

COMP210 - Programming 2

Faculty of Engineering - Fall 2023

Eng. Hadi Al Mubasher

Final project: Programming for engineers (python)

***Airline system management***

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***Objectives:***

***Airline system management make the user able to:***

* View all available flights at certain time.
* Offer the user suitable flights.
* Offer the user flights by his choice of time, date and plane.
* Let the user choose every detail in his trip for comfort.

***Description:***

* Upon starting the program, the user will be asked to enter his credentials such as (name, age, email, telephone number) and that’s on order to satisfy the user’s needs.
* No Filter flight: It is a choice offered to the user. It randomizes his choices of date of flight and time, it suggests all available flights with different times, dates, countries and airlines.
* Filtered flight: The classical mode for flight reservation which gives the user 100% free choices for his trip, such as date, time, flight and of course the country.
* After choosing filtration of trip. There comes the choice of the trip itself, which is classified into 3 types, one way (departure only), Round trip (departure and return) and multi-cities (adventure mode: have multiple flights to visit different countries).
* Sequentially the user is asked about the number of people attending Onboard, Adults (+12 years old), children (2-12 years old) and infants (0-23 months).
* Those questions are vey important because each member attending has a limit of a certain weight from smallest limit for infants till the largest which is for the adults. (If the total weight exceeded the limit, there will be a certain payment that must be paid to pass the extra weights on board).
* Now for choosing the flight class which also is divided into 3 classes, first class, business class and the economy class. **If there is a promo code it can help with the payments.**
* **One of the most important parts for the users which is** the proper seating in the airplane.it is classified also into 2 types random seating which chooses the empty seats randomly for the user. And manual seating booking which lets the user have full access to choose a suitable seat for him and the people attending the flight with him.

***Future objectives:***

**1-expand the list of destinations**

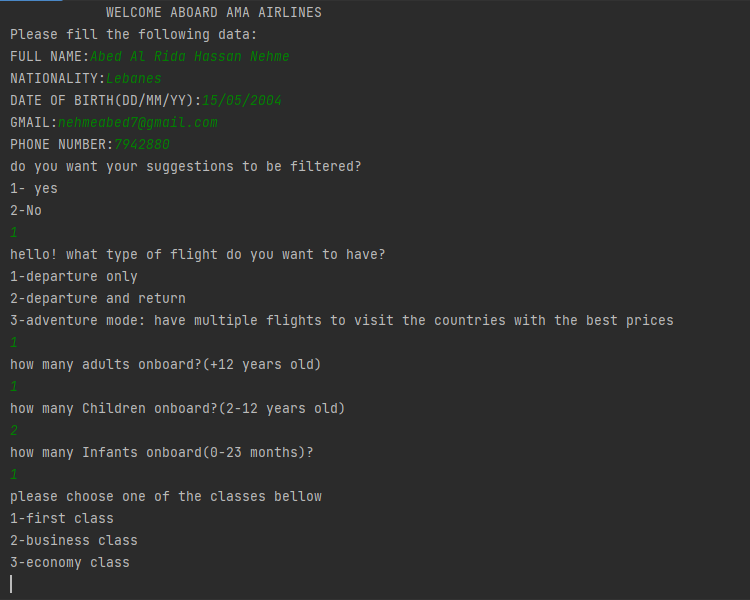
* For sure we can expand the scope of the destinations by simulating the real-life available choices.
* In this program we tried to shrink the area of operation of this program with the top 10 destinations worldwide.

