|  |
| --- |
| **PE – 42TIN1280 Software Analysis 2015 - 2016** |

|  |  |  |  |
| --- | --- | --- | --- |
| ***Docent(s):*** | Luc Doumen, Nathalie Fuchs | | |
| ***Assignment:*** | Create a domain model/ diagram | | |
| ***Due date*** | Week . . . . . . . . . . . . . . . . . . | | |
| ***Type of assignment:*** | Group Assignment (2 – 3) | | |
| ***Student(s)*** | . . . . . . . . . . . . . . . . . . | ***Score:*** | . . . / . . . |
| ***To save as*** | PDF file  Yyyymmmdd – Exercise DomainModel – POS – SurnameName | | |

1. **Learning Objectives:**
   1. . . . . . .
2. **Prerequisites:**
   1. . . . . . .
3. **Assignment:**

The Travel Agency receives a travel reservation request, including airline transportation and hotel reservation, from a Client.

Following research and evaluation of both flights’ and hotel rooms’ availability, selected alternatives are packaged and offered to the Client.

The Client has 24 hours to either select a proposed alternative or cancel the request. In case of a cancellation, or after this delay, the Agency updates the Client record to reflect the request cancellation and the Client is notified.

When a selection is made, the Client is asked to provide the Credit Card information. Again, the Client has 24 hours to provide this information or the request is canceled via the same activities stated before (update and notification).

Having received the Credit Card information, the booking activities take place:

The flight and the hotel room are booked. Measures are taken to insure reservations reversals if problems occur in the booking and payment activities. The Client is also entitled to provide the Agency with Credit Card Information modifications before the booking is completed. Such information will be saved in its record.

If an error arises during the booking activities, the flight and hotel room reservations are reversed and the Client record is updated. The booking is tried again as long as the booking retry limit is not exceeded.

Following successful booking the Reservations are charged on the Client’s Credit Card and the process stops following successful confirmation. If an error occurs during this activity the flight and hotel room reservation are reversed. The Client is asked again for the Credit Card Information and the booking is tried again as long as the payment processing retry limit is not exceeded.

In both cases, following the error, when the retry limit is exceeded, the Client is notified and the process stops.

1. **Model solution: context diagram model**
2. **Model solution: business use case**
   1. **Business use case description**
   2. **Business use case model**
3. **Model solution: domain model**
   1. **Create the business use case description**

|  |  |
| --- | --- |
| **ID version** |  |
| **Summary** |  |
| **Actor(s)** |  |
| **Precondition(s)** |  |
| **Main scenario** |  |
| **Post condition(s)** |  |

* 1. **Underline the nouns**

|  |  |
| --- | --- |
| **ID version** |  |
| **Summary** |  |
| **Actor(s)** |  |
| **Precondition(s)** |  |
| **Main scenario** |  |
| **Post condition(s)** |  |

* 1. **Put in alphabetic order the nouns and count their frequency**
  2. **Determine the domain concepts and their description**

| ***Concept*** | ***Freq.*** | ***Comments*** |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

* 1. **Determine the domain classes**

The domain classes are:

* …
* …
  1. **Draw the first domain class diagram**
  2. **Draw the domain class diagram with multiplicities**