

**Edexcel GCE**

# **Applied Information and Communication Technology**

## **Unit 3: The Knowledge Worker**

January 2011

**Scenario**

Paper Reference

**6953/01**

The scenario should be distributed to candidates at least three working weeks before the examination.

**Practice files:** Distance\_practice.txt, Survey\_practice.txt, Airline\_practice.xls

This scenario should be used for the purposes of preparing candidates for the examination. This copy **must not** be taken into the examination. The information contained in the scenario will be included in the examination paper.

Further details are in the Instructions of the Conduct of Examinations (ICE), available from the Edexcel website for this qualification.

**Edexcel will not accept any request for special consideration should candidates be given the incorrect scenario for the examination they are sitting.**

*Turn over* ►

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## Lyonair – Low Cost Airline

Michelle Lyons graduated from Leeds University with a 1st class honours degree in Marketing. Michelle's father had always expected her to take over the family-run business, Lyons Logistics. Her father died in 2007 and Michelle became the CEO of the small but efficient transport and logistics company. Since that time Michelle has expanded the business and it is currently the second biggest road transport company in the UK.

Looking for ways to expand and diversify, Michelle instigated the takeover of Jordon's Freight Services. At that time Jordon's operated two freight aircraft out of London City Airport. Running the air freight business made Michelle think about creating a passenger airline and so Lyonair was born.

Having agreed a loan with the bank, Michelle bought four new aircraft at £100,000,000 each. Michelle has decided to run four return routes from London to: Madrid, Paris, New York and Canberra (Australia). The Canberra route refuels at Dubai, where passengers may leave or join the flight. There will be daily return flights to Paris and Madrid. The other routes will operate twice a week. On all flights passengers will be allowed 20 kg of baggage.

Lyonair's planes all have a seating capacity of 366 with identical fuel capacity, baggage space and fuel consumption. The planes are expected to have a lifespan of about 300,000 flying hours as long as they have a full service check every 5000 hours. Michelle has decided to rotate the planes so that they fly different routes each week. This way the life of the aircraft will be extended.

The number of staff on board a plane will vary depending on whether the flight is long haul or short haul. All planes will have a pilot, co-pilot, chief steward (or stewardess) and three other flight attendants. In addition a long haul flight will have an extra flight attendant and a navigator.

Michelle now needs to set ticket prices in order to maximise her profit. She has started to create a ticket-pricing model but has been called away to deal with problems in the road transport arm of the company. She has asked you to complete the model and to recommend prices for all routes.

## Description of the model

Worksheet	Description
CostRevenue	This is the worksheet you will use to set the ticket prices. The total costs and revenues will be calculated and displayed.
Weight	This worksheet will be used to calculate the weight of a particular plane on take-off. The weight of the fuel is not included in this worksheet. The weight of the plane has a significant effect on the fuel consumption.
Passengers	This worksheet will be used to estimate the number of passengers that would fly at a particular price.
Plane Stats	This worksheet contains useful statistics about a plane.
Staff	This worksheet will be used to calculate the cost per kilometre of the different staff.
Distances	This worksheet will contain the flying distances between the airports.
Fuel	This worksheet will calculate the cost of fuel for each flight.
Airport Fees	This worksheet contains airport fees.

**Some cells in the model are password protected. Should you wish to experiment with the model, the password is *edexcel*. Be aware that if you change the contents of any protected cell the model may not work.**