Testing features: 9 finished training svm finished predicting Accuracy: 0.561

precision recall f1-score support

0 0.569 0.684 0.621 1560 1 0.546 0.424 0.477 1401

avg / total 0.559 0.561 0.553 2961

Testing features: 10 finished training svm finished predicting Accuracy: 0.534

precision recall f1-score support

0 0.558 0.558 0.558 1560 1 0.508 0.507 0.507 1401

avg / total 0.534 0.534 0.534 2961

Testing features: 0, 9 finished training svm finished predicting Accuracy: 0.571

precision recall f1-score support

0 0.587 0.631 0.608 1560 1 0.551 0.505 0.527 1401

avg / total 0.570 0.571 0.570 2961

Testing features: 0, 10 finished training svm finished predicting Accuracy: 0.572

precision recall f1-score support

0 0.562 0.842 0.675 1560 1 0.606 0.271 0.374 1401

avg / total 0.583 0.572 0.532 2961

Testing features: 1, 9 finished training svm finished predicting Accuracy: 0.655

precision recall f1-score support

0 0.638 0.799 0.710 1560 1 0.689 0.495 0.576 1401

avg / total 0.662 0.655 0.646 2961

Testing features: 1, 10 finished training svm finished predicting Accuracy: 0.662

precision recall f1-score support

0 0.648 0.783 0.709 1560 1 0.685 0.527 0.596 1401

avg / total 0.666 0.662 0.655 2961

Testing features: 2, 9 finished training svm finished predicting Accuracy: 0.666

precision recall f1-score support

0 0.635 0.859 0.730 1560 1 0.742 0.451 0.561 1401

avg / total 0.686 0.666 0.650 2961

Testing features: 2, 10 finished training svm finished predicting Accuracy: 0.664

precision recall f1-score support

0 0.619 0.944 0.747 1560 1 0.849 0.353 0.498 1401 avg / total 0.728 0.664 0.630 2961

Testing features: 3, 9 finished training svm finished predicting Accuracy: 0.671

precision recall f1-score support

0 0.633 0.894 0.741 1560 1 0.782 0.423 0.549 1401

avg / total 0.703 0.671 0.650 2961

Testing features: 3, 10 finished training svm finished predicting Accuracy: 0.664

precision recall f1-score support

0 0.635 0.854 0.728 1560 1 0.736 0.453 0.561 1401

avg / total 0.683 0.664 0.649 2961

Testing features: 5, 9 finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.698 0.929 0.797 1560 1 0.876 0.552 0.677 1401

avg / total 0.782 0.751 0.741 2961

Testing features: 5, 10 finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.699 0.929 0.798 1560 1 0.876 0.554 0.679 1401 avg / total 0.783 0.752 0.741 2961

Testing features: 6, 9 finished training svm finished predicting Accuracy: 0.650

precision recall f1-score support

0 0.627 0.831 0.715 1560 1 0.705 0.449 0.549 1401

avg / total 0.664 0.650 0.636 2961

Testing features: 6, 10 finished training svm finished predicting Accuracy: 0.633

precision recall f1-score support

0 0.606 0.864 0.713 1560 1 0.713 0.375 0.492 1401

avg / total 0.657 0.633 0.608 2961

Testing features: 7, 9 finished training svm finished predicting Accuracy: 0.643

precision recall f1-score support

0 0.615 0.863 0.718 1560 1 0.722 0.398 0.513 1401

avg / total 0.666 0.643 0.621 2961

Testing features: 7, 10 finished training svm finished predicting Accuracy: 0.651

precision recall f1-score support

0 0.628 0.831 0.715 1560

1 0.705 0.451 0.550 1401

avg / total 0.664 0.651 0.637 2961

Testing features: 8, 9 finished training svm finished predicting Accuracy: 0.610

precision recall f1-score support

0 0.640 0.594 0.616 1560 1 0.581 0.627 0.603 1401

avg / total 0.612 0.610 0.610 2961

Testing features: 8, 10 finished training svm finished predicting Accuracy: 0.572

precision recall f1-score support

0 0.583 0.665 0.621 1560 1 0.557 0.470 0.510 1401

avg / total 0.571 0.572 0.568 2961

Testing features: 9, 10 finished training svm finished predicting Accuracy: 0.578

precision recall f1-score support

0 0.577 0.743 0.649 1560 1 0.579 0.393 0.468 1401

avg / total 0.578 0.578 0.564 2961

Testing features: 0, 1, 9 finished training svm finished predicting Accuracy: 0.645

precision recall f1-score support

0 0.635 0.770 0.696 1560

1 0.664 0.507 0.575 1401

avg / total 0.649 0.645 0.639 2961

Testing features: 0, 1, 10 finished training svm finished predicting Accuracy: 0.658

precision recall f1-score support

0 0.648 0.766 0.702 1560 1 0.674 0.537 0.598 1401

avg / total 0.660 0.658 0.653 2961

Testing features: 0, 2, 9 finished training svm finished predicting Accuracy: 0.675

precision recall f1-score support

0 0.633 0.910 0.747 1560 1 0.805 0.413 0.546 1401

avg / total 0.715 0.675 0.652 2961

Testing features: 0, 2, 10 finished training svm finished predicting Accuracy: 0.678

precision recall f1-score support

0 0.636 0.908 0.748 1560 1 0.804 0.422 0.553 1401

avg / total 0.716 0.678 0.656 2961

Testing features: 0, 3, 9 finished training svm finished predicting Accuracy: 0.673

precision recall f1-score support

0 0.638 0.876 0.739 1560 1 0.765 0.448 0.565 1401

avg / total 0.698 0.673 0.656 2961

Testing features: 0, 3, 10 finished training svm finished predicting Accuracy: 0.665

precision recall f1-score support

0 0.634 0.860 0.730 1560 1 0.742 0.447 0.558 1401

avg / total 0.685 0.665 0.648 2961

Testing features: 0, 5, 9 finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.702 0.918 0.796 1560 1 0.861 0.567 0.684 1401

avg / total 0.777 0.752 0.743 2961

Testing features: 0, 5, 10 finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.703 0.917 0.796 1560 1 0.860 0.569 0.685 1401

avg / total 0.777 0.752 0.743 2961

Testing features: 0, 6, 9 finished training svm finished predicting Accuracy: 0.659

precision recall f1-score support

0 0.638 0.815 0.716 1560 1 0.702 0.485 0.574 1401

avg / total 0.668 0.659 0.649 2961

Testing features: 0, 6, 10 finished training svm finished predicting Accuracy: 0.639

precision recall f1-score support

0 0.615 0.841 0.711 1560 1 0.700 0.414 0.520 1401

avg / total 0.655 0.639 0.621 2961

Testing features: 0, 7, 9 finished training svm finished predicting Accuracy: 0.643

precision recall f1-score support

0 0.616 0.852 0.715 1560 1 0.713 0.410 0.520 1401

avg / total 0.662 0.643 0.623 2961

Testing features: 0, 7, 10 finished training svm finished predicting Accuracy: 0.656

precision recall f1-score support

0 0.631 0.836 0.719 1560 1 0.713 0.455 0.555 1401

avg / total 0.670 0.656 0.641 2961

Testing features: 0, 8, 9 finished training svm finished predicting

Accuracy: 0.618

precision recall f1-score support

0 0.659 0.568 0.610 1560 1 0.583 0.673 0.625 1401

avg / total 0.623 0.618 0.617 2961

Testing features: 0, 8, 10 finished training svm finished predicting Accuracy: 0.585

precision recall f1-score support

0 0.606 0.604 0.605 1560 1 0.561 0.562 0.562 1401

avg / total 0.585 0.585 0.585 2961

Testing features: 0, 9, 10 finished training svm finished predicting Accuracy: 0.589

precision recall f1-score support

0 0.583 0.771 0.664 1560 1 0.602 0.385 0.470 1401

avg / total 0.592 0.589 0.572 2961

Testing features: 1, 2, 9 finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.731 0.838 0.781 1560 1 0.784 0.657 0.715 1401

avg / total 0.757 0.752 0.750 2961

Testing features: 1, 2, 10 finished training svm

finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.723 0.837 0.776 1560 1 0.780 0.644 0.705 1401

avg / total 0.750 0.745 0.742 2961

Testing features: 1, 3, 9 finished training svm finished predicting Accuracy: 0.691

precision recall f1-score support

0 0.665 0.832 0.739 1560 1 0.740 0.533 0.620 1401

avg / total 0.701 0.691 0.683 2961

Testing features: 1, 3, 10 finished training svm finished predicting Accuracy: 0.678

precision recall f1-score support

0 0.650 0.846 0.735 1560 1 0.741 0.493 0.592 1401

avg / total 0.693 0.678 0.667 2961

Testing features: 1, 5, 9 finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.799 0.862 0.829 1560 1 0.831 0.759 0.793 1401

avg / total 0.814 0.813 0.812 2961

Testing features: 1, 5, 10

finished training svm finished predicting

Accuracy: 0.812

precision recall f1-score support

0 0.795 0.866 0.829 1560 1 0.834 0.752 0.791 1401

avg / total 0.814 0.812 0.811 2961

Testing features: 1, 6, 9 finished training svm finished predicting

Accuracy: 0.722

precision recall f1-score support

0 0.712 0.791 0.750 1560 1 0.735 0.645 0.687 1401

avg / total 0.723 0.722 0.720 2961

Testing features: 1, 6, 10 finished training svm finished predicting Accuracy: 0.709

precision recall f1-score support

0 0.697 0.794 0.742 1560 1 0.728 0.615 0.667 1401

avg / total 0.712 0.709 0.706 2961

Testing features: 1, 7, 9 finished training svm finished predicting Accuracy: 0.706

precision recall f1-score support

0 0.683 0.822 0.746 1560 1 0.744 0.575 0.649 1401

avg / total 0.712 0.706 0.700 2961

Testing features: 1, 7, 10 finished training svm finished predicting Accuracy: 0.701

precision recall f1-score support

0 0.678 0.824 0.744 1560 1 0.743 0.565 0.642 1401

avg / total 0.709 0.701 0.696 2961

Testing features: 1, 8, 9 finished training svm finished predicting Accuracy: 0.660

precision recall f1-score support

0 0.665 0.712 0.688 1560 1 0.652 0.601 0.626 1401

avg / total 0.659 0.660 0.658 2961

Testing features: 1, 8, 10 finished training svm finished predicting

Accuracy: 0.667

precision recall f1-score support

0 0.649 0.800 0.717 1560 1 0.699 0.518 0.595 1401

avg / total 0.673 0.667 0.659 2961

Testing features: 1, 9, 10 finished training svm finished predicting Accuracy: 0.671

precision recall f1-score support

0 0.672 0.735 0.702 1560 1 0.670 0.600 0.633 1401

avg / total 0.671 0.669 2961

Testing features: 2, 3, 9 finished training svm finished predicting Accuracy: 0.734

precision recall f1-score support

0 0.685 0.917 0.784 1560 1 0.852 0.530 0.653 1401

avg / total 0.764 0.734 0.722 2961

Testing features: 2, 3, 10 finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.689 0.906 0.783 1560 1 0.838 0.545 0.660 1401

avg / total 0.760 0.735 0.725 2961

Testing features: 2, 5, 9 finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.736 0.893 0.807 1560 1 0.844 0.644 0.730 1401

avg / total 0.787 0.775 0.771 2961

Testing features: 2, 5, 10 finished training svm finished predicting Accuracy: 0.777

precision recall f1-score support

0 0.735 0.901 0.810 1560 1 0.852 0.639 0.730 1401 avg / total 0.791 0.777 0.772 2961

Testing features: 2, 6, 9 finished training svm finished predicting Accuracy: 0.671

precision recall f1-score support

0 0.638 0.869 0.736 1560 1 0.756 0.451 0.565 1401

avg / total 0.694 0.671 0.655 2961

Testing features: 2, 6, 10 finished training svm finished predicting Accuracy: 0.682

precision recall f1-score support

0 0.641 0.901 0.749 1560 1 0.799 0.439 0.567 1401

avg / total 0.716 0.682 0.663 2961

Testing features: 2, 7, 9 finished training svm finished predicting Accuracy: 0.695

precision recall f1-score support

0 0.649 0.916 0.760 1560 1 0.827 0.448 0.581 1401

avg / total 0.733 0.695 0.675 2961

Testing features: 2, 7, 10 finished training svm finished predicting Accuracy: 0.688

precision recall f1-score support

0 0.648 0.895 0.752 1560 1 0.797 0.458 0.582 1401 avg / total 0.718 0.688 0.671 2961

Testing features: 2, 8, 9 finished training svm finished predicting Accuracy: 0.675

precision recall f1-score support

0 0.637 0.891 0.743 1560 1 0.782 0.435 0.559 1401

avg / total 0.706 0.675 0.656 2961

Testing features: 2, 8, 10 finished training svm finished predicting Accuracy: 0.665

precision recall f1-score support

0 0.639 0.837 0.725 1560 1 0.723 0.474 0.572 1401

avg / total 0.679 0.665 0.653 2961

Testing features: 2, 9, 10 finished training svm finished predicting Accuracy: 0.667

precision recall f1-score support

0 0.629 0.899 0.740 1560 1 0.784 0.410 0.538 1401

avg / total 0.702 0.667 0.645 2961

Testing features: 3, 5, 9 finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.780 0.888 0.830 1560

1 0.853 0.720 0.781 1401

avg / total 0.814 0.809 0.807 2961

Testing features: 3, 5, 10 finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.770 0.893 0.827 1560 1 0.855 0.702 0.771 1401

avg / total 0.810 0.803 0.800 2961

Testing features: 3, 6, 9 finished training svm finished predicting

Accuracy: 0.714

precision recall f1-score support

0 0.680 0.866 0.762 1560 1 0.785 0.545 0.644 1401

avg / total 0.730 0.714 0.706 2961

Testing features: 3, 6, 10 finished training svm finished predicting Accuracy: 0.712

precision recall f1-score support

0 0.683 0.844 0.755 1560 1 0.765 0.564 0.649 1401

avg / total 0.722 0.712 0.705 2961

Testing features: 3, 7, 9 finished training svm finished predicting Accuracy: 0.711

precision recall f1-score support

0 0.680 0.853 0.757 1560 1 0.771 0.553 0.644 1401

avg / total 0.723 0.711 0.703 2961

Testing features: 3, 7, 10 finished training svm finished predicting Accuracy: 0.706

precision recall f1-score support

0 0.678 0.840 0.751 1560 1 0.757 0.557 0.642 1401

avg / total 0.716 0.706 0.699 2961

Testing features: 3, 8, 9 finished training svm finished predicting Accuracy: 0.668

precision recall f1-score support

0 0.635 0.870 0.734 1560 1 0.754 0.443 0.558 1401

avg / total 0.691 0.668 0.651 2961

Testing features: 3, 8, 10 finished training svm finished predicting Accuracy: 0.670

precision recall f1-score support

0 0.640 0.852 0.731 1560 1 0.739 0.468 0.573 1401

avg / total 0.687 0.670 0.656 2961

Testing features: 3, 9, 10 finished training svm finished predicting Accuracy: 0.670

precision recall f1-score support

0 0.639 0.860 0.733 1560 1 0.747 0.459 0.569 1401

avg / total 0.690 0.670 0.655 2961

Testing features: 5, 6, 9 finished training svm finished predicting Accuracy: 0.758

precision recall f1-score support

0 0.710 0.913 0.799 1560 1 0.858 0.585 0.695 1401

avg / total 0.780 0.758 0.750 2961

Testing features: 5, 6, 10 finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.713 0.888 0.791 1560 1 0.829 0.602 0.697 1401

avg / total 0.768 0.753 0.747 2961

Testing features: 5, 7, 9 finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.722 0.911 0.806 1560 1 0.860 0.610 0.713 1401

avg / total 0.787 0.768 0.762 2961

Testing features: 5, 7, 10 finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.720 0.908 0.803 1560 1 0.856 0.607 0.710 1401

avg / total 0.784 0.766 0.759 2961

Testing features: 5, 8, 9 finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.698 0.929 0.797 1560 1 0.876 0.552 0.677 1401

avg / total 0.782 0.751 0.741 2961

Testing features: 5, 8, 10 finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.699 0.929 0.797 1560 1 0.875 0.554 0.678 1401

avg / total 0.782 0.751 0.741 2961

Testing features: 5, 9, 10 finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.700 0.929 0.799 1560 1 0.876 0.557 0.681 1401

avg / total 0.783 0.753 0.743 2961

Testing features: 6, 7, 9 finished training svm finished predicting

Accuracy: 0.683

precision recall f1-score support

0 0.651 0.856 0.740 1560 1 0.753 0.490 0.593 1401

avg / total 0.699 0.683 0.670 2961

Testing features: 6, 7, 10 finished training svm finished predicting Accuracy: 0.677

precision recall f1-score support

0 0.649 0.846 0.734 1560 1 0.741 0.490 0.590 1401

avg / total 0.692 0.677 0.666 2961

Testing features: 6, 8, 9 finished training svm finished predicting Accuracy: 0.651

precision recall f1-score support

0 0.636 0.790 0.705 1560 1 0.680 0.496 0.574 1401

avg / total 0.657 0.651 0.643 2961

Testing features: 6, 8, 10 finished training svm finished predicting Accuracy: 0.636

