



Human Computer Interaction

2015-2016

## Lab Module: Sea Holidays!

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## INDEX

|                                      |      |
|--------------------------------------|------|
| Introduction .....                   | 3    |
| Prototype.....                       | 4-7  |
| Development aspects (FrontEnd) ..... | 8-12 |
| Development aspects (BackEnd) .....  | 13   |

## INTRODUCTION:

We are ask to develop a visual application for a travel agency which is going to sell cruises. This application will be run inside POS terminals of every delegation of the travel agency, so I decided to create a wide interface with big buttons and images. For that purpose and regarding what we learnt in practical classes I used **WindowsBuilder** in Eclipse.

In the other hand, we had to develop a resizable application, so the best way I found to develop it, taking into account the layouts we used in practical classes, I mainly used *GridLayout*, *FlowLayout* and *BorderLayout*, keeping panels nested.

Finally regarding that we had to base our project in the seminars we developed during the course, several modifications had been done, since some things we designed at the beginning we didn't learnt how to implement them.

The application is based in **CardLayout** and the visual components are initialized in the **VentanaPrincipal** class while the logic is designed in several classes in other package called "logic".

## PROTOTYPE:

In a first approach, we decided to make an application with several windows, including: “Welcome”, “CruiseList”, “CruiseInfo”, “Customize”, “Personal Data”, “Resume”, “Payment”, “Printing” and “FAQ”.

They were linked by buttons, in a linear way, but every window could “call” the FAQ window. Finally this aspect was substituted by the HelpSupport.


After the first test we did, we realized, that some customer couldn’t have the option of paying by cash, or selecting extras, neither look for cruises, taking into account the departure port. Also customer couldn’t specify some additional and personal data. For this reason we change some features, making this possible.

Finally we designed the following prototype:



The image shows a prototype of a 'WELCOME' window. The window has a yellow background. In the top right corner, there is a blue circular icon with a white question mark. The word 'WELCOME' is centered in large, bold, black capital letters. Below it, the word 'DESTINY' is centered in smaller, black capital letters. Underneath 'DESTINY', there is a search bar with a magnifying glass icon on the left and a close button (an 'x' in a circle) on the right. Below the search bar, there is a 'Submit' button.

Here I add two buttons with the 15% discounts cruises.



# CRUISE LIST

## Filter

### Price

☐ 0 € - 499€


☐ 500€ - 999€

☐ 1000€ - 1999€


☐ 2000€ - 2999€

### Date


Departure

4/22/2012 


Arrival

4/22/2012 


Filter



Information about de cruise  
Information about de cruise  
Information about de cruise  
Information about de cruise




Information about de cruise  
Information about de cruise  
Information about de cruise  
Information about de cruise




Information about de cruise  
Information about de cruise  
Information about de cruise  
Information about de cruise

Back

Next




# CRUISE INFO



Embark on a grand journey that takes you from Barcelona  
to some of the most incredible ports of call in the Mediterranean  
—including stops in Italy and Greece.

Photos:



Final Price:

1.600€

BACK

BOOK

This two windows, were finally mixed in only one.

?

## CUSTOMIZE YOUR TRIP

### 2 Persons rooms

Number of rooms:

Room type:

☒ Inside ☐ Outside

### 3 Persons Rooms

Number of rooms:

Room type:

☒ Inside ☐ Outside

### Comments

Write your comment here...

Extra activities:

Available activities:

Pool

Casino

Bar

Tennis

Cinema

Add activity

Remove activity

Your activities:

Pool

Casino

Bar

Tennis

Cinema

BACK

BOOK

Here the comments panel is changed to the book window

?

## BOOK

The final price is: 1600€

If you want to continue provide the following data

DNI

Bank account

Phone number

Name

Surname

Address

Back

Next

And here I remove some fields we didn't used.

?

