



GCSE

4343/01

**COMPUTER SCIENCE
CS3 CONTROLLED
ASSIGNMENT**

For submission in May 2018 (15 hours)

INSTRUCTIONS TO CANDIDATES

This is one of two scenarios available. Each scenario is available separately. You may choose either of the two scenarios. You will have 15 hours to complete your chosen task.

Research tasks can be carried out outside timed conditions.

Read the scenario carefully to make sure that you understand what is needed.

It is important that you work independently from other candidates and make sure that what you hand in is your own unaided work.

Your report should be about 2,000 words.

Make sure that you check your work carefully to ensure that the work you produce is accurate and correct. Save your work regularly.

INFORMATION FOR CANDIDATES

Teachers and candidates will be required to sign a declaration that all work presented is the work of the candidate alone. Failure to authenticate the work may result in grades being delayed or refused.

The quality of written communication will be assessed in your evaluation.

Guess the word

Miss Evans has asked you to create a game for her pupils to improve their literacy and in particular their spelling. She would like the pupils to play a simplified version of a traditional game. This is normally a paper and pen game between two players. One of the players must think of a word or phrase and the other player has a limited number of guesses to identify the characters in the word.

Miss Evans wants the screen to show the number of characters in the chosen word and the guesses remaining. In addition the screen should display dashes or boxes to represent each character of the word. When a correct guess has been made, the character should be displayed in the correct position or positions if it is used more than once. If an incorrect guess is made, then the display of the number of remaining guesses should be updated.

Miss Evans realises that the program will require a lot of work so has asked you to create a prototype system that is limited to words of 6 characters. The system should:

- Select, at random, a word of six characters from a list
- Allow the user to input a character
- Check if the character input is in the word and how many times it occurs
- Limit the number of guesses allowed
- If the character is in the word, display the character(s) on the screen in the correct positions
- If the character is not in the word adjust the number of guesses remaining
- If the player is not successful display the word on the screen

You will need to design your test data to make sure that you can test the game thoroughly. Miss Evans wants you to use at least ten words from a list that she has provided.

Produce a report fully documenting your solution to automate this process. Credit will be given for the quality of your solution. Your report should be about 2,000 words and designed for someone who is familiar with the content of the specification but has not observed the work being carried out.

— A — — — —

Guess 1? E
E is not in the word
Guess 2? A

Guesses remaining: 7

Test Data

adduct	eating
absurd	fabric
acquit	facing
adjust	factor
badger	family
bangle	figure
becalm	firmly
bicker	flower
bought	flying
bounce	foiled
bowler	garlic
branch	garnet
bright	gasped
calmer	gerbil
canter	golden
carpet	guitar
catkin	halved
chapel	harmed
choral	hearty
common	hockey
damson	housed
dancer	lawyer
deacon	learnt
depart	lizard
deputy	longer
detail	magnet
dinghy	magpie
dismay	manger
dollar	marble
earwig	neatly