precision recall f1-score support

0 0.613 0.838 0.708 1560 1 0.695 0.410 0.516 1401

avg / total 0.652 0.636 0.617 2961

Testing features: 6, 9, 10 finished training svm

finished predicting Accuracy: 0.638

precision recall f1-score support

0 0.618 0.817 0.704 1560 1 0.682 0.438 0.534 1401

avg / total 0.648 0.638 0.623 2961

Testing features: 7, 8, 9 finished training svm finished predicting Accuracy: 0.651

precision recall f1-score support

0 0.629 0.826 0.714 1560 1 0.703 0.457 0.554 1401

avg / total 0.664 0.651 0.638 2961

Testing features: 7, 8, 10 finished training svm finished predicting Accuracy: 0.649

precision recall f1-score support

0 0.631 0.803 0.707 1560 1 0.685 0.478 0.563 1401

avg / total 0.657 0.649 0.639 2961

Testing features: 7, 9, 10 finished training svm finished predicting Accuracy: 0.652

precision recall f1-score support

0 0.628 0.833 0.716 1560 1 0.708 0.450 0.550 1401

avg / total 0.666 0.652 0.637 2961

Testing features: 8, 9, 10

finished training svm finished predicting

Accuracy: 0.608

precision recall f1-score support

0 0.625 0.640 0.632 1560 1 0.588 0.573 0.581 1401

avg / total 0.608 0.608 0.608 2961

Testing features: 0, 1, 2, 9 finished training svm finished predicting

Accuracy: 0.744

precision recall f1-score support

0 0.719 0.842 0.776 1560 1 0.783 0.634 0.701 1401

avg / total 0.749 0.744 0.740 2961

Testing features: 0, 1, 2, 10

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.718 0.847 0.777 1560 1 0.787 0.630 0.700 1401

avg / total 0.751 0.744 0.741 2961

Testing features: 0, 1, 3, 9

finished training svm finished predicting Accuracy: 0.695

precision recall f1-score support

0 0.669 0.833 0.742 1560 1 0.744 0.540 0.626 1401

avg / total 0.705 0.695 0.687 2961

Testing features: 0, 1, 3, 10

finished training svm finished predicting Accuracy: 0.685

precision recall f1-score support

0 0.661 0.822 0.733 1560 1 0.729 0.531 0.614 1401

avg / total 0.693 0.685 0.677 2961

Testing features: 0, 1, 5, 9 finished training svm finished predicting Accuracy: 0.798

precision recall f1-score support

0 0.779 0.862 0.818 1560 1 0.825 0.728 0.774 1401

avg / total 0.801 0.798 0.797 2961

Testing features: 0, 1, 5, 10

finished training svm finished predicting Accuracy: 0.795

precision recall f1-score support

0 0.769 0.872 0.817 1560 1 0.832 0.709 0.766 1401

avg / total 0.799 0.795 0.793 2961

Testing features: 0, 1, 6, 9 finished training svm finished predicting Accuracy: 0.716

precision recall f1-score support

0 0.708 0.783 0.744 1560 1 0.726 0.640 0.681 1401

avg / total 0.717 0.716 0.714 2961

Testing features: 0, 1, 6, 10

finished training svm finished predicting Accuracy: 0.710

precision recall f1-score support

0 0.702 0.781 0.739 1560 1 0.721 0.631 0.673 1401

avg / total 0.711 0.710 0.708 2961

Testing features: 0, 1, 7, 9 finished training svm finished predicting Accuracy: 0.703

precision recall f1-score support

0 0.689 0.797 0.739 1560 1 0.726 0.599 0.656 1401

avg / total 0.707 0.703 0.700 2961

Testing features: 0, 1, 7, 10

finished training svm finished predicting Accuracy: 0.691

precision recall f1-score support

0 0.674 0.801 0.732 1560 1 0.719 0.569 0.635 1401

avg / total 0.695 0.691 0.686 2961

Testing features: 0, 1, 8, 9 finished training svm finished predicting

Accuracy: 0.662

precision recall f1-score support

0 0.665 0.721 0.692 1560 1 0.657 0.597 0.626 1401 avg / total 0.662 0.662 0.660 2961

Testing features: 0, 1, 8, 10

finished training svm finished predicting Accuracy: 0.673

precision recall f1-score support

0 0.665 0.767 0.712 1560 1 0.687 0.570 0.623 1401

avg / total 0.675 0.673 0.670 2961

Testing features: 0, 1, 9, 10

finished training svm finished predicting Accuracy: 0.658

precision recall f1-score support

0 0.657 0.736 0.694 1560 1 0.660 0.572 0.613 1401

avg / total 0.658 0.658 0.656 2961

Testing features: 0, 2, 3, 9 finished training svm finished predicting

Accuracy: 0.745

precision recall f1-score support

0 0.703 0.892 0.786 1560 1 0.828 0.581 0.683 1401

avg / total 0.762 0.745 0.737 2961

Testing features: 0, 2, 3, 10

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.699 0.904 0.788 1560 1 0.841 0.567 0.677 1401 avg / total 0.766 0.744 0.736 2961

Testing features: 0, 2, 5, 9 finished training svm finished predicting Accuracy: 0.776

precision recall f1-score support

0 0.737 0.896 0.808 1560 1 0.847 0.644 0.732 1401

avg / total 0.789 0.776 0.772 2961

Testing features: 0, 2, 5, 10

finished training svm finished predicting Accuracy: 0.780

precision recall f1-score support

0 0.744 0.888 0.809 1560 1 0.841 0.660 0.739 1401

avg / total 0.790 0.780 0.776 2961

Testing features: 0, 2, 6, 9 finished training svm

finished predicting Accuracy: 0.684

precision recall f1-score support

0 0.651 0.860 0.741 1560 1 0.758 0.487 0.593 1401

avg / total 0.702 0.684 0.671 2961

Testing features: 0, 2, 6, 10

finished training svm finished predicting Accuracy: 0.684

precision recall f1-score support

0 0.650 0.868 0.743 1560

1 0.765 0.479 0.589 1401

avg / total 0.704 0.684 0.670 2961

Testing features: 0, 2, 7, 9 finished training svm finished predicting Accuracy: 0.689

precision recall f1-score support

0 0.651 0.881 0.749 1560 1 0.782 0.475 0.591 1401

avg / total 0.713 0.689 0.674 2961

Testing features: 0, 2, 7, 10

finished training svm finished predicting Accuracy: 0.698

precision recall f1-score support

0 0.654 0.903 0.759 1560 1 0.813 0.469 0.595 1401

avg / total 0.730 0.698 0.681 2961

Testing features: 0, 2, 8, 9 finished training svm finished predicting Accuracy: 0.685

precision recall f1-score support

0 0.655 0.847 0.739 1560 1 0.747 0.504 0.602 1401

avg / total 0.699 0.685 0.674 2961

Testing features: 0, 2, 8, 10

finished training svm finished predicting Accuracy: 0.682

precision recall f1-score support

0 0.641 0.897 0.748 1560

1 0.794 0.441 0.567 1401

avg / total 0.714 0.682 0.663 2961

Testing features: 0, 2, 9, 10

finished training svm finished predicting Accuracy: 0.677

precision recall f1-score support

0 0.642 0.872 0.740 1560

1 0.764 0.459 0.573 1401

avg / total 0.700 0.677 0.661 2961

Testing features: 0, 3, 5, 9

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.781 0.889 0.832 1560

1 0.854 0.722 0.783 1401

avg / total 0.816 0.810 0.808 2961

Testing features: 0, 3, 5, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.775 0.894 0.830 1560 1 0.858 0.710 0.777 1401

avg / total 0.814 0.807 0.805 2961

Testing features: 0, 3, 6, 9

finished training svm finished predicting Accuracy: 0.716

precision recall f1-score support

0 0.689 0.841 0.758 1560 1 0.765 0.577 0.658 1401

avg / total 0.725 0.716 0.711 2961

Testing features: 0, 3, 6, 10

finished training svm finished predicting Accuracy: 0.711

precision recall f1-score support

0 0.682 0.847 0.756 1560 1 0.767 0.560 0.647 1401

avg / total 0.722 0.711 0.704 2961

Testing features: 0, 3, 7, 9 finished training svm finished predicting

Accuracy: 0.709

precision recall f1-score support

0 0.682 0.840 0.753 1560 1 0.760 0.563 0.647 1401

avg / total 0.719 0.709 0.703 2961

Testing features: 0, 3, 7, 10

finished training svm finished predicting Accuracy: 0.711

precision recall f1-score support

0 0.681 0.850 0.756 1560 1 0.769 0.557 0.646 1401

avg / total 0.723 0.711 0.704 2961

Testing features: 0, 3, 8, 9 finished training svm finished predicting Accuracy: 0.671

precision recall f1-score support

0 0.640 0.858 0.733 1560 1 0.745 0.463 0.571 1401

avg / total 0.690 0.671 0.656 2961

Testing features: 0, 3, 8, 10

finished training svm finished predicting Accuracy: 0.677

precision recall f1-score support

0 0.648 0.848 0.735 1560 1 0.742 0.487 0.588 1401

avg / total 0.692 0.677 0.665 2961

Testing features: 0, 3, 9, 10

finished training svm finished predicting Accuracy: 0.675

precision recall f1-score support

0 0.646 0.848 0.733 1560 1 0.740 0.483 0.584 1401

avg / total 0.691 0.675 0.663 2961

Testing features: 0, 5, 6, 9 finished training svm finished predicting Accuracy: 0.761

precision recall f1-score support

0 0.720 0.894 0.798 1560 1 0.839 0.613 0.708 1401

avg / total 0.776 0.761 0.756 2961

Testing features: 0, 5, 6, 10

finished training svm finished predicting

Accuracy: 0.759

precision recall f1-score support

0 0.723 0.881 0.794 1560 1 0.825 0.624 0.710 1401

avg / total 0.771 0.759 0.754 2961

Testing features: 0, 5, 7, 9 finished training svm finished predicting Accuracy: 0.767

precision recall f1-score support

0 0.722 0.908 0.804 1560 1 0.856 0.610 0.713 1401

avg / total 0.785 0.767 0.761 2961

Testing features: 0, 5, 7, 10

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.725 0.907 0.806 1560 1 0.856 0.617 0.717 1401

avg / total 0.787 0.770 0.764 2961

Testing features: 0, 5, 8, 9 finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.706 0.912 0.796 1560 1 0.854 0.577 0.689 1401

avg / total 0.776 0.753 0.745 2961

Testing features: 0, 5, 8, 10

finished training svm

finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.707 0.909 0.795 1560 1 0.851 0.580 0.690 1401

avg / total 0.775 0.753 0.746 2961

Testing features: 0, 5, 9, 10

finished training svm finished predicting Accuracy: 0.754

precision recall f1-score support

0 0.705 0.917 0.797 1560 1 0.861 0.573 0.688 1401

avg / total 0.779 0.754 0.746 2961

Testing features: 0, 6, 7, 9 finished training svm

finished predicting
Accuracy: 0.685

precision recall f1-score support

0 0.656 0.844 0.738 1560 1 0.745 0.508 0.604 1401

avg / total 0.698 0.685 0.675 2961

Testing features: 0, 6, 7, 10

finished training svm finished predicting Accuracy: 0.687

precision recall f1-score support

0 0.661 0.831 0.737 1560 1 0.737 0.525 0.613 1401

avg / total 0.697 0.687 0.678 2961

Testing features: 0, 6, 8, 9

finished training svm finished predicting

Accuracy: 0.667

precision recall f1-score support

0 0.645 0.818 0.721 1560 1 0.711 0.499 0.586 1401

avg / total 0.676 0.667 0.657 2961

Testing features: 0, 6, 8, 10

finished training svm finished predicting Accuracy: 0.644

precision recall f1-score support

0 0.619 0.848 0.715 1560 1 0.712 0.418 0.526 1401

avg / total 0.663 0.644 0.626 2961

Testing features: 0, 6, 9, 10

finished training svm finished predicting Accuracy: 0.653

precision recall f1-score support

0 0.632 0.819 0.713 1560 1 0.699 0.468 0.561 1401

avg / total 0.663 0.653 0.641 2961

Testing features: 0, 7, 8, 9

finished training svm finished predicting Accuracy: 0.656

precision recall f1-score support

0 0.634 0.821 0.716 1560 1 0.704 0.473 0.565 1401

avg / total 0.667 0.656 0.645 2961

Testing features: 0, 7, 8, 10

finished training svm finished predicting Accuracy: 0.653

precision recall f1-score support

0 0.631 0.823 0.715 1560 1 0.702 0.465 0.559 1401

avg / total 0.665 0.653 0.641 2961

Testing features: 0, 7, 9, 10

finished training svm finished predicting Accuracy: 0.658

precision recall f1-score support

0 0.632 0.840 0.721 1560 1 0.718 0.455 0.557 1401

avg / total 0.673 0.658 0.644 2961

Testing features: 0, 8, 9, 10

finished training svm finished predicting Accuracy: 0.610

precision recall f1-score support

0 0.624 0.656 0.640 1560 1 0.594 0.559 0.576 1401

avg / total 0.609 0.610 0.609 2961

Testing features: 1, 2, 3, 9 finished training svm finished predicting Accuracy: 0.769

precision recall f1-score support

0 0.740 0.865 0.798 1560 1 0.815 0.662 0.730 1401

avg / total 0.776 0.769 0.766 2961

Testing features: 1, 2, 3, 10

finished training svm finished predicting Accuracy: 0.771

precision recall f1-score support

0 0.736 0.882 0.802 1560 1 0.831 0.647 0.728 1401

avg / total 0.781 0.771 0.767 2961

Testing features: 1, 2, 5, 9 finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.779 0.878 0.826 1560 1 0.842 0.723 0.778 1401

avg / total 0.809 0.805 0.803 2961

Testing features: 1, 2, 5, 10

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.777 0.877 0.824 1560 1 0.840 0.719 0.775 1401

avg / total 0.807 0.802 0.801 2961

Testing features: 1, 2, 6, 9 finished training svm finished predicting Accuracy: 0.732

precision recall f1-score support

0 0.706 0.841 0.767 1560 1 0.775 0.610 0.682 1401 avg / total 0.738 0.732 0.727 2961

Testing features: 1, 2, 6, 10

finished training svm finished predicting Accuracy: 0.730

precision recall f1-score support

0 0.704 0.842 0.767 1560 1 0.775 0.605 0.680 1401

avg / total 0.738 0.730 0.726 2961

Testing features: 1, 2, 7, 9 finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.720 0.851 0.780 1560 1 0.792 0.632 0.703 1401

avg / total 0.754 0.747 0.744 2961

Testing features: 1, 2, 7, 10

finished training svm finished predicting Accuracy: 0.748

precision recall f1-score support

0 0.713 0.873 0.785 1560 1 0.812 0.610 0.696 1401

avg / total 0.760 0.748 0.743 2961

Testing features: 1, 2, 8, 9 finished training svm finished predicting

Accuracy: 0.765

precision recall f1-score support

0 0.749 0.831 0.788 1560 1 0.786 0.690 0.735 1401 avg / total 0.767 0.765 0.763 2961