# RESUME

### Personal Data

DNI: 53509960T

Bank account: 00192348746749402332

Phone number: 687934092

Name Fernando Miguel

Surname: Marin

Address: c/ Ezcuardia 23, Gijón

Edit

### Customize

Number of people: 3

Number of rooms: 2

Room Type: inside

Your activities:

Pool


Casino

Baar

Tennis

Cinema

Edit



Final Price: 1600€

Back

Pay

The resume panel was finally implemented following the pattern of the given document.

## FAQ and Info

- FAQ
- Forum
- Contact us

?: How do I do my booking?

Following the instructions in this application.

?: How can book both inside and outside rooms at the same time?

You just have to write it in the comment section of "Customize your trip" page.

?: How many activities can I select?

As much as you wish to pay.

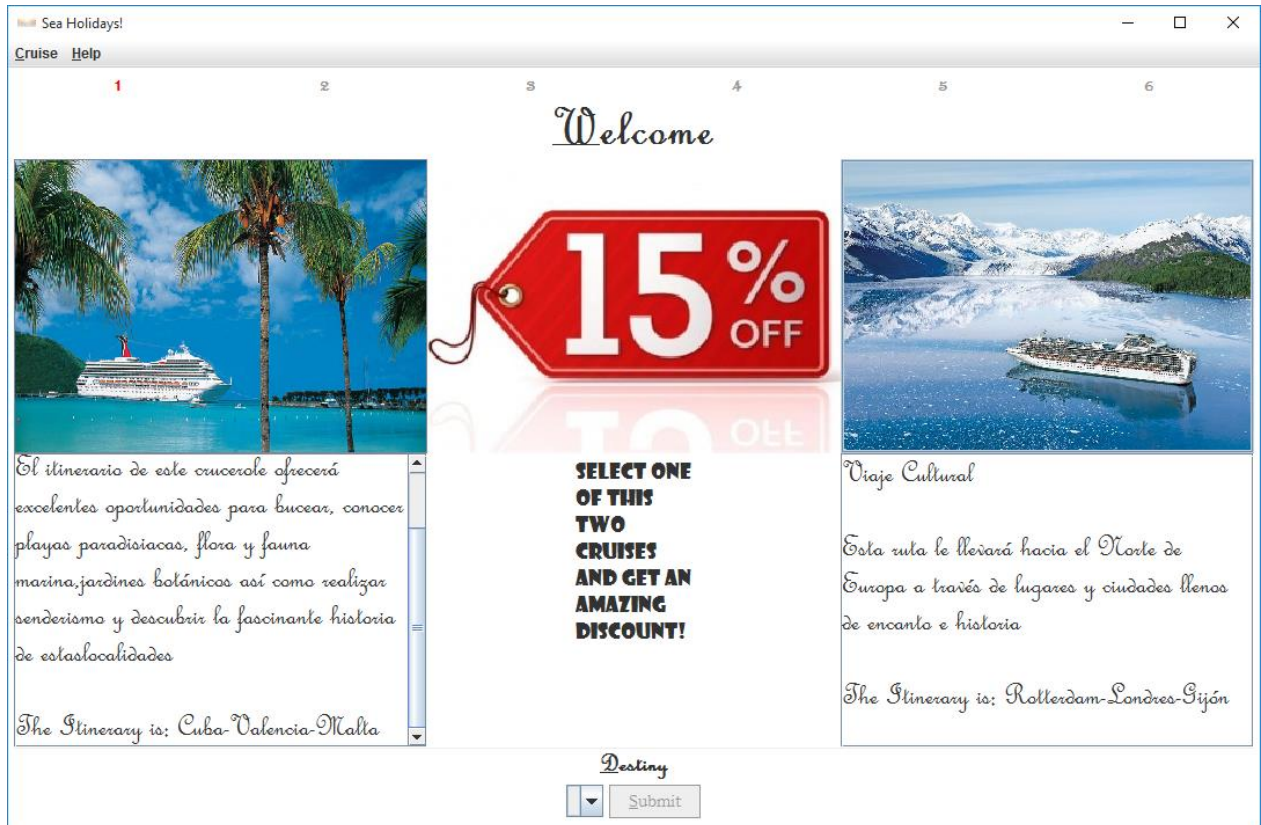
?: How can I contact you?

