## **Support Vector Machine-Salary Dataset**

| Kernel     | Accuracy  |
|------------|-----------|
|            |           |
| rbfdot     | 0.8541833 |
|            |           |
| polydot    | 0.8462815 |
|            |           |
| tanhdot    | 0.6638778 |
|            |           |
| vanilladot | 0.8462815 |
|            |           |
| laplacedot | 0.852656  |
|            |           |
| besseldot  | 0.7703187 |

## **Confusion Matrix**

| vanilladot          |       |      |  |  |
|---------------------|-------|------|--|--|
| predict             |       |      |  |  |
| Actual              | <=50K | >50K |  |  |
| <=50k               | 10599 | 761  |  |  |
| >50k                | 1554  | 2146 |  |  |
| F1_scores=0.9015438 |       |      |  |  |

| rbfdot              |       |      |  |
|---------------------|-------|------|--|
| predict             |       |      |  |
| Actual              | <=50K | >50K |  |
| <=50k               | 10660 | 700  |  |
| >50k                | 1496  | 2204 |  |
| F1_scores=0.9066168 |       |      |  |

| laplacedot          |       |      |  |
|---------------------|-------|------|--|
| predict             |       |      |  |
| Actual              | <=50K | >50K |  |
| <=50k               | 10636 | 724  |  |
| >50k                | 1495  | 2205 |  |
| F1_scores=0.9055383 |       |      |  |

Based on above data, kernel rbfdot having highest accuracy and F1 scores, so we consider kernel rbfdot model for classification.