Testing features: 1, 2, 8, 10

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.744 0.831 0.785 1560 1 0.783 0.681 0.729 1401

avg / total 0.762 0.760 0.758 2961

Testing features: 1, 2, 9, 10

finished training svm finished predicting Accuracy: 0.741

precision recall f1-score support

0 0.714 0.848 0.775 1560 1 0.786 0.622 0.694 1401

avg / total 0.748 0.741 0.737 2961

Testing features: 1, 3, 5, 9

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.790 0.881 0.833 1560 1 0.848 0.739 0.790 1401

avg / total 0.817 0.814 0.813 2961

Testing features: 1, 3, 5, 10

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.787 0.886 0.833 1560

1 0.852 0.732 0.788 1401

avg / total 0.818 0.813 0.812 2961

Testing features: 1, 3, 6, 9 finished training svm finished predicting Accuracy: 0.734

precision recall f1-score support

0 0.719 0.814 0.763 1560 1 0.757 0.645 0.697 1401

avg / total 0.737 0.734 0.732 2961

Testing features: 1, 3, 6, 10

finished training svm finished predicting Accuracy: 0.726

precision recall f1-score support

0 0.704 0.829 0.761 1560 1 0.763 0.611 0.679 1401

avg / total 0.732 0.726 0.722 2961

Testing features: 1, 3, 7, 9 finished training svm finished predicting Accuracy: 0.728

precision recall f1-score support

0 0.701 0.844 0.766 1560 1 0.775 0.600 0.677 1401

avg / total 0.736 0.728 0.724 2961

Testing features: 1, 3, 7, 10

finished training svm finished predicting Accuracy: 0.717

 $0 \quad \ 0.688 \quad 0.848 \quad 0.760 \quad \ 1560$

1 0.772 0.572 0.657 1401

avg / total 0.728 0.717 0.711 2961

Testing features: 1, 3, 8, 9

finished training svm finished predicting Accuracy: 0.707

precision recall f1-score support

0 0.684 0.824 0.747 1560

1 0.746 0.576 0.650 1401

avg / total 0.713 0.707 0.701 2961

Testing features: 1, 3, 8, 10

finished training svm finished predicting Accuracy: 0.696

precision recall f1-score support

0 0.674 0.820 0.740 1560

1 0.736 0.559 0.635 1401

avg / total 0.703 0.696 0.690 2961

Testing features: 1, 3, 9, 10

finished training svm finished predicting Accuracy: 0.691

precision recall f1-score support

0 0.668 0.823 0.738 1560 1 0.734 0.545 0.625 1401

avg / total 0.699 0.691 0.684 2961

Testing features: 1, 5, 6, 9

finished training svm finished predicting Accuracy: 0.802

0 0.781 0.867 0.822 1560 1 0.831 0.729 0.777 1401

avg / total 0.805 0.802 0.800 2961

Testing features: 1, 5, 6, 10

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.775 0.865 0.818 1560 1 0.828 0.720 0.770 1401

avg / total 0.800 0.797 0.795 2961

Testing features: 1, 5, 7, 9

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.781 0.873 0.824 1560 1 0.837 0.727 0.778 1401

avg / total 0.807 0.804 0.802 2961

Testing features: 1, 5, 7, 10

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.769 0.879 0.820 1560 1 0.840 0.706 0.767 1401

avg / total 0.802 0.797 0.795 2961

Testing features: 1, 5, 8, 9 finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.806 0.863 0.833 1560 1 0.834 0.769 0.800 1401

avg / total 0.819 0.818 0.818 2961

Testing features: 1, 5, 8, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.804 0.859 0.831 1560 1 0.830 0.767 0.797 1401

avg / total 0.817 0.816 0.815 2961

Testing features: 1, 5, 9, 10

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.802 0.853 0.826 1560 1 0.823 0.765 0.793 1401

avg / total 0.812 0.811 0.811 2961

Testing features: 1, 6, 7, 9 finished training svm finished predicting Accuracy: 0.748

precision recall f1-score support

0 0.747 0.788 0.767 1560 1 0.749 0.703 0.725 1401

avg / total 0.748 0.748 0.747 2961

Testing features: 1, 6, 7, 10

finished training svm finished predicting

Accuracy: 0.743

precision recall f1-score support

0 0.740 0.790 0.764 1560 1 0.747 0.692 0.718 1401

avg / total 0.744 0.743 0.743 2961

Testing features: 1, 6, 8, 9 finished training svm finished predicting Accuracy: 0.727

precision recall f1-score support

0 0.723 0.781 0.751 1560 1 0.733 0.667 0.699 1401

avg / total 0.728 0.727 0.726 2961

Testing features: 1, 6, 8, 10

finished training svm finished predicting Accuracy: 0.722

precision recall f1-score support

0 0.713 0.792 0.750 1560 1 0.736 0.645 0.687 1401

avg / total 0.724 0.722 0.721 2961

Testing features: 1, 6, 9, 10

finished training svm finished predicting Accuracy: 0.702

precision recall f1-score support

0 0.692 0.783 0.735 1560 1 0.717 0.612 0.661 1401

avg / total 0.704 0.702 0.700 2961

Testing features: 1, 7, 8, 9 finished training svm

finished predicting Accuracy: 0.717

precision recall f1-score support

0 0.703 0.804 0.750 1560 1 0.740 0.621 0.675 1401

avg / total 0.720 0.717 0.714 2961

Testing features: 1, 7, 8, 10

finished training svm finished predicting Accuracy: 0.713

precision recall f1-score support

0 0.697 0.804 0.747 1560 1 0.737 0.610 0.668 1401

avg / total 0.716 0.713 0.709 2961

Testing features: 1, 7, 9, 10

finished training svm finished predicting Accuracy: 0.701

precision recall f1-score support

0 0.682 0.810 0.741 1560 1 0.733 0.580 0.647 1401

avg / total 0.706 0.701 0.696 2961

Testing features: 1, 8, 9, 10

finished training svm finished predicting Accuracy: 0.673

precision recall f1-score support

0 0.677 0.724 0.700 1560 1 0.667 0.615 0.640 1401

avg / total 0.672 0.673 0.672 2961

Testing features: 2, 3, 5, 9

finished training svm finished predicting

Accuracy: 0.809

precision recall f1-score support

0 0.778 0.892 0.831 1560

1 0.856 0.716 0.780 1401

avg / total 0.815 0.809 0.807 2961

Testing features: 2, 3, 5, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.777 0.894 0.831 1560 1 0.858 0.714 0.780 1401

avg / total 0.815 0.809 0.807 2961

Testing features: 2, 3, 6, 9

finished training svm finished predicting

Accuracy: 0.739

precision recall f1-score support

0 0.700 0.884 0.781 1560 1 0.817 0.578 0.677 1401

avg / total 0.756 0.739 0.732 2961

Testing features: 2, 3, 6, 10

finished training svm finished predicting Accuracy: 0.738

precision recall f1-score support

0 0.695 0.894 0.782 1560 1 0.827 0.564 0.671 1401

avg / total 0.758 0.738 0.730 2961 Testing features: 2, 3, 7, 9

finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.706 0.890 0.787 1560 1 0.828 0.587 0.687 1401

avg / total 0.764 0.747 0.740 2961

Testing features: 2, 3, 7, 10

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.695 0.914 0.790 1560 1 0.853 0.554 0.672 1401

avg / total 0.770 0.744 0.734 2961

Testing features: 2, 3, 8, 9 finished training svm finished predicting

Accuracy: 0.748

precision recall f1-score support

0 0.705 0.897 0.790 1560 1 0.835 0.582 0.686 1401

avg / total 0.767 0.748 0.741 2961

Testing features: 2, 3, 8, 10

finished training svm finished predicting Accuracy: 0.740

precision recall f1-score support

0 0.690 0.917 0.788 1560 1 0.854 0.542 0.663 1401

avg / total 0.768 0.740 0.729 2961

Testing features: 2, 3, 9, 10

finished training svm finished predicting Accuracy: 0.741

precision recall f1-score support

0 0.698 0.897 0.785 1560 1 0.832 0.567 0.674 1401

avg / total 0.761 0.741 0.733 2961

Testing features: 2, 5, 6, 9 finished training svm finished predicting Accuracy: 0.776

precision recall f1-score support

0 0.734 0.902 0.809 1560 1 0.853 0.636 0.729 1401

avg / total 0.790 0.776 0.771 2961

Testing features: 2, 5, 6, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.734 0.908 0.811 1560 1 0.860 0.633 0.729 1401

avg / total 0.794 0.778 0.773 2961

Testing features: 2, 5, 7, 9 finished training svm finished predicting Accuracy: 0.781

precision recall f1-score support

0 0.737 0.910 0.814 1560 1 0.864 0.638 0.734 1401 avg / total 0.797 0.781 0.776 2961

Testing features: 2, 5, 7, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.740 0.893 0.809 1560 1 0.845 0.651 0.735 1401

avg / total 0.790 0.778 0.774 2961

Testing features: 2, 5, 8, 9 finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.734 0.899 0.808 1560 1 0.850 0.638 0.729 1401

avg / total 0.789 0.775 0.771 2961

Testing features: 2, 5, 8, 10

finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.733 0.903 0.809 1560 1 0.854 0.633 0.727 1401

avg / total 0.790 0.775 0.770 2961

Testing features: 2, 5, 9, 10

finished training svm finished predicting Accuracy: 0.772

precision recall f1-score support

0 0.736 0.885 0.804 1560 1 0.835 0.647 0.729 1401 avg / total 0.783 0.772 0.768 2961

Testing features: 2, 6, 7, 9 finished training svm finished predicting Accuracy: 0.729

precision recall f1-score support

0 0.693 0.872 0.772 1560 1 0.800 0.570 0.665 1401

avg / total 0.743 0.729 0.722 2961

Testing features: 2, 6, 7, 10

finished training svm finished predicting Accuracy: 0.733

precision recall f1-score support

0 0.697 0.874 0.775 1560 1 0.804 0.577 0.672 1401

avg / total 0.748 0.733 0.726 2961

Testing features: 2, 6, 8, 9

finished training svm finished predicting Accuracy: 0.687

precision recall f1-score support

0 0.665 0.817 0.733 1560 1 0.727 0.541 0.620 1401

avg / total 0.694 0.687 0.680 2961

Testing features: 2, 6, 8, 10

finished training svm finished predicting Accuracy: 0.691

precision recall f1-score support

0 0.654 0.877 0.749 1560

1 0.779 0.484 0.597 1401

avg / total 0.713 0.691 0.677 2961

Testing features: 2, 6, 9, 10

finished training svm finished predicting Accuracy: 0.679

precision recall f1-score support

0 0.645 0.871 0.741 1560 1 0.764 0.466 0.579 1401

avg / total 0.701 0.679 0.664 2961

Testing features: 2, 7, 8, 9 finished training svm finished predicting Accuracy: 0.698

precision recall f1-score support

0 0.661 0.876 0.754 1560 1 0.784 0.500 0.610 1401

avg / total 0.719 0.698 0.686 2961

Testing features: 2, 7, 8, 10

finished training svm finished predicting Accuracy: 0.695

precision recall f1-score support

0 0.656 0.884 0.753 1560 1 0.789 0.484 0.600 1401

avg / total 0.719 0.695 0.681 2961

Testing features: 2, 7, 9, 10

finished training svm finished predicting Accuracy: 0.696

0 0.656 0.890 0.755 1560

1 0.796 0.480 0.599 1401

avg / total 0.722 0.696 0.681 2961

Testing features: 2, 8, 9, 10

finished training svm finished predicting Accuracy: 0.677

precision recall f1-score support

0 0.643 0.872 0.740 1560 1 0.764 0.460 0.574 1401

avg / total 0.700 0.677 0.661 2961

Testing features: 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.778 0.887 0.829 1560 1 0.851 0.719 0.779 1401

avg / total 0.813 0.807 0.806 2961

Testing features: 3, 5, 6, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.776 0.892 0.830 1560 1 0.855 0.714 0.778 1401

avg / total 0.814 0.807 0.805 2961

Testing features: 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.812

0 0.781 0.892 0.833 1560 1 0.858 0.722 0.784 1401

avg / total 0.817 0.812 0.810 2961

Testing features: 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.777 0.894 0.831 1560 1 0.858 0.714 0.779 1401

avg / total 0.815 0.809 0.806 2961

Testing features: 3, 5, 8, 9 finished training svm finished predicting

Accuracy: 0.809

precision recall f1-score support

0 0.777 0.893 0.831 1560 1 0.857 0.715 0.780 1401

avg / total 0.815 0.809 0.807 2961

Testing features: 3, 5, 8, 10

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.768 0.896 0.827 1560 1 0.858 0.699 0.770 1401

avg / total 0.811 0.803 0.800 2961

Testing features: 3, 5, 9, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.780 0.888 0.830 1560 1 0.852 0.721 0.781 1401

avg / total 0.814 0.809 0.807 2961

Testing features: 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.736

precision recall f1-score support

0 0.708 0.850 0.772 1560 1 0.785 0.609 0.686 1401

avg / total 0.744 0.736 0.731 2961

Testing features: 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.728

precision recall f1-score support

0 0.698 0.853 0.768 1560 1 0.783 0.588 0.672 1401

avg / total 0.738 0.728 0.722 2961

Testing features: 3, 6, 8, 9 finished training svm finished predicting Accuracy: 0.719

precision recall f1-score support

0 0.684 0.866 0.764 1560 1 0.788 0.555 0.651 1401

avg / total 0.733 0.719 0.711 2961

Testing features: 3, 6, 8, 10

finished training svm finished predicting

Accuracy: 0.711

precision recall f1-score support

0 0.683 0.842 0.754 1560 1 0.762 0.565 0.649 1401

avg / total 0.720 0.711 0.704 2961

Testing features: 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.712

precision recall f1-score support

0 0.687 0.831 0.752 1560 1 0.754 0.579 0.655 1401

avg / total 0.719 0.712 0.706 2961

Testing features: 3, 7, 8, 9 finished training svm finished predicting

Accuracy: 0.714

precision recall f1-score support

0 0.681 0.860 0.760 1560 1 0.779 0.552 0.647 1401

avg / total 0.728 0.714 0.706 2961

Testing features: 3, 7, 8, 10

finished training svm finished predicting Accuracy: 0.708

precision recall f1-score support

0 0.679 0.847 0.754 1560 1 0.765 0.553 0.642 1401

avg / total 0.720 0.708 0.701 2961

Testing features: 3, 7, 9, 10

finished training svm

finished predicting Accuracy: 0.705

precision recall f1-score support

0 0.680 0.832 0.748 1560 1 0.751 0.564 0.644 1401

avg / total 0.714 0.705 0.699 2961

Testing features: 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.674

precision recall f1-score support

0 0.649 0.830 0.729 1560 1 0.726 0.501 0.593 1401

avg / total 0.686 0.674 0.664 2961

Testing features: 5, 6, 7, 9

finished training svm finished predicting

Accuracy: 0.767

precision recall f1-score support

0 0.724 0.899 0.802 1560 1 0.847 0.619 0.715 1401

avg / total 0.782 0.767 0.761 2961

Testing features: 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.722 0.889 0.797 1560 1 0.834 0.620 0.711 1401

avg / total 0.775 0.762 0.756 2961

Testing features: 5, 6, 8, 9

finished training svm finished predicting

Accuracy: 0.755

precision recall f1-score support

0 0.726 0.860 0.787 1560 1 0.803 0.638 0.711 1401

avg / total 0.762 0.755 0.751 2961

Testing features: 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.720 0.869 0.788 1560 1 0.811 0.624 0.705 1401

avg / total 0.763 0.753 0.749 2961

Testing features: 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.761

precision recall f1-score support

0 0.720 0.896 0.798 1560 1 0.841 0.611 0.708 1401

avg / total 0.777 0.761 0.755 2961

Testing features: 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.725 0.909 0.806 1560 1 0.859 0.615 0.717 1401

avg / total 0.788 0.770 0.764 2961

Testing features: 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.720 0.910 0.804 1560 1 0.858 0.606 0.710 1401

avg / total 0.785 0.766 0.759 2961

Testing features: 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.725 0.909 0.806 1560 1 0.859 0.615 0.717 1401

avg / total 0.788 0.770 0.764 2961

Testing features: 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.700 0.927 0.798 1560 1 0.873 0.557 0.680 1401

avg / total 0.782 0.752 0.742 2961

Testing features: 6, 7, 8, 9 finished training svm finished predicting Accuracy: 0.693

precision recall f1-score support

0 0.663 0.847 0.744 1560 1 0.754 0.520 0.616 1401

avg / total 0.706 0.693 0.683 2961

Testing features: 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.695

precision recall f1-score support

0 0.667 0.841 0.744 1560 1 0.750 0.532 0.622 1401

avg / total 0.706 0.695 0.686 2961

Testing features: 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.689

precision recall f1-score support

0 0.663 0.836 0.739 1560 1 0.742 0.526 0.616 1401

avg / total 0.700 0.689 0.681 2961

Testing features: 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.652

precision recall f1-score support

0 0.639 0.781 0.703 1560 1 0.676 0.507 0.580 1401

avg / total 0.656 0.652 0.645 2961

Testing features: 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.653

precision recall f1-score support

0 0.633 0.813 0.712 1560 1 0.695 0.475 0.565 1401 avg / total 0.662 0.653 0.642 2961

Testing features: 0, 1, 2, 3, 9

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.753 0.862 0.804 1560 1 0.817 0.685 0.745 1401

avg / total 0.783 0.778 0.776 2961

Testing features: 0, 1, 2, 3, 10

finished training svm finished predicting Accuracy: 0.772

precision recall f1-score support

0 0.741 0.873 0.801 1560 1 0.824 0.660 0.732 1401

avg / total 0.780 0.772 0.769 2961

Testing features: 0, 1, 2, 5, 9

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.775 0.879 0.824 1560 1 0.842 0.716 0.774 1401

avg / total 0.807 0.802 0.800 2961

Testing features: 0, 1, 2, 5, 10

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.781 0.872 0.824 1560 1 0.837 0.727 0.778 1401 avg / total 0.807 0.804 0.802 2961

Testing features: 0, 1, 2, 6, 9

finished training svm finished predicting Accuracy: 0.723

precision recall f1-score support

0 0.702 0.823 0.758 1560 1 0.756 0.611 0.676 1401

avg / total 0.728 0.723 0.719 2961

Testing features: 0, 1, 2, 6, 10

finished training svm finished predicting Accuracy: 0.723

precision recall f1-score support

0 0.699 0.833 0.760 1560 1 0.763 0.601 0.673 1401

avg / total 0.730 0.723 0.719 2961

Testing features: 0, 1, 2, 7, 9

finished training svm finished predicting Accuracy: 0.736

precision recall f1-score support

0 0.713 0.833 0.769 1560 1 0.772 0.627 0.692 1401

avg / total 0.741 0.736 0.732 2961

Testing features: 0, 1, 2, 7, 10

finished training svm finished predicting Accuracy: 0.742

precision recall f1-score support

0 0.709 0.865 0.779 1560

1 0.801 0.605 0.689 1401

avg / total 0.753 0.742 0.737 2961

Testing features: 0, 1, 2, 8, 9

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.746 0.827 0.784 1560 1 0.781 0.686 0.730 1401

