

Cambridge
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AS & A Level

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Cambridge International Advanced Subsidiary and Advanced Level

INFORMATION TECHNOLOGY

9626/04

Paper 4 Advanced Practical

May/June 2018

2 hours 30 minutes

Additional Materials: Candidate Source Files:

JSexample.html
Meeting.rtf
Task4.rtf
TTSstaff.csv

READ THESE INSTRUCTIONS FIRST

DO **NOT** WRITE IN ANY BARCODES.

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

Save your work using the file name 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 and web addresses described in this paper are entirely fictitious.

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.

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

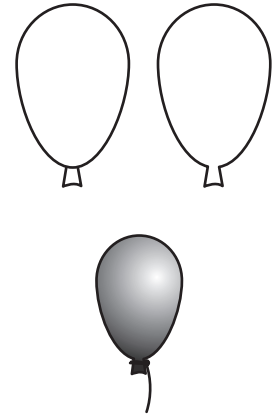
TTS are preparing for their 10-year anniversary.

Create a folder called **TTS**. All images, animations and web pages should be saved in this folder.

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

You are required to produce an A4 (21 cm × 29.7 cm) anniversary image showing 3 coloured balloons with text above and below. Individual images of each balloon should be saved in an open standard vector graphics format.

- 1 (a) Use a graphics application to create a single balloon. The balloon should be re-sizeable without loss of quality.
The balloon should be created from 2 shapes, the body and the neck.
The 2 shapes should be combined to make a single shape with a continuous 1pt black outline.
The balloon should have a pure red fill that creates the appearance of a light bloom.
There should be a drawing added to look like a piece of string knotted around the neck.
The final balloon should look very similar to the one shown.
Save the image as **RedBalloon**



- (b) Duplicate the balloon to create a pure green balloon. Save the image as **GreenBalloon**
Repeat the process to create a pure blue balloon. Save the image as **BlueBalloon**

- (c) Create a new image using the 3 balloons.
Place the balloons in the order red–green–blue positioned as shown.
Save the image as **3Balloons**



- (d) Add the text **TTS is 10!** To a curved path above the balloons.
The text should be in a black script font.

Add the text **A big thank you to all our loyal clients** below the balloons in the same font.

The text should be red with a black outline.

The final image should be similar to the one shown.

Save the image as **TTS10**

Export a copy of the image in a bitmap format with a transparent background.

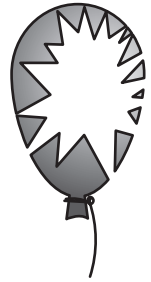


A big thank you to
all our loyal clients

[35]

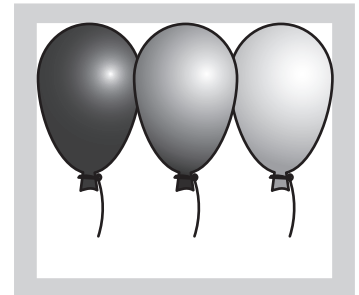
You are required to create an animation using the three coloured balloons and an image of a balloon bursting.

- 2 (a) Use the RedBalloon image to create an image, similar to the one shown, of a balloon bursting. Save the image as **BalloonBurst**
- (b) In an animation application set the frame size and balloon sizes to fit the three balloons across the frame width and occupy about half the height, (ignoring the strings).



The red balloon should be in the centre, in front of the other two balloons and overlapping them slightly.

- (c) For the animation, the balloons should appear from the bottom of the frame and rise to stop at the top of the frame as shown.



The blue balloon should appear first and the green balloon should appear slightly after.
The red balloon should appear last.

The blue and green balloon should each take 2 seconds to reach the top of the frame.

The red balloon should travel more slowly and take 3 seconds to reach the top of the frame.

The red balloon should be replaced by the *BalloonBurst* image when it reaches the top of the frame.

The text **TTS is 10!** should appear in the centre of the *BalloonBurst* image after 0.5 seconds. It should grow to fill the width of the frame in one second.



Export the final animation in a format suitable for any browser (without the need for a plug-in) as **TTS10**

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You are required to help another member of staff who is learning JavaScript. They want to learn how to change HTML attributes.

