Assignment4

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Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

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Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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AssignmentSysDev4.AirbusA319100 . . . 12
AssignmentSysDev4.AirbusA330300 . . . 13
AssignmentSysDev4.Airline . . . 13
AssignmentSysDev4.Airport . . . 15
AssignmentSysDev4.Boeing767300ER . . . 15
AssignmentSysDev4.Boeing777200LR . . . 16
AssignmentSysDev4.Boeing777300ER
This class defines a plane which extends the **IPlane** (p. 32) interface; other plane classes in this file have the same basic code, the different model numbers are specified for each one. This makes it possible to add more individual properties unique to a model of plane. . . . 17
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AssignmentSysDev4.BombardierCRJ200 . . . 19
AssignmentSysDev4.BombardierCRJ705 . . . 19
AssignmentSysDev4.BombardierQ400 . . . 20
AssignmentSysDev4.Brand . . . 20
AssignmentSysDev4.BusinessClassCancel
A 'ConcreteStrategy' class This strategy class allows the purchase price of Business class tickets to be refunded if the ticket is cancelled within 96 hours, i.e. four days of puchase . . . 22
AssignmentSysDev4.CancelStrategy . . . 23
AssignmentSysDev4.CompositeElement
Flights can also be used as Composite elements because one flight might be 'fixed', i.e. the customer has a narrow window of possible departure times at some point in their journey, but the primitive elements added to the list of the Composite element will be flights that are possible connections. The Composite pattern is used here because it allows for this kind of things, i.e. having a list of items with associated branches or 'leaf' items, and having the data grouped this way for flights will allow the system to show alternative flights to complete a journey. . . . 23
AssignmentSysDev4.Customer . . . 24
AssignmentSysDev4.EconomyCancel
A 'ConcreteStrategy' class This stragegy class allows an Economy ticket's purchase price to be refunded if it is cancelled within 24 hours of purchase. . . . 26
AssignmentSysDev4.EmbraerE175 . . . 27
AssignmentSysDev4.Employee . . . 27
AssignmentSysDev4.Flight . . . 28
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AssignmentSysDev4.IPlane
Here we use the Factory design pattern to create planes. Each plane has a model, we allow the use of a simple integer model number. In a full system, planes would likely be picked from a list based on a database table. 32
AssignmentSysDev4.Plane.IPlane 33
AssignmentSysDev4.Plane 33
AssignmentSysDev4.PlaneCreator
This Creator class uses a FactoryMethod to determine what type of plane object to set up. . . 34
AssignmentSysDev4.PremiumEconomyCancel
A 'ConcreteStrategy' class This strategy class allows a Premium Economy ticket's price to be refunded if the ticket is cancelled within 48 hours of purchase 34
AssignmentSysDev4.PrimitiveElement
Flights can be primitive elements within the use of the composite pattern. This is because we wish to make lists of flights that offer alternative connections based on times, stopover times, etc. so customers have choices. 35
AssignmentSysDev4.Program 36
AssignmentSysDev4.Ticket
The ticket class employs different cancellation strategies, set up in individual classes The use of the stragegy pattern for this would, potentially, allow other characteristics of the different ticket classes to be set up. 37

Chapter 4

File Index

4.1 File List

Here is a list of all files with brief descriptions:

G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Account.cs** . . 39
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Airline.cs** . . . 39
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Airport.cs** . . 39
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Brand.cs** . . . 40
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Customer.cs** . 40
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Employee.cs** . 40
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Flight.cs** . . . 40
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**FlightClass.cs** 41
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Plane.cs** . . . 41
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Plane↩ Creator.cs** . . . 42
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Program.cs** . 42
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Ticket.cs** . . . 42
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/obj/Debug/**Temporary↩ GeneratedFile_036C0B5B-1481-4323-8D20-8F5ADCB23D92.cs** . . . 41
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/obj/Debug/**Temporary↩ GeneratedFile_5937a670-0e60-4077-877b-f7221da3dda1.cs** . . . 41
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/obj/Debug/**Temporary↩ GeneratedFile_E7A71F73-0F8D-4B9B-B56E-8E70B10BC5D3.cs** . . . 41
G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Properties/**Assembly↩ Info.cs** . . . 42

Chapter 5

Namespace Documentation

5.1 AssignmentSysDev4 Namespace Reference

Classes

- class **Account**
- class **AirbusA319100**
- class **AirbusA330300**
- class **Airline**
- class **Airport**
- class **Boeing767300ER**
- class **Boeing777200LR**
- class **Boeing777300ER**

  *This class defines a plane which extends the **IPlane** (p. 32) interface; other plane classes in this file have the same basic code, the different model numbers are specified for each one. This makes it possible to add more individual properties unique to a model of plane.*
- class **Boeing7878**
- class **Boeing7879**
- class **BombardierCRJ200**
- class **BombardierCRJ705**
- class **BombardierQ400**
- class **Brand**
- class **BusinessClassCancel**

  A 'ConcreteStrategy' class This strategy class allows the purchase price of Business class tickets to be refunded if the ticket is cancelled within 96 hours, i.e. four days of puchase
- class **CancelStrategy**
- class **CompositeElement**

  Flights can also be used as Composite elements because one flight might be 'fixed', i.e. the customer has a narrow window of possible departure times at some point in their journey, but the primitive elements added to the list of the Composite element will be flights that are possible connections. The Composite pattern is used here because it allows for this kind of things, i.e. having a list of items with associated branches or 'leaf' items, and having the data grouped this way for flights will allow the system to show alternative flights to complete a journey.
- class **Customer**
- class **EconomyCancel**

  A 'ConcreteStrategy' class This stragegy class allows an Economy ticket's purchase price to be refunded if it is cancelled within 24 hours of purchase.
- class **EmbraerE175**
- class **Employee**
- class **Flight**
- class **FlightClass**

- interface **IPlane**

  Here we use the Factory design pattern to create planes. Each plane has a model, we allow the use of a simple integer model number. In a full system, planes would likely be picked from a list based on a database table.
- class **Plane**
- class **PlaneCreator**

  This Creator class uses a FactoryMethod to determine what type of plane object to set up.
- class **PremiumEconomyCancel**

  A 'ConcreteStrategy' class This strategy class allows a Premium Economy ticket's price to be refunded if the ticket is cancelled within 48 hours of purchase.
- class **PrimitiveElement**

  Flights can be primitive elements within the use of the composite pattern. This is because we wish to make lists of flights that offer alternative connections based on times, stopover times, etc. so customers have choices.
- class **Program**
- class **Ticket**

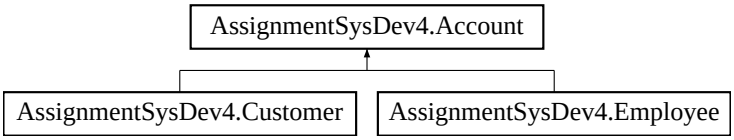
  The ticket class employs different cancellation strategies, set up in individual classes The use of the stragegy pattern for this would, potentially, allow other characteristics of the different ticket classes to be set up.

