

Component	90+	80-89	70-79	60-69	50-59	30-49	0-29
Problem Generalisation (5%)	All aspects of the solution would work on any data set in the same format containing any reasonable data values.		Some aspects of solution hard-coded or limited to the specific data set (date ranges, geographical range, global constants, etc).		Significant portions of solution are specific to data set and questions.		Little or no attempt to make a generalised solution.
Data Structure (10%)	Chosen data structure well suited to subsequent usage, leading to efficient code in terms of both programmer and computer time.		Data structure well suited for subsequent usage with minimal conversion or transformation required.		Poor choice of data structure leading to inefficiency or repeated need to convert data structure or values to solve problems.	Unsuitable data structure chosen leading to significant inefficiency or inability to solve questions.  Data structure loaded in each question or different data structure used for each question.	
Code Quality (15%)	Excellent documentation, naming and style, following Python conventions and making the code easy to read.	Documentation, naming and style are complete, consistent and appropriate.		Reasonable attempt at documentation, naming and consistent style, but could be improved in places.  Alternatively, more significant shortcomings in one aspect.		Missing or poor documentation, poor naming or inconsistent or poor coding style. Significant unnecessary code.	No attempt at documentation, consistency or appropriate naming.
Organisation (10%)	Code very well organised, using sub-functions as appropriate.  All functions are modular.  The overall program structure makes the code easy to follow.		Good code organisation with appropriate use of sub-functions.  All functions are modular.		Inconsistent organisation, limited use of sub-functions.	Poor code organisation.  Repeated code.  Functions are not modular.	Little or no code organisation.  Code very difficult to follow.
Report: (10%)	Report is well organised, well presented, clear and concise. Excellent choice of examples and good discussion.		Report is well organised and presented. Suitable examples and discussion.		Limited discussion or understanding of issues. Poor choice of examples. Poor organisation, or lack of clarity makes the report hard to follow.		Missing sections, no discussion or very hard to understand.

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Testing and correctness:  Q1 – Q5 (10% each)  Done separately for each question.	Results are correct for all use cases, including edge-cases. Clear evidence of testing to verify correctness.	Results are correct for all use cases, including edge-cases. Some evidence of testing by student to verify correctness.	Results are correct for all use cases, including edge-cases.	Results are normally correct, but may produce errors or incorrect results for edge cases.	Results mostly or always incorrect due to logic error(s) but code generally on the right track.	Results mostly or always incorrect due to logic error.  Code significantly off-track.	No significant attempt made or attempt completely off-track.  Major syntax errors.
We will also consider: (marks included in testing)							
Q1	Significant attempt made at handling missing values and validating data.	Some attempt made at validating input and dealing with missing values.		No attempt made at validating input or handling missing data values.			
Q3	Excellent choice of chart and formatting options, clearly conveying the required information and relationships.  Chart formatting all done within Python.		Suitable choice of chart.  Information and relationships present but not obvious.  Some attempt at formatting chart appropriately within Python.		Chart presented as is. Little or no formatting done, or formatting done manually after code run.		No chart produced, chart incorrect, or incomprehensible.
Q4 and Q5.  For Q4 and Q5, “correct” varies based on chosen approach	Novel, elegant or otherwise exceptional approach taken.	Good choice of approach for solving the problem.	Suitable choice of approach.		Simplistic or otherwise inadequate choice of approach.  Approach (incorrectly) trivialises problem.		Approach not appropriate for given problem.