1/25/2023

CS 566 Draft Assignment 3

Hand in a draft of Assignment 3, using the Word template supplied, with only the following parts drafted: 1, 2, a draft anticipating 3.1 (no implementation is required for the draft), and 6.

1:

In this part of the homework, according to the passenger destination, I designed the flight release system. According to the obtained passenger's itinerary, the passengers are first divided into domestic and international routes, and according to the domestic or international and the country of the airliner from to do the release. International has the higher prioirty, and if the airliner is from US, it will has the higher priority, other will be placed the order by the first digit of the airliner.Dividing domestic and international, I plan to use the SORT algorithm.

2

Input:(as file)

A,KLAX,LosAngeles,CA,US,AAL

B,KORD,Chicago,IL,US,DAL

C,KJFK,NewYork,NY,US,AAL

D,VHHH,HongKong,China,CPA

E,EGLL,London,London,UK,BAW

F,YSSY,Sydney,Sydney, Australia,AAL

G,PHNL,Honolulu,HI,US,UAL

H,PANC,Anchorage,AK,US,DAL

Output:

National:

Passenger:

A:

Destination Airport: KLAX

Destination City: LosAngeles,CA

Airliner: AAL

B:

Destination Airport: KORD

Destination City: Chicago,IL

Airliner: DAL

C:

Destination Airport: KJFK

Destination City: NewYork,NY

Airliner: UAL

G:

Destination Airport: PHNL

Destination City: Honolulu,HI

Airliner: AAL

H:

Destination Airport: PANC

Destination City: Anchorage,AK

Airliner: DAL

International:

D:

Destination Airport: VHHH

Destination Country: China

Destination City: HongKong,HongKong

Airliner: CPA

E:

Destination Airport: EGLL

Destination Country: UK

Destination City: London,London

Airliner: BAW

F:

Destination Airport: YSSY

Destination Country: Australia

Destination City: Sydney,Sydney

Airliner: AAL

Clearance Order:

F E D A G B H C

3：

Input Requirement:

The package should include the destination(TO) ,detailed city, states, contries,and the Airliners they want to take

Output Requirement:

Based on the passenger information read, the passengers are divided into domestic and international, and the distance is calculated according to the destination, the output is out according to a certain format, and the passengers are released according to the distance.

6：

In this project, I used Quicksort to do the distribution of domestic and international passengers, and use Quicksort to release the passengers in order. The time complexity of Quicksort is O (NLOG (N)), which is not very fast.