***Theme:***

* Travel/Booking Application
  + You’re at the airport ordering your ticket or tickets. It will check the airplane status, and assign your ticket number

***Classes:***

* TicketBookingSystem (main)
* Plane
* Abstract Passenger
  + Adult extends Passenger
  + Senior extends Passenger (or Adult)
  + Child extends Passenger (or Adult)

***Class Building:***

**TicketBookingSystem: <Melissa>**

* Variables:
  + Static List<String> AvailableSeats
  + Static List<String> TakenSeats
  + Static List<List<Plane>> Planes (month (12), list of days (7))
  + Static Scanner in
* Methods:
  + Static getNextSeat
    - Takes a seat from AvailableSeats and puts it into TakenSeats
  + Static listFlightDetails
    - lists total number of passengers and the breakdown of seniors, adults, and children for a particular flight
  + Static getFlightDetails
    - get month and weekday: return plane object.toString
  + Static getString
  + Static getInt

**Plane: <Melissa>**

* Variables:
  + Static List<List<List<double>>> Prices (Month, weekday, Adult / Child / SeniorPrice)
  + List<String> seatInfo
  + List<Adult> adults
  + List<Children> children
  + List<Seniors> seniors
  + Int Month (1: January, 2: February …)
  + Int Weekday (0: Sunday, 1: Monday …)
  + String PlaneType
  + Int numberOfSeats
  + Int totalPassengers
* Methods
  + Plane
    - Give a seating chart for seatInfo
    - Set the three lists to empty
  + Plane
    - Initialise lists from saved object
  + ToString
    - List the prices, number of passengers, how many passengers, and the passenger sub types
  + Private List<double> getPrice
    - Returns the pricelist based on month and weekday of plane
  + Getchildprice
    - Return the second price in GetPrice getPrice()[1]
  + Get adult price
    - Return the first price in GetPrice getPrice()[0]
  + Get senior price
    - Return the third price in GetPrice getPrice()[2]

**Passenger: <Ciaran>**

* Variables:
  + Double price
  + String seat
  + Static Int numberOfPassengers = 0
  + String firstName
  + String lastName
  + Boolean travelingAlone
  + Int TicketNumber
  + Plane plane
* Methods:
  + toString
    - Lists full name, seat number, ticketNumber, and price they paid

**Adult: <Ciaran>**

* Variables:
  + Static Int numberOfAdults
  + Final double price
* Methods:
  + Constructor
    - Increase numberOfPassengers in super
    - Set names
    - getNumberOfPassengers and put it in TicketNumber
    - set Seat
    - increase numberofadults
    - set plane
    - set price = plane.getpriceadult
  + Getters and setters for all variables
    - Make getters public, setters protected.

**Child: <Michelle>**

* Variables:
  + Static Int numberOfChild
  + Final double price
* Methods:
  + Constructor
    - Increase numberOfPassengers in super
    - Set names
    - getNumberOfPassengers and put it in TicketNumber
    - set Seat
    - increase numberofadults
    - set plane
    - set price = plane.getpricechild
  + Getters and setters for all variables
    - Make getters public, setters protected.

**Senior: <Michelle>**

* Variables:
  + Static Int numberOfSenior
  + Final double price
* Methods:
  + Constructor
    - Increase numberOfPassengers in super
    - Set names
    - getNumberOfPassengers and put it in TicketNumber
    - set Seat
    - increase numberofadults
    - set plane
    - set price = plane.getpricesenior
  + Getters and setters for all variables
    - Make getters public, setters protected.