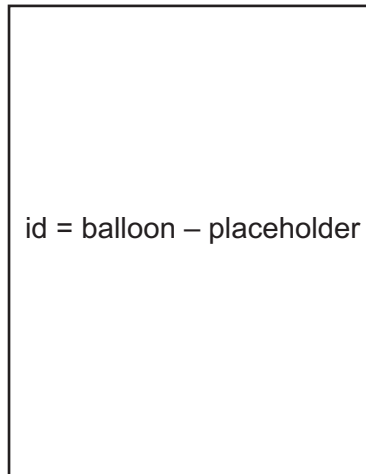
- 3** Open the file **JSexample.html** in your browser. Re-save the file in your TTS folder. You are required to display the balloon images in the cell shown.

Open the file in your text editor and insert JavaScript code to display the correct colour balloon for each button pressed.

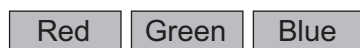
Annotate the script with appropriate comments.

Changing the colours of the balloons

This example should show how JavaScript can change the source attribute (src) of an image. Complete the example by entering the code to display the correct colour balloon in the cell when each button is clicked.



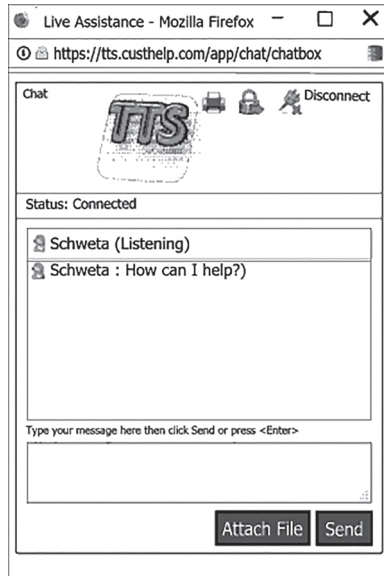
Click the colour to show the balloon in the cell



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TTS want to take the pressure off their telephone support by creating an online chat service and online help pages for the company website. Give your answers to the following questions in the Task4.rtf document.

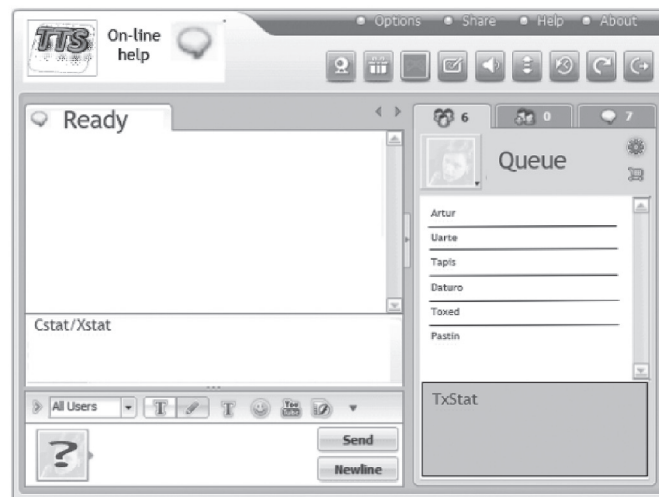
- 4 (a) TTS have been provided with 3 versions of online chat dialogue boxes as shown below. You are required to recommend which version to use. Evaluate each chat dialogue box and give reasons for your choice of which one to use.



Chat dialogue box A



Chat dialogue box B



Chat dialogue box C

The online help pages will include JavaScript to make them interactive.

- (b) (i) List the three pop-up boxes available in JavaScript.
- (ii) List the three logical operators available in JavaScript.
- (iii) List two different kinds of loops available in JavaScript.

The company website will include an animation to make clients aware of the new features.

- (c) It has been decided that the animation is too slow. List two ways of speeding it up.
The animation is published as an animated gif. List two other animation file formats that could be used.

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TTS require mail merged letters to be sent to selected staff of TTS.

*Joel Knight, the CEO of TTS, needs to request that members of the Executive (Pay Scale E) and Management levels 3 and 4 (Pay Scale M3 and M4) attend a meeting at the head office in London. All TTS staff are listed in **TTSstaff.csv***

- 5 Joel requires the staff on the Management scale to arrive for the meeting at 14:00 hrs.
Members of the Executive need to arrive for 09:00 hrs.
Use the **Meeting.rtf** file to mail merge letters to the appropriate members of staff.
Save the merge document as **Board Meeting**
Save the merged letters as **Board Meeting Letters**

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