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CSE 3812 (A): AI Lab

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**KNN Regression (Use diabetes data):**

| **K** | **Mean Squared Error**  **( 3 times shuffle tries)** | **Average of Mean Squared Error** |
| --- | --- | --- |
| 1 | 56.51428571428571  60.258620689655174  61.77049180327869 | 59.514466069073 |
| 3 | 47.02898550724638  53.382513661202196  49.981220657277 | 50.130906608575 |
| 5 | 50.47540983606557  43.351351351351354  41.179220779220756 | 45.001993988879 |
| 10 | 43.22375000000001  39.81612903225807  40.12786885245902 | 41.055915961572 |
| 15 | 41.75191256830601  52.18870056497175  54.3079365079365 | 49.416183213738 |

It seems like **K = 10** has the **Minimum Mean Squared Error** which is **41.055915961572**

After testing the **Test set**, the **Minimum Mean Squared Error** is **41.8418918918919**