**HW2 Report**

* **Task 2:**

Test Set Accuracy: 57.81%

|  |  |
| --- | --- |
| **Iteration** | **Cost** |
| 250 | 2.295 |
| 500 | 2.28 |
| 750 | 2.259 |
| 1000 | 2.229 |
| 1250 | 2.187 |
| 1500 | 2.113 |
| 1750 | 2.011 |
| 2000 | 1.863 |
| 2250 | 1.711 |
| 2500 | 1.578 |
| 2750 | 1.496 |
| 3000 | 1.43 |
| 3250 | 1.382 |
| 3500 | 1.325 |
| 3750 | 1.303 |
| 4000 | 1.263 |
| 4250 | 1.26 |
| 4500 | 1.214 |
| 4750 | 1.216 |
| 5000 | 1.21 |

* **Task 3:**

Test Set Accuracy: 57.81%

|  |  |
| --- | --- |
| **Iteration** | **Cost** |
| 250 | 2.295 |
| 500 | 2.28 |
| 750 | 2.259 |
| 1000 | 2.229 |
| 1250 | 2.187 |
| 1500 | 2.113 |
| 1750 | 2.011 |
| 2000 | 1.863 |
| 2250 | 1.711 |
| 2500 | 1.578 |
| 2750 | 1.496 |
| 3000 | 1.43 |
| 3250 | 1.382 |
| 3500 | 1.325 |
| 3750 | 1.303 |
| 4000 | 1.263 |
| 4250 | 1.26 |
| 4500 | 1.214 |
| 4750 | 1.216 |
| 5000 | 1.21 |

* **Task 4:**

Test Set Accuracy: 57.81%

|  |  |
| --- | --- |
| **Iteration** | **Cost** |
| 250 | 2.295 |
| 500 | 2.28 |
| 750 | 2.259 |
| 1000 | 2.229 |
| 1250 | 2.187 |
| 1500 | 2.113 |
| 1750 | 2.011 |
| 2000 | 1.863 |
| 2250 | 1.711 |
| 2500 | 1.578 |
| 2750 | 1.496 |
| 3000 | 1.43 |
| 3250 | 1.382 |
| 3500 | 1.325 |
| 3750 | 1.303 |
| 4000 | 1.263 |
| 4250 | 1.26 |
| 4500 | 1.214 |
| 4750 | 1.216 |
| 5000 | 1.21 |

* **Task 5a:**

Test Set Accuracy: 57.81%

|  |  |
| --- | --- |
| **Iteration** | **Cost** |
| 250 | 2.295 |
| 500 | 2.28 |
| 750 | 2.259 |
| 1000 | 2.229 |
| 1250 | 2.187 |
| 1500 | 2.113 |
| 1750 | 2.011 |
| 2000 | 1.863 |
| 2250 | 1.711 |
| 2500 | 1.578 |
| 2750 | 1.496 |
| 3000 | 1.43 |
| 3250 | 1.382 |
| 3500 | 1.325 |
| 3750 | 1.303 |
| 4000 | 1.263 |
| 4250 | 1.26 |
| 4500 | 1.214 |
| 4750 | 1.216 |
| 5000 | 1.21 |

* **Task 5b:**

Test Set Accuracy: 57.81%

|  |  |
| --- | --- |
| **Iteration** | **Cost** |
| 250 | 2.295 |
| 500 | 2.28 |
| 750 | 2.259 |
| 1000 | 2.229 |
| 1250 | 2.187 |
| 1500 | 2.113 |
| 1750 | 2.011 |
| 2000 | 1.863 |
| 2250 | 1.711 |
| 2500 | 1.578 |
| 2750 | 1.496 |
| 3000 | 1.43 |
| 3250 | 1.382 |
| 3500 | 1.325 |
| 3750 | 1.303 |
| 4000 | 1.263 |
| 4250 | 1.26 |
| 4500 | 1.214 |
| 4750 | 1.216 |
| 5000 | 1.21 |

* **Task 6:**

Test Set Accuracy: 57.81%

|  |  |
| --- | --- |
| **Iteration** | **Cost** |
| 250 | 2.295 |
| 500 | 2.28 |
| 750 | 2.259 |
| 1000 | 2.229 |
| 1250 | 2.187 |
| 1500 | 2.113 |
| 1750 | 2.011 |
| 2000 | 1.863 |
| 2250 | 1.711 |
| 2500 | 1.578 |
| 2750 | 1.496 |
| 3000 | 1.43 |
| 3250 | 1.382 |
| 3500 | 1.325 |
| 3750 | 1.303 |
| 4000 | 1.263 |
| 4250 | 1.26 |
| 4500 | 1.214 |
| 4750 | 1.216 |
| 5000 | 1.21 |