerow([contact_name, contact_phone, contact_email])

    print(f"{fg('green')}{bg('white')}'{contact_name}' has been added to your contacts library")
```

Add Contact
- Terminal

```
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: A
Create new contact:
Contact Name:Tom
Phone: 0447420887
Email: tcm1@gmail.com
'Tom' has been added to your contacts library
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```

```
tommolander@Toms-MacBook-Air THOMAS MOLANDER_T1A3 % python3 src/main.py
Contact Library
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: A
Create new contact:
Contact Name:Mum
Phone: abc
Phone number must be entered in numbers
Phone: 0412345678
Email: mum123
Email must contain "@" symbol, please enter again
Email:
```

Delete Contact - Code

```python
27
28
29    def delete_contact(file_name):
30        contact_name = input(f"{fg('green')}{bg('white')}Enter name of contact to delete: ")
31        contacts_library = []
32        contact_found = False
33
34        with open(file_name, "r") as f:
35            reader = csv.reader(f)
36            for row in reader:
37                if len(row) > 0 and contact_name == row[0]:
38                    contact_found = True
39                else:
40                    contacts_library.append(row)
41
42        if contact_found:
43            with open(file_name, "w", newline='') as f:
44                writer = csv.writer(f)
45                writer.writerows(contacts_library)
46
47            print(f"{fg('green')}{bg('white')}'{contact_name}' has been deleted.")
48        else:
49            print(f"{fg('red')}{bg('white')}Could not find '{contact_name}' in your library.")
50
51
```

Delete Contact - Terminal

```
tommolander@Toms-Air THOMAS MOLANDER_T1A3 % python3 src/main.py
Contact Library
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: D
Enter name of contact to delete: Heath
Could not find 'Heath' in your library.
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```

```
Please enter your selection: D
Enter name of contact to delete: Heath
Could not find 'Heath' in your library.
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: D
Enter name of contact to delete: Ayla
'Ayla' has been deleted.
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```

View Contacts - Code

```python
53
54    def view_contact(file_name):
55        print(f"{fg('green')}{bg('white')}Here is your contacts library: ")
56        with open(file_name, "r") as f:
57            reader = csv.reader(f)
58            reader.__next__()
59            for row in reader:
60                print(" ".join(row))
61
62
```

main.py   functions.py ✕

src > functions.py > add_contact

View Contacts – Terminal

```
Contact Library
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: V
Here is your contacts library:
Tom 0447420887 tcm1@gmail.com
Dad 123456789 dad@gmail.com
Ayla 0423789111 ayla@live.com
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```

Edit Contact - Code


```python
     main.py        functions.py  ✕

src >    functions.py >    edit_contact
62
63
64   def edit_contact(file_name):
65       contact_name = input(f"{fg('green')}{bg('white')}Enter name of contact to edit: ")
66       contacts_library = []
67       contact_found = False
68
69       with open(file_name, "r") as f:
70           reader = csv.reader(f)
71           for row in reader:
72               if len(row) > 0 and contact_name != row[0]:
73                   contacts_library.append(row)
74               elif len(row) > 0:
75                   updated_row = [contact_name, input(f"{fg('black')}{bg('white')}Enter new phone number: "), input(f"{fg('black')}{bg('white')}
                     Enter new email: ")]
76                   contacts_library.append(updated_row)
77                   contact_found = True
78
79
80       with open(file_name, "w", newline='') as f:
81           writer = csv.writer(f)
82           writer.writerows(contacts_library)
83
84       if contact_found:
85           print(f"{fg('green')}{bg('white')}'{contact_name}' has been updated.")
86       else:
87           print(f"{fg('red')}{bg('white')}Could not find '{contact_name}' in your library.")
88
89
```

Edit Contact - Terminal

```
Ayla 0423789111 ayla@live.com
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: E
Enter name of contact to edit: Tom
Enter new phone number: 0476887333
Enter new email: tom@example.com
'Tom' has been updated.
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```

```
Enter new phone number: 0476887333
Enter new email: tom@example.com
'Tom' has been updated.
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection: E
Enter name of contact to edit: Mum
Could not find 'Mum' in your library.
Enter "A" to add a new contact to your library
Enter "D" to delete a contact from your library
Enter "V" to view your contacts library
Enter "E" to edit a contact
Enter "C" to close
Please enter your selection:
```