You just have to click on "Contact us" on the left of this page

And this window is not implemented since we use the HelpSupport.

## DEVELOPMENT ASPECTS: (FrontEnd)

The final interface looks like this:

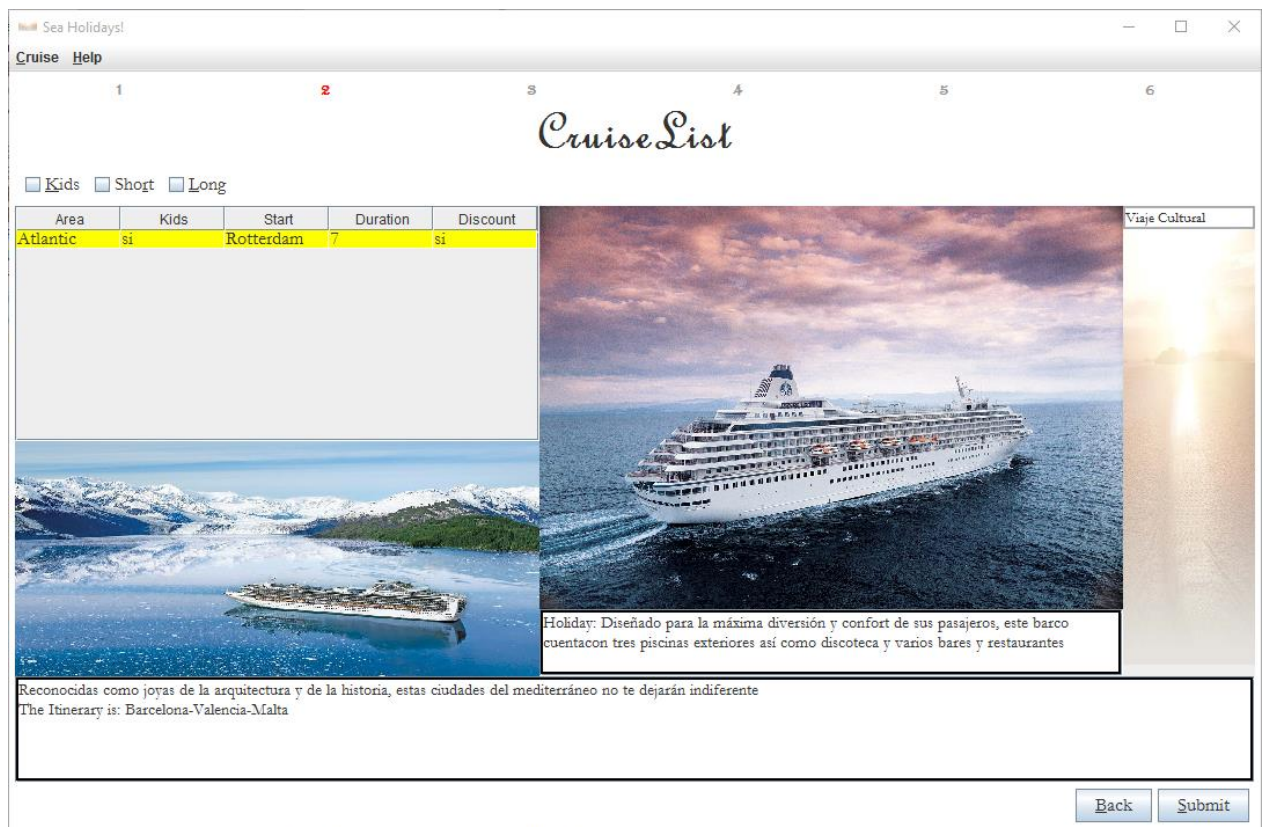


This first view, show two buttons, in which and image representing the cruise with the 15% are shown, with two central labels (an image and a text label) that shows that they are with the discount. I include a brief description of each cruise in a JTextArea inside a JScrollPane

Also we have an upper panel in which we see the window and step of the process we are in.

