



Cambridge IGCSE™

INFORMATION AND COMMUNICATION TECHNOLOGY

0417/21

Paper 2 Document Production, Databases and Presentations

May/June 2024

2 hours 15 minutes

You will need: Candidate source files (listed on page 2)

INSTRUCTIONS

- Carry out **all** instructions in each step.
- Enter your name, centre number and candidate number on every printout before it is sent to the printer.
- Printouts with handwritten candidate details will **not** be marked.
- At the end of the examination, put all your printouts into the Assessment Record Folder.
- If you have produced rough copies of printouts, put a cross through each one to indicate that it is **not** the copy to be marked.
- You must **not** have access to either the internet or any email system during this examination.

INFORMATION

- The total mark for this paper is 70.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages.



You have been supplied with the following source files:

j2421bookings.csv
j2421child.csv
j2421childcare.rtf
j2421evidence.rtf
j2421lifelong.csv
j2421logo.jpg
j2421playgroup.rtf
j2421test_scores.csv

Task 1 – Evidence Document

Open the file **j2421evidence.rtf**

Make sure that your name, centre number and candidate number will appear on every page of this document.

Save this document in your work area as **EVIDENCE** followed by your candidate number, for example EVIDENCE9999

You will need your Evidence Document during the examination to place screenshots in when required.

Task 2 – Document

You are going to edit a document for Tawara Tots Childcare. The company uses a corporate house style for all their documents. Paragraph styles must be created and applied as instructed.

1 Using a suitable software package, open the file **j2421childcare.rtf**

The page setup is set to A4, portrait orientation with two-centimetre margins. Do **not** make any changes to these settings.

Three paragraph styles have already been created. Do **not** make any changes to these unless instructed.

Save the document in your work area with the file name **NURSERY**

Make sure it is saved in the format of the software you are using.

Place in your Evidence Document a screenshot to show this file has been saved. Make sure that there is evidence of the file type.

[1]

2 Place in the *NURSERY* document:

- a right-aligned header on a single line:
Prospectus produced by: followed by a space then your name, centre number and candidate number
- a left-aligned footer with automated page numbers.

Make sure that:

- all the header details are on a single line
- all the alignments match the page margins
- no other text or placeholders are included in the header or footer areas
- the headers and footers are displayed on all pages.

[3]

3 Create and store the following style, basing it on the default/normal paragraph style:

Style name	Font style	Font size (points)	Alignment	Enhancement	Line spacing	Space before (points)	Space after (points)
TC-title	serif	32	centre	bold, italic	single	0	6

Take a screenshot to show that you have defined the settings for the *TC-title* style.

Make sure that there is evidence that you have based this on the default/normal paragraph style.

Place this in your Evidence Document.

[2]

4 Apply the *TC-title* style to the title text *Tawara Tots Childcare*

[1]

5 Select the subheading *Staff* and the following text up to and including the paragraph ending ... *enjoy their new surroundings*.

Change the page layout so that only this text is displayed in two columns of equal width with a one-centimetre space between the columns.

[2]

- 6 The style named *TC-subhead* has already been created, stored and applied to the five subheadings.

Modify the *TC-subhead* style so that only the following formatting is applied:

Style name	Font style	Font size (points)	Alignment	Enhancement	Line spacing	Space before (points)	Space after (points)
<i>TC-subhead</i>	sans-serif	14	centre	italic, bold, all capitals	single	0	7

Take screenshot evidence to show you have modified the *TC-subhead* style and the settings applied. Place this in your Evidence Document.

[2]

- 7 Apply a numbered list, formatted as 1 to 7, to the text from:
communication and language ...
to
... arts and design

Make sure that:

- the numbers are aligned to the left margin of the column
- the list is in single line spacing with no space before or after each line
- there is a seven-point space after the last item in the list.

[3]

- 8 Import the image **j2421logo.jpg** and place it in the paragraph beginning
We have eight spacious playrooms ...

Rotate the image 180 degrees with the image size and aspect ratio maintained.