0.760 0.759

2961

Testing features: 0, 1, 2, 8, 10

0.762

finished training svm finished predicting Accuracy: 0.749

avg / total

precision recall f1-score support

0 0.731 0.829 0.777 1560 1 0.777 0.660 0.714 1401

avg / total 0.753 0.749 0.747 2961

Testing features: 0, 1, 2, 9, 10

finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.710 0.840 0.769 1560 1 0.776 0.618 0.688 1401

avg / total 0.741 0.735 0.731 2961

Testing features: 0, 1, 3, 5, 9

finished training svm finished predicting Accuracy: 0.816

 $0 \quad \ 0.795 \quad 0.878 \quad 0.834 \quad 1560$

1 0.846 0.747 0.793 1401

avg / total 0.819 0.816 0.815 2961

Testing features: 0, 1, 3, 5, 10

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.788 0.885 0.833 1560

1 0.851 0.734 0.789 1401

avg / total 0.818 0.814 0.812 2961

Testing features: 0, 1, 3, 6, 9

finished training svm finished predicting Accuracy: 0.729

3.40y. 0.720

precision recall f1-score support

0 0.717 0.804 0.758 1560

1 0.748 0.646 0.693 1401

avg / total 0.731 0.729 0.727 2961

Testing features: 0, 1, 3, 6, 10

finished training svm finished predicting Accuracy: 0.721

precision recall f1-score support

0 0.700 0.822 0.756 1560 1 0.754 0.607 0.673 1401

avg / total 0.726 0.721 0.717 2961

Testing features: 0, 1, 3, 7, 9

finished training svm finished predicting Accuracy: 0.726

0 0.706 0.824 0.760 1560

1 0.759 0.618 0.681 1401

avg / total 0.731 0.726 0.723 2961

Testing features: 0, 1, 3, 7, 10

finished training svm finished predicting Accuracy: 0.722

precision recall f1-score support

 $0 \quad \ 0.695 \quad 0.840 \quad 0.761 \quad 1560$

1 0.768 0.590 0.667 1401

avg / total 0.730 0.722 0.717 2961

Testing features: 0, 1, 3, 8, 9

finished training svm finished predicting Accuracy: 0.709

precision recall f1-score support

0 0.686 0.825 0.749 1560

1 0.748 0.580 0.653 1401

avg / total 0.716 0.709 0.704 2961

Testing features: 0, 1, 3, 8, 10

finished training svm finished predicting Accuracy: 0.693

precision recall f1-score support

0 0.671 0.818 0.737 1560 1 0.732 0.554 0.631 1401

avg / total 0.700 0.693 0.687 2961

Testing features: 0, 1, 3, 9, 10

finished training svm finished predicting Accuracy: 0.688

precision recall f1-score support

0 0.667 0.814 0.733 1560 1 0.726 0.547 0.624 1401

avg / total 0.695 0.688 0.682 2961

Testing features: 0, 1, 5, 6, 9

finished training svm finished predicting Accuracy: 0.798

precision recall f1-score support

0 0.780 0.859 0.818 1560 1 0.823 0.731 0.774 1401

avg / total 0.801 0.798 0.797 2961

Testing features: 0, 1, 5, 6, 10

finished training svm finished predicting Accuracy: 0.796

precision recall f1-score support

0 0.775 0.864 0.817 1560 1 0.826 0.720 0.770 1401

avg / total 0.799 0.796 0.795 2961

Testing features: 0, 1, 5, 7, 9

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.785 0.862 0.822 1560 1 0.828 0.737 0.779 1401

avg / total 0.805 0.803 0.802 2961

Testing features: 0, 1, 5, 7, 10

finished training svm finished predicting

Accuracy: 0.796

precision recall f1-score support

0 0.772 0.870 0.818 1560 1 0.831 0.714 0.769 1401

avg / total 0.800 0.796 0.795 2961

Testing features: 0, 1, 5, 8, 9

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.800 0.853 0.826 1560 1 0.823 0.763 0.792 1401

avg / total 0.811 0.810 0.810 2961

Testing features: 0, 1, 5, 8, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.790 0.862 0.824 1560 1 0.829 0.744 0.785 1401

avg / total 0.808 0.806 0.806 2961

Testing features: 0, 1, 5, 9, 10

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.780 0.854 0.816 1560 1 0.819 0.732 0.773 1401

avg / total 0.799 0.797 0.796 2961

Testing features: 0, 1, 6, 7, 9

finished training svm

finished predicting Accuracy: 0.741

precision recall f1-score support

0 0.744 0.775 0.759 1560

1 0.737 0.702 0.719 1401

avg / total 0.740 0.741 0.740 2961

Testing features: 0, 1, 6, 7, 10

finished training svm finished predicting Accuracy: 0.741

precision recall f1-score support

 $0 \quad \ 0.740 \quad 0.783 \quad 0.761 \quad 1560$

1 0.742 0.693 0.717 1401

avg / total 0.741 0.741 0.740 2961

Testing features: 0, 1, 6, 8, 9

finished training svm finished predicting Accuracy: 0.719

precision recall f1-score support

0 0.715 0.776 0.744 1560 1 0.724 0.655 0.688 1401

avg / total 0.719 0.719 0.717 2961

Testing features: 0, 1, 6, 8, 10

finished training svm finished predicting Accuracy: 0.712

precision recall f1-score support

0 0.705 0.779 0.741 1560 1 0.722 0.637 0.677 1401

avg / total 0.713 0.712 0.710 2961

Testing features: 0, 1, 6, 9, 10

finished training svm finished predicting

Accuracy: 0.701

precision recall f1-score support

0 0.692 0.780 0.733 1560 1 0.715 0.613 0.660 1401

avg / total 0.703 0.701 0.699 2961

Testing features: 0, 1, 7, 8, 9

finished training svm finished predicting Accuracy: 0.712

precision recall f1-score support

0 0.701 0.789 0.743 1560 1 0.727 0.626 0.673 1401

avg / total 0.714 0.712 0.710 2961

Testing features: 0, 1, 7, 8, 10

finished training svm finished predicting Accuracy: 0.703

precision recall f1-score support

0 0.690 0.794 0.738 1560 1 0.724 0.602 0.658 1401

avg / total 0.706 0.703 0.700 2961

Testing features: 0, 1, 7, 9, 10

finished training svm finished predicting Accuracy: 0.703

precision recall f1-score support

0 0.689 0.794 0.738 1560 1 0.724 0.602 0.657 1401

avg / total 0.706 0.703 0.700 2961

Testing features: 0, 1, 8, 9, 10

finished training svm finished predicting Accuracy: 0.666

precision recall f1-score support

0 0.663 0.743 0.701 1560 1 0.669 0.580 0.621 1401

avg / total 0.666 0.666 0.663 2961

Testing features: 0, 2, 3, 5, 9

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.784 0.890 0.834 1560 1 0.856 0.727 0.786 1401

avg / total 0.818 0.813 0.811 2961

Testing features: 0, 2, 3, 5, 10

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.785 0.888 0.833 1560 1 0.854 0.729 0.787 1401

avg / total 0.818 0.813 0.811 2961

Testing features: 0, 2, 3, 6, 9

finished training svm finished predicting Accuracy: 0.738

precision recall f1-score support

0 0.705 0.862 0.776 1560 1 0.796 0.599 0.684 1401

avg / total 0.748 0.738 0.732 2961

Testing features: 0, 2, 3, 6, 10

finished training svm finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.706 0.882 0.784 1560 1 0.818 0.592 0.687 1401

avg / total 0.759 0.745 0.738 2961

Testing features: 0, 2, 3, 7, 9

finished training svm finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.710 0.871 0.782 1560 1 0.808 0.604 0.691 1401

avg / total 0.756 0.745 0.739 2961

Testing features: 0, 2, 3, 7, 10

finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.707 0.902 0.792 1560 1 0.842 0.583 0.689 1401

avg / total 0.771 0.751 0.744 2961

Testing features: 0, 2, 3, 8, 9

finished training svm finished predicting Accuracy: 0.748

precision recall f1-score support

0 0.711 0.877 0.786 1560 1 0.815 0.604 0.694 1401 avg / total 0.760 0.748 0.742 2961

Testing features: 0, 2, 3, 8, 10

finished training svm finished predicting Accuracy: 0.742

precision recall f1-score support

0 0.701 0.890 0.784 1560 1 0.825 0.577 0.679 1401

avg / total 0.760 0.742 0.734 2961

Testing features: 0, 2, 3, 9, 10

finished training svm finished predicting Accuracy: 0.740

precision recall f1-score support

0 0.705 0.871 0.779 1560 1 0.805 0.595 0.684 1401

avg / total 0.753 0.740 0.734 2961

Testing features: 0, 2, 5, 6, 9

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.733 0.886 0.802 1560 1 0.835 0.641 0.725 1401

avg / total 0.781 0.770 0.766 2961

Testing features: 0, 2, 5, 6, 10

finished training svm finished predicting Accuracy: 0.769

precision recall f1-score support

0 0.738 0.871 0.799 1560 1 0.820 0.656 0.729 1401 avg / total 0.777 0.769 0.766 2961

Testing features: 0, 2, 5, 7, 9

finished training svm finished predicting Accuracy: 0.772

precision recall f1-score support

0 0.733 0.890 0.804 1560 1 0.840 0.640 0.726 1401

avg / total 0.784 0.772 0.767 2961

Testing features: 0, 2, 5, 7, 10

finished training svm finished predicting Accuracy: 0.782

precision recall f1-score support

0 0.741 0.901 0.813 1560 1 0.855 0.650 0.739 1401

avg / total 0.795 0.782 0.778 2961

Testing features: 0, 2, 5, 8, 9

finished training svm finished predicting Accuracy: 0.780

precision recall f1-score support

0 0.743 0.892 0.811 1560 1 0.845 0.657 0.739 1401

avg / total 0.791 0.780 0.777 2961

Testing features: 0, 2, 5, 8, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.742 0.885 0.808 1560

1 0.837 0.658 0.737 1401

avg / total 0.787 0.778 0.774 2961

Testing features: 0, 2, 5, 9, 10

finished training svm finished predicting Accuracy: 0.773

precision recall f1-score support

0 0.738 0.882 0.804 1560 1 0.832 0.651 0.730 1401

avg / total 0.782 0.773 0.769 2961

Testing features: 0, 2, 6, 7, 9

finished training svm finished predicting Accuracy: 0.727

precision recall f1-score support

0 0.699 0.846 0.765 1560 1 0.776 0.594 0.673 1401

avg / total 0.735 0.727 0.722 2961

Testing features: 0, 2, 6, 7, 10

finished training svm finished predicting Accuracy: 0.729

precision recall f1-score support

0 0.697 0.862 0.771 1560 1 0.791 0.582 0.671 1401

avg / total 0.741 0.729 0.723 2961

Testing features: 0, 2, 6, 8, 9

finished training svm finished predicting Accuracy: 0.685

0 0.669 0.798 0.728 1560

1 0.713 0.560 0.627 1401

avg / total 0.690 0.685 0.680 2961

Testing features: 0, 2, 6, 8, 10

finished training svm finished predicting Accuracy: 0.692

precision recall f1-score support

0 0.662 0.848 0.743 1560

1 0.754 0.517 0.614 1401

avg / total 0.705 0.692 0.682 2961

Testing features: 0, 2, 6, 9, 10

finished training svm finished predicting Accuracy: 0.679

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precision recall f1-score support

0 0.654 0.830 0.731 1560

1 0.730 0.510 0.601 1401

avg / total 0.690 0.679 0.670 2961

Testing features: 0, 2, 7, 8, 9

finished training svm finished predicting Accuracy: 0.696

precision recall f1-score support

0 0.661 0.867 0.750 1560 1 0.774 0.505 0.611 1401

avg / total 0.714 0.696 0.684 2961

Testing features: 0, 2, 7, 8, 10

finished training svm finished predicting Accuracy: 0.700

0 0.664 0.872 0.754 1560

1 0.781 0.507 0.615 1401

avg / total 0.719 0.700 0.688 2961

Testing features: 0, 2, 7, 9, 10

finished training svm finished predicting Accuracy: 0.687

precision recall f1-score support

 $0 \quad \ 0.654 \quad 0.862 \quad 0.744 \quad 1560$

1 0.762 0.491 0.597 1401

avg / total 0.705 0.687 0.674 2961

Testing features: 0, 2, 8, 9, 10

finished training svm finished predicting Accuracy: 0.682

precision recall f1-score support

0 0.653 0.846 0.737 1560

1 0.744 0.500 0.598 1401

avg / total 0.696 0.682 0.671 2961

Testing features: 0, 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.784 0.879 0.829 1560

1 0.844 0.731 0.783 1401

avg / total 0.813 0.809 0.807 2961

Testing features: 0, 3, 5, 6, 10

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.788 0.887 0.834 1560 1 0.854 0.734 0.789 1401

avg / total 0.819 0.815 0.813 2961

Testing features: 0, 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.817

precision recall f1-score support

0 0.790 0.890 0.837 1560 1 0.858 0.736 0.792 1401

avg / total 0.822 0.817 0.816 2961

Testing features: 0, 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.786 0.890 0.835 1560 1 0.857 0.730 0.788 1401

avg / total 0.820 0.815 0.813 2961

Testing features: 0, 3, 5, 8, 9

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.776 0.890 0.830 1560 1 0.854 0.714 0.778 1401

avg / total 0.813 0.807 0.805 2961

Testing features: 0, 3, 5, 8, 10

finished training svm finished predicting

Accuracy: 0.805

precision recall f1-score support

0 0.773 0.894 0.829 1560 1 0.857 0.707 0.775 1401

1 0.657 0.707 0.775 1401

avg / total 0.812 0.805 0.803 2961

Testing features: 0, 3, 5, 9, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.779 0.884 0.828 1560

1 0.848 0.720 0.779 1401

avg / total 0.811 0.806 0.805 2961

Testing features: 0, 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.737

precision recall f1-score support

0 0.709 0.849 0.773 1560 1 0.784 0.612 0.688 1401

avg / total 0.745 0.737 0.733 2961

Testing features: 0, 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.738

precision recall f1-score support

0 0.708 0.858 0.775 1560 1 0.793 0.605 0.686 1401

avg / total 0.748 0.738 0.733 2961

Testing features: 0, 3, 6, 8, 9

finished training svm

finished predicting Accuracy: 0.712

precision recall f1-score support

0 0.692 0.817 0.750 1560 1 0.745 0.595 0.662 1401

avg / total 0.717 0.712 0.708 2961

Testing features: 0, 3, 6, 8, 10

finished training svm finished predicting Accuracy: 0.703

precision recall f1-score support

0 0.681 0.821 0.745 1560 1 0.742 0.572 0.646 1401

avg / total 0.710 0.703 0.698 2961

Testing features: 0, 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.703

precision recall f1-score support

0 0.682 0.819 0.744 1560 1 0.740 0.574 0.647 1401

avg / total 0.709 0.703 0.698 2961

Testing features: 0, 3, 7, 8, 9

finished training svm finished predicting Accuracy: 0.713

precision recall f1-score support

0 0.687 0.837 0.754 1560 1 0.760 0.575 0.655 1401

avg / total 0.721 0.713 0.707 2961

Testing features: 0, 3, 7, 8, 10

finished training svm finished predicting

Accuracy: 0.706

precision recall f1-score support

0 0.677 0.844 0.752 1560 1 0.761 0.552 0.640 1401

avg / total 0.717 0.706 0.699 2961

Testing features: 0, 3, 7, 9, 10

finished training svm finished predicting Accuracy: 0.703

precision recall f1-score support

0 0.681 0.821 0.744 1560 1 0.741 0.571 0.645 1401

avg / total 0.709 0.703 0.697 2961

Testing features: 0, 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.680

precision recall f1-score support

0 0.653 0.835 0.733 1560 1 0.734 0.506 0.599 1401

avg / total 0.691 0.680 0.670 2961

Testing features: 0, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.726 0.890 0.800 1560 1 0.837 0.627 0.717 1401

avg / total 0.779 0.766 0.761 2961

Testing features: 0, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.725 0.877 0.794 1560 1 0.821 0.630 0.713 1401

avg / total 0.771 0.760 0.755 2961

Testing features: 0, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.763

precision recall f1-score support

0 0.725 0.885 0.797 1560 1 0.830 0.627 0.714 1401

avg / total 0.775 0.763 0.758 2961

Testing features: 0, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.757

precision recall f1-score support

0 0.723 0.875 0.792 1560 1 0.818 0.626 0.709 1401

avg / total 0.768 0.757 0.753 2961

Testing features: 0, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.761

precision recall f1-score support

0 0.726 0.878 0.795 1560 1 0.822 0.631 0.714 1401

avg / total 0.772 0.761 0.756 2961

Testing features: 0, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.725 0.903 0.804 1560 1 0.852 0.618 0.716 1401

avg / total 0.785 0.768 0.763 2961

Testing features: 0, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.729 0.898 0.805 1560 1 0.847 0.628 0.721 1401

avg / total 0.785 0.770 0.765 2961

Testing features: 0, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.726 0.894 0.801 1560 1 0.841 0.624 0.716 1401

avg / total 0.780 0.766 0.761 2961

Testing features: 0, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.707 0.907 0.795 1560 1 0.849 0.582 0.690 1401 avg / total 0.774 0.753 0.745 2961

