

Student	Tang Yufei	53
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Part 1

	Available	Marks
Produce an appropriate graphic to show how the average seasonal maximum temperatures have changed from 1892 to 2022. You should plot the values for every tenth year rather than for every year.	10	5
Calculate the correlation between the total annual rainfall and the annual maximum temperature.	10	5
Perform a t-test to identify whether there is a significant difference in minimum temperatures between August 1890-1910 and August 2000-2020.	10	5
Perform an ANOVA test to identify if there are statistically significant differences in the annual numbers of wet days in each complete decade starting in 1891 and finishing in 2020. If such a difference is found, perform the appropriate ad-hoc tests to identify where the differences lie.	15	8
Commenting, white space and code presentation	5	4
TOTAL		27
Comment Q1: Make sure the datafile is in the same folder as the script so you don't need the long file path. Don't change the filename. It would be better to show all four seasons separately on the graph but you've got the right idea. Q2: You've got the code for the correlation right but you've applied it to the wrong data. The ann values should be much larger. Q3: Good solution, although you should include the hypotheses in the comments. Q4: Again, some issues with the data, but the basic code is fine. Remember to include the hypotheses in the comments. Commenting is good, but your code needs to be more spaced out. Remember to add blank lines between sections of the code, and between questions. You could have gained more marks had you written some of these as functions.		

Part 2

	Available	Marks
Explain how your code works (including a flow chart) and how you have extracted the required data from the data frame where you have stored the imported data. TASK 1	10	5
Explain how your code works (including a flow chart) and how you have extracted the required data from the data frame where you have stored the imported data. TASK 2	10	5
Explain how your code works (including a flow chart) and how you have extracted the required data from the data frame where you have stored the imported data. If you are performing tests that examine statistical significance then you should also clearly state your hypotheses and the meaning of any results. TASK 3	10	5
Explain how your code works (including a flow chart) and how you have extracted the required data from the data frame where you have stored the imported data. If you are performing tests that examine statistical significance then you should also clearly state your hypotheses and the meaning of any results. TASK 4	10	5
A reflection on what you found challenging, what you learned, and what you would do differently next time.	10	6
TOTAL		26
Comments Q1: Code description is fine but would be better if you added code snippets to show the actual code for each part. A plain flowchart would be better. Q2: Code description is fine but would be better if you added code snippets to show the actual code for each part. A plain flowchart would be better. Q3: Code description is fine but would be better if you added code snippets to show the actual code for each part. A plain flowchart would be better. Q4: Code description is fine but would be better if you added code snippets to show the actual code for each part. A plain flowchart would be better. Q5: Some good points made in the reflection section. You could also have talked about how you used ChatGPT to help you.		