Format the image so that:

- it is aligned to the right margin and the top of the paragraph starting
We have eight spacious playrooms ...
- the text wraps around the image.

[3]

- 9 Locate the table in the document. Format the table so that:

- the table width is set to 13 centimetres
- all the rows are set to one-centimetre high
- the data is centre aligned vertically in each row
- the table is centred within the page margins.

[4]

10 Spell check and proofread the document.

Make sure that:

- the list and table are **not** split over columns or pages
- there are no widows or orphans
- there are no blank pages
- the original styles are maintained except the *TC-subhead* style changed in Step 6
- all styles are applied consistently
- spacing is consistent between all items.

Save the document using the same file name and format used in Step 1.

Print the document.

[1]

[Total: 22]

Task 3 – Database

You are now going to prepare a report. Dates are to be imported in the format day month year (DMY).

- 11 Use database software to import the file **j2421child.csv** as a new table.

Use these field names and data types:

Field name	Data type	Display
<i>Last_Name</i>	Text	
<i>First_Name</i>	Text	
<i>Child_ID</i>	Text	
<i>Gender</i>	Text	
<i>DOB</i>	Date/Time	Day month year
<i>Reg_Date</i>	Date/Time	Day month year
<i>Food_Allergy</i>	Boolean/Logical	To display as Yes/No
<i>Contact_Name</i>	Text	
<i>Relationship</i>	Text	
<i>Contact_Number</i>	Text	

Set *Child_ID* as the primary key.

Save the data.

Place in your Evidence Document a screenshot showing the field names, data types and primary key.

Import the file **j2421bookings.csv** as a new table in your database.

Use these field names and data types and create a primary key field called ID:

Field name	Data type	Display
<i>Session_ID</i>	Text	
<i>Child_ID</i>	Text	
<i>Day</i>	Text	
<i>Start_Time</i>	Date/Time	hh:mm
<i>End_Time</i>	Date/Time	hh:mm
<i>Session</i>	Text	

Place in your Evidence Document a screenshot showing the field names, data types and primary key.

[5]

- 12 Create a one-to-many relationship between the *Child_ID* fields in the child and bookings tables.

Place in your Evidence Document a screenshot showing the one-to-many relationship between the tables.

[1]

- 13 Using fields from the child and bookings tables produce a tabular report that:

- selects the records where:
 - *Day* is **Monday**
 - *Session* is **Morning** or **Sunrise Club**
- contains a new field called **Total_Time** which is calculated at run time
 $Total_Time = (End_Time - Start_Time) \times 24$
 Format this field to display as a numeric value to 1 decimal place
- shows only the fields *Child_ID*, *First_Name*, *Last_Name*, *DOB*, *Day*, *Session*, *Start_Time*, *End_Time*, *Total_Time* and *Food_Allergy* in this order, with data and labels displayed in full. Do **not** group the data
- sorts the data into descending order of *Session* and ascending order of *DOB*
- has a page orientation of landscape
- fits on a single page width
- includes only the title **Monday Morning Groups** displayed in a larger font size, fully visible and centre aligned at the top of the page
- has your name, centre number and candidate number in the footer of the report so that it appears in the same position on every page.

Save and print your report.

[11]

You are now going to create a data entry form. The form will contain radio buttons for the user to select one option. Data from the selected option must be stored in a new field that you will create in the child table.

- 14 Insert a new field in the child table named **Ailment_ID** which will be used to store data from radio buttons. Set the most appropriate data type.

Place in your Evidence Document a screenshot showing the field names and data types used in the child table.

Save and close the table.

[1]

- 15 Create a columnar data entry form, using selected fields from the child table, that:

- includes only the fields *Last_Name*, *First_Name*, *Child_ID*, *Gender*, *DOB*, *Reg_Date* and *Food_Allergy*
- displays one record at a time.

Place in your Evidence Document a screenshot showing your form with a record from the database displayed.

[2]

16 In the form created in Step 15, create five grouped radio buttons. The user must be able to select one of the following options:

- **Asthma**
- **Diabetes**
- **Eczema**
- **Epilepsy**
- **None**

The option selected must be stored and displayed in the *Ailment_ID* field of the child table.

Label this option group **Ailment**

Make sure that:

- the radio buttons are grouped as one option group with the label *Ailment*
- the option selected is stored in the *Ailment_ID* field of the child table
- all labels in the form are aligned to the left consistently and do **not** overlap other data in the form.

Place in your Evidence Document screenshots showing:

- the radio buttons grouped as one option group with the label *Ailment*
- evidence of your method of linking this group to the *Ailment_ID* field.

[6]

17 Use the form modified in Step 16 to add the following data as a new record in the child table:

<i>Last_Name</i>	Lambert
<i>First_Name</i>	Jakara
<i>Child_ID</i>	3YR27
<i>Gender</i>	Female
<i>DOB</i>	04/12/2022
<i>Reg_Date</i>	18/10/2023
<i>Food_Allergy</i>	Yes
<i>Ailment</i>	Eczema

Check your data entry for errors. Save the data.

Place in your Evidence Document a screenshot of the form with the new record displayed in full.

[1]

18 Open the child table.

Use an automated selection method to locate the new record you entered in Step 17 with the *Child_ID* 3YR27

Place in your Evidence Document screenshots showing:

- the use of an automated selection method to find the record
- the new record stored in the child table with all 11 fields displayed in full.

[2]

[Total: 29]

Task 4 – Presentation

You are going to create a short presentation.

All slides must have a consistent layout and formatting.

19 Create a presentation of eight slides using the file **j2421playgroup.rtf**

Unless otherwise instructed, the slides must display a title and a bulleted list. [1]

20 Place at the top right of the slide a header with your name, centre number and candidate number.

Place in the footer automated slide numbers left aligned.

Make sure that:

- the header and footer appear in the same position on every slide
- no items overlap on any slide.

[2]

21 Locate the slide with the title *Our staff*

Select the three bulleted items after the text *...centre manager who:* and format them to look like this:

Our staff

- a dedicated centre manager who:
 - has over 15 years' experience
 - holds an approved Level 5 qualification
 - works directly with the children
- all staff hold at least an approved Level 3 qualification
- trainee staff are supervised at all times
- all staff are qualified in Paediatric First Aid which is regularly updated
- staff ratio of at least one member of staff for every three children

[3]

22 Delete the slides with the titles *Our guiding principles* and *Areas of learning and development* [1]

23 Use the data in the file **j2421test_scores.csv** to create a vertical bar chart to compare achievement for only the subjects literacy and mathematics. Display the subjects as labels on the category axis. [1]

24 Label the chart with the title **Impact of early childcare on test results** [1]

25 Display the following:

- values only as data labels along the top of each bar
- a legend showing *Pre-school* and *No Pre-school*

[2]

26 Format the value axis scale to display:

- a minimum value of **0**
- a maximum value of **56**
- increments of **8**

[2]

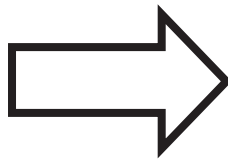
27 Place the chart to the left of the bullets on the slide with the title *Academic performance*

Make sure that:

- no words are split
- all data and labels are fully visible
- the chart and its contents do **not** overlap any slide items.

[1]

28 On the slide with the title *Long term benefits* create an arrow-shaped action button that looks like this:



Position this in the bottom-right corner.

Format the action button so that when clicked it opens the document with the file name **j2421lifelong.csv**

Enter the text **Lifelong Gains** in a black font on the action button.

Make sure that:

- the text displays on one line
- the text fits within the shape and does **not** overlap the border.

Take screenshot evidence showing the action button links to the correct file. Place this in your Evidence Document. Make sure that the file name is fully visible.

[4]

29 Save the presentation.

Print the full presentation as handouts in portrait orientation with two slides to the page, each filling half the page.

[1]

[Total: 19]

Task 5 – Printing the Evidence Document

Make sure that your name, centre number and candidate number appear on every page of your Evidence Document.

Save your Evidence Document.

Print your Evidence Document.

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