**Performance measure for decision tree:**

**On 1st Data:**

|  |  |  |
| --- | --- | --- |
| **Performance Measure** | **Training** | **Test** |
| Accuracy | 0.949236776712815 | 0.7317246273953159 |
| True Positive Rate | 0.8506756756756757 | 0.4473007712082262 |
| True Negative Rate | 0.9843524313914299 | 0.8401960784313726 |
| Positive Predictive Value | 0.9509063444108762 | 0.516320474777448 |
| False Discovery Rate | 0.04909365558912387 | 0.4836795252225519 |
| F1 Score | 0.8980028530670471 | 0.4793388429752066 |

**On 2nd Data:**

|  |  |  |
| --- | --- | --- |
| **Performance Measure** | **Training** | **Test** |
| Accuracy | 0.9023985749823409 | 0.8246422209937965 |
| True Positive Rate | 0.9425161812297734 | 0.8917571371129875 |
| True Negative Rate | 0.7759214385920163 | 0.6076443057722309 |
| Positive Predictive Value | 0.9298770753512133 | 0.8802190823940308 |
| False Discovery Rate | 0.07012292464878672 | 0.1197809176059692 |
| F1 Score | 0.9361539697846352 | 0.8859505452802301 |

**On 3rd Data:**

|  |  |  |
| --- | --- | --- |
| **Performance Measure** | **Training** | **Test** |
| Accuracy | 0.9969499176477765 | 0.9939009514515735 |
| True Positive Rate | 0.8721227621483376 | 0.8118811881188119 |
| True Negative Rate | 1.0 | 0.9984992496248124 |
| Positive Predictive Value | 1.0 | 0.9318181818181818 |
| False Discovery Rate | 0.0 | 0.06818181818181818 |
| F1 Score | 0.9316939890710383 | 0.8677248677248677 |

**Performance measure for decision tree with Adaboost:**

**On 1st Data:**

|  |  |  |
| --- | --- | --- |
| **Number of Boosting Round** | **Training** | **Test** |
| 5 | 79.17997870074548 | 78.28246983676365 |
| 10 | 79.71246006389777 | 78.42441447835344 |
| 15 | 80.33368832090876 | 79.20511000709723 |
| 20 | 80.2626908058218 | 79.77288857345636 |

**On 2nd Data:**

|  |  |  |
| --- | --- | --- |
| **Number of Boosting Round** | **Training** | **Test** |
| 5 | 82.00608089432143 | 82.17554204287207 |
| 10 | 83.92248395319554 | 84.04274921687856 |
| 15 | 84.3033076379718 | 83.99361218598365 |
| 20 | 84.57971192530943 | 84.69995700509797 |

**On 3rd Data:**

|  |  |  |
| --- | --- | --- |
| **Number of Boosting Round** | **Training** | **Test** |
| 5 | 99.20697858842189 | 99.19492559160771 |
| 10 | 99.20697858842189 | 99.26811417418882 |
| 15 | 99.37168303544196 | 99.26811417418882 |
| 20 | 99.4021838589642 | 99.29251036838254 |