Chapter 6

Class Documentation

6.1 AssignmentSysDev4.Account Class Reference

Inheritance diagram for AssignmentSysDev4.Account:



Classes

- class **CustomerViewAccount**
- class **EmployeeViewAccount**
- class **Facade**

  A Facade is used here to allow Employees to see Detailed information about accounts, while customers have their own view of their account. This will allow the system to do things like allowing employees to simulate a customer's view and see data only to be shared with employees.

Public Member Functions

- void **ViewAccountInfo** (bool employeeInd, bool delinquentStatus)
- void **UpdateAccount** ()

Properties

- **Ticket Ticket1** `[get, set]`
- bool **Delinquent** `[get, set]`
- bool **EmployeeInd** `[get, set]`

6.1.1 Detailed Description

Definition at line 8 of file Account.cs.

6.1.2 Member Function Documentation

6.1.2.1 void AssignmentSysDev4.Account.UpdateAccount ( )

Definition at line 124 of file Account.cs.

6.1.2.2 void AssignmentSysDev4.Account.ViewAccountInfo (bool *employeeInd,* bool *delinquentStatus*)

Definition at line 53 of file Account.cs.

6.1.3 Property Documentation

6.1.3.1 bool AssignmentSysDev4.Account.Delinquent [get],[set]

Definition at line 31 of file Account.cs.

6.1.3.2 bool AssignmentSysDev4.Account.EmployeeInd [get],[set]

Definition at line 41 of file Account.cs.

6.1.3.3 Ticket AssignmentSysDev4.Account.Ticket1 [get],[set]

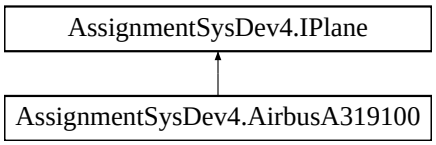
Definition at line 20 of file Account.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Account.cs**

6.2 AssignmentSysDev4.AirbusA319100 Class Reference

Inheritance diagram for AssignmentSysDev4.AirbusA319100:



Public Member Functions

- string **GetModel** ()

6.2.1 Detailed Description

Definition at line 135 of file PlaneCreator.cs.

6.2.2 Member Function Documentation

6.2.2.1 string AssignmentSysDev4.AirbusA319100.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

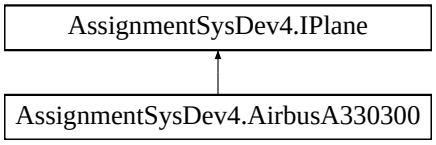
Definition at line 139 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.3 AssignmentSysDev4.AirbusA330300 Class Reference

Inheritance diagram for AssignmentSysDev4.AirbusA330300:



Public Member Functions

- string **GetModel** ()

6.3.1 Detailed Description

Definition at line 51 of file PlaneCreator.cs.

6.3.2 Member Function Documentation

6.3.2.1 string AssignmentSysDev4.AirbusA330300.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

Definition at line 55 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.4 AssignmentSysDev4.Airline Class Reference

Public Member Functions

- void **AddAirline** ()
- void **ViewAirline** ()
- void **UpdateAirline** ()
- void **DeleteAirline** ()
- void **AddBrand** (**Brand** brandName)
- void **ViewBrand** ()
- void **UpdateBrand** ()
- void **DeleteBrand** ()

Static Public Member Functions

- static **Airline AirlineInstatnce** ()

Properties

- **Brand Brand** `[get, set]`

6.4.1 Detailed Description

Definition at line 8 of file Airline.cs.

6.4.2 Member Function Documentation

6.4.2.1 void AssignmentSysDev4.Airline.AddAirline ( )

Definition at line 38 of file Airline.cs.

6.4.2.2 void AssignmentSysDev4.Airline.AddBrand (Brand *brandName*)

Definition at line 58 of file Airline.cs.

6.4.2.3 static Airline AssignmentSysDev4.Airline.AirlineInstatnce ( ) `[static]`

Definition at line 17 of file Airline.cs.

6.4.2.4 void AssignmentSysDev4.Airline.DeleteAirline ( )

Definition at line 53 of file Airline.cs.

6.4.2.5 void AssignmentSysDev4.Airline.DeleteBrand ( )

Definition at line 74 of file Airline.cs.

6.4.2.6 void AssignmentSysDev4.Airline.UpdateAirline ( )

Definition at line 48 of file Airline.cs.

6.4.2.7 void AssignmentSysDev4.Airline.UpdateBrand ( )

Definition at line 69 of file Airline.cs.

6.4.2.8 void AssignmentSysDev4.Airline.ViewAirline ( )

Definition at line 43 of file Airline.cs.

6.4.2.9 void AssignmentSysDev4.Airline.ViewBrand ( )

Definition at line 64 of file Airline.cs.

6.4.3 Property Documentation

6.4.3.1 Brand AssignmentSysDev4.Airline.Brand [get],[set]

Definition at line 28 of file Airline.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Airline.cs**

6.5 AssignmentSysDev4.Airport Class Reference

Public Member Functions

- void **AddNewTerminal** ()
- void **ViewAirport** ()
- void **DeleteAirport** ()
- void **UpdateAirport** ()

6.5.1 Detailed Description

Definition at line 8 of file Airport.cs.

6.5.2 Member Function Documentation

6.5.2.1 void AssignmentSysDev4.Airport.AddNewTerminal ( )

Definition at line 14 of file Airport.cs.

6.5.2.2 void AssignmentSysDev4.Airport.DeleteAirport ( )

Definition at line 24 of file Airport.cs.

6.5.2.3 void AssignmentSysDev4.Airport.UpdateAirport ( )

Definition at line 29 of file Airport.cs.

6.5.2.4 void AssignmentSysDev4.Airport.ViewAirport ( )

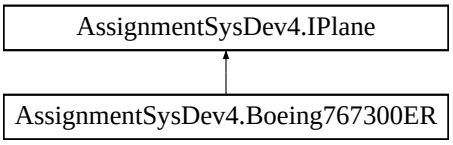
Definition at line 19 of file Airport.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Airport.cs**

6.6 AssignmentSysDev4.Boeing767300ER Class Reference

Inheritance diagram for AssignmentSysDev4.Boeing767300ER:



Public Member Functions

- string **GetModel** ()

6.6.1 Detailed Description

Definition at line 125 of file PlaneCreator.cs.

