Specific marking instructions

Task	Expected response	Additional guidance	Marks available	
1	**Software design and development**			
1a	1 mark for each bullet. Max 2 marks. ♦ date is correct (UK) format (day/month) ♦ date is within an acceptable range e.g. no 31st September ♦ age is a whole number/integer ♦ age is within an acceptable range ♦ only one town and one mammal on each line	For two marks, must have two bullets from left. Award 1 mark for general reference to data that is valid/present/complete/formatted. Must specify town and mammal or state 4 values per line.	2	Analysis
1b	1 mark for each bullet. ♦ identify first character ♦ if not upper-case convert to upper-case ♦ concatenate with remaining string ♦ return string/variable/value	Accept reference to pre-defined functions in design for conversion. Return value should be referenced in previous steps.	4	Design
1c	Read in Mammals Data (2) ♦ module with correct parameter passed or returned to read data from file to array of records ♦ each line of sightings data stored in a record structure assigned to an array Find oldest person (3) ♦ module with correct parameter passed and max displayed within procedure ♦ initialise and re-assign max age ♦ if statement to find correct max	If candidate uses parallel arrays as a data structure, award 0 marks for "read" procedure then accept appropriate parameter passing for parallel arrays in the remainder of the procedures/functions. Award 0 marks for bullets 2 and 3 if a pre-defined function is used in implementation instead of a findinding maximum algorithm. Accept finding position of max value to produce output.	15	Implementation

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1	**Software design and development**			
	Upper-case function (3) ♦ extract first character ♦ if statement to convert to upper-case using ASCII/Char pre-defined function ♦ return original or concatenated string Display dates of sightings (2) ♦ module with correct parameter passed, correct use of the function and dates displayed within procedure ♦ linear search to find sighting dates Display the number of sightings each day (3) ♦ module with correct parameter passed, dayToCount (date) and count displayed within procedure ♦ count initialised to 1 and incremented for a single date ♦ dayToCount and count reset for each new date Implementation (2) ♦ a single upper-case function called twice ♦ modular (4 procedures and 1 function) and maintainable	Do not deduct marks for two separate functions for town and mammal at this step. Do not penalise if no step 4.12 or display for 30/09/2021. Maintainability should include evidence of meaningful identifiers, internal commentary, indentation and white space in the context of the program.		
1d	1 mark for each bullet. Max 2 marks. • watchpoint set on count variable • count increments by 1 (while date is 01/09/21) OR count is 6 when dayToCount changes to 02/09/21 OR • watchpoint set on dayToCount • count should be 6 when dayToCount moves to 02/09/21		2	Testing

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1	**Software design and development**			
1e	Efficiency 1 mark for any bullet. • A single function can be used to check first characters of town and mammal • First character only changes if found to be lower-case • Accept explanation for inefficient Maintainability 1 mark for any bullet. ♦ linking modularity to maintainability e.g. sub procedures can be edited independently ♦ local variables prevent clashes with variables in other parts of the code		2	Evaluation