Cambridge International AS & A Level

INFORMATION TECHNOLOGY **9626/04**

Paper 4 Advanced Practical **For examination from 2025**

SPECIMEN PAPER **2 hours 30 minutes**

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

INSTRUCTIONS
- Carry out every instruction in each task.
- Save your work using the file names given in the task as and when instructed.
- You must **not** have access to either the internet or any email system during this examination.
- You must save your work in the correct file format as stated in the tasks. If work is saved in an incorrect file format, you will **not** receive marks for that task.

INFORMATION
- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **10** pages. Any blank pages are indicated.

[Turn over

You have been supplied with the following source files:

Bookings.csv
NewBookingButton.png
QuizDev.html
Surcharges.csv
VillasLogo.png

Create a folder called **Examination**. You must save all your work in this folder.

Copy these files into this folder.

Do **not** delete these files when submitting your work.

Do **not** tidy the folder by deleting files created at any stage of attempting the tasks.

You must use the most efficient methods to solve each task. All work produced must be of a professional standard and contain your candidate details.

1 (a) Open and examine the **Bookings.csv** file. This file contains the records of bookings for holiday villas for a previous year. You will need to use similar fields but **not** the data.

Open and examine the **Surcharges.csv** file. This file contains details of new surcharges based on travel and local taxes applied for every villa. This will be the same every year. The surcharges are the same within each region, but different regions may have different surcharges.

Use these files to plan and create a database to record future bookings for the villas. The database must be normalised to third normal form (3NF).

Include a field to record the number of days for the booking.

Include four customer records as test data.

Name the database **FutureBookings_** followed by your centre number_candidate number, for example FutureBookings_ZZ999_9999

Note:
- All dates must be stored and displayed in dd/mm/yyyy format.
- All field names must follow traditional naming conventions.
- All data types and formatting must be suitable for their purpose. [11]

(b) Include the following additional requirements:
- All bookings must start on the same day of the week. Use the **Weekday()** function to make sure the field for the start date will only accept Tuesdays.
- The villas can only be booked for whole weeks (one whole week is seven days). The data entered must be the number of days.
- The villas can only be booked for a maximum of four weeks. [6]

(c) Create a form to allow users to enter customer details and select a villa. The form must look like this:

Use **VillasLogo.png** in the form header

Use **NewBookingButton.png** for the new booking button

You must match the colours and the layout.

The form must display:
• the customer details
• details of the villa selected
• details of the booking and the costs.

Note:
• Users must be able to enter the start date and the number of days of the booking.
• The cost per day is calculated as the number of people the villa sleeps multiplied by £100. If the villa has a pool, there is an additional charge of £100 per day. The surcharge is calculated and added to this total.
• The end date of the booking is calculated as the start date plus the number of days of the booking.
• The total cost of the booking is calculated as the cost per day multiplied by the number of days of the booking.
• If the £ currency is not available in your database application use your local currency.

Note the following additional requirements:
- Users must be able to enter a new customer or select an existing customer from a drop-down list showing these four fields.

- Users must be able to select a villa from a drop-down list showing these five fields.

- Users must **not** be able to select or edit the other fields.

- Users must be able to enter the Start date and the Number of days.

- Users must **not** be able to select or edit the other fields.

- Users must **not** be able to select or edit the ID fields for the Customer, Booking or Villa tables. [13]

2   Create an accurate vector copy of this image of an island as shown below.

Note:
- The image is circular with a width and height of 15 cm.
- There is a gradient fill for the sky.
- The area outside the circle is transparent.

Save the image as a scalable vector graphic (**.svg**) named **Island_** followed by your centre number_candidate number, for example Island_ZZ999_9999

Create vector images of the trees as shown below.

Note:
- Each palm leaf is identical and shaped as shown below.

- The orientation and size of each leaf is different.
- Each leaf on the left tree is darker than each leaf on the right tree.

Save the images in scalable vector graphic (**.svg**) format named **Tree_1_** and **Tree_2_** followed by your centre number_candidate number, for example Tree_1_ZZ999_9999 and Tree_2_ZZ999_9999

Save the complete image in scalable vector graphic (**.svg**) format named **IslandScene_** followed by your centre number_candidate number, for example IslandScene_ZZ999_9999   [20]

3   Use your island and tree images to create an animation with a bird flying into the distance.

The bird must tween between two images.

1   wings fully spread
    Bird_1

2   wings raised
    Bird_2

Save the images of the bird as **Bird_1_** and **Bird_2_** followed by your centre number_candidate number, for example Bird_1_ZZ999_9999 and Bird_2_ZZ999_9999

Set the stage/frame to black and 500 pixels wide by 500 pixels high.

The bird must enter from the left and follow the path to each position shown.

Note that it flies behind the palm tree and appears smaller as it flies into the distance.

The bird must enter from the left and appear to fly into the distance.

It must pass behind the palm tree and take seven seconds to leave the frame.

Save the animation as an animated gif named **IslandScene_** followed by your centre number_ candidate number, for example IslandScene_ZZ999_9999 [20]

4 Open **QuizDev.html** in your browser and in a text editor.

Question Number	Question	Answer
1	What does 'RAM' stand for?	

Start the quiz	Next Question	Click to restart the quiz

The Javascript code for the webpage is **not** complete.

For the purpose of this task your final code does **not** need to check if the answers entered are correct.

Click the buttons to find out what already works.

(a) Add JavaScript code to make sure that the cell for the answer is blank as soon as the 'Start the quiz' button is clicked.
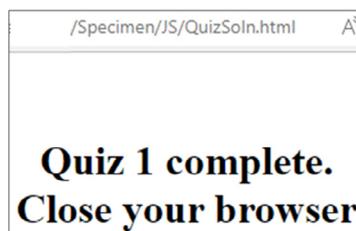
Question Number	Question	Answer
1	What does 'RAM' stand for?	Type your answer here

Start the quiz	Next Question	Click to restart the quiz

[4]

(b) The webpage should display only five questions.

Add JavaScript code to display a new page after the five questions have been asked.

It must display the text **Quiz 1 complete. Close your browser** on two lines as shown below.

/Specimen/JS/QuizSoln.html

Quiz 1 complete.
Close your browser

[7]

(c) The 'Click to restart the quiz' button must restart the quiz.

Add JavaScript code to refresh the page whenever the button is clicked. [4]

(d) Add code to display only the 'Start the quiz' button at the beginning and show the 'Next Question' button and the 'Click to restart the quiz' button when it is clicked.

Question Number	Question	Answer
Click the button to start the quiz		Type your answer here

Start the quiz

Question Number	Question	Answer
1	What does 'RAM' stand for?	

Next Question   Click to restart the quiz

Save the webpage as **QuizSolution_** followed by your centre number_candidate number, for example QuizSolution_ZZ999_9999 [5]

BLANK PAGE