6.6.2 Member Function Documentation

6.6.2.1 string AssignmentSysDev4.Boeing767300ER.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

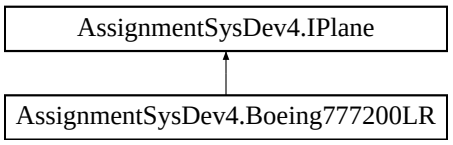
Definition at line 129 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.7 AssignmentSysDev4.Boeing777200LR Class Reference

Inheritance diagram for AssignmentSysDev4.Boeing777200LR:



Public Member Functions

- string **GetModel** ()

6.7.1 Detailed Description

Definition at line 41 of file PlaneCreator.cs.

6.7.2 Member Function Documentation

6.7.2.1 string AssignmentSysDev4.Boeing777200LR.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

Definition at line 45 of file PlaneCreator.cs.

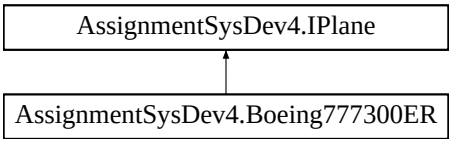
The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.8 AssignmentSysDev4.Boeing777300ER Class Reference

This class defines a plane which extends the **IPlane** (p. 32) interface; other plane classes in this file have the same basic code, the different model numbers are specified for each one. This makes it possible to add more individual properties unique to a model of plane.

Inheritance diagram for AssignmentSysDev4.Boeing777300ER:



Public Member Functions

- string **GetModel** ()

6.8.1 Detailed Description

This class defines a plane which extends the **IPlane** (p. 32) interface; other plane classes in this file have the same basic code, the different model numbers are specified for each one. This makes it possible to add more individual properties unique to a model of plane.

Definition at line 30 of file PlaneCreator.cs.

6.8.2 Member Function Documentation

6.8.2.1 string AssignmentSysDev4.Boeing777300ER.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

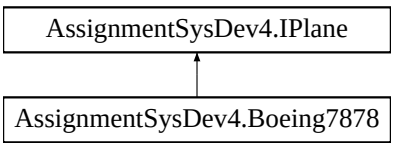
Definition at line 34 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.9 AssignmentSysDev4.Boeing7878 Class Reference

Inheritance diagram for AssignmentSysDev4.Boeing7878:



Public Member Functions

- string **GetModel** ()

6.9.1 Detailed Description

Definition at line 73 of file PlaneCreator.cs.

6.9.2 Member Function Documentation

6.9.2.1 string AssignmentSysDev4.Boeing7878.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

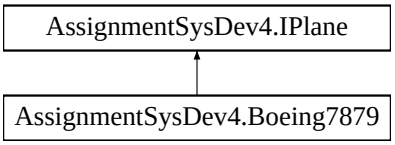
Definition at line 77 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.10 AssignmentSysDev4.Boeing7879 Class Reference

Inheritance diagram for AssignmentSysDev4.Boeing7879:



Public Member Functions

- string **GetModel** ()

6.10.1 Detailed Description

Definition at line 62 of file PlaneCreator.cs.

6.10.2 Member Function Documentation

6.10.2.1 string AssignmentSysDev4.Boeing7879.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

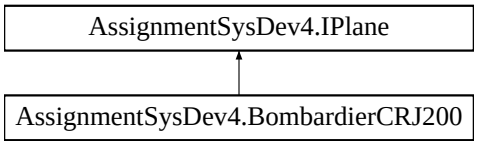
Definition at line 66 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.11 AssignmentSysDev4.BombardierCRJ200 Class Reference

Inheritance diagram for AssignmentSysDev4.BombardierCRJ200:



Public Member Functions

- string **GetModel** ()

6.11.1 Detailed Description

Definition at line 104 of file PlaneCreator.cs.

6.11.2 Member Function Documentation

6.11.2.1 string AssignmentSysDev4.BombardierCRJ200.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

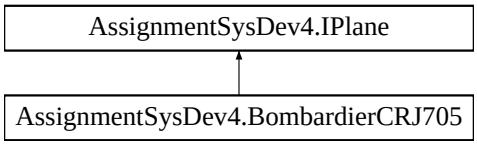
Definition at line 108 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.12 AssignmentSysDev4.BombardierCRJ705 Class Reference

Inheritance diagram for AssignmentSysDev4.BombardierCRJ705:



Public Member Functions

- string **GetModel** ()

6.12.1 Detailed Description

Definition at line 94 of file PlaneCreator.cs.

6.12.2 Member Function Documentation

6.12.2.1 string AssignmentSysDev4.BombardierCRJ705.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

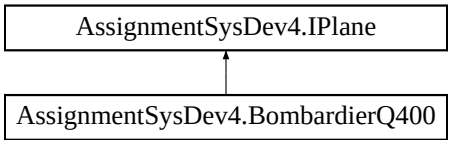
Definition at line 98 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.13 AssignmentSysDev4.BombardierQ400 Class Reference

Inheritance diagram for AssignmentSysDev4.BombardierQ400:



Public Member Functions

- string **GetModel** ()

6.13.1 Detailed Description

Definition at line 114 of file PlaneCreator.cs.

6.13.2 Member Function Documentation

6.13.2.1 string AssignmentSysDev4.BombardierQ400.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

Definition at line 118 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.14 AssignmentSysDev4.Brand Class Reference

Public Member Functions

- void **AddBrand** ()
- void **UpdateBrand** ()
- void **DeleteBrand** ()
- void **ViewBrand** ()
- void **AddPlane** ()
- void **AddPlanes** (int modelNumber, int numberToAdd)

*Here we will take a modelNumber and a number of planes to add to a **Brand** (p. 20). Then we can use methods defined in the **PlaneCreator** (p. 34) class to add those planes to the brand. **PlaneCreator** (p. 34) will use the Factory method.*

- void **ViewPlane** ()
- void **UpdatePlane** ()
- void **DeletePlane** ()

Properties

- string **Name** `[get, set]`

6.14.1 Detailed Description

Definition at line 8 of file Brand.cs.

6.14.2 Member Function Documentation

6.14.2.1 void AssignmentSysDev4.Brand.AddBrand ( )

Definition at line 20 of file Brand.cs.

6.14.2.2 void AssignmentSysDev4.Brand.AddPlane ( )

Definition at line 40 of file Brand.cs.

6.14.2.3 void AssignmentSysDev4.Brand.AddPlanes (int *modelNumber,* int *numberToAdd*)

Here we will take a modelNumber and a number of planes to add to a **Brand** (p. 20). Then we can use methods defined in the **PlaneCreator** (p. 34) class to add those planes to the brand. **PlaneCreator** (p. 34) will use the Factory method.

Parameters

modelNumber	
numberToAdd	

Definition at line 52 of file Brand.cs.