Testing features: 0, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.688

precision recall f1-score support

0 0.665 0.821 0.735 1560 1 0.730 0.540 0.621 1401

avg / total 0.696 0.688 0.681 2961

Testing features: 0, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.691

precision recall f1-score support

0 0.668 0.823 0.737 1560 1 0.734 0.544 0.625 1401

avg / total 0.699 0.691 0.684 2961

Testing features: 0, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.689

precision recall f1-score support

0 0.668 0.814 0.734 1560 1 0.727 0.550 0.626 1401

avg / total 0.696 0.689 0.683 2961

Testing features: 0, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.647

precision recall f1-score support

0 0.635 0.779 0.699 1560 1 0.670 0.501 0.574 1401 avg / total 0.652 0.647 0.640 2961

Testing features: 0, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.656

precision recall f1-score support

0 0.641 0.785 0.706 1560 1 0.681 0.511 0.584 1401

avg / total 0.660 0.656 0.648 2961

Testing features: 1, 2, 3, 5, 9

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.794 0.879 0.834 1560 1 0.847 0.747 0.794 1401

avg / total 0.819 0.816 0.815 2961

Testing features: 1, 2, 3, 5, 10

finished training svm finished predicting Accuracy: 0.819

precision recall f1-score support

0 0.807 0.864 0.834 1560 1 0.836 0.769 0.801 1401

avg / total 0.820 0.819 0.819 2961

Testing features: 1, 2, 3, 6, 9

finished training svm finished predicting Accuracy: 0.759

precision recall f1-score support

0 0.734 0.849 0.788 1560

1 0.797 0.657 0.720 1401

avg / total 0.764 0.759 0.756 2961

Testing features: 1, 2, 3, 6, 10

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.729 0.867 0.792 1560 1 0.812 0.640 0.716 1401

avg / total 0.768 0.760 0.756 2961

Testing features: 1, 2, 3, 7, 9

finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.743 0.856 0.795 1560 1 0.807 0.670 0.732 1401

avg / total 0.773 0.768 0.765 2961

Testing features: 1, 2, 3, 7, 10

finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.741 0.881 0.805 1560 1 0.833 0.657 0.735 1401

avg / total 0.785 0.775 0.772 2961

Testing features: 1, 2, 3, 8, 9

finished training svm finished predicting Accuracy: 0.787

precision recall f1-score support

0 0.763 0.864 0.810 1560

1 0.822 0.701 0.757 1401

avg / total 0.791 0.787 0.785 2961

Testing features: 1, 2, 3, 8, 10

finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

 $0 \quad \ 0.747 \quad 0.867 \quad 0.803 \quad \ 1560$

1 0.819 0.674 0.740 1401

avg / total 0.781 0.775 0.773 2961

Testing features: 1, 2, 3, 9, 10

finished training svm finished predicting Accuracy: 0.771

precision recall f1-score support

0 0.741 0.868 0.800 1560

1 0.818 0.662 0.732 1401

avg / total 0.778 0.771 0.768 2961

Testing features: 1, 2, 5, 6, 9

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.786 0.875 0.828 1560 1 0.841 0.735 0.784 1401

avg / total 0.812 0.809 0.808 2961

Testing features: 1, 2, 5, 6, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.782 0.828 0.879 1560

1 0.844 0.727 0.781 1401

avg / total 0.811 0.807 0.806 2961

Testing features: 1, 2, 5, 7, 9

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.776 0.873 0.822 1560

1 0.836 0.719 0.773 1401

avg / total 0.804 0.800 0.799 2961

Testing features: 1, 2, 5, 7, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.780 0.878 0.826 1560

1 0.842 0.724 0.779 1401

avg / total 0.810 0.805 0.804 2961

Testing features: 1, 2, 5, 8, 9

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.787 0.878 0.830 1560

1 0.844 0.736 0.786 1401

avg / total 0.814 0.811 0.810 2961

Testing features: 1, 2, 5, 8, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.789 0.871 0.828 1560 1 0.837 0.740 0.786 1401

avg / total 0.811 0.809 0.808 2961

Testing features: 1, 2, 5, 9, 10

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.780 0.871 0.823 1560 1 0.834 0.726 0.776 1401

avg / total 0.805 0.802 0.801 2961

Testing features: 1, 2, 6, 7, 9

finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.730 0.842 0.782 1560 1 0.788 0.654 0.715 1401

avg / total 0.758 0.753 0.750 2961

Testing features: 1, 2, 6, 7, 10

finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.725 0.853 0.784 1560 1 0.796 0.640 0.710 1401

avg / total 0.759 0.752 0.749 2961

Testing features: 1, 2, 6, 8, 9

finished training svm finished predicting

Accuracy: 0.747

avg / total

precision recall f1-score support

0 0.732 0.820 0.773 1560 1 0.768 0.665 0.713 1401

0.747

0.745

2961

Testing features: 1, 2, 6, 8, 10

0.749

finished training svm finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.728 0.825 0.773 1560 1 0.771 0.656 0.709 1401

avg / total 0.748 0.745 0.743 2961

Testing features: 1, 2, 6, 9, 10

finished training svm finished predicting Accuracy: 0.719

precision recall f1-score support

0 0.701 0.812 0.753 1560 1 0.746 0.615 0.674 1401

avg / total 0.722 0.719 0.715 2961

Testing features: 1, 2, 7, 8, 9

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.743 0.851 0.793 1560 1 0.802 0.672 0.731 1401

avg / total 0.770 0.766 0.764 2961

Testing features: 1, 2, 7, 8, 10

finished training svm

finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.744 0.837 0.788 1560 1 0.789 0.679 0.730 1401

avg / total 0.765 0.762 0.760 2961

Testing features: 1, 2, 7, 9, 10

finished training svm finished predicting Accuracy: 0.737

precision recall f1-score support

0 0.707 0.853 0.773 1560 1 0.787 0.607 0.686 1401

avg / total 0.745 0.737 0.732 2961

Testing features: 1, 2, 8, 9, 10

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.744 0.829 0.784 1560 1 0.782 0.682 0.729 1401

avg / total 0.762 0.760 0.758 2961

Testing features: 1, 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.822

precision recall f1-score support

0 0.803 0.877 0.838 1560 1 0.847 0.761 0.802 1401

avg / total 0.824 0.822 0.821 2961

Testing features: 1, 3, 5, 6, 10

finished training svm finished predicting

Accuracy: 0.823

precision recall f1-score support

0 0.801 0.883 0.840 1560 1 0.853 0.756 0.802 1401

avg / total 0.826 0.823 0.822 2961

Testing features: 1, 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.821

precision recall f1-score support

0 0.801 0.878 0.838 1560 1 0.847 0.757 0.800 1401

avg / total 0.823 0.821 0.820 2961

Testing features: 1, 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.794 0.884 0.837 1560 1 0.852 0.745 0.795 1401

avg / total 0.822 0.818 0.817 2961

Testing features: 1, 3, 5, 8, 9

finished training svm finished predicting Accuracy: 0.819

precision recall f1-score support

0 0.795 0.885 0.838 1560 1 0.853 0.747 0.796 1401

avg / total 0.823 0.819 0.818 2961

Testing features: 1, 3, 5, 8, 10

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.788 0.880 0.831 1560 1 0.846 0.736 0.787 1401

avg / total 0.816 0.812 0.811 2961

Testing features: 1, 3, 5, 9, 10

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.792 0.875 0.831 1560 1 0.842 0.744 0.790 1401

avg / total 0.816 0.813 0.812 2961

Testing features: 1, 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.752 0.816 0.783 1560 1 0.774 0.701 0.736 1401

avg / total 0.763 0.762 0.761 2961

Testing features: 1, 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.757

precision recall f1-score support

0 0.744 0.821 0.781 1560 1 0.775 0.685 0.727 1401

avg / total 0.759 0.757 0.755 2961

Testing features: 1, 3, 6, 8, 9

finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.729 0.829 0.776 1560 1 0.775 0.657 0.711 1401

avg / total 0.751 0.747 0.745 2961

Testing features: 1, 3, 6, 8, 10

finished training svm finished predicting Accuracy: 0.732

precision recall f1-score support

0 0.710 0.830 0.766 1560 1 0.767 0.623 0.688 1401

avg / total 0.737 0.732 0.729 2961

Testing features: 1, 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.731

precision recall f1-score support

0 0.717 0.810 0.761 1560 1 0.753 0.643 0.694 1401

avg / total 0.734 0.731 0.729 2961

Testing features: 1, 3, 7, 8, 9

finished training svm finished predicting Accuracy: 0.733

precision recall f1-score support

0 0.707 0.842 0.769 1560 1 0.777 0.611 0.684 1401 avg / total 0.740 0.733 0.729 2961

Testing features: 1, 3, 7, 8, 10

finished training svm finished predicting Accuracy: 0.724

precision recall f1-score support

0 0.694 0.852 0.765 1560 1 0.779 0.582 0.666 1401

avg / total 0.734 0.724 0.718 2961

Testing features: 1, 3, 7, 9, 10

finished training svm finished predicting Accuracy: 0.721

precision recall f1-score support

0 0.700 0.822 0.756 1560 1 0.754 0.607 0.673 1401

avg / total 0.726 0.721 0.717 2961

Testing features: 1, 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.706

precision recall f1-score support

0 0.687 0.812 0.744 1560 1 0.737 0.588 0.654 1401

avg / total 0.711 0.706 0.702 2961

Testing features: 1, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.805 0.849 0.827 1560 1 0.821 0.771 0.795 1401 avg / total 0.813 0.812 0.812 2961

Testing features: 1, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.794 0.860 0.826 1560 1 0.828 0.752 0.788 1401

avg / total 0.810 0.809 0.808 2961

Testing features: 1, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.797 0.864 0.829 1560 1 0.833 0.754 0.792 1401

avg / total 0.814 0.812 0.811 2961

Testing features: 1, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.792

precision recall f1-score support

0 0.773 0.856 0.812 1560 1 0.818 0.720 0.766 1401

avg / total 0.794 0.792 0.790 2961

Testing features: 1, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.794

precision recall f1-score support

0 0.774 0.860 0.815 1560

1 0.822 0.721 0.768 1401

avg / total 0.797 0.794 0.793 2961

Testing features: 1, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.799 0.860 0.828 1560 1 0.830 0.759 0.793 1401

avg / total 0.813 0.812 0.812 2961

Testing features: 1, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.808

precision recall f1-score support

0 0.791 0.865 0.826 1560 1 0.832 0.745 0.786 1401

avg / total 0.810 0.808 0.807 2961

Testing features: 1, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.782 0.873 0.825 1560 1 0.838 0.729 0.779 1401

avg / total 0.808 0.805 0.803 2961

Testing features: 1, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.809 0.843 0.825 1560

1 0.816 0.778 0.797 1401

avg / total 0.812 0.812 0.812 2961

Testing features: 1, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.754

precision recall f1-score support

0 0.754 0.792 0.772 1560

1 0.754 0.712 0.733 1401

avg / total 0.754 0.754 0.754 2961

Testing features: 1, 6, 7, 8, 10

finished training svm finished predicting

Accuracy: 0.749

precision recall f1-score support

0 0.746 0.792 0.769 1560

1 0.752 0.700 0.725 1401

avg / total 0.749 0.749 0.748 2961

Testing features: 1, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.740

precision recall f1-score support

0 0.738 0.786 0.761 1560 1 0.743 0.689 0.715 1401

avg / total 0.740 0.740 0.739 2961

Testing features: 1, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.713

precision recall f1-score support

0 0.707 0.778 0.741 1560

1 0.722 0.641 0.679 1401

avg / total 0.714 0.713 0.712 2961

Testing features: 1, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.713

precision recall f1-score support

 $0 \quad \ 0.700 \quad 0.797 \quad 0.745 \quad 1560$

1 0.733 0.620 0.672 1401

avg / total 0.716 0.713 0.711 2961

Testing features: 2, 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.780 0.883 0.828 1560

1 0.848 0.722 0.780 1401

avg / total 0.812 0.807 0.805 2961

Testing features: 2, 3, 5, 6, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.780 0.883 0.828 1560

1 0.848 0.722 0.780 1401

avg / total 0.812 0.807 0.805 2961

Testing features: 2, 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.784 0.893 0.835 1560 1 0.859 0.727 0.787 1401

avg / total 0.820 0.814 0.813 2961

Testing features: 2, 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.782 0.888 0.832 1560 1 0.853 0.725 0.784 1401

avg / total 0.816 0.811 0.809 2961

Testing features: 2, 3, 5, 8, 9

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.778 0.896 0.833 1560 1 0.861 0.714 0.781 1401

avg / total 0.817 0.810 0.808 2961

Testing features: 2, 3, 5, 8, 10

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.784 0.884 0.831 1560 1 0.849 0.729 0.784 1401

avg / total 0.815 0.811 0.809 2961

Testing features: 2, 3, 5, 9, 10

finished training svm finished predicting

Accuracy: 0.808

precision recall f1-score support

0 0.776 0.894 0.831 1560 1 0.858 0.713 0.779 1401

avg / total 0.815 0.808 0.806 2961

Testing features: 2, 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.738

precision recall f1-score support

0 0.702 0.874 0.779 1560 1 0.807 0.586 0.679 1401

avg / total 0.752 0.738 0.731 2961

Testing features: 2, 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.739

precision recall f1-score support

0 0.698 0.889 0.782 1560 1 0.823 0.572 0.675 1401

avg / total 0.757 0.739 0.732 2961

Testing features: 2, 3, 6, 8, 9

finished training svm finished predicting Accuracy: 0.748

precision recall f1-score support

0 0.712 0.876 0.786 1560 1 0.815 0.605 0.695 1401

avg / total 0.761 0.748 0.743 2961

Testing features: 2, 3, 6, 8, 10

finished training svm

finished predicting Accuracy: 0.740

precision recall f1-score support

0 0.700 0.885 0.782 1560 1 0.818 0.578 0.678 1401

avg / total 0.756 0.740 0.732 2961

Testing features: 2, 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.734

precision recall f1-score support

0 0.702 0.860 0.773 1560 1 0.792 0.594 0.679 1401

avg / total 0.744 0.734 0.728 2961

Testing features: 2, 3, 7, 8, 9

finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.709 0.883 0.786 1560 1 0.820 0.596 0.690 1401

avg / total 0.761 0.747 0.741 2961

Testing features: 2, 3, 7, 8, 10

finished training svm finished predicting Accuracy: 0.748

precision recall f1-score support

0 0.704 0.901 0.791 1560 1 0.840 0.578 0.685 1401

avg / total 0.768 0.748 0.741 2961

Testing features: 2, 3, 7, 9, 10

finished training svm finished predicting

Accuracy: 0.746

precision recall f1-score support

0 0.708 0.881 0.785 1560 1 0.819 0.596 0.690 1401

avg / total 0.761 0.746 0.740 2961

Testing features: 2, 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.742

precision recall f1-score support

0 0.705 0.879 0.782 1560 1 0.815 0.590 0.684 1401

avg / total 0.757 0.742 0.736 2961

Testing features: 2, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.777 0.885 0.828 1560 1 0.848 0.718 0.778 1401

avg / total 0.811 0.806 0.804 2961

Testing features: 2, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.776 0.887 0.827 1560 1 0.850 0.714 0.776 1401

avg / total 0.811 0.805 0.803 2961

Testing features: 2, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.773

precision recall f1-score support

0 0.737 0.885 0.805 1560 1 0.835 0.649 0.730 1401

avg / total 0.784 0.773 0.769 2961

Testing features: 2, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.742 0.888 0.809 1560 1 0.841 0.656 0.737 1401

avg / total 0.789 0.778 0.775 2961

Testing features: 2, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.773

precision recall f1-score support

0 0.740 0.878 0.803 1560 1 0.828 0.656 0.732 1401

avg / total 0.781 0.773 0.769 2961

Testing features: 2, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.784

precision recall f1-score support

0 0.749 0.886 0.812 1560 1 0.841 0.670 0.745 1401

avg / total 0.792 0.784 0.780 2961

Testing features: 2, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.784

precision recall f1-score support

0 0.747 0.892 0.813 1560 1 0.847 0.663 0.744 1401

avg / total 0.794 0.784 0.780 2961

Testing features: 2, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.779

precision recall f1-score support

0 0.743 0.888 0.809 1560 1 0.840 0.657 0.738 1401

avg / total 0.789 0.779 0.775 2961

Testing features: 2, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.737 0.892 0.807 1560 1 0.843 0.645 0.731 1401

avg / total 0.787 0.775 0.771 2961

Testing features: 2, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.737

precision recall f1-score support

0 0.703 0.867 0.776 1560 1 0.799 0.592 0.680 1401 avg / total 0.748 0.737 0.731 2961

Testing features: 2, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.737

precision recall f1-score support

0 0.703 0.868 0.777 1560 1 0.801 0.591 0.680 1401

avg / total 0.749 0.737 0.731 2961

Testing features: 2, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.727

precision recall f1-score support

0 0.700 0.842 0.764 1560 1 0.773 0.599 0.675 1401

avg / total 0.734 0.727 0.722 2961

Testing features: 2, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.690

precision recall f1-score support

0 0.663 0.837 0.740 1560 1 0.743 0.527 0.617 1401

avg / total 0.701 0.690 0.682 2961

Testing features: 2, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.700

precision recall f1-score support

0 0.666 0.863 0.752 1560 1 0.772 0.518 0.620 1401 avg / total 0.716 0.700 0.690 2961

