Team Simplicity: Ryan Siu, Eric Zhang, Tiffany
Moi
APCS2 Pd5
HW47 -- Are We There Yet?
2017-06-07

City

+ class City
- int _pop
- int _xcor
- int _ycor
- String _name
- int _status

+ City()
+ City(String n, int pop, int screenSize
)
+ String getCityName()
+ int getPop()
+ int getXcor()
+ int getYcor()
+ int getPrice(){
+ void setStatus(boolean n){
+ String toString()

Driver

+ class Driver
+ static final int SCREEN_SIZE
- static ArrayList<Airplane> airplanes
- static ArrayList<City> cities
- static ArrayList<FlightRoute> flights
- static int money

- static String planeMenu()
- static String cityMenu()
- static int fact(int n)
- static ArrayList<FlightRoute>
possibleFlights()

- static void updateFlights()
- static String prompt(String query)

Airplane

+ class Airplane
- String _name
- int _range
- int _speed
- int _capacity
- int _price
- int _fuelCapacity
- int _status
- City _currCity
- double _efficiency
- int _tank
- boolean _bought
- int _state

+ Airplane()
+ Airplane(String name, int range, int
speed, int capacity, int price, int
fuelCapacity, City currCity)
+ String getAirplaneName()
+ int getRange()
+ int getSpeed()
+ int getCapacity()
+ int getPrice()
+ int getFuelCapacity()
+ int getStatus()
+ City getCity()
+ double getEfficiency()
+ int getTank()
+ boolean getBought()
+ int getCost()
+ int setStatus(int status)
+ City setCity(City city)
+ int setTank(double distance)

```
+ void setState( int n )
+ void setBought()
+ int check(double distance)
+ boolean full()
+ void refuel()
+ String toString()
```

```
+ static Airplane[]
toBeFilled(ArrayList<Airplane> list)
+ static Airplane buy(Airplane original)
```

Driver

```
+ class Driver
+ static final int SCREEN_SIZE
- static InputStreamReader isr
- static BufferedReader in
- static ArrayList<Airplane> airplanes
- static ArrayList<City> cities
- static ArrayList<FlightRoute> flights
- static int money

- static String planeMenu()
- static String cityMenu()
- static int fact( int n )
- static ArrayList<FlightRoute>
possibleFlights()
- static void updateFlights()
- static int check(Airplane plane, double
distance)
- static int profit(City depart, City
arrival, Airplane plane)
+ static City[] remove( int index, City[]
arr )
```

Shop

```
+ static Airplane[] airplanes
+ static City[] cities
+ static City popCity()
+ static void removeCity( int index )
```

FlightRoute

```
+ class FlightRoute
- City _departCity
- City _arriveCity
- double _distance
- int _profit
- Airplane _plane
- int _tickPrice
- long _timeStart, _timeEnd

+ FlightRoute()
+ FlightRoute( City departCity, City
arriveCity, Airplane plane)
+ City getDeparture()
+ City getArrival()
+ double getDistance()
+ int getProfit()
+ Airplane getAirplane()
+ int getTicketPrice()
+ long getEndTime()
+ long getStartTime()
+ City setDeparture( City newCity )
+ City setArrival( City newCity )
+ Airplane setAirplane( Airplane
newPlane )
+ int setTicketPrice( int newPrice )
- void updateDistance()
- void updateProfit()
- int autoCalcPrice()
```

- void updateTime()
+ long getTimeRem()
+ long getTimeElapsed()
+ long totalTime()
+ String toString()

Menu (part of GUI)

int borderSize, innerBorderSize, bezel, textSize;
color themeColor;
String title;
T[] contents;

void create()
int maxContent()

MenuItem

int x, y, width, height, borderSize, bezel;
int themeColor;
T content;

void create()

Pathfind

- static double getDistance(City begin, City end)
+ static HashMap<City, ArrayList<City>> getPaths(int range, City start, ArrayList<City> cities)