6.14.2.4 void AssignmentSysDev4.Brand.DeleteBrand ( )

Definition at line 30 of file Brand.cs.

6.14.2.5 void AssignmentSysDev4.Brand.DeletePlane ( )

Definition at line 72 of file Brand.cs.

6.14.2.6 void AssignmentSysDev4.Brand.UpdateBrand ( )

Definition at line 25 of file Brand.cs.

6.14.2.7 void AssignmentSysDev4.Brand.UpdatePlane ( )

Definition at line 67 of file Brand.cs.

6.14.2.8 void AssignmentSysDev4.Brand.ViewBrand ( )

Definition at line 35 of file Brand.cs.

6.14.2.9 void AssignmentSysDev4.Brand.ViewPlane ( )

Definition at line 62 of file Brand.cs.

6.14.3 Property Documentation

6.14.3.1 string AssignmentSysDev4.Brand.Name [get],[set]

Definition at line 14 of file Brand.cs.

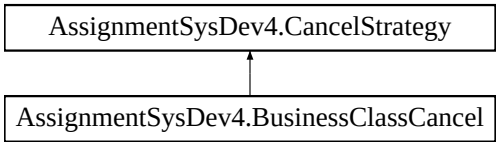
The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Brand.cs**

6.15 AssignmentSysDev4.BusinessClassCancel Class Reference

A 'ConcreteStrategy' class This strategy class allows the purchase price of Business class tickets to be refunded if the ticket is cancelled within 96 hours, i.e. four days of puchase

Inheritance diagram for AssignmentSysDev4.BusinessClassCancel:



Public Member Functions

- override bool **Cancel** (**Ticket** ticketToCancel)

6.15.1 Detailed Description

A 'ConcreteStrategy' class This strategy class allows the purchase price of Business class tickets to be refunded if the ticket is cancelled within 96 hours, i.e. four days of puchase

Definition at line 110 of file Ticket.cs.

6.15.2 Member Function Documentation

6.15.2.1 override bool AssignmentSysDev4.BusinessClassCancel.Cancel (Ticket *ticketToCancel*) [virtual]

Implements **AssignmentSysDev4.CancelStrategy** (p. 23).

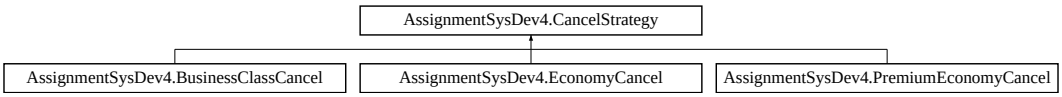
Definition at line 112 of file Ticket.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Ticket.cs**

6.16 AssignmentSysDev4.CancelStrategy Class Reference

Inheritance diagram for AssignmentSysDev4.CancelStrategy:



Public Member Functions

- abstract bool **Cancel** (**Ticket** ticketToCancel)

6.16.1 Detailed Description

Definition at line 49 of file Ticket.cs.

6.16.2 Member Function Documentation

6.16.2.1 abstract bool AssignmentSysDev4.CancelStrategy.Cancel (Ticket *ticketToCancel*) [pure virtual]

Implemented in **AssignmentSysDev4.BusinessClassCancel** (p. 22), **AssignmentSysDev4.PremiumEconomyCancel** (p. 35), and **AssignmentSysDev4.EconomyCancel** (p. 26).

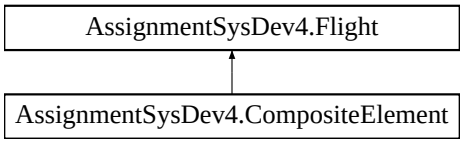
The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Ticket.cs**

6.17 AssignmentSysDev4.CompositeElement Class Reference

Flights can also be used as Composite elements because one flight might be 'fixed', i.e. the customer has a narrow window of possible departure times at some point in their journey, but the primitive elements added to the list of the Composite element will be flights that are possible connections. The Composite pattern is used here because it allows for this kind of things, i.e. having a list of items with associated branches or 'leaf' items, and having the data grouped this way for flights will allow the system to show alternative flights to complete a journey.

Inheritance diagram for AssignmentSysDev4.CompositeElement:



Public Member Functions

- **CompositeElement** (**Flight** baseFlight)
- override void **Add** (**Flight** newConnection)
- override void **Remove** (**Flight** oldConnection)
- override void **Display** (int indent)

Additional Inherited Members

6.17.1 Detailed Description

Flights can also be used as Composite elements because one flight might be 'fixed', i.e. the customer has a narrow window of possible departure times at some point in their journey, but the primitive elements added to the list of the Composite element will be flights that are possible connections. The Composite pattern is used here because it allows for this kind of things, i.e. having a list of items with associated branches or 'leaf' items, and having the data grouped this way for flights will allow the system to show alternative flights to complete a journey.

Definition at line 154 of file Flight.cs.

6.17.2 Constructor & Destructor Documentation

6.17.2.1 AssignmentSysDev4.CompositeElement.CompositeElement (Flight *baseFlight*)

Definition at line 160 of file Flight.cs.

6.17.3 Member Function Documentation

6.17.3.1 override void AssignmentSysDev4.CompositeElement.Add (Flight *newConnection*) [virtual]

Reimplemented from **AssignmentSysDev4.Flight** (p. 29).

Definition at line 166 of file Flight.cs.

6.17.3.2 override void AssignmentSysDev4.CompositeElement.Display (int *indent*) [virtual]

Reimplemented from **AssignmentSysDev4.Flight** (p. 30).

Definition at line 176 of file Flight.cs.

6.17.3.3 override void AssignmentSysDev4.CompositeElement.Remove (Flight *oldConnection*) [virtual]

Reimplemented from **AssignmentSysDev4.Flight** (p. 30).

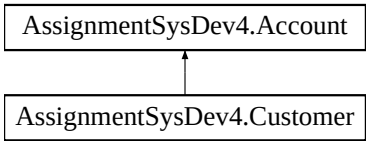
Definition at line 171 of file Flight.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Flight.cs**

6.18 AssignmentSysDev4.Customer Class Reference

Inheritance diagram for AssignmentSysDev4.Customer:



Public Member Functions

- void **QueryFlightSchedual** ()
- void **ReserveTicket** ()
- void **PurchaseTicket** ()
- void **CancelTicket** ()
- void **UpgradeTicket** ()
- void **ChangeSeatLocation** ()
- void **ViewFlightHistory** ()
- void **CreateAccount** ()
- void **ViewFlight** ()
- void **CreateCustomerAccount** ()
- void **CreatePotentionalCustomerAccount** ()

Additional Inherited Members

6.18.1 Detailed Description

Definition at line 8 of file Customer.cs.

6.18.2 Member Function Documentation

6.18.2.1 void AssignmentSysDev4.Customer.CancelTicket ( )

Definition at line 26 of file Customer.cs.

