CS777 – Week 3 Homework Submission Template

**Task 1 – Simple Linear Regression**

* Calculate the m slope and the b intercept for the small dataset

| *Your output should go here.* |
| --- |

* Calculate the m slope and the b intercept for the large dataset

| *Your output should go here.* |
| --- |

* Include the relevant code excerpt that you used for finding the m and b parameters using the equations (2)-(3)

| *The code excerpt should go here.* |
| --- |

**Task 2 – Find the Parameters using Gradient Descent**

* Print out the costs and model parameters in each iteration. The maximum number of iterations is 50.

| *Your output should go here.* |
| --- |

* Calculate the m slope and the b intercept based on your calculations

| *Your output should go here.* |
| --- |

* Include the relevant code excerpt that you used for finding the m and b parameters using the gradient descent optimization

| *The code excerpt should go here.* |
| --- |

* Comment on how you can interpret the parameters of the model. What is the meaning of m and b in this case

| *Your comment should go here.* |
| --- |

**Task 3 – Fit Multiple Linear Regression using Gradient Descent**

* Print out the costs and model parameters in each iteration. The maximum number of iterations is 50.

| *Your output should go here.* |
| --- |

* Calculate the m slope and the b intercept based on your calculations

| *Your output should go here.* |
| --- |

* Include the relevant code excerpt that you used for finding the m and b parameters. The code should show how you used the “Bold Driver” technique.

| *The code excerpt should go here.* |
| --- |

* Comment on how you can interpret the parameters of the model. What is the meaning of *mi* and *b* in this case

| *Your comment should go here.* |
| --- |

**Spark History Output:**

**Task 1:**

| *Your screen capture should go here.* |
| --- |

**Task 2:**

| *Your screen capture should go here.* |
| --- |

**Task 3:**

| *Your screen capture should go here.* |
| --- |