

# COMP7002 Application User Interfaces

## Continuous Assessment Specification v.3

This specification may be updated in the event of anything requiring clarification. But it will not change substantially.

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### Part A (10%)

In class exercise: Completed.

## Flight Booking Interface

Design and implement the user interface for the front end for a flight booking Java application using JavaFX.

JaviAir flies between the following airports.

Cork (ORK)  
Madrid (MAD)  
St Brieuc (SBK)  
Jersey (JER)  
Paris (CDG)  
Stansted (STN)  
Malaga (AGP)

The grid below shows the basic fare between airports. The fare calculation should be calculated by a single method that returns the basic fare, so as to simulate a connection to a database. The fare calculation must not be hard coded into the code outside that method.

	cork	MAD	SBK	JER	CDG	STN	AGP
ORK		100	100	120	80	40	240
MAD	100	null	200	200	60	60	60
SBK	100	200	null	none	150	80*	140
JER	120	200	null	null	250	250	280
CDG	80	60	150	250	null	60**	100
STN	40	60	80	250	60	null	120
AGP	240	60	140	280	100	120	

\* Does not operate in March nor April

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Flights may be booked up to six months in advance

This table lists the basic price per leg of a journey between two airports. The price for a return leg is the same as the outbound leg.

The basic price applies Monday-Thursday. On Friday, Saturday, and Sunday the price is the basic price + 20%.

The flights of the times are as follows

To

		ORK	MAD	SBK	JER	CDG	STN	AGP
	ORK	---	0920-1300	1030-1400	1400-1600	0900-1215 1820-2105	0820-0950 1120-1305	0800-1130
	MAD	1800-2000	---	1200-1330	0620-0800	0800-1000	1400-1520 1905-2120	0800-0905
	SBK	1900-2020	1800-2020	---	none	0620-0715	0805-0830	1200-1530
<b>From</b>	JER	1000-1200	1800-2120	none	---	0800-1015	1700-1830	0800-1130
	CDG	1330-1500 2200-2350	1920-2105	1900-2005	2000-2015	---	1800-1830	1150-1330
	STN	1100-1220 1800-1920	1020-1400	1800-2000	0900-1030	0900-1030	---	0800-1100 1330-1620
	AGP	1300-1420	2000-2105	2000-2130	1800-1930	1805-1230	1500-1610 2035-2105	---

Children 6 years or older at the time travel must pay the same fare as an adult.

Children 5 years old and under at the time travel pay €60 irrespective of the day and destination.

Babies 0 or 1 years old may at the time travel fly for free, but must be booked. They do not get a seat nor a checked bag.

A checked bag costs 15 each leg. Children may check bags. But babies may not.

A booking may not be made for anyone under 18 without an accompanying adult.

A maximum of two children 5 or under is allowed per adult on any booking.

A single booking may be for 1 to 8 people.

Spanish residents receive a €5 rebate [per Spanish passenger] of airport taxes on any flights to or from Spain (Madrid / Malaga). Valid DNI numbers must be entered as proof of residence.

A freight from Madrid to Malaga will get the discount twice.

At the end of the booking process all of the relevant details should be displayed in a single text element on the screen.

Route

date(s)

Passangers name(s)

Dates of Birth for minors (under 18)

Baggage per passenger

Total cost  
Validated credit card number

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## **Part B** (25%) Paper Prototype

Design the user interface on "paper". Students may use any layout tool they wish from actual paper, interface design apps, whatever. But it must just be a mockup. It should be submitted as a PDF or zipped website.

Deadline:

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## **Part C** (15%) Date(s) Picker

Implement the date selection portion of the final product in JavaFX  
It should correctly take account of the routes and dates  
Submit as a Java text file.

Deadline:

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## **Part D** (50%) Completed Interface

Deadline: