



# Cambridge IGCSE™

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## INFORMATION AND COMMUNICATION TECHNOLOGY

0417/31

Paper 3 Data Analysis and Website Authoring

May/June 2021

2 hours 30 minutes

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

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### 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 80.
- The number of marks for each question or part question is shown in brackets [ ].

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This document has **12** pages. Any blank pages are indicated.

You have been supplied with the following source files:

j2131bg.png  
j2131bhh.css  
j2131bhh1.jpg  
j2131bhh2.jpg  
j2131bhh3.jpg  
j2131bhh4.jpg  
j2131contact.htm  
j2131home.csv  
j2131jungle.jpg  
j2131list.csv  
j2131logo.jpg  
j2131rate.csv  
j2131text.txt

### Task 1 – Evidence Document

Create a new word-processed document.

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

Save this Evidence Document in your work area as **j2131evidence\_** followed by your centre number\_ candidate number, for example, j2131evidence\_ZZ999\_9999

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

**Task 2 – File Management**

You are going to create a web page and stylesheet for Bali Holiday Homes. The web page and stylesheet must work in any browser. All colour codes except those provided in the source files must be in hexadecimal. Make sure that your stylesheet contains no HTML. Make your HTML and stylesheet as efficient as possible.

**1 Create a new folder called *bhh***

Locate the following files and store them in your *bhh* folder.

**j2131bg.png**  
**j2131bhh.css**  
**j2131bhh1.jpg**  
**j2131bhh2.jpg**  
**j2131bhh3.jpg**  
**j2131bhh4.jpg**  
**j2131contact.htm**  
**j2131jungle.jpg**  
**j2131logo.jpg**  
**j2131text.txt**

Display the contents of your *bhh* folder showing the folder name, all file names, file extensions, image dimensions and file sizes. [1]

**EVIDENCE 1**

Take a screenshot of your *bhh* folder and place this in your Evidence Document. Make sure that the folder name, all file names, file extensions, image dimensions and file sizes are clearly visible.

[Total: 1]

## Task 3 – Web Page

- 2 Create, in your *bhh* folder, a web page called **bhh.htm**

This web page must be created using a single table and must work in all browsers. The table must fit 80% of the browser window. The table must have a structure as shown in this diagram:

A height = 20%				
B width = 20% height = 20%	C width = 20%	D width = 20%	E width = 20%	F width = 20%
G	H	I	J	
K height = 40%			L	

Each table cell is identified with a letter. Some dimensions are shown. These must be set as percentage values and **not** in pixels.

The cell contents shown in the diagram must **not** appear on your final web page.

Table borders must **not** appear on the final web page.

[10]

- 3 Set the title of the web page to **Bali Holiday Homes Homepage**

[1]

- 4 Set the name of the default target window to **\_self**

[1]

- 5 Place in cell:

- A the image **j2131logo.jpg**
- B the image **j2131bhh1.jpg**
- C the image **j2131bhh2.jpg**
- D the image **j2131bhh3.jpg**
- E the image **j2131bhh4.jpg**
- F the image **j2131jungle.jpg**

[3]

- 6 Place inline style attributes into the HTML, so that each image fits the width of the table cell, with its aspect ratio maintained. [3]
- 7 Add appropriate alternate text to all images. [1]
- 8 Place in cell:
- G the text **Compact**
  - H the text **Larger**
  - I the text **Secluded**
  - J the text **With a view**
- Apply style h2 to all this text. [3]
- 9 Place in cell K the contents of the file **j2131text.txt**
- Apply paragraph style to this text. [2]
- 10 Enter in cell L the text:
- Last edited by:**
- On a new line below this, place your name, centre number and candidate number.
- On a new line below this, enter the text:
- Contact BHH**
- Apply style h3 to all text in cell L. [3]
- 11 Create a hyperlink from the text *Contact BHH* to open the web page **j2131contact.htm** in a new browser window called **\_blank** [3]
- 12 Attach the stylesheet **j2131bhh.css** to this web page.  
Save your web page. [1]

13 Open and edit the stylesheet **j2131bhh.css** to meet the following specifications:

Set the background for the web page so that it has a colour with a:

- blue component of **36**
- red component of **21**
- green component of **2f**

Set the background for the web page so that the image **j2131bg.png** is placed in **only** the top left corner of the window.

Set the font for styles h1, h2, h3 and for the paragraph style, so that the browser selects and displays the font **San Francisco**. If this font is **not** available, the browser selects and displays the font **Calibri**. If neither of these fonts are available, the browser should display its default sans-serif font.

Set the paragraph style so the text is fully justified with a 12 point font.

Right align all tables in the browser window.

Add your name, centre number and candidate number as a comment at the end of the stylesheet.

All colour codes must be displayed in hexadecimal. Make sure that your stylesheet contains no HTML or scripting language. Save this stylesheet in your *bhh* folder.

Take a screenshot to show the file name and all the contents of your stylesheet.

[14]

#### EVIDENCE 2

Place this screenshot in your Evidence Document. Make sure that the contents of your stylesheet can be easily read.

Display the web page in your browser. If necessary, resize it so that:

- all the page can be seen
- all text can be easily read
- the address bar is visible
- the background image is fully visible.

#### EVIDENCE 3

Place in your Evidence Document screenshot(s) showing the web page in your browser. Make sure that the table contents and background elements are visible.

Display the HTML source in your editor.

#### EVIDENCE 4

Take a copy of the HTML source and place this in your Evidence Document.

[Total: 45]

### Task 4 – Printing the Evidence Document

Save and print your Evidence Document.

#### PRINTOUT 1

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

### Task 5 – Data Analysis

*You are going to use a spreadsheet to list properties in Bali that match the location and room type entered by the user.*

- 14** Open and examine the files **j2131home.csv** and **j2131rate.csv** in a spreadsheet package. Row 2 in the file *j2131home.csv* contains the location of the properties and rows 3 to 8 contain the names of properties. These files will be used to provide data for your spreadsheet and must **not** be changed.

Open and examine the file **j2131list.csv** in a spreadsheet package.

Data has been placed into cells B4 and B5 to help you test your model.

Place in the header, left aligned, the text **List prepared by:** followed by a space, your name, centre number and candidate number, then a space followed by **on** followed by a space and today's automated date.

Save this as a spreadsheet with the file name **j2131bhh\_**centre number\_**\_**candidate number, for example, **j2131bhh\_ZZ999\_9999**

[3]

15 Format the spreadsheet to look like this:

	A	B	C
1	<b>Bali Holiday Homes</b>		
2			
3	<b>List of suitable properties for your chosen location</b>		
4	Location:	Ubud	
5	Room type:	Q	
6			
7	Number of persons	3	
8	Breakfast provided	Yes	
9			
10	1	Taman Villas	
11	2	Samara Villas	
12	3	Adiwanna Arya Villa	
13	4	Alaya Resort	
14	5	Adiwanna Resort	
15	6		
16			

Format the merged cell A1:B1 to contain white 28 point text on a black background.

[7]

16 Enter a function in cell B7, which depending on the room type, looks up the number of persons from the file *j2131rate.csv* [5]

17 Enter a function in cell B8, which depending on the room type, displays whether breakfast is provided, using the file *j2131rate.csv* [1]

18 Cells B10 to B15 must display the names of all properties in the location entered in B4 by the user. If there are less than 6 properties available in that location, cells not displaying a property name should be blank. Enter a formula in cell B10 that displays the first property, and then replicate this formula into cells B11 to B15. [11]

19 Save your spreadsheet.

Print your spreadsheet showing the formulae. Make sure:

- it is in landscape orientation
- the row and column headings are displayed
- the contents of all cells are fully visible and can be easily read.

[2]

## PRINTOUT 2

Make sure that you have entered your **name**, **centre number** and **candidate number** on the spreadsheet showing the formulae.



20 Print your spreadsheet showing the values. Make sure the:

- printout fits on a single portrait page
- row and column headings are **not** displayed
- contents of all cells are fully visible and can be easily read.

[1]

**PRINTOUT 3**

Make sure that you have entered your **name**, **centre number** and **candidate number** on the spreadsheet showing the values.

21 Change the data to produce a list of properties with a room type of **G** in **Nusa Lembongan**

Print your spreadsheet showing the values. Make sure the:

- printout fits on a single portrait page
- row and column headings are **not** displayed
- contents of all cells are fully visible and can be easily read.

[4]

**PRINTOUT 4**

Make sure that you have entered your **name**, **centre number** and **candidate number** on the spreadsheet showing the values.

[Total: 34]





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