**Scoring Rubric -Programming Assessment 3- Linear Regression**

**Criterion Name:** *Part 1, Task 1.1 and 1.2: Load and Plot Dataset*

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| **Point Value** | **Option Name** | **Description Explanation** |
| ***1*** | *Weak* | Code cells for part 1.1 AND 1.2 have not been run - i.e. dataset not loaded and visualized. |
| ***3*** | *Satisfactory* | Only the cell for part 1.1 has been run. (i.e. no plt is present as the output of part 1.2) |
| ***5*** | *Strong* | BOTH given code cells (for part 1.1 and 1.2) have been run - i.e. the dataset has been loaded (1.1) and visualised (1.2). |

**Criterion Name:** *Part 1, Task 1.3: Learn the Parameters*

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| **Point Value** | **Option Name** | **Description Explanation** |
| ***2*** | *Weak* | Task is incomplete/code has not been written/cell has not been run/code contains errors. |
| ***10*** | *Satisfactory* | Task has been attempted, the code has been written and the cells have been run; however, the implementation is not fully correct (i.e. the values do not match the “expected” values provided in the verification code for all three functions). |
| ***20*** | *Strong* | The functions titled **predict**, **computeCost**, and **gradientDescent** have been implemented and verified using the verification code given. The outputs must match the “expected” values provided in the verification code for all three functions. |

**Criterion Name:** *Part 1, Task 1.4 and 1.5: Plot the Linear Fit and Make Predictions*

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| **Point Value** | **Option Name** | **Description Explanation** |
| ***1*** | *Weak* | Code cells for part 1.4 AND1.5 have not been run - i.e. plot is missing and predictions have not been made. |
| ***3*** | *Satisfactory* | Only the cell for part 1.4 ORpart 1.5 has been run. |
| ***5*** | *Strong* | Code cells in part 1.4 AND1.5 have been run - i.e. plot is displayed and predictions have been made. |

**Criterion Name:** *Part 2: Multivariate Linear Regression*

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| **Point Value** | **Option Name** | **Description Explanation** |
| ***2*** | *Weak* | Task is incomplete/code has not been written/cell has not been run/code contains errors. |
| ***15*** | *Passable* | Task has been attempted, the code has been written and the cell has been run; however, the implementation is not fully correct. |
| ***25*** | *Satisfactory* | Everything (hypothesis, cost function and gradient descent for multivariate linear regression) has been implemented from scratch using the guidelines provided, the code runs correctly. However, the mean squared error is not in the range of 11.5 - 12.5. |
| ***40*** | *Strong* | Everything (hypothesis, cost function and gradient descent for multivariate linear regression) has been implemented from scratch using the guidelines provided, the code runs correctly, and the mean squared error is displayed and is in the range of 11.5 - 12.5. |

**Criterion Name:** *Part 3: Regularised Linear Regression*

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| **Point Value** | **Option Name** | **Description Explanation** |
| ***4*** | *Weak* | Task is incomplete/code has not been written/cell has not been run/code contains errors. |
| ***15*** | *Satisfactory* | Task has been attempted, the code has been written and the cell has been run; however, the implementation is not fully correct (i.e. there is a problem with the plots and/or the error values are completely out of range). |
| ***30*** | *Strong* | All three types of regularised linear regression have been correctly implemented using library functions, the error values for all three are in the range 11.0-13.0 and the plots for ridge and lasso are similar to the ones provided in the link in the question. |