
INFORMATION TECHNOLOGY

9626/04

Paper 4 Advanced Practical

October/November 2017

2 hours 30 minutes

Additional Materials: Candidate Source Files

READ THESE INSTRUCTIONS FIRST

DO **NOT** WRITE IN ANY BARCODES.

Carry out **every** instruction in each task.

Save your work using the file names given in the task as and when instructed.

The number of marks is given in brackets [] at the end of each task or part task.

Any businesses described in this paper are entirely fictitious.



This document consists of **6** printed pages and **2** blank pages.

You are working for an events company called RockICT. They manage event bookings for companies and venues in the local area. They also hire equipment to customers.

Jared is the manager of RockICT.

All files produced must be of a professional standard and suit the business context. All saved file names must contain your candidate details. All currency must be displayed in euros. You must use the most efficient method to complete each task.

You have been provided with the following files:

bookings.csv

company_details.csv

venues.csv

customers.csv

equipment_hire_costs.csv

Open and examine each file carefully.

1 Jared has designed a logo for RockICT. The design for the logo is:



The logo must:

- be 200 by 200 pixels in size
- be a guitar shape
- be black in colour with a 3pt red outline
- have the text Rock ICT in white and curved to fit the bottom of the guitar
- have a white sound hole and strings
- be a single layer.

Create the logo in a suitable software package.

Save the file with the name **RockICT_logo_Centre number_candidate number** in a file format that supports a transparent background.

[12]

- 2 (a) Jared wants a short animation that can be used to advertise RockICT.

The animation must meet the following requirements:

- The size must be set to 512 (W) by 288 (H) pixels
- The background must be set to black
- The background appears first for 2 seconds
- The text **Rock** must appear in the bottom left corner and the text **ICT** must appear in the top right corner. The text must be white and 24pt
- The text *Rock* and *ICT* must move from the corners to the centre of the screen so that they are side by side. The timing for this must be 3 seconds
- The letter *R* of the text *RockICT* must turn red immediately after the text has moved to the centre
- The text should remain fully visible for 2 seconds
- The text *RockICT* must then fade out. The timing for this must be 5 seconds
- The text **The Best** must fade in at the centre of the screen and then fade out again. The text must be red and 24pt. The timing for this must be 5 seconds
- The logo must appear small at the centre of the screen. The logo must grow larger to fill most of the screen. The timing for this must be 3 seconds
- All animations must be smooth
- The animation must be 20 seconds in length
- The animation must be set to loop
- The animation must be exported in a suitable format to be played on a website.

Create the animation in a suitable software package to meet Jared's requirements.

Save the animation as **RockICT_Centre number_candidate number**

[20]

- (b) State the meaning of FPS and describe its effect on your animation. Place this in a word processed document and save it as **task_2b_Centre number_candidate number**. Use no more than 100 words.

[4]

- 3 (a) Jared wants a spreadsheet to calculate the cost of smaller events for a customer. The spreadsheet will include the equipment the customer wants to hire. Set up the layout of the spreadsheet as follows:

	A	B
1	Number attending	
2		
3	Speaker system	
4	Speaker cost	
5		
6	Lighting system	
7	Lighting cost	
8		
9	Seating	
10	Seating cost	
11		
12	Security	
13		
14		
15	Cost of event	
16		

Save the spreadsheet as **Event_Model_Centre number_candidate number**

The spreadsheet must meet the following requirements:

- The number of people attending the event must be entered into cell B1. Restrict data entry to this cell to allow only numbers between 1 and 100 (inclusive)
- Methods of selection must be validated lists
- The method of selection for the speaker system must only contain options to select **4 speakers** or **6 speakers**
- The speaker cost must be displayed in cell B4. Enter a formula into this cell to automatically display the speaker cost, which is dependent on the number of people attending the event. The cost must be looked up from the file **equipment_hire_costs.csv**
- The method of selection for the lighting system must only contain options to select **white lighting** or **coloured lighting**
- The lighting cost must be displayed in cell B7. Enter a formula into this cell to automatically display the lighting cost, which is dependent on the number of people attending the event. The cost must be looked up from the file **equipment_hire_costs.csv**
- The method of selection for the type of seating must only contain options to select **plastic** or **cushioned**
- Enter a formula into cell B10 to automatically calculate the cost of seating for an event. The cost of seating depends on the number attending and the type of seat chosen:
 - more than 75 people costs €75 for plastic or €105 for cushioned
 - 50 to 75 people costs €50 for plastic or €85 for cushioned
 - fewer than 50 people costs €35 for plastic or €55 for cushioned.
- The cost of security is €250
- Enter a formula into cell B15 to calculate the cost of an event.

Select the following values in your spreadsheet to be displayed:

- Number attending – 50
- Speaker system – 4 speakers
- Lighting system – coloured lighting
- Seating – plastic

Save your spreadsheet.

[24]

- (b) Evaluate the effectiveness of your financial model. Place this in a word processed document and save it with the name **task_3b_Centre number_candidate number**. Use no more than 150 words. [6]

- 4 (a) RockICT is holding an event for its customers. Customers have purchased a ticket for the event. A ticket number will be allocated to each ticket sold.

Open the file **customers.csv** and add a formula to the *Ticket_number* column to automatically display the correct ticket number. The ticket number should be the first two letters and last letter of the customer forename, the first and last letter of the customer surname, and the cost of their ticket.

John Smith with a ticket cost of 35 would be JonSh35.

Save the spreadsheet with the name **Event_customers_Centre number_candidate number**

RockICT need to mail merge tickets for each customer.

Each ticket must display:

- the *Ticket_number*
- the *Customer_forename* and *Customer_surname*
- the *Ticket_cost*
- conditional text to display **VIP Ticket** if the *Ticket_cost* was €55, otherwise the text **Standard Ticket**
- the RockICT logo at a suitable size.

The following requirements must also be met:

- each ticket must be set to a size of 7 cm × 8.5 cm
- only 8 tickets must be displayed on each page
- the *Ticket_number* must be in italics with a font size of 12pt
- the Customer name must be in a serif font and 16pt.

Save the document with your merge codes as **Customer_ticket_merge_Centre number_candidate number**

Perform the mail merge to create the tickets.

Save the merged labels as **Tickets_Centre number_candidate number**

[17]

- (b) Explain why it is better to use mail merge than alternative methods to create the tickets. Place this in a word processed document and save it with the name **task_4b_Centre number_candidate number**. Use no more than 200 words. [6]

- 5 RockICT manages the bookings of other event companies in the local area. They will book the venue for the date that the event company requires. Jared wants a database to view the bookings.

Using the files **company_details.csv**, **venues.csv** and **bookings.csv** create a relational database for Jared.

Jared wants a form to view the bookings for each company.

Users must **not** be able to add, delete or edit records using the form.

The form must meet the following requirements:

- the top section of the form must have a white background
- the logo must be displayed at the top of the form
- the form must have a suitable title in a red sans serif font
- the body of the form must have a pale blue background
- the form must include suitable navigation buttons
- the form must display the *Company_name* and details of the bookings made by the company in a subform.

The subform must meet the following requirements:

- it must display only the *Booking_ID*, the *Booking_date*, and the *Venue_name* for each booking made by the company
- there must be no record selection controls, navigation buttons or scroll bars.

Save the form as **Bookings**

Save the database with the name **Venue_bookings_Centre number_candidate number**

[21]

BLANK PAGE

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.