6.18.2.2 void AssignmentSysDev4.Customer.ChangeSeatLocation ( )

Definition at line 36 of file Customer.cs.

6.18.2.3 void AssignmentSysDev4.Customer.CreateAccount ( )

Definition at line 46 of file Customer.cs.

6.18.2.4 void AssignmentSysDev4.Customer.CreateCustomerAccount ( )

Definition at line 56 of file Customer.cs.

6.18.2.5 void AssignmentSysDev4.Customer.CreatePotentionalCustomerAccount ( )

Definition at line 61 of file Customer.cs.

6.18.2.6 void AssignmentSysDev4.Customer.PurchaseTicket ( )

Definition at line 21 of file Customer.cs.

6.18.2.7 void AssignmentSysDev4.Customer.QueryFlightSchedual ( )

Definition at line 11 of file Customer.cs.

6.18.2.8 void AssignmentSysDev4.Customer.ReserveTicket ( )

Definition at line 16 of file Customer.cs.

6.18.2.9 void AssignmentSysDev4.Customer.UpgradeTicket ( )

Definition at line 31 of file Customer.cs.

6.18.2.10 void AssignmentSysDev4.Customer.ViewFlight ( )

Definition at line 51 of file Customer.cs.

6.18.2.11 void AssignmentSysDev4.Customer.ViewFlightHistory ( )

Definition at line 41 of file Customer.cs.

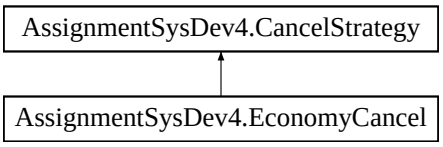
The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Customer.cs**

6.19 AssignmentSysDev4.EconomyCancel Class Reference

A 'ConcreteStrategy' class This stragegy class allows an Economy ticket's purchase price to be refunded if it is cancelled within 24 hours of purchase.

Inheritance diagram for AssignmentSysDev4.EconomyCancel:



Public Member Functions

- override bool **Cancel** (**Ticket** ticketToCancel)

6.19.1 Detailed Description

A 'ConcreteStrategy' class This stragegy class allows an Economy ticket's purchase price to be refunded if it is cancelled within 24 hours of purchase.

Definition at line 58 of file Ticket.cs.

6.19.2 Member Function Documentation

6.19.2.1 override bool AssignmentSysDev4.EconomyCancel.Cancel (**Ticket** *ticketToCancel*) [virtual]

Implements **AssignmentSysDev4.CancelStrategy** (p. 23).

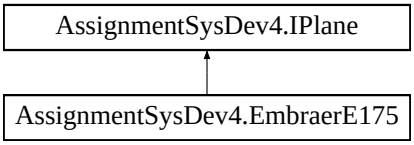
Definition at line 60 of file Ticket.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Ticket.cs**

6.20 AssignmentSysDev4.EmbraerE175 Class Reference

Inheritance diagram for AssignmentSysDev4.EmbraerE175:



Public Member Functions

- string **GetModel** ()

6.20.1 Detailed Description

Definition at line 84 of file PlaneCreator.cs.

6.20.2 Member Function Documentation

6.20.2.1 string AssignmentSysDev4.EmbraerE175.GetModel ( )

Implements **AssignmentSysDev4.IPlane** (p. 32).

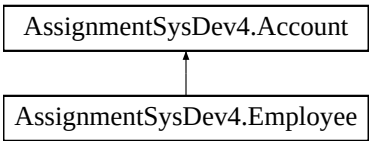
Definition at line 88 of file PlaneCreator.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.21 AssignmentSysDev4.Employee Class Reference

Inheritance diagram for AssignmentSysDev4.Employee:



Public Member Functions

- void **AddPlane** ()
- void **AddClassFlight** ()
- void **SchedulaFlight** ()
- void **AddAirCraft** ()
- void **AddFlight** ()
- void **CreateEmployeeAccount** ()

Additional Inherited Members

6.21.1 Detailed Description

Definition at line 11 of file Employee.cs.

6.21.2 Member Function Documentation

6.21.2.1 void AssignmentSysDev4.Employee.AddAirCraft ( )

Definition at line 28 of file Employee.cs.

6.21.2.2 void AssignmentSysDev4.Employee.AddClassFlight ( )

Definition at line 18 of file Employee.cs.

6.21.2.3 void AssignmentSysDev4.Employee.AddFlight ( )

Definition at line 33 of file Employee.cs.

6.21.2.4 void AssignmentSysDev4.Employee.AddPlane ( )

Definition at line 13 of file Employee.cs.

6.21.2.5 void AssignmentSysDev4.Employee.CreateEmployeeAccount ( )

Definition at line 38 of file Employee.cs.

6.21.2.6 void AssignmentSysDev4.Employee.SchedulaFlight ( )

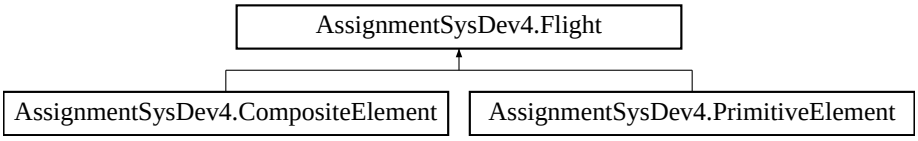
Definition at line 23 of file Employee.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Employee.cs**

6.22 AssignmentSysDev4.Flight Class Reference

Inheritance diagram for AssignmentSysDev4.Flight:



Public Member Functions

- virtual void **Add** (**Flight** newFlight)
- virtual void **Remove** (**Flight** newFlight)

- virtual void **Display** (int indent)
- void **ViewFlight** ()
- void **DeleteFlight** ()
- void **UpdateFlight** ()
- void **AddFlight** ()
- void **AddFlightClass** ()
- void **UpdateFlightClass** ()
- void **DeleteFlightClass** ()
- void **UpdateAirport** ()

Public Attributes

- string **name**

Properties

- **FlightClass FlightClass** `[get, set]`
- string **FlightNumber** `[get, set]`
- **Airport Airport** `[get, set]`

6.22.1 Detailed Description

Definition at line 8 of file Flight.cs.

6.22.2 Member Function Documentation

6.22.2.1 virtual void AssignmentSysDev4.Flight.Add (Flight *newFlight*) `[virtual]`

Reimplemented in **AssignmentSysDev4.CompositeElement** (p. 24), and **AssignmentSysDev4.PrimitiveElement** (p. 36).

Definition at line 20 of file Flight.cs.

6.22.2.2 void AssignmentSysDev4.Flight.AddFlight ( )

Definition at line 74 of file Flight.cs.