Testing features: 3, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.783 0.893 0.835 1560 1 0.859 0.725 0.786 1401

avg / total 0.819 0.814 0.812 2961

Testing features: 3, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.779 0.894 0.833 1560 1 0.859 0.717 0.782 1401

avg / total 0.817 0.811 0.809 2961

Testing features: 3, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.785 0.885 0.832 1560 1 0.850 0.730 0.786 1401

avg / total 0.816 0.812 0.810 2961

Testing features: 3, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.808

precision recall f1-score support

0 0.784 0.878 0.828 1560

1 0.843 0.731 0.783 1401

avg / total 0.812 0.808 0.807 2961

Testing features: 3, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.781 0.883 0.829 1560 1 0.847 0.724 0.781 1401

avg / total 0.812 0.807 0.806 2961

Testing features: 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.783 0.892 0.834 1560 1 0.857 0.725 0.786 1401

avg / total 0.818 0.813 0.811 2961

Testing features: 3, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.774 0.894 0.830 1560 1 0.857 0.710 0.777 1401

avg / total 0.814 0.807 0.805 2961

Testing features: 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.786 0.885 0.832 1560

1 0.851 0.732 0.787 1401

avg / total 0.817 0.812 0.811 2961

Testing features: 3, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

 $0 \quad \ 0.782 \quad 0.881 \quad 0.828 \quad 1560$

1 0.845 0.726 0.781 1401

avg / total 0.812 0.807 0.806 2961

Testing features: 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.743

precision recall f1-score support

0 0.714 0.854 0.778 1560

1 0.792 0.620 0.695 1401

avg / total 0.751 0.743 0.739 2961

Testing features: 3, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.739

precision recall f1-score support

0 0.710 0.852 0.775 1560 1 0.788 0.613 0.690 1401

avg / total 0.747 0.739 0.734 2961

Testing features: 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.736

precision recall f1-score support

0 0.713 0.835 0.769 1560

1 0.773 0.625 0.691 1401

avg / total 0.741 0.736 0.732 2961

Testing features: 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.709

precision recall f1-score support

0 0.685 0.826 0.749 1560

1 0.749 0.578 0.652 1401

avg / total 0.715 0.709 0.703 2961

Testing features: 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.716

precision recall f1-score support

0 0.690 0.839 0.757 1560

1 0.764 0.580 0.659 1401

avg / total 0.725 0.716 0.711 2961

Testing features: 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.733 0.887 0.803 1560 1 0.836 0.640 0.725 1401

avg / total 0.782 0.770 0.766 2961

Testing features: 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.764

precision recall f1-score support

0 0.730 0.876 0.796 1560 1 0.822 0.640 0.719 1401

avg / total 0.774 0.764 0.760 2961

Testing features: 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.767

precision recall f1-score support

0 0.731 0.881 0.799 1560 1 0.829 0.639 0.721 1401

avg / total 0.777 0.767 0.762 2961

Testing features: 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.720 0.870 0.788 1560 1 0.812 0.624 0.705 1401

avg / total 0.763 0.753 0.749 2961

Testing features: 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.724 0.904 0.804 1560 1 0.853 0.615 0.715 1401

avg / total 0.785 0.768 0.762 2961

Testing features: 6, 7, 8, 9, 10

finished training svm finished predicting

Accuracy: 0.696

precision recall f1-score support

0 0.675 0.815 0.738 1560 1 0.732 0.562 0.636 1401

1 0.732 0.302 0.030 1401

avg / total 0.702 0.696 0.690 2961

Testing features: 0, 1, 2, 3, 5, 9

finished training svm finished predicting Accuracy: 0.826

precision recall f1-score support

0 0.808 0.878 0.842 1560 1 0.850 0.768 0.807 1401

avg / total 0.828 0.826 0.825 2961

Testing features: 0, 1, 2, 3, 5, 10

finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.801 0.872 0.835 1560 1 0.842 0.759 0.798 1401

avg / total 0.820 0.818 0.817 2961

Testing features: 0, 1, 2, 3, 6, 9

finished training svm finished predicting Accuracy: 0.746

precision recall f1-score support

0 0.729 0.826 0.774 1560 1 0.772 0.658 0.711 1401

avg / total 0.749 0.746 0.744 2961

Testing features: 0, 1, 2, 3, 6, 10

finished training svm

finished predicting

Accuracy: 0.755

precision recall f1-score support

0 0.729 0.852 0.786 1560 1 0.797 0.648 0.715 1401

avg / total 0.761 0.755 0.752 2961

Testing features: 0, 1, 2, 3, 7, 9

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.742 0.851 0.793 1560 1 0.802 0.670 0.730 1401

avg / total 0.770 0.766 0.763 2961

Testing features: 0, 1, 2, 3, 7, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.746 0.878 0.807 1560 1 0.831 0.668 0.741 1401

avg / total 0.786 0.778 0.775 2961

Testing features: 0, 1, 2, 3, 8, 9

finished training svm finished predicting Accuracy: 0.774

precision recall f1-score support

0 0.755 0.846 0.797 1560 1 0.801 0.694 0.744 1401

avg / total 0.777 0.774 0.772 2961

Testing features: 0, 1, 2, 3, 8, 10

finished training svm finished predicting

Accuracy: 0.770

precision recall f1-score support

0 0.745 0.858 0.797 1560 1 0.809 0.673 0.735 1401

avg / total 0.775 0.770 0.768 2961

Testing features: 0, 1, 2, 3, 9, 10

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.735 0.851 0.789 1560 1 0.799 0.657 0.721 1401

avg / total 0.765 0.760 0.757 2961

Testing features: 0, 1, 2, 5, 6, 9

finished training svm finished predicting Accuracy: 0.789

precision recall f1-score support

0 0.771 0.852 0.809 1560 1 0.813 0.718 0.763 1401

avg / total 0.791 0.789 0.787 2961

Testing features: 0, 1, 2, 5, 6, 10

finished training svm finished predicting Accuracy: 0.794

precision recall f1-score support

0 0.773 0.861 0.815 1560 1 0.823 0.719 0.767 1401

avg / total 0.797 0.794 0.792 2961

Testing features: 0, 1, 2, 5, 7, 9

finished training svm finished predicting Accuracy: 0.793

precision recall f1-score support

0 0.770 0.865 0.815 1560 1 0.826 0.712 0.765 1401

avg / total 0.797 0.793 0.791 2961

Testing features: 0, 1, 2, 5, 7, 10

finished training svm finished predicting Accuracy: 0.799

precision recall f1-score support

0 0.776 0.871 0.821 1560 1 0.833 0.720 0.773 1401

avg / total 0.803 0.799 0.798 2961

Testing features: 0, 1, 2, 5, 8, 9

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.789 0.871 0.828 1560 1 0.837 0.740 0.786 1401

avg / total 0.811 0.809 0.808 2961

Testing features: 0, 1, 2, 5, 8, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.781 0.875 0.826 1560 1 0.839 0.727 0.779 1401

avg / total 0.809 0.805 0.804 2961

Testing features: 0, 1, 2, 5, 9, 10

finished training svm finished predicting Accuracy: 0.795

precision recall f1-score support

0 0.775 0.860 0.815 1560 1 0.823 0.722 0.769 1401

avg / total 0.797 0.795 0.793 2961

Testing features: 0, 1, 2, 6, 7, 9

finished training svm finished predicting Accuracy: 0.733

precision recall f1-score support

0 0.716 0.818 0.764 1560 1 0.759 0.639 0.694 1401

avg / total 0.736 0.733 0.731 2961

Testing features: 0, 1, 2, 6, 7, 10

finished training svm finished predicting Accuracy: 0.748

precision recall f1-score support

0 0.728 0.833 0.777 1560 1 0.778 0.654 0.711 1401

avg / total 0.752 0.748 0.746 2961

Testing features: 0, 1, 2, 6, 8, 9

finished training svm finished predicting Accuracy: 0.725

precision recall f1-score support

0 0.719 0.787 0.751 1560 1 0.735 0.657 0.694 1401 avg / total 0.726 0.725 0.724 2961

Testing features: 0, 1, 2, 6, 8, 10

finished training svm finished predicting Accuracy: 0.734

precision recall f1-score support

0 0.722 0.804 0.761 1560 1 0.750 0.656 0.700 1401

avg / total 0.736 0.734 0.732 2961

Testing features: 0, 1, 2, 6, 9, 10

finished training svm finished predicting Accuracy: 0.715

precision recall f1-score support

0 0.700 0.804 0.748 1560 1 0.738 0.616 0.672 1401

avg / total 0.718 0.715 0.712 2961

Testing features: 0, 1, 2, 7, 8, 9

finished training svm finished predicting Accuracy: 0.746

precision recall f1-score support

0 0.732 0.817 0.772 1560 1 0.766 0.667 0.713 1401

avg / total 0.748 0.746 0.744 2961

Testing features: 0, 1, 2, 7, 8, 10

finished training svm finished predicting Accuracy: 0.746

precision recall f1-score support

0 0.724 0.837 0.776 1560 1 0.780 0.645 0.706 1401 avg / total 0.751 0.746 0.743 2961

Testing features: 0, 1, 2, 7, 9, 10

finished training svm finished predicting Accuracy: 0.728

precision recall f1-score support

0 0.706 0.830 0.763 1560 1 0.765 0.615 0.681 1401

avg / total 0.734 0.728 0.724 2961

Testing features: 0, 1, 2, 8, 9, 10

finished training svm finished predicting Accuracy: 0.746

precision recall f1-score support

0 0.732 0.816 0.772 1560 1 0.765 0.667 0.713 1401

avg / total 0.748 0.746 0.744 2961

Testing features: 0, 1, 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.801 0.863 0.831 1560 1 0.833 0.762 0.796 1401

avg / total 0.816 0.815 0.814 2961

Testing features: 0, 1, 3, 5, 6, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.797 0.874 0.834 1560

1 0.843 0.752 0.795 1401

avg / total 0.819 0.816 0.815 2961

Testing features: 0, 1, 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.821

precision recall f1-score support

0 0.807 0.869 0.837 1560 1 0.840 0.769 0.803 1401

avg / total 0.823 0.821 0.821 2961

Testing features: 0, 1, 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.821

precision recall f1-score support

0 0.800 0.880 0.838 1560 1 0.850 0.754 0.799 1401

avg / total 0.823 0.821 0.820 2961

Testing features: 0, 1, 3, 5, 8, 9

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.794 0.879 0.835 1560 1 0.848 0.746 0.793 1401

avg / total 0.819 0.816 0.815 2961

Testing features: 0, 1, 3, 5, 8, 10

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

 $0 \quad \ 0.789 \quad 0.881 \quad 0.833 \quad 1560$

1 0.848 0.738 0.789 1401

avg / total 0.817 0.814 0.812 2961

Testing features: 0, 1, 3, 5, 9, 10

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.791 0.871 0.829 1560

1 0.838 0.744 0.789 1401

avg / total 0.814 0.811 0.810 2961

Testing features: 0, 1, 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.755

precision recall f1-score support

0 0.749 0.805 0.776 1560

1 0.763 0.700 0.730 1401

avg / total 0.756 0.755 0.754 2961

Testing features: 0, 1, 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.757

precision recall f1-score support

0 0.741 0.827 0.782 1560 1 0.779 0.679 0.725 1401

avg / total 0.759 0.757 0.755 2961

Testing features: 0, 1, 3, 6, 8, 9

finished training svm finished predicting Accuracy: 0.719

precision recall f1-score support

 $0 \quad \ 0.714 \quad 0.776 \quad 0.744 \quad 1560$

1 0.724 0.655 0.688 1401

avg / total 0.719 0.719 0.717 2961

Testing features: 0, 1, 3, 6, 8, 10

finished training svm finished predicting Accuracy: 0.721

precision recall f1-score support

 $0 \quad \ 0.706 \quad 0.808 \quad 0.753 \quad 1560$

1 0.745 0.625 0.680 1401

avg / total 0.724 0.721 0.719 2961

Testing features: 0, 1, 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.718

precision recall f1-score support

 $0 \quad \ 0.706 \quad 0.798 \quad 0.749 \quad 1560$

1 0.737 0.630 0.679 1401

avg / total 0.720 0.718 0.716 2961

Testing features: 0, 1, 3, 7, 8, 9

finished training svm finished predicting Accuracy: 0.733

precision recall f1-score support

0 0.714 0.821 0.764 1560

1 0.761 0.634 0.692 1401

avg / total 0.736 0.733 0.730 2961

Testing features: 0, 1, 3, 7, 8, 10

finished training svm finished predicting Accuracy: 0.721

precision recall f1-score support

0 0.698 0.831 0.758 1560 1 0.761 0.599 0.670 1401

avg / total 0.727 0.721 0.717 2961

Testing features: 0, 1, 3, 7, 9, 10

finished training svm finished predicting Accuracy: 0.719

precision recall f1-score support

0 0.700 0.818 0.754 1560 1 0.750 0.610 0.673 1401

avg / total 0.724 0.719 0.716 2961

Testing features: 0, 1, 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.701

precision recall f1-score support

0 0.683 0.807 0.740 1560 1 0.731 0.584 0.649 1401

avg / total 0.706 0.701 0.697 2961

Testing features: 0, 1, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.791 0.849 0.819 1560 1 0.817 0.750 0.782 1401

avg / total 0.803 0.802 0.801 2961

Testing features: 0, 1, 5, 6, 7, 10

finished training svm finished predicting

Accuracy: 0.806

precision recall f1-score support

0 0.794 0.853 0.823 1560 1 0.822 0.754 0.786 1401

avg / total 0.807 0.806 0.805 2961

Testing features: 0, 1, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.795

precision recall f1-score support

0 0.781 0.847 0.813 1560 1 0.812 0.736 0.772 1401

avg / total 0.796 0.795 0.794 2961

Testing features: 0, 1, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.791

precision recall f1-score support

0 0.772 0.857 0.812 1560 1 0.819 0.718 0.765 1401

avg / total 0.794 0.791 0.790 2961

Testing features: 0, 1, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.782

precision recall f1-score support

0 0.766 0.844 0.803 1560 1 0.804 0.713 0.756 1401

avg / total 0.784 0.782 0.781 2961

Testing features: 0, 1, 5, 7, 8, 9

finished training svm

finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.794 0.846 0.819 1560 1 0.815 0.756 0.784 1401

avg / total 0.804 0.803 0.803 2961

Testing features: 0, 1, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.779 0.858 0.817 1560 1 0.822 0.729 0.773 1401

avg / total 0.800 0.797 0.796 2961

Testing features: 0, 1, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.796

precision recall f1-score support

0 0.781 0.852 0.815 1560 1 0.817 0.734 0.773 1401

avg / total 0.798 0.796 0.795 2961

Testing features: 0, 1, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.795

precision recall f1-score support

0 0.787 0.838 0.812 1560 1 0.806 0.748 0.776 1401

avg / total 0.796 0.795 0.795 2961

Testing features: 0, 1, 6, 7, 8, 9

finished training svm finished predicting

Accuracy: 0.745

precision recall f1-score support

0 0.753 0.769 0.761 1560 1 0.737 0.719 0.728 1401

avg / total 0.745 0.745 0.745 2961

Testing features: 0, 1, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.743 0.786 0.764 1560 1 0.745 0.697 0.721 1401

avg / total 0.744 0.744 0.743 2961

Testing features: 0, 1, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.733

precision recall f1-score support

0 0.732 0.778 0.754 1560 1 0.734 0.683 0.708 1401

avg / total 0.733 0.733 0.732 2961

Testing features: 0, 1, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.706

precision recall f1-score support

0 0.702 0.769 0.734 1560 1 0.712 0.636 0.672 1401

avg / total 0.707 0.706 0.705 2961

Testing features: 0, 1, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.706

precision recall f1-score support

0 0.700 0.775 0.735 1560 1 0.715 0.630 0.670 1401

avg / total 0.707 0.706 0.704 2961

Testing features: 0, 2, 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.801

precision recall f1-score support

0 0.778 0.872 0.822 1560 1 0.836 0.722 0.775 1401

avg / total 0.805 0.801 0.800 2961

Testing features: 0, 2, 3, 5, 6, 10

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.779 0.879 0.826 1560 1 0.843 0.722 0.777 1401

avg / total 0.809 0.804 0.803 2961

Testing features: 0, 2, 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.783 0.885 0.831 1560 1 0.851 0.727 0.784 1401

avg / total 0.815 0.811 0.809 2961

Testing features: 0, 2, 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.779 0.898 0.834 1560 1 0.863 0.716 0.783 1401

avg / total 0.819 0.812 0.810 2961

Testing features: 0, 2, 3, 5, 8, 9

finished training svm finished predicting Accuracy: 0.817

precision recall f1-score support

0 0.787 0.895 0.837 1560 1 0.862 0.730 0.791 1401

avg / total 0.822 0.817 0.815 2961

Testing features: 0, 2, 3, 5, 8, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.780 0.888 0.830 1560 1 0.853 0.720 0.781 1401

avg / total 0.814 0.809 0.807 2961

Testing features: 0, 2, 3, 5, 9, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.781 0.880 0.827 1560 1 0.844 0.724 0.780 1401 avg / total 0.811 0.806 0.805 2961

