# Lab 6 Summary

Jhonatan_LAB6 > lab6_1.py > ...

```python
# lab6_1.py - Jhonatan Parada

err_msg = 'invalid age'
vowels = tuple('aeuio')

ages = [
    ['baby', 2],
    ['toddler', 4],
    ['kid', 13],
    ['teenager', 20],
    ['adult', 65],
    ['elder', float('inf')] # represents infinite age
]

try:
    user_age = int(input('Please enter your age: '))

    for age in ages:
        life_stage = age[0]
        stage_age = age[1]

        if user_age < 0:
            print(err_msg)
            break # stops for loop
        else:
            if user_age < stage_age:
                a_an = 'an' if life_stage.startswith(vowels) else 'a'
                print(f"You're {a_an} {life_stage}.")
                break # stops for loop

except ValueError:
    print(err_msg)
```

```
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_1.py
Please enter your age: 18
You're a teenager.
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_1.py
Please enter your age: 0
You're a baby.
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_1.py
Please enter your age: -4
invalid age
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_1.py
Please enter your age: 55
You're an adult.
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_1.py
Please enter your age: 999
You're an elder.
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $
```

Jhonatan_LAB6 > lab6_2.py > ...

```python
# lab6_2.py - Jhonatan Parada

user_grtng = 'thank you for logging in again!'
admin_grtng = 'would you like to see a status report?'
no_users_msg = 'We need to find some users.'

usernames = [
    'tom',
    'jerry',
    'bob',
    'dora',
    'admin'
]

# usernames.clear()

if not usernames:
    print(no_users_msg)
else:
    for username in usernames:
        if username != 'admin':
            print(f"Hello {username.capitalize()}, {user_grtng}")
        else:
            print(f"Hello {username.upper()}, {admin_grtng}")

```

```
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_2.py
Hello Tom, thank you for logging in again!
Hello Jerry, thank you for logging in again!
Hello Bob, thank you for logging in again!
Hello Dora, thank you for logging in again!
Hello ADMIN, would you like to see a status report?
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_2.py
We need to find some users.
@jhonatanparada499 ➜ /workspaces/ET574/Jhonatan_LAB6 (main) $
```

Jhonatan_LAB6 > lab6_3.py > ...

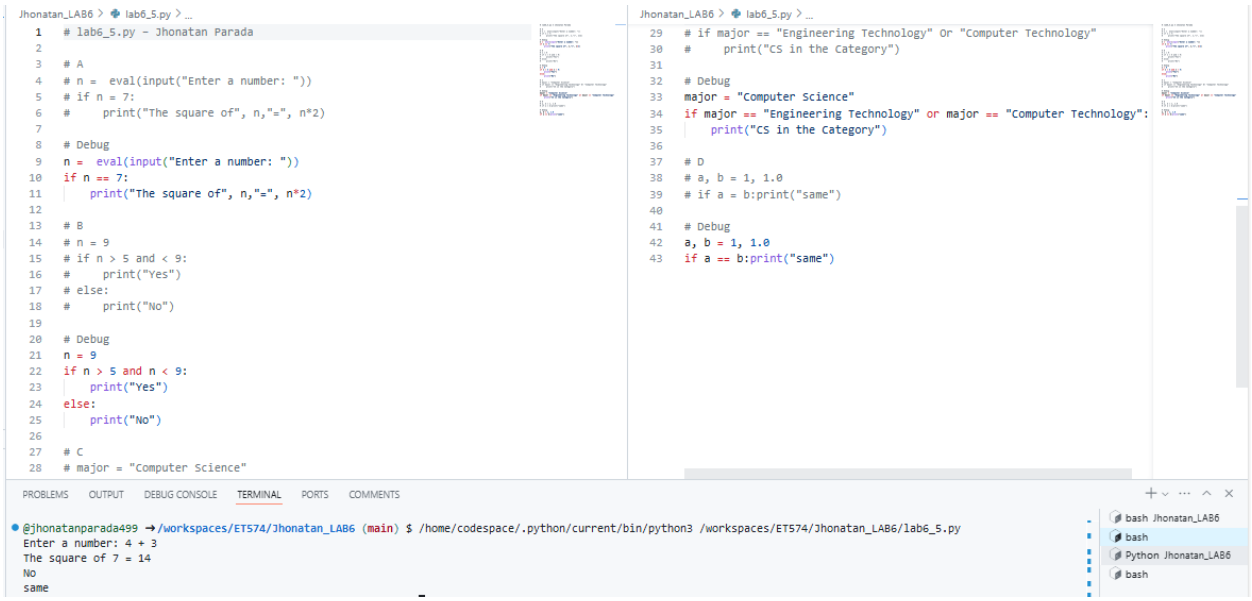
```python
# lab6_3.py - Jhonatan Parada

current_users = [
    'Admin',
    'napolEON',
    'jhonatan',
    'DAVID',
    'caroLine'
]

new_username = input("Enter your user name: ")

for username in current_users:
    if username.lower() == new_username.lower():
        print(f"Sorry {new_username}, that name is taken.")
        print(f"Current users: {current_users}")
        break # loop stops and else statement is ignored
else:
    print(f"Great, {new_username} is still available.")
    current_users.append(new_username)
    print(f"Updated users: {current_users}")