6.22.2.3 void AssignmentSysDev4.Flight.AddFlightClass ( )

Definition at line 80 of file Flight.cs.

6.22.2.4 void AssignmentSysDev4.Flight.DeleteFlight ( )

Definition at line 63 of file Flight.cs.

6.22.2.5 void AssignmentSysDev4.Flight.DeleteFlightClass ( )

Definition at line 94 of file Flight.cs.

6.22.2.6 virtual void AssignmentSysDev4.Flight.Display (int *indent*) [virtual]

Reimplemented in **AssignmentSysDev4.CompositeElement** (p. 24), and **AssignmentSysDev4.PrimitiveElement** (p. 36).

Definition at line 23 of file Flight.cs.

6.22.2.7 virtual void AssignmentSysDev4.Flight.Remove (Flight *newFlight*) [virtual]

Reimplemented in **AssignmentSysDev4.CompositeElement** (p. 24), and **AssignmentSysDev4.PrimitiveElement** (p. 36).

Definition at line 21 of file Flight.cs.

6.22.2.8 void AssignmentSysDev4.Flight.UpdateAirport ( )

Definition at line 101 of file Flight.cs.

6.22.2.9 void AssignmentSysDev4.Flight.UpdateFlight ( )

Definition at line 68 of file Flight.cs.

6.22.2.10 void AssignmentSysDev4.Flight.UpdateFlightClass ( )

Definition at line 87 of file Flight.cs.

6.22.2.11 void AssignmentSysDev4.Flight.ViewFlight ( )

Definition at line 58 of file Flight.cs.

6.22.3 Member Data Documentation

6.22.3.1 string AssignmentSysDev4.Flight.name

Definition at line 17 of file Flight.cs.

6.22.4 Property Documentation

6.22.4.1 Airport AssignmentSysDev4.Flight.Airport [get], [set]

Definition at line 48 of file Flight.cs.

6.22.4.2 FlightClass AssignmentSysDev4.Flight.FlightClass [get], [set]

Definition at line 25 of file Flight.cs.

6.22.4.3 string AssignmentSysDev4.Flight.FlightNumber [get], [set]

Definition at line 36 of file Flight.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Flight.cs**

6.23 AssignmentSysDev4.FlightClass Class Reference

Public Member Functions

- void **AddNewFlightClass** ()
- void **UpdateFlightClass** ()
- void **ViewFlightClass** ()
- void **DeleteFlightClass** ()

Properties

- **Ticket Ticket** `[get, set]`
- **Ticket Ticket1** `[get, set]`

6.23.1 Detailed Description

Definition at line 8 of file FlightClass.cs.

6.23.2 Member Function Documentation

6.23.2.1 void AssignmentSysDev4.FlightClass.AddNewFlightClass ( )

Definition at line 34 of file FlightClass.cs.

6.23.2.2 void AssignmentSysDev4.FlightClass.DeleteFlightClass ( )

Definition at line 49 of file FlightClass.cs.

6.23.2.3 void AssignmentSysDev4.FlightClass.UpdateFlightClass ( )

Definition at line 39 of file FlightClass.cs.

6.23.2.4 void AssignmentSysDev4.FlightClass.ViewFlightClass ( )

Definition at line 44 of file FlightClass.cs.

6.23.3 Property Documentation

6.23.3.1 Ticket AssignmentSysDev4.FlightClass.Ticket `[get],[set]`

Definition at line 13 of file FlightClass.cs.

6.23.3.2 Ticket AssignmentSysDev4.FlightClass.Ticket1 `[get],[set]`

Definition at line 24 of file FlightClass.cs.

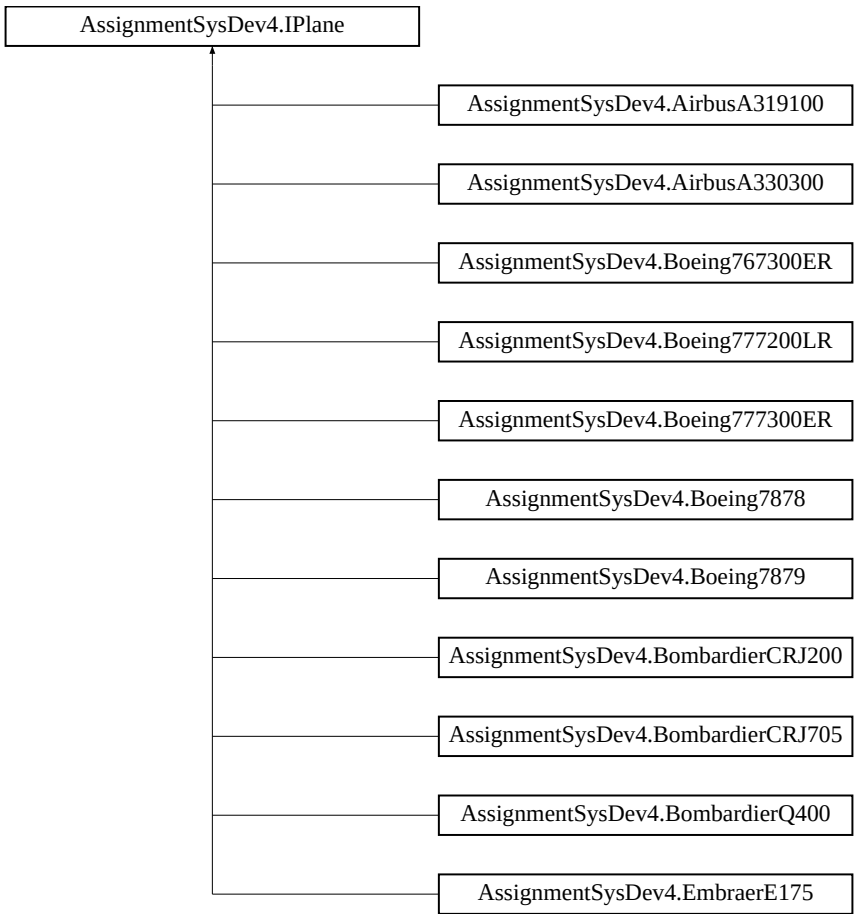
The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**FlightClass.cs**

6.24 AssignmentSysDev4.IPlane Interface Reference

Here we use the Factory design pattern to create planes. Each plane has a model, we allow the use of a simple integer model number. In a full system, planes would likely be picked from a list based on a database table.

Inheritance diagram for AssignmentSysDev4.IPlane:



Public Member Functions

- string **GetModel** ()

6.24.1 Detailed Description

Here we use the Factory design pattern to create planes. Each plane has a model, we allow the use of a simple integer model number. In a full system, planes would likely be picked from a list based on a database table.

Definition at line 15 of file PlaneCreator.cs.

