|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Metrics | relu | tanh | logistic | identity |
| 60:40 | 0.90 | 0.90 | 0.90 | 0.90 |
| 70:30 | 0.89 | 0.89 | 0.89 | 0.89 |
| 80:20 | 0.90 | 0.90 | 0.90 | 0.90 |
| Explained Var\_score | 0.99 | 0.99 | 0.99 | 0.99 |
| MAE | 3.4 | 3.4 | 3.4 | 3.4 |
| MSE | 12.10 | 12.10 | 12.10 | 12.10 |
| MSLE | 0.018 | 0.018 | 0.018 | 0.018 |
| R2 score | 0.90 | 0.90 | 0.90 | 0.90 |

The performance of MLP Regressor with respect to different activation function and learning\_rate= ‘constant’

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Metrics | relu | tanh | logistic | identity |
| 60:40 | 0.92 | 0.92 | 0.92 | 0.92 |
| 70:30 | 0.89 | 0.89 | 0.89 | 0.89 |
| 80:20 | 0.89 | 0.89 | 0.89 | 0.89 |
| Explained Var\_score | 0.99 | 0.99 | 0.99 | 0.99 |
| MAE | 3.4 | 3.4 | 3.4 | 3.4 |
| MSE | 12.10 | 12.10 | 12.10 | 12.10 |
| MSLE | 0.018 | 0.018 | 0.018 | 0.018 |
| R2 score | 0.90 | 0.90 | 0.90 | 0.90 |

The performance of MLP Regressor with respect to different activation function and learning\_rate = ‘adaptive’.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **OE** | **ME** | **MC** | **DC** | **IM1** | **IM2** | **IM3** | **IM4** | **IM5** |
| **Jun-18** | 45 | 297 | 77 | 30 | 57 | 113 | 0 | 52 | 35 |
| **Jul-18** | 43 | 280 | 112 | 7 | 37 | 105 | 0 | 118 | 38 |
| **Aug-18** | 47 | 288 | 94 | 21 | 45 | 147 | 0 | 99 | 27 |
| **Sep-18** | 38 | 298 | 88 | 31 | 14 | 199 | 0 | 24 | 14 |
| **Oct-18** | 42 | 255 | 46 | 16 | 7 | 209 | 0 | 37 | 71 |
| **Nov-18** | 49 | 262 | 74 | 79 | 44 | 84 | 0 | 78 | 23 |

**HISTORICAL DATA ( 42 ROWS x 10 COLUMNS)**

MLP REGRESSOR

**FEEDBACK LOOP  
MARKETING TEAM PREDICTION**

**ACCEPT**

**REJECT**

**OUTPUT**