Testing features: 0, 2, 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.738

precision recall f1-score support

0 0.710 0.849 0.774 1560 1 0.786 0.615 0.690 1401

avg / total 0.746 0.738 0.734 2961

Testing features: 0, 2, 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.709 0.876 0.784 1560 1 0.813 0.600 0.690 1401

avg / total 0.758 0.745 0.740 2961

Testing features: 0, 2, 3, 6, 8, 9

finished training svm finished predicting Accuracy: 0.739

precision recall f1-score support

0 0.719 0.828 0.770 1560 1 0.769 0.640 0.699 1401

avg / total 0.743 0.739 0.736 2961

Testing features: 0, 2, 3, 6, 8, 10

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.714 0.856 0.779 1560 1 0.794 0.619 0.696 1401 avg / total 0.752 0.744 0.739 2961

Testing features: 0, 2, 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.731

precision recall f1-score support

0 0.707 0.836 0.766 1560 1 0.771 0.615 0.684 1401

avg / total 0.737 0.731 0.727 2961

Testing features: 0, 2, 3, 7, 8, 9

finished training svm finished predicting Accuracy: 0.748

precision recall f1-score support

0 0.717 0.862 0.783 1560 1 0.801 0.622 0.700 1401

avg / total 0.757 0.748 0.744 2961

Testing features: 0, 2, 3, 7, 8, 10

finished training svm finished predicting Accuracy: 0.749

precision recall f1-score support

0 0.711 0.882 0.788 1560 1 0.821 0.602 0.694 1401

avg / total 0.763 0.749 0.744 2961

Testing features: 0, 2, 3, 7, 9, 10

finished training svm finished predicting Accuracy: 0.739

precision recall f1-score support

0 0.709 0.855 0.775 1560

1 0.791 0.609 0.688 1401

avg / total 0.747 0.739 0.734 2961

Testing features: 0, 2, 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.741

precision recall f1-score support

0 0.714 0.849 0.776 1560 1 0.787 0.621 0.694 1401

avg / total 0.749 0.741 0.737 2961

Testing features: 0, 2, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.776 0.866 0.818 1560 1 0.829 0.721 0.771 1401

avg / total 0.801 0.797 0.796 2961

Testing features: 0, 2, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.795

precision recall f1-score support

0 0.771 0.869 0.817 1560 1 0.830 0.713 0.767 1401

avg / total 0.799 0.795 0.794 2961

Testing features: 0, 2, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.741 0.861 0.797 1560

1 0.811 0.665 0.731 1401

avg / total 0.774 0.768 0.766 2961

Testing features: 0, 2, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.740 0.870 0.800 1560

1 0.820 0.660 0.731 1401

avg / total 0.778 0.770 0.767 2961

Testing features: 0, 2, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.758

precision recall f1-score support

0 0.735 0.846 0.787 1560

1 0.794 0.660 0.721 1401

avg / total 0.763 0.758 0.756 2961

Testing features: 0, 2, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.779

precision recall f1-score support

0 0.743 0.886 0.808 1560 1 0.838 0.660 0.738 1401

avg / total 0.788 0.779 0.775 2961

Testing features: 0, 2, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.777

precision recall f1-score support

 $0 \quad \ 0.742 \quad 0.884 \quad 0.807 \quad 1560$

1 0.836 0.658 0.736 1401

avg / total 0.787 0.777 0.774 2961

Testing features: 0, 2, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.771

precision recall f1-score support

0 0.739 0.874 0.801 1560

1 0.823 0.656 0.730 1401

avg / total 0.779 0.771 0.767 2961

Testing features: 0, 2, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.767

precision recall f1-score support

 $0 \quad \ 0.736 \quad 0.871 \quad 0.798 \quad 1560$

1 0.819 0.652 0.726 1401

avg / total 0.775 0.767 0.764 2961

Testing features: 0, 2, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.724

precision recall f1-score support

0 0.707 0.811 0.756 1560

1 0.749 0.627 0.682 1401

avg / total 0.727 0.724 0.721 2961

Testing features: 0, 2, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.706 0.854 0.773 1560 1 0.788 0.603 0.683 1401

avg / total 0.744 0.735 0.730 2961

Testing features: 0, 2, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.722

precision recall f1-score support

0 0.703 0.821 0.757 1560 1 0.754 0.613 0.676 1401

avg / total 0.727 0.722 0.719 2961

Testing features: 0, 2, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.677

precision recall f1-score support

0 0.663 0.788 0.720 1560 1 0.701 0.553 0.619 1401

avg / total 0.681 0.677 0.672 2961

Testing features: 0, 2, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.695

precision recall f1-score support

0 0.669 0.833 0.742 1560 1 0.745 0.541 0.627 1401

avg / total 0.705 0.695 0.688 2961

Testing features: 0, 3, 5, 6, 7, 9

finished training svm finished predicting

Accuracy: 0.809

precision recall f1-score support

0 0.786 0.876 0.828 1560 1 0.841 0.734 0.784 1401

avg / total 0.812 0.809 0.808 2961

Testing features: 0, 3, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.781 0.888 0.831 1560 1 0.853 0.723 0.783 1401

avg / total 0.815 0.810 0.808 2961

Testing features: 0, 3, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.784 0.869 0.824 1560 1 0.834 0.733 0.780 1401

avg / total 0.807 0.804 0.803 2961

Testing features: 0, 3, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.787 0.863 0.824 1560 1 0.830 0.740 0.782 1401

avg / total 0.807 0.805 0.804 2961

Testing features: 0, 3, 5, 6, 9, 10

finished training svm

finished predicting Accuracy: 0.792

precision recall f1-score support

0 0.771 0.860 0.813 1560 1 0.821 0.716 0.765 1401

avg / total 0.795 0.792 0.790 2961

Testing features: 0, 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.785 0.881 0.831 1560 1 0.847 0.732 0.785 1401

avg / total 0.815 0.811 0.809 2961

Testing features: 0, 3, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.788 0.891 0.836 1560 1 0.858 0.732 0.790 1401

avg / total 0.821 0.816 0.814 2961

Testing features: 0, 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.796 0.875 0.834 1560 1 0.843 0.750 0.794 1401

avg / total 0.818 0.816 0.815 2961

Testing features: 0, 3, 5, 8, 9, 10

finished training svm finished predicting

Accuracy: 0.801

precision recall f1-score support

0 0.776 0.875 0.823 1560

1 0.838 0.719 0.774 1401

avg / total 0.806 0.801 0.800 2961

Testing features: 0, 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.731

precision recall f1-score support

0 0.711 0.824 0.763 1560

1 0.762 0.627 0.688 1401

avg / total 0.735 0.731 0.728 2961

Testing features: 0, 3, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.738

precision recall f1-score support

0 0.712 0.844 0.772 1560 1 0.781 0.620 0.691 1401

avg / total 0.745 0.738 0.734 2961

Testing features: 0, 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.725

precision recall f1-score support

0 0.706 0.821 0.759 1560 1 0.756 0.619 0.681 1401

avg / total 0.729 0.725 0.722 2961

Testing features: 0, 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.697

precision recall f1-score support

0 0.687 0.783 0.732 1560 1 0.713 0.602 0.653 1401

avg / total 0.699 0.697 0.695 2961

Testing features: 0, 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.709

precision recall f1-score support

0 0.690 0.812 0.746 1560 1 0.739 0.594 0.658 1401

avg / total 0.713 0.709 0.704 2961

Testing features: 0, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.729 0.872 0.795 1560 1 0.818 0.640 0.718 1401

avg / total 0.771 0.762 0.758 2961

Testing features: 0, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.758

precision recall f1-score support

0 0.726 0.866 0.790 1560 1 0.810 0.637 0.713 1401

avg / total 0.766 0.758 0.754 2961

Testing features: 0, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.759

precision recall f1-score support

0 0.729 0.862 0.790 1560 1 0.807 0.644 0.716 1401

avg / total 0.766 0.759 0.755 2961

Testing features: 0, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.724 0.840 0.778 1560 1 0.783 0.644 0.707 1401

avg / total 0.752 0.747 0.744 2961

Testing features: 0, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.765

precision recall f1-score support

0 0.730 0.880 0.798 1560 1 0.827 0.637 0.719 1401

avg / total 0.776 0.765 0.761 2961

Testing features: 0, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.689

precision recall f1-score support

0 0.679 0.779 0.726 1560 1 0.706 0.589 0.642 1401 avg / total 0.691 0.689 0.686 2961

Testing features: 1, 2, 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.824

precision recall f1-score support

0 0.804 0.879 0.840 1560 1 0.850 0.762 0.803 1401

avg / total 0.826 0.824 0.823 2961

Testing features: 1, 2, 3, 5, 6, 10

finished training svm finished predicting Accuracy: 0.821

precision recall f1-score support

0 0.804 0.873 0.837 1560 1 0.844 0.762 0.801 1401

avg / total 0.822 0.821 0.820 2961

Testing features: 1, 2, 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.826

precision recall f1-score support

0 0.807 0.879 0.842 1560 1 0.850 0.767 0.806 1401

avg / total 0.828 0.826 0.825 2961

Testing features: 1, 2, 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.831

precision recall f1-score support

0 0.814 0.880 0.846 1560 1 0.853 0.776 0.813 1401 avg / total 0.832 0.831 0.830 2961

Testing features: 1, 2, 3, 5, 8, 9

finished training svm finished predicting Accuracy: 0.828

precision recall f1-score support

0 0.809 0.882 0.844 1560 1 0.854 0.768 0.809 1401

avg / total 0.830 0.828 0.827 2961

Testing features: 1, 2, 3, 5, 8, 10

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.811 0.865 0.837 1560 1 0.838 0.776 0.806 1401

avg / total 0.824 0.823 0.822 2961

Testing features: 1, 2, 3, 5, 9, 10

finished training svm finished predicting Accuracy: 0.824

precision recall f1-score support

0 0.809 0.872 0.839 1560 1 0.844 0.771 0.806 1401

avg / total 0.825 0.824 0.823 2961

Testing features: 1, 2, 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.765

precision recall f1-score support

0 0.743 0.846 0.791 1560

1 0.797 0.675 0.731 1401

avg / total 0.769 0.765 0.762 2961

Testing features: 1, 2, 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.733 0.863 0.793 1560

1 0.810 0.650 0.721 1401

avg / total 0.770 0.762 0.759 2961

Testing features: 1, 2, 3, 6, 8, 9

finished training svm finished predicting Accuracy: 0.780

precision recall f1-score support

0 0.759 0.853 0.803 1560 1 0.810 0.698 0.750 1401

avg / total 0.783 0.780 0.778 2961

Testing features: 1, 2, 3, 6, 8, 10

finished training svm finished predicting Accuracy: 0.771

precision recall f1-score support

0 0.743 0.865 0.799 1560 1 0.816 0.667 0.734 1401

avg / total 0.778 0.771 0.769 2961

Testing features: 1, 2, 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

 $0 \quad \ 0.728 \quad 0.842 \quad 0.781 \quad 1560$

1 0.787 0.650 0.712 1401

avg / total 0.756 0.751 0.748 2961

Testing features: 1, 2, 3, 7, 8, 9

finished training svm finished predicting Accuracy: 0.779

precision recall f1-score support

0 0.755 0.859 0.804 1560

1 0.815 0.690 0.747 1401

avg / total 0.783 0.779 0.777 2961

Testing features: 1, 2, 3, 7, 8, 10

finished training svm finished predicting Accuracy: 0.779

precision recall f1-score support

0 0.749 0.874 0.807 1560

1 0.827 0.675 0.743 1401

avg / total 0.786 0.779 0.777 2961

Testing features: 1, 2, 3, 7, 9, 10

finished training svm finished predicting Accuracy: 0.776

precision recall f1-score support

0 0.749 0.863 0.802 1560 1 0.817 0.678 0.741 1401

avg / total 0.781 0.776 0.773 2961

Testing features: 1, 2, 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

 $0 \quad \ 0.756 \quad 0.854 \quad 0.802 \quad 1560$

1 0.810 0.693 0.747 1401

avg / total 0.781 0.778 0.776 2961

Testing features: 1, 2, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.817

precision recall f1-score support

 $0 \quad \ 0.798 \quad 0.873 \quad 0.834 \quad 1560$

1 0.842 0.754 0.796 1401

avg / total 0.819 0.817 0.816 2961

Testing features: 1, 2, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.798 0.872 0.833 1560

1 0.841 0.754 0.795 1401

avg / total 0.818 0.816 0.815 2961

Testing features: 1, 2, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.791 0.865 0.826 1560

1 0.832 0.746 0.787 1401

avg / total 0.811 0.809 0.808 2961

Testing features: 1, 2, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.787 0.870 0.826 1560 1 0.836 0.737 0.783 1401

avg / total 0.810 0.807 0.806 2961

Testing features: 1, 2, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.792

precision recall f1-score support

0 0.773 0.857 0.813 1560 1 0.819 0.719 0.766 1401

avg / total 0.795 0.792 0.791 2961

Testing features: 1, 2, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.786 0.874 0.828 1560 1 0.840 0.736 0.784 1401

avg / total 0.812 0.809 0.807 2961

Testing features: 1, 2, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.782 0.878 0.828 1560 1 0.843 0.728 0.781 1401

avg / total 0.811 0.807 0.806 2961

Testing features: 1, 2, 5, 7, 9, 10

finished training svm finished predicting

Accuracy: 0.798

precision recall f1-score support

0 0.775 0.869 0.819 1560 1 0.832 0.719 0.771 1401

avg / total 0.802 0.798 0.796 2961

Testing features: 1, 2, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.787 0.867 0.825 1560 1 0.833 0.738 0.783 1401

avg / total 0.809 0.806 0.805 2961

Testing features: 1, 2, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.750 0.840 0.792 1560 1 0.794 0.689 0.738 1401

avg / total 0.771 0.768 0.767 2961

Testing features: 1, 2, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.764

precision recall f1-score support

0 0.744 0.844 0.790 1560 1 0.795 0.676 0.731 1401

avg / total 0.768 0.764 0.762 2961

Testing features: 1, 2, 6, 7, 9, 10

finished training svm

finished predicting

Accuracy: 0.745

precision recall f1-score support

0 0.729 0.822 0.773 1560 1 0.769 0.660 0.710 1401

avg / total 0.748 0.745 0.743 2961

Testing features: 1, 2, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.732

precision recall f1-score support

0 0.723 0.797 0.758 1560 1 0.745 0.660 0.700 1401

avg / total 0.733 0.732 0.731 2961

Testing features: 1, 2, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.735 0.828 0.779 1560 1 0.777 0.668 0.719 1401

avg / total 0.755 0.752 0.750 2961

Testing features: 1, 3, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.821

precision recall f1-score support

0 0.805 0.872 0.837 1560 1 0.843 0.764 0.802 1401

avg / total 0.823 0.821 0.821 2961

Testing features: 1, 3, 5, 6, 7, 10

finished training svm finished predicting

Accuracy: 0.824

precision recall f1-score support

0 0.806 0.877 0.840 1560 1 0.848 0.765 0.805 1401

avg / total 0.826 0.824 0.823 2961

Testing features: 1, 3, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.822

precision recall f1-score support

0 0.805 0.872 0.838 1560 1 0.843 0.765 0.802 1401

avg / total 0.823 0.822 0.821 2961

Testing features: 1, 3, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.824

precision recall f1-score support

0 0.803 0.883 0.841 1560 1 0.853 0.759 0.804 1401

avg / total 0.827 0.824 0.823 2961

Testing features: 1, 3, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.822

precision recall f1-score support

0 0.801 0.881 0.839 1560 1 0.851 0.756 0.801 1401

avg / total 0.825 0.822 0.821 2961

Testing features: 1, 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.826

precision recall f1-score support

0 0.806 0.881 0.842 1560 1 0.853 0.764 0.806 1401

avg / total 0.828 0.826 0.825 2961

Testing features: 1, 3, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.820

precision recall f1-score support

0 0.798 0.881 0.837 1560 1 0.850 0.751 0.798 1401

avg / total 0.823 0.820 0.819 2961

Testing features: 1, 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.821

precision recall f1-score support

0 0.806 0.869 0.836 1560 1 0.840 0.767 0.802 1401

avg / total 0.822 0.821 0.820 2961

Testing features: 1, 3, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.793 0.880 0.834 1560 1 0.848 0.744 0.793 1401

avg / total 0.819 0.816 0.815 2961

Testing features: 1, 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.772

precision recall f1-score support

0 0.761 0.826 0.792 1560 1 0.786 0.712 0.747 1401

avg / total 0.773 0.772 0.771 2961

Testing features: 1, 3, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.749 0.835 0.790 1560 1 0.790 0.688 0.735 1401

avg / total 0.768 0.766 0.764 2961

Testing features: 1, 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.755

precision recall f1-score support

0 0.744 0.816 0.778 1560 1 0.770 0.687 0.727 1401

avg / total 0.756 0.755 0.754 2961

Testing features: 1, 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.729

precision recall f1-score support

0 0.716 0.805 0.758 1560 1 0.748 0.645 0.693 1401 avg / total 0.732 0.729 0.727 2961