6.24.2 Member Function Documentation

6.24.2.1 string AssignmentSysDev4.IPlane.GetModel ( )

Implemented in **AssignmentSysDev4.AirbusA319100** (p. 13), **AssignmentSysDev4.Boeing767300E↩R** (p. 16), **AssignmentSysDev4.BombardierQ400** (p. 20), **AssignmentSysDev4.BombardierCRJ200** (p. 19), **AssignmentSysDev4.BombardierCRJ705** (p. 20), **AssignmentSysDev4.EmbraerE175** (p. 27), **Assignment↩**

SysDev4.Boeing7878 (p. 18), **AssignmentSysDev4.Boeing7879** (p. 18), **AssignmentSysDev4.AirbusA330300** (p. 13), **AssignmentSysDev4.Boeing777200LR** (p. 16), and **AssignmentSysDev4.Boeing777300ER** (p. 17).

The documentation for this interface was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.25 AssignmentSysDev4.Plane.IPlane Interface Reference

Public Member Functions

- string **GetModel** ()

6.25.1 Detailed Description

Definition at line 15 of file Plane.cs.

6.25.2 Member Function Documentation

6.25.2.1 string AssignmentSysDev4.Plane.IPlane.GetModel ( )

The documentation for this interface was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Plane.cs**

6.26 AssignmentSysDev4.Plane Class Reference

Classes

- interface **IPlane**

Public Member Functions

- void **ViewPlane** ()
- void **UpdatePlane** ()
- void **DeletePlane** ()
- void **AddPlane** (int modelNumber)

Properties

- **Flight Flight** `[get, set]`

6.26.1 Detailed Description

Definition at line 8 of file Plane.cs.

6.26.2 Member Function Documentation

6.26.2.1 void AssignmentSysDev4.Plane.AddPlane (int *modelNumber*)

Definition at line 49 of file Plane.cs.

6.26.2.2 void AssignmentSysDev4.Plane.DeletePlane ( )

Definition at line 44 of file Plane.cs.

6.26.2.3 void AssignmentSysDev4.Plane.UpdatePlane ( )

Definition at line 39 of file Plane.cs.

6.26.2.4 void AssignmentSysDev4.Plane.ViewPlane ( )

Definition at line 34 of file Plane.cs.

6.26.3 Property Documentation

6.26.3.1 Flight AssignmentSysDev4.Plane.Flight [get],[set]

Definition at line 24 of file Plane.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Plane.cs**

6.27 AssignmentSysDev4.PlaneCreator Class Reference

This Creator class uses a FactoryMethod to determine what type of plane object to set up.

Public Member Functions

- **IPlane FactoryMethod** (int modelNumber)

6.27.1 Detailed Description

This Creator class uses a FactoryMethod to determine what type of plane object to set up.

Definition at line 149 of file PlaneCreator.cs.

6.27.2 Member Function Documentation

6.27.2.1 IPlane AssignmentSysDev4.PlaneCreator.FactoryMethod (int *modelNumber*)

Definition at line 151 of file PlaneCreator.cs.

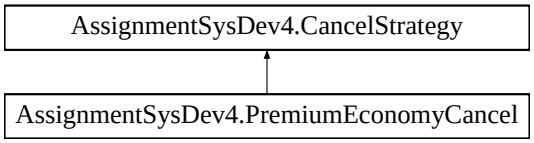
The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**PlaneCreator.cs**

6.28 AssignmentSysDev4.PremiumEconomyCancel Class Reference

A 'ConcreteStrategy' class This strategy class allows a Premium Economy ticket's price to be refunded if the ticket is cancelled within 48 hours of purchase.

Inheritance diagram for AssignmentSysDev4.PremiumEconomyCancel:



Public Member Functions

- override bool **Cancel** (**Ticket** ticketToCancel)

6.28.1 Detailed Description

A 'ConcreteStrategy' class This strategy class allows a Premium Economy ticket's price to be refunded if the ticket is cancelled within 48 hours of purchase.

Definition at line 85 of file Ticket.cs.

6.28.2 Member Function Documentation

6.28.2.1 override bool AssignmentSysDev4.PremiumEconomyCancel.Cancel (Ticket *ticketToCancel*) [virtual]

Implements **AssignmentSysDev4.CancelStrategy** (p. 23).

Definition at line 87 of file Ticket.cs.

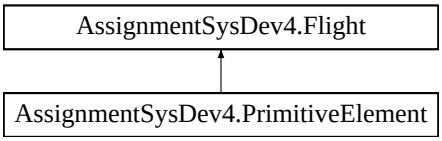
The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Ticket.cs**

6.29 AssignmentSysDev4.PrimitiveElement Class Reference

Flights can be primitive elements within the use of the composite pattern. This is because we wish to make lists of flights that offer alternative connections based on times, stopover times, etc. so customers have choices.

Inheritance diagram for AssignmentSysDev4.PrimitiveElement:



Public Member Functions

- **PrimitiveElement** (**Flight** newFlight)
- override void **Add** (**Flight** newFlight)
- override void **Remove** (**Flight** wrongFlight)
- override void **Display** (int indent)

Additional Inherited Members

6.29.1 Detailed Description

Flights can be primitive elements within the use of the composite pattern. This is because we wish to make lists of flights that offer alternative connections based on times, stopover times, etc. so customers have choices.

Definition at line 116 of file Flight.cs.

6.29.2 Constructor & Destructor Documentation

6.29.2.1 AssignmentSysDev4.PrimitiveElement.PrimitiveElement (Flight *newFlight*)

Definition at line 118 of file Flight.cs.

6.29.3 Member Function Documentation

6.29.3.1 override void AssignmentSysDev4.PrimitiveElement.Add (Flight *newFlight*) [virtual]

Reimplemented from **AssignmentSysDev4.Flight** (p. 29).

Definition at line 124 of file Flight.cs.

6.29.3.2 override void AssignmentSysDev4.PrimitiveElement.Display (int *indent*) [virtual]

Reimplemented from **AssignmentSysDev4.Flight** (p. 30).

Definition at line 136 of file Flight.cs.

6.29.3.3 override void AssignmentSysDev4.PrimitiveElement.Remove (Flight *wrongFlight*) [virtual]

Reimplemented from **AssignmentSysDev4.Flight** (p. 30).

Definition at line 130 of file Flight.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Flight.cs**

6.30 AssignmentSysDev4.Program Class Reference

6.30.1 Detailed Description

An executive employee may want to create a batch of employee Accounts all at once Sometimes companies will hire people for lower level jobs in groups so they can go through orientation and training as a group.

Definition at line 13 of file Program.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Program.cs**

6.31 AssignmentSysDev4.Ticket Class Reference

The ticket class employs different cancellation strategies, set up in individual classes The use of the stragegy pattern for this would, potentially, allow other characteristics of the different ticket classes to be set up.