```

```
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_3.
py
Enter your user name: Napoleon
Sorry Napoleon, that name is taken.
Current users: ['Admin', 'napolEON', 'jhonatan', 'DAVID', 'caroLine']
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_3.
py
Enter your user name: MARIO
Great, MARIO is still available.
Updated users: ['Admin', 'napolEON', 'jhonatan', 'DAVID', 'caroLine', 'MARIO
']
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $
```

Jhonatan_LAB6 > lab6_4.py > ...

```python
# lab6_4.py - Jhonatan Parada

err_msg = 'Invalid search letter'

vehicles = [
    'car',
    'Truck',
    'boat',
    'PLANE'
]
print(f"Vehicles = {vehicles}")

srch_lttr = input('Enter a search letter: ')

if not srch_lttr or len(srch_lttr) > 1:
    print(err_msg)
else:
    for vehicle in vehicles:
        if not (srch_lttr.lower() in vehicle.lower()):
            print(f"{vehicle} does not contain '{srch_lttr}'.")
        else:
            print(
                f"{vehicle} contains '{srch_lttr}'",
                f"and it is in position {vehicles.index(vehicle)}.",
                sep=' '
                )
```

```
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_4.py
Vehicles = ['car', 'Truck', 'boat', 'PLANE']
Enter a search letter: A
car contains 'A' and it is in position 0.
Truck does not contain 'A'.
boat contains 'A' and it is in position 2.
PLANE contains 'A' and it is in position 3.
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_4.py
Vehicles = ['car', 'Truck', 'boat', 'PLANE']
Enter a search letter: u
car does not contain 'u'.
Truck contains 'u' and it is in position 1.
boat does not contain 'u'.
PLANE does not contain 'u'.
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_4.py
Vehicles = ['car', 'Truck', 'boat', 'PLANE']
Enter a search letter: abc
Invalid search letter
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $ python lab6_4.py
Vehicles = ['car', 'Truck', 'boat', 'PLANE']
Enter a search letter:
Invalid search letter
@jhonatanparada499 →/workspaces/ET574/Jhonatan_LAB6 (main) $
```




2. Question 5.C was tricky to me because at first, I thought that the variable major was being compared to both strings, but I then realized that python does not interpret it like that, instead, it sees the non-empty string after the or statement as true, so no matter the first condition, the if statement would always be true.

Question 1 was a hard one in terms of planification and logic. I saw different approaches and so I was undecided because I wanted to write as few lines as possible. At the end, the script worked, but I'm not proud of it. I also learned about the Break statement, a very useful tool when working with for statements.