|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Model** | **Train Accuracy** | | | | | **Validation Accuracy** | | | | | **Test Accuracy** | | | | | |
| **MSE** | **RMSE** | **MAE** | **MAPD** | **R squared** | **MSE** | **RMSE** | **MAE** | **MAPD** | **R squared** | **MSE** | **RMSE** | **MAE** | **MAPD** | **R squared** |
| Base LR | 0.2280383648 | 0.4775336268 | 0.3456889744 | 1.84565347 | 0.9960526171 | 0.2697727537 | 0.5193965284 | 0.3731080940 | 2.06544412 | 0.9951456976 | 0.2368604261 | 0.4866830859 | 0.3504097305 | 1.75046855 | 0.9960907167 |
| Ridge | 0.2280605503 | 0.4775568556 | 0.3456587349 | 1.84534905 | 0.9960522331 | 0.2702293491 | 0.5198358867 | 0.3730886641 | 2.06499799 | 0.9951374816 | 0.2365465045 | 0.4863604676 | 0.3499577126 | 1.75046855 | 0.9960958979 |
| Lasso | 0.2307726221 | 0.4803879912 | 0.3463467949 | 1.85072347 | 0.9960052867 | 0.2752004415 | 0.5245955027 | 0.3721285322 | 2.05595986 | 0.9950480316 | 0.2348022050 | 0.4845639328 | 0.3480981568 | 1.73843614 | 0.9961246868 |
| Elastic-Net | 0.2303829786 | 0.4799822690 | 0.3469359445 | 1.85748737 | 0.9960120315 | 0.2748912628 | 0.5243007370 | 0.3727889126 | 2.06037162 | 0.9950535950 | 0.2334660384 | 0.4831832348 | 0.3487019739 | 1.74488863 | 0.9961467397 |
| Random Forest (New) | 0.0063670565 | 0.0797938377 | 0.0458577023 | 0.22437124 | 0.9998897852 | 0.0625289115 | 0.2500578162 | 0.1295100793 | 0.67598344 | 0.9988748521 | 0.0777123372 | 0.2787693261 | 0.1416170348 | 0.64400372 | 0.9987173900 |
| XgBoost (New) | **0.0016009147** | **0.0400114327** | **0.0306243791** | **0.1649786264** | **0.9999722879** | 0.0267012464 | 0.1634051603 | 0.0987243424 | 0.5104278060 | 0.9995195366 | 0.0234739648 | 0.1532121561 | 0.1021317899 | 0.4944572847 | 0.9996125719 |
| AdaBoost (New) | 0.1209349013 | 0.3477569572 | 0.2816700696 | 1.4813512483 | 0.9979065963 | 0.1432541739 | 0.3784893313 | 0.2856621177 | 1.5339961602 | 0.9974222783 | 0.1560421469 | 0.3950217044 | 0.2980443324 | 1.4704929498 | 0.9974245890 |
| MLP (new)  Epoch num = 290 (starting from 1)  ~Early stopping | 0.00689201 | 0.08301816 | 0.0625094 | 0.33526115 | 0.9998807 | **0.009374** | **0.096821** | **0.066441** | **0.362206** | **0.999831** | **0.0097736** | **0.09886154** | **0.06744729** | **0.35896165** | **0.99983869** |

Bold highlights the best accuracy for the given column.

MAPD => mean absolute percentage deviation(error)

Conclusion on Accuracy: Train accuracy is best on XgBoost but for validation/test, accuracy is best on Neural network.