Public Member Functions

- void **SetCancelStrategy** (**CancelStrategy** cancelstrategy)
- void **Cancel** ()

Properties

- DateTime **PurchaseDate** `[get, set]`

6.31.1 Detailed Description

The ticket class employs different cancellation strategies, set up in individual classes The use of the stragegy pattern for this would, potentially, allow other characteristics of the different ticket classes to be set up.

Definition at line 13 of file Ticket.cs.

6.31.2 Member Function Documentation

6.31.2.1 void AssignmentSysDev4.Ticket.Cancel ( )

Definition at line 26 of file Ticket.cs.

6.31.2.2 void AssignmentSysDev4.Ticket.SetCancelStrategy (CancelStrategy *cancelstrategy*)

Definition at line 20 of file Ticket.cs.

6.31.3 Property Documentation

6.31.3.1 DateTime AssignmentSysDev4.Ticket.PurchaseDate `[get],[set]`

Definition at line 35 of file Ticket.cs.

The documentation for this class was generated from the following file:

- G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/**Ticket.cs**

Chapter 7

File Documentation

7.1 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Account.cs File Reference

Classes

- class **AssignmentSysDev4.Account**
- class **AssignmentSysDev4.Account.CustomerViewAccount**
- class **AssignmentSysDev4.Account.EmployeeViewAccount**
- class **AssignmentSysDev4.Account.Facade**

  A Facade is used here to allow Employees to see Detailed information about accounts, while customers have their own view of their account. This will allow the system to do things like allowing employees to simulate a customer's view and see data only to be shared with employees.

Namespaces

- namespace **AssignmentSysDev4**

7.2 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Airline.cs File Reference

Classes

- class **AssignmentSysDev4.Airline**

Namespaces

- namespace **AssignmentSysDev4**

7.3 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Airport.cs File Reference

Classes

- class **AssignmentSysDev4.Airport**

Namespaces

- namespace **AssignmentSysDev4**

7.4 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Brand.cs File Reference

Classes

- class **AssignmentSysDev4.Brand**

Namespaces

- namespace **AssignmentSysDev4**

7.5 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Customer.cs File Reference

Classes

- class **AssignmentSysDev4.Customer**

Namespaces

- namespace **AssignmentSysDev4**

7.6 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Employee.cs File Reference

Classes

- class **AssignmentSysDev4.Employee**

Namespaces

- namespace **AssignmentSysDev4**

7.7 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Flight.cs File Reference

Classes

- class **AssignmentSysDev4.Flight**
- class **AssignmentSysDev4.PrimitiveElement**

  Flights can be primitive elements within the use of the composite pattern. This is because we wish to make lists of flights that offer alternative connections based on times, stopover times, etc. so customers have choices.

- class **AssignmentSysDev4.CompositeElement**

  Flights can also be used as Composite elements because one flight might be 'fixed', i.e. the customer has a narrow window of possible departure times at some point in their journey, but the primitive elements added to the list of the Composite element will be flights that are possible connections. The Composite pattern is used here because it allows for this kind of things, i.e. having a list of items with associated branches or 'leaf' items, and having the data grouped this way for flights will allow the system to show alternative flights to complete a journey.

Namespaces

- namespace **AssignmentSysDev4**

7.8 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/FlightClass.cs File Reference

Classes

- class **AssignmentSysDev4.FlightClass**

Namespaces

- namespace **AssignmentSysDev4**

7.9 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/obj/Debug/TemporaryGeneratedFile_036C0B5B-1481-4323-8D20-8F5ADCB23D92.cs File Reference

7.10 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/obj/Debug/TemporaryGeneratedFile_5937a670-0e60-4077-877b-f7221da3dda1.cs File Reference

7.11 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/obj/Debug/TemporaryGeneratedFile_E7A71F73-0F8D-4B9B-B56E-8E70B10BC5D3.cs File Reference

7.12 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Plane.cs File Reference

Classes

- class **AssignmentSysDev4.Plane**
- interface **AssignmentSysDev4.Plane.IPlane**

Namespaces

- namespace **AssignmentSysDev4**

7.13 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/PlaneCreator.cs File Reference

Classes

- interface **AssignmentSysDev4.IPlane**

  Here we use the Factory design pattern to create planes. Each plane has a model, we allow the use of a simple integer model number. In a full system, planes would likely be picked from a list based on a database table.
- class **AssignmentSysDev4.Boeing777300ER**

  *This class defines a plane which extends the **IPlane** (p. 32) interface; other plane classes in this file have the same basic code, the different model numbers are specified for each one. This makes it possible to add more individual properties unique to a model of plane.*
- class **AssignmentSysDev4.Boeing777200LR**
- class **AssignmentSysDev4.AirbusA330300**
- class **AssignmentSysDev4.Boeing7879**
- class **AssignmentSysDev4.Boeing7878**
- class **AssignmentSysDev4.EmbraerE175**
- class **AssignmentSysDev4.BombardierCRJ705**
- class **AssignmentSysDev4.BombardierCRJ200**
- class **AssignmentSysDev4.BombardierQ400**
- class **AssignmentSysDev4.Boeing767300ER**
- class **AssignmentSysDev4.AirbusA319100**
- class **AssignmentSysDev4.PlaneCreator**

  This Creator class uses a FactoryMethod to determine what type of plane object to set up.

Namespaces

- namespace **AssignmentSysDev4**

7.14 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Program.cs File Reference

Classes

- class **AssignmentSysDev4.Program**

Namespaces

- namespace **AssignmentSysDev4**

7.15 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Properties/AssemblyInfo.cs File Reference

7.16 G:/INFO8240 - Systems Design/Assignment4/AssignmentSysDev4/AssignmentSysDev4/Ticket.cs File Reference

Classes

- class **AssignmentSysDev4.Ticket**

The ticket class employs different cancellation strategies, set up in individual classes The use of the stragegy pattern for this would, potentially, allow other characteristics of the different ticket classes to be set up.

- class **AssignmentSysDev4.CancelStrategy**
- class **AssignmentSysDev4.EconomyCancel**

  A 'ConcreteStrategy' class This stragegy class allows an Economy ticket's purchase price to be refunded if it is cancelled within 24 hours of purchase.
- class **AssignmentSysDev4.PremiumEconomyCancel**

  A 'ConcreteStrategy' class This strategy class allows a Premium Economy ticket's price to be refunded if the ticket is cancelled within 48 hours of purchase.
- class **AssignmentSysDev4.BusinessClassCancel**

  A 'ConcreteStrategy' class This strategy class allows the purchase price of Business class tickets to be refunded if the ticket is cancelled within 96 hours, i.e. four days of puchase

Namespaces

- namespace **AssignmentSysDev4**

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