APPENDIX I

USE CASE SPECIFICATIONS for SELECT CRUISES

Please refer to

> Apperly, H., Hofman, R., Latchem, S., Maybank, B., McGibbon, B., Piper, D.
> and Simons, C.L. (2003) *Service and Component-based Development: Using the*
> *Select Perspective and UML*, Pearson Education.

where the Select Cruises case study is laid out on pages 167 to 205. The problem
representation has been applied to the case study and a list of use cases with the
resulting actions and data is as follows:

Use case: *"make booking"*
> Actions:
>> confirmBooking
>>> uses: BookingNumber, CruiseNumber, Membership Number,
>>> VoyageDate, Cost

>> requestMailing
>>> uses: BookingNumber, MailRequestNumber, DateMailRequested

Use case: *"send mailing"*
> Actions:
>> retrieveMailingList
>>> uses: MailRequestNumber, DateMailRequested

>> printLetter
>>> uses: MailRequestNumber, DateMailRequested, BookingNumber

>> recordMailingDate
>>> uses: MailRequestNumber, DateMailRequested

Use case: *"find quote"*

    Actions:

        locateQuote

            uses: QuoteNumber, BookingNumber, DateTransacted.

        verifyReservation

            uses: BookingNumber, DateTransacted

Use case: *"make payment"*

    Actions:

        verifyCreditCardDetails

            uses: MembershipNumber, Name, CardType, CardHolderName,

                IssuingOrganisation, CardNumber, ValidFrom,

                ExpiresEnd

        transactOnLine

            uses: BookingNumber, MembershipNumber, Name,

                DateTransacted, TotalCost,

                InvoiceNumber, DateBalancePaid,

                CreditCardAuthorisationCode

        retrieveAuthorisation

            uses: BookingNumber, MembershipNumber, Name,

                DateTransacted, Total Cost, InvoiceNumber,

                DateBalancePaid, CreditCardAuthorisationCode

    Use case: *"find cruise"*

    Actions:

        retrieveCruiseList

            uses: CruiseNumber

        retrievePassageList

            uses: PassageNumber

retrieveBerthDetails

    uses: BerthNumber, BerthType, BerthDescription

allocateBerthToCustomer

    uses: BookingNumber, BerthNumber, BerthType,

        BookingDate, DateBerthReserved, DateBerthBooked

retrieveCruiseCost

    uses: BookingNumber, BookingDate, CruiseNumber, Cost

Use case: *"make inquiry"*

Actions:

    recordQuote

        uses: QuoteNumber, BookingNumber,

            RequiredNumberOfBerths,

            TotalCost, Date Transacted

    requestQuoteMailing

        uses: MailRequestNumber, DateMailRequested

Use case: *"find customer details"*

Actions are:

    locateCustomerRecord

        uses: MembershipNumber, Name

    recordPersonalDetails

        uses: MembershipNumber, Name, Address, DayTelephone,

            EveningTelephone, DateOfBirth, SailingAbility

    recordCruisePreferences

        uses: MembershipNumber, Name, PreferredOcean,

            PreferredPassageNumber, PreferredSeason,

Use case: *"send all mailings"*

Actions:

    sendBatchMailing

        uses: MailRequestNumber,

            DateMailRequested, NumberOfRequests,

            CurrentRequest.

Use case: *"maintain fleet information"*

Actions:

    RecordShipDetails

        uses: ShipNumber, ShipName, NumberOfBerths,

            ShipDescription,

    AddShip

        uses: ShipNumber, ShipName, NumberOfBerths,

            ShipDescription, NumberOfShips

    RemoveShip

        uses: ShipNumber, Ship Name, NumberOfBerths,

            ShipDescription, NumberOf Ships

    AllocateShipToPassagE

        uses: ShipNumber, PassageNumber, FromPortPassage,

            ToPortPassage, NumberNights,

            JoinDate, PassageCost, PassageDescription.

    RecordBerthDetails

        uses: BerthNumber, BerthType, BerthDescription.

    AllocateBerthToShip

        uses: BerthNumber, BerthType, BerthDescription, ShipNumber

Use case: *"maintain cruise information"*

Actions:

    recordCruiseDetails

        uses: CruiseNumber, Ocean, FromPortCruise,

            ToPortCruise, CruiseDescription

    recordPassageDetails

        uses: CruiseNumber, PassageNumber, FromPortPassage,

            ToPortPassage, NumberNights, JoinDate

            PassageCost, PassageDescription

    allocatePassageToCruise

        uses: PassageNumber, CruiseNumber, FromPortCruise,

            ToPortCruise, CruiseDescription.

DATA used in the Select Cruises case study are:

    BookingNumber

    VoyageDate

    Cost

    MailRequestNumber

    DateMailRequested

    QuoteNumber

    NumberOfBerths

    TotalCost

    CruiseNumber

    CardType

    CardHolderName

    IssuingOrganisation

    CardNumber

    ValidFrom

    ExpiresEnd

    DateTransacted

    InvoiceNumber

DateBalancePaid

ccAuthorisationCode

FromPortCruise

ToPortCruise

CruiseDescription

PassageNumber

FromPortPassage

ToPortPassage

NumberNights

JoinDate

PassageCost

PassageDescription

BerthNumber

BerthType

BerthDescription

MembershipNumber

DateBerthReserved

DateBerthBooked

BookingDate

Name

Address

DayTelephone

EveningTelephone

DateOfBirth

SailingAbility

PreferredOcean

PreferredPassageNumber

PreferredSeason

NumberOfRequests

CurrentRequest

DateBatchMailingRequested

DateBatchMailingPrinted

ShipNumber

ShipName

ShipDescription

the total number of elements are as follows:

    Number of actions is: 30

    Number of data is: 52

    Number of uses is: 126