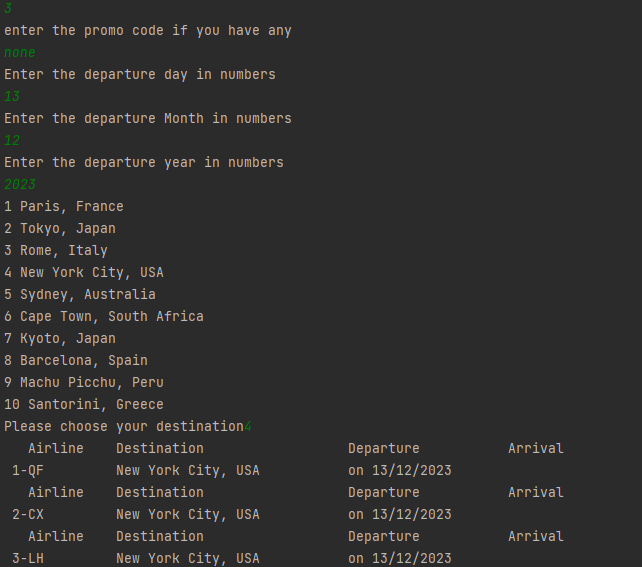
**2-applying more filters**

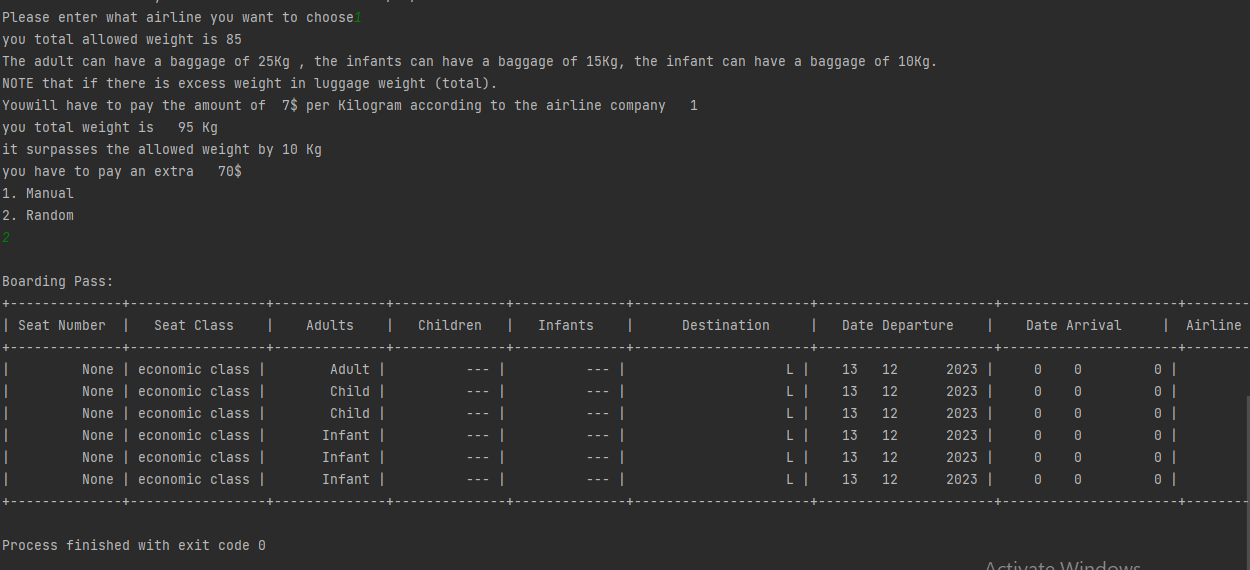
* Some airlines offer even further filters on the flights and the flight preparation to include all the changes that the clients want to make.
* We can also apply these new filters depending on the airline company because the filters may differentiate between a company and another.

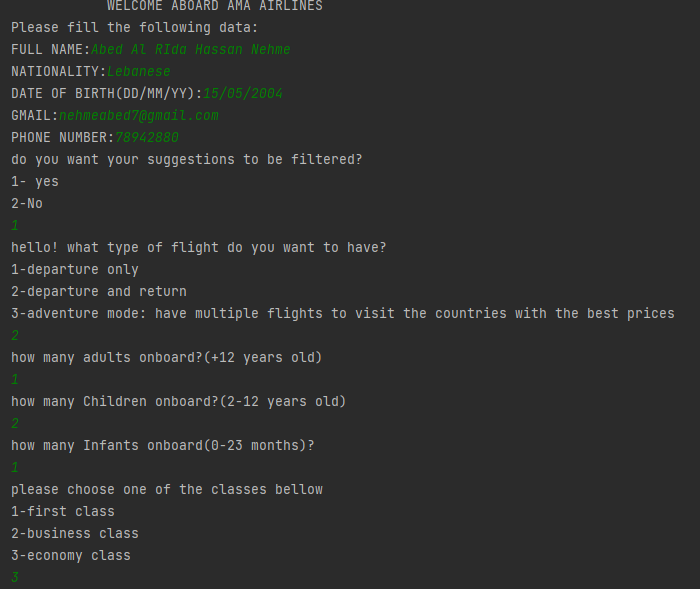
**3-implementing more related procedures**

* **Safety Briefing:** Before the flight takes off, the cabin crew will provide a safety briefing, demonstrating the use of safety equipment and giving instructions for emergencies.
* **Security Check:** After receiving your boarding pass, you'll go through the security checkpoint. Here, you'll need to present your ID and boarding pass and pass through security scanners. Laptops, liquids, and certain items may need to be removed from your carry-on for screening.
* **The code screenshots:**

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**A screenshot of a computer

Description automatically generated**

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