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| Student | Jiang Hai | 60 |
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## Part 1

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Available | Marks |
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| Generate WineSamples dataframe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5         | 1     |
| Add proline categories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10        | 7     |
| Add ratio of hue to colour intensity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5         | 3     |
| Generate WineSummary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5         | 3     |
| Add descriptive data for alcohol and phenols                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10        | 6     |
| Identify high/v. high proline levels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 10        | 6     |
| Commenting and use of white space                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 5         | 3     |
| <p>Comments</p> <p>The data file should be in the same folder as the script. Good handling of the openxlsx package though. Wine type should be a factor.</p> <pre>&gt; wineData&lt;- read.xlsx("E:/Users/Jiang Hai/Desktop/wineSamples.xlsx") Error in read.xlsx.default("E:/Users/Jiang Hai/Desktop/wineSamples.xlsx")   File does not exist.</pre> <p>Remember to check your comments – nothing to show the start of question 2.</p> <p>Categorisation works well, but it would help to add a comment to explain your choice of categorisation ranges.</p> <p>Q5 works, but would be much easier if wine type had been stored as a factor, as the aggregate function could be used.</p> <p>This all works, but it would have been good to see more of it implemented using functions.</p> |           |       |

## Part 2

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Available | Marks |
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| Create the countryData dataframe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5         | 2     |
| Create the CovidSymmary dataframe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 15        | 7     |
| Check the data for normality and process accordingly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10        | 6     |
| Perform the appropriate t-tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5         | 4     |
| Perform the appropriate ANOVA tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10        | 7     |
| Commenting and use of white space                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5         | 5     |
| <p>Comments</p> <p>Remember to always check your filepaths before sharing a script.</p> <p>Your code does not sum the number of new cases each week because you've used wineData rather than countryData.</p> <pre>#Use for loop to accumulate all data for each week for(i in 1:nrow(wineData)) {   if(countryData[[3]][i]=="2020-w21")   {     sum_2020_w21=sum_2020_w21+countryData[[4]][i]   } }</pre> <p>If wineData is changed to countryData then the code works, although you have created covidSummary as a list not as a dataframe, as the question required.</p> <p>The process for testing for normality is fine, although the code could be more efficient.</p> <p>The t-test is fine, but remember to state your hypotheses before doing the calculations so you can do a formal rejection or acceptance of the null hypothesis.</p> <p>ANOVAs are fine.</p> <p>Good comments and use of white space.</p> |           |       |