In the south panel, we have a JComboBox, to filter the area to which we want to travel and a button to select it.





Here we have a central label with an image of the boat of the selected cruise in the table in which the different cruises are loaded regarding the checkboxes filter we apply. I finally include another label representing the cruise with a picture. Also we have two textAreas where different information about the cruises and boat is shown. And finally the buttons to select the cruise and travel around the app.

Sea Holidays!

Cruise Help

1 2 3 4 5 6

## Customize your trip

1. Select type of cabin

Select a type of cabin: Doble Exterior 150€ 19

2. Customize your cabin

☒ Passenger1 Age:

☐ Passenger2 Age:

☐ Passenger3 Age:

☐ Passenger4 Age:

☐ Extra bed Age:

3. Select the Extras

Jacuzzi (6€)

Desayuno especial (5€)

Cama extragrande (12€)

AddExtra

RemoveExtra

Your book:

1 doble exterior /

Select a date 19/08/2018

Add Cabin Remove Cabin

Edit Cabin Save Changes Cancel

Back Submit

This is the most complex window of the application; it is divided in three parts.

The first one is in charge of selecting the type of the cabin. Once we do it, we are asked to introduce the number of passengers and the age of each one selected.

In the third part we can add or remove extras to our cabin.

I included in this window the combobox to select the date in which we want to travel.

Finally, we have a resume panel in which we can see our book, and we can edit it using the corresponding buttons.

Sea Holidays!

Cruise Help

1 2 3 4 5 6

## Personal Data

NAME: JORGE

SURNAME: GARCÍA

PASSPORT: 53509960T

PHONE: 69834829

DATE: 19/08/2018

COMMENTS: Alérgico al gluten

Back Submit

This is the register window. Here we have a central Panel with a gridLayout, and I used labels for the titles and textfields for the input data. This window is implemented so to go on in the register the user must introduce all requested data. It is also included a reminder of the date the user is reserving for.

Sea Holidays!

Cruise Help

1 2 3 4 5 6

## Resume

JUSTIFICANTE RESERVA - EII CRUCEROS - 2016/06/20 12:29:12  
NOMBRE: JORGE GARCÍA NIF: 53509960T PHONE: 69834829

\*\*\*DATOS DEL CRUCERO\*\*\*

Crucero: Viaje Cultural / CRU0003  
Barco: Holiday  
Fecha de Salida: 19/08/2018  
Días: 7  
Salida: Rotterdam  
Número de pasajeros: 1  
Camarotes 1 doble exterior /

\*\*PAGADO RESERVA\*\*

Camarotes: 1050€  
Extras: 35€  
Descuento Oferta: 162

Importe total: 923

Back Book

This is the final window. Here the user can have a view of all data as a resume. It looks like the final ticket that is printed and saved. The user can finalize the booking process by clicking the button **Book**, or he can just go back and change some aspects.

This window uses labels, to display non editable text in a `GridLayout`

\* \* Minor changes could have been done in the interface.

## DEVELOPMENT ASPECTS: (BackEnd)

Regarding the logic, I create one only class in the **igu** package (*VentanaPrincipal*), that contains all the components of the visual application due that I used *cardLayout*.

The *VentanaPrincipal* class is the heaviest class, since initializes all the components and implements the methods which are used by the user, like selecting components.

In the other hand, we have the **logic** package in which I have several classes:

*Boat*, *Cabin*, *Cruise*, *Extras* and *Person*, represent the objects and they only have the necessary fields constructor, getters and setters.

The **Database** class, is the one used to read the input data, and store it in Lists. It also have methods that are called from *VentanaPrincipal* to get some specific elements like a specific boat or a specific cruise given internal codes.

The **Booking** class, is probably the most important class, is the one that stores the actual data selected by the user, compute the taxes, prices and writes a final file with the booked cruise.