Testing features: 1, 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.728

precision recall f1-score support

0 0.708 0.824 0.761 1560 1 0.760 0.622 0.684 1401

avg / total 0.733 0.728 0.725 2961

Testing features: 1, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.812 0.853 0.832 1560 1 0.827 0.779 0.802 1401

avg / total 0.819 0.818 0.818 2961

Testing features: 1, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.809 0.850 0.829 1560 1 0.823 0.776 0.799 1401

avg / total 0.815 0.815 0.815 2961

Testing features: 1, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.793 0.858 0.824 1560 1 0.826 0.750 0.786 1401 avg / total 0.808 0.807 0.806 2961

Testing features: 1, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.795

precision recall f1-score support

0 0.787 0.838 0.812 1560 1 0.806 0.747 0.775 1401

avg / total 0.796 0.795 0.794 2961

Testing features: 1, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.796 0.841 0.818 1560 1 0.811 0.760 0.785 1401

avg / total 0.803 0.803 0.802 2961

Testing features: 1, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.742

precision recall f1-score support

0 0.745 0.774 0.760 1560 1 0.737 0.705 0.721 1401

avg / total 0.741 0.742 0.741 2961

Testing features: 2, 3, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.783 0.883 0.830 1560

1 0.848 0.727 0.783 1401

avg / total 0.814 0.810 0.808 2961

Testing features: 2, 3, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.779 0.883 0.828 1560 1 0.847 0.721 0.779 1401

avg / total 0.811 0.806 0.804 2961

Testing features: 2, 3, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.783 0.873 0.825 1560 1 0.838 0.730 0.780 1401

avg / total 0.809 0.805 0.804 2961

Testing features: 2, 3, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.790 0.880 0.833 1560 1 0.847 0.740 0.790 1401

avg / total 0.817 0.814 0.813 2961

Testing features: 2, 3, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.784 0.858 0.819 1560

1 0.823 0.737 0.777 1401

avg / total 0.802 0.800 0.799 2961

Testing features: 2, 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.784 0.892 0.834 1560 1 0.858 0.726 0.786 1401

0.819 0.813 0.811

2961

Testing features: 2, 3, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.813

avg / total

precision recall f1-score support

0 0.784 0.891 0.834 1560 1 0.857 0.726 0.786 1401

avg / total 0.818 0.813 0.811 2961

Testing features: 2, 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.783 0.881 0.829 1560 1 0.846 0.727 0.782 1401

avg / total 0.813 0.809 0.807 2961

Testing features: 2, 3, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.776 0.883 0.826 1560

1 0.847 0.717 0.776 1401

avg / total 0.810 0.804 0.803 2961

Testing features: 2, 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.713 0.863 0.781 1560

1 0.800 0.612 0.694 1401

avg / total 0.754 0.744 0.740 2961

Testing features: 2, 3, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.708 0.879 0.784 1560

1 0.816 0.597 0.689 1401

avg / total 0.759 0.745 0.739 2961

Testing features: 2, 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.736

precision recall f1-score support

0 0.706 0.854 0.773 1560 1 0.788 0.603 0.683 1401

avg / total 0.745 0.736 0.731 2961

Testing features: 2, 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.741

precision recall f1-score support

0 0.709 0.862 0.778 1560 1 0.798 0.606 0.689 1401

avg / total 0.751 0.741 0.736 2961

Testing features: 2, 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.749

precision recall f1-score support

0 0.714 0.873 0.786 1560 1 0.812 0.611 0.697 1401

avg / total 0.761 0.749 0.744 2961

Testing features: 2, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.780 0.872 0.824 1560 1 0.836 0.726 0.777 1401

avg / total 0.807 0.803 0.802 2961

Testing features: 2, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.784 0.882 0.830 1560 1 0.848 0.730 0.785 1401

avg / total 0.814 0.810 0.809 2961

Testing features: 2, 5, 6, 7, 9, 10

finished training svm finished predicting

Accuracy: 0.801

precision recall f1-score support

0 0.782 0.865 0.821 1560 1 0.829 0.731 0.777 1401

avg / total 0.804 0.801 0.800 2961

Testing features: 2, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.771

precision recall f1-score support

0 0.744 0.862 0.798 1560 1 0.813 0.669 0.734 1401

avg / total 0.777 0.771 0.768 2961

Testing features: 2, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.781

precision recall f1-score support

0 0.752 0.872 0.808 1560 1 0.827 0.680 0.746 1401

avg / total 0.788 0.781 0.779 2961

Testing features: 2, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.713 0.832 0.768 1560 1 0.770 0.627 0.692 1401

avg / total 0.740 0.735 0.732 2961

Testing features: 3, 5, 6, 7, 8, 9

finished training svm

finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.787 0.880 0.831 1560 1 0.846 0.734 0.786 1401

avg / total 0.815 0.811 0.810 2961

Testing features: 3, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.783 0.883 0.830 1560 1 0.848 0.728 0.783 1401

avg / total 0.814 0.810 0.808 2961

Testing features: 3, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.781 0.886 0.830 1560 1 0.851 0.724 0.782 1401

avg / total 0.814 0.809 0.807 2961

Testing features: 3, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.785 0.867 0.824 1560 1 0.832 0.735 0.781 1401

avg / total 0.807 0.804 0.803 2961

Testing features: 3, 5, 7, 8, 9, 10

finished training svm finished predicting

Accuracy: 0.813

precision recall f1-score support

0 0.787 0.883 0.833 1560 1 0.850 0.734 0.788 1401

avg / total 0.817 0.813 0.811 2961

Testing features: 3, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.734

precision recall f1-score support

0 0.711 0.833 0.767 1560 1 0.771 0.623 0.689 1401

avg / total 0.739 0.734 0.730 2961

Testing features: 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.763

precision recall f1-score support

0 0.736 0.858 0.792 1560 1 0.806 0.658 0.725 1401

avg / total 0.769 0.763 0.760 2961

Testing features: 0, 1, 2, 3, 5, 6, 9

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.788 0.848 0.817 1560 1 0.815 0.746 0.779 1401

avg / total 0.801 0.800 0.799 2961

Testing features: 0, 1, 2, 3, 5, 6, 10

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.791 0.852 0.820 1560 1 0.820 0.749 0.783 1401

avg / total 0.804 0.803 0.802 2961

Testing features: 0, 1, 2, 3, 5, 7, 9

finished training svm finished predicting Accuracy: 0.822

precision recall f1-score support

0 0.807 0.871 0.837 1560 1 0.842 0.768 0.803 1401

avg / total 0.823 0.822 0.821 2961

Testing features: 0, 1, 2, 3, 5, 7, 10

finished training svm finished predicting Accuracy: 0.822

precision recall f1-score support

0 0.800 0.882 0.839 1560 1 0.852 0.755 0.801 1401

avg / total 0.825 0.822 0.821 2961

Testing features: 0, 1, 2, 3, 5, 8, 9

finished training svm finished predicting Accuracy: 0.829

precision recall f1-score support

0 0.820 0.866 0.843 1560 1 0.841 0.789 0.814 1401

avg / total 0.830 0.829 0.829 2961

Testing features: 0, 1, 2, 3, 5, 8, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.798 0.870 0.833 1560 1 0.839 0.755 0.795 1401

avg / total 0.818 0.816 0.815 2961

Testing features: 0, 1, 2, 3, 5, 9, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.799 0.868 0.832 1560 1 0.837 0.757 0.795 1401

avg / total 0.817 0.816 0.815 2961

Testing features: 0, 1, 2, 3, 6, 7, 9

finished training svm finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.729 0.822 0.773 1560 1 0.769 0.659 0.710 1401

avg / total 0.748 0.745 0.743 2961

Testing features: 0, 1, 2, 3, 6, 7, 10

finished training svm finished predicting Accuracy: 0.757

precision recall f1-score support

0 0.732 0.849 0.787 1560 1 0.796 0.655 0.718 1401 avg / total 0.763 0.757 0.754 2961

Testing features: 0, 1, 2, 3, 6, 8, 9

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.734 0.807 0.769 1560 1 0.758 0.674 0.714 1401

avg / total 0.745 0.744 0.743 2961

Testing features: 0, 1, 2, 3, 6, 8, 10

finished training svm finished predicting Accuracy: 0.755

precision recall f1-score support

0 0.740 0.826 0.780 1560 1 0.777 0.677 0.723 1401

avg / total 0.757 0.755 0.753 2961

Testing features: 0, 1, 2, 3, 6, 9, 10

finished training svm finished predicting Accuracy: 0.742

precision recall f1-score support

0 0.727 0.815 0.769 1560 1 0.762 0.660 0.707 1401

avg / total 0.744 0.742 0.740 2961

Testing features: 0, 1, 2, 3, 7, 8, 9

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.753 0.829 0.789 1560 1 0.785 0.697 0.738 1401 avg / total 0.768 0.766 0.765 2961

Testing features: 0, 1, 2, 3, 7, 8, 10

finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.752 0.855 0.800 1560 1 0.809 0.685 0.742 1401

avg / total 0.779 0.775 0.773 2961

Testing features: 0, 1, 2, 3, 7, 9, 10

finished training svm finished predicting Accuracy: 0.754

precision recall f1-score support

0 0.733 0.839 0.782 1560 1 0.786 0.659 0.717 1401

avg / total 0.758 0.754 0.751 2961

Testing features: 0, 1, 2, 3, 8, 9, 10

finished training svm finished predicting Accuracy: 0.764

precision recall f1-score support

0 0.748 0.833 0.788 1560 1 0.787 0.687 0.734 1401

avg / total 0.766 0.764 0.762 2961

Testing features: 0, 1, 2, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.801

precision recall f1-score support

0 0.790 0.847 0.818 1560

1 0.815 0.749 0.781 1401

avg / total 0.802 0.801 0.800 2961

Testing features: 0, 1, 2, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.786 0.853 0.818 1560 1 0.819 0.741 0.778 1401

avg / total 0.802 0.800 0.799 2961

Testing features: 0, 1, 2, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.785

precision recall f1-score support

0 0.773 0.838 0.804 1560 1 0.801 0.726 0.762 1401

avg / total 0.786 0.785 0.784 2961

Testing features: 0, 1, 2, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.793

precision recall f1-score support

0 0.778 0.851 0.813 1560 1 0.815 0.729 0.769 1401

avg / total 0.795 0.793 0.792 2961

Testing features: 0, 1, 2, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.777

precision recall f1-score support

0 0.765 0.833 0.798 1560

1 0.794 0.715 0.753 1401

avg / total 0.779 0.777 0.776 2961

Testing features: 0, 1, 2, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.783 0.858 0.819 1560

1 0.823 0.736 0.777 1401

avg / total 0.802 0.800 0.799 2961

Testing features: 0, 1, 2, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.778 0.869 0.821 1560

1 0.832 0.724 0.774 1401

avg / total 0.803 0.800 0.799 2961

Testing features: 0, 1, 2, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.789

precision recall f1-score support

0 0.771 0.853 0.810 1560

1 0.814 0.717 0.763 1401

avg / total 0.791 0.789 0.788 2961

Testing features: 0, 1, 2, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.799

precision recall f1-score support

0 0.784 0.854 0.817 1560

1 0.819 0.737 0.776 1401

avg / total 0.800 0.799 0.798 2961

Testing features: 0, 1, 2, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.736

precision recall f1-score support

 $0 \quad \ 0.727 \quad 0.797 \quad 0.760 \quad \ 1560$

1 0.747 0.667 0.705 1401

avg / total 0.737 0.736 0.734 2961

Testing features: 0, 1, 2, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.737 0.808 0.771 1560

1 0.761 0.679 0.717 1401

avg / total 0.748 0.747 0.746 2961

Testing features: 0, 1, 2, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.723 0.806 0.762 1560

1 0.752 0.655 0.700 1401

avg / total 0.737 0.735 0.733 2961

Testing features: 0, 1, 2, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.706

precision recall f1-score support

0 0.702 0.770 0.734 1560 1 0.713 0.635 0.672 1401

avg / total 0.707 0.706 0.705 2961

Testing features: 0, 1, 2, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.737

precision recall f1-score support

0 0.724 0.807 0.763 1560 1 0.754 0.658 0.703 1401

avg / total 0.738 0.737 0.735 2961

Testing features: 0, 1, 3, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.808 0.853 0.830 1560 1 0.826 0.774 0.799 1401

avg / total 0.816 0.816 0.815 2961

Testing features: 0, 1, 3, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.794 0.867 0.829 1560 1 0.835 0.750 0.790 1401

avg / total 0.813 0.812 0.811 2961

Testing features: 0, 1, 3, 5, 6, 8, 9

finished training svm finished predicting

Accuracy: 0.814

avg / total

precision recall f1-score support

0 0.805 0.854 0.829 1560 1 0.826 0.769 0.797 1401

0.814 0.814

2961

Testing features: 0, 1, 3, 5, 6, 8, 10

0.815

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.803 0.862 0.831 1560 1 0.833 0.764 0.797 1401

avg / total 0.817 0.816 0.815 2961

Testing features: 0, 1, 3, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.794

precision recall f1-score support

0 0.785 0.838 0.811 1560 1 0.805 0.745 0.774 1401

avg / total 0.795 0.794 0.793 2961

Testing features: 0, 1, 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.807 0.872 0.838 1560 1 0.843 0.768 0.804 1401

avg / total 0.824 0.823 0.822 2961

Testing features: 0, 1, 3, 5, 7, 8, 10

finished training svm

finished predicting Accuracy: 0.820

precision recall f1-score support

0 0.800 0.878 0.837 1560 1 0.848 0.755 0.799 1401

avg / total 0.822 0.820 0.819 2961

Testing features: 0, 1, 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.811 0.865 0.837 1560 1 0.838 0.776 0.806 1401

avg / total 0.824 0.823 0.822 2961

Testing features: 0, 1, 3, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.789 0.857 0.822 1560 1 0.824 0.744 0.782 1401

avg / total 0.805 0.804 0.803 2961

Testing features: 0, 1, 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.749

precision recall f1-score support

0 0.744 0.797 0.770 1560 1 0.754 0.695 0.724 1401

avg / total 0.749 0.749 0.748 2961

Testing features: 0, 1, 3, 6, 7, 8, 10

finished training svm finished predicting

Accuracy: 0.755

precision recall f1-score support

0 0.744 0.816 0.778 1560

1 0.770 0.687 0.727 1401

avg / total 0.756 0.755 0.754 2961

Testing features: 0, 1, 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.723 0.806 0.762 1560

1 0.752 0.655 0.700 1401

avg / total 0.737 0.735 0.733 2961

Testing features: 0, 1, 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.712

precision recall f1-score support

0 0.706 0.776 0.739 1560 1 0.719 0.640 0.677 1401

avg / total 0.712 0.712 0.710 2961

Testing features: 0, 1, 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.728

precision recall f1-score support

0 0.714 0.808 0.758 1560 1 0.749 0.640 0.690 1401

avg / total 0.731 0.728 0.726 2961

Testing features: 0, 1, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.789 0.846 0.816 1560 1 0.813 0.749 0.780 1401

avg / total 0.801 0.800 0.799 2961

Testing features: 0, 1, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.797 0.847 0.821 1560 1 0.817 0.760 0.787 1401

avg / total 0.806 0.806 0.805 2961

Testing features: 0, 1, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.792

precision recall f1-score support

0 0.781 0.841 0.810 1560 1 0.807 0.738 0.771 1401

avg / total 0.793 0.792 0.792 2961

Testing features: 0, 1, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.768 0.830 0.798 1560 1 0.792 0.720 0.754 1401

avg / total 0.779 0.778 0.777 2961

Testing features: 0, 1, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.790

precision recall f1-score support

0 0.783 0.830 0.806 1560 1 0.797 0.744 0.770 1401

avg / total 0.790 0.790 0.789 2961

Testing features: 0, 1, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.732

precision recall f1-score support

0 0.735 0.767 0.751 1560 1 0.728 0.692 0.710 1401

avg / total 0.732 0.732 0.731 2961

Testing features: 0, 2, 3, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.796

precision recall f1-score support

0 0.775 0.863 0.817 1560 1 0.826 0.721 0.770 1401

avg / total 0.799 0.796 0.795 2961

Testing features: 0, 2, 3, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.798

precision recall f1-score support

0 0.775 0.869 0.820 1560 1 0.832 0.719 0.772 1401 avg / total 0.802 0.798 0.797 2961

Testing features: 0, 2, 3, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.780 0.856 0.817 1560 1 0.821 0.732 0.774 1401

avg / total 0.799 0.797 0.796 2961

Testing features: 0, 2, 3, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.790 0.862 0.824 1560 1 0.829 0.744 0.785 1401

avg / total 0.808 0.806 0.806 2961

Testing features: 0, 2, 3, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.787

precision recall f1-score support

0 0.775 0.839 0.806 1560 1 0.803 0.729 0.764 1401

avg / total 0.788 0.787 0.786 2961

Testing features: 0, 2, 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.788 0.879 0.831 1560 1 0.845 0.737 0.788 1401 avg / total 0.815 0.812 0.811 2961

Testing features: 0, 2, 3, 5, 7, 8, 10

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.791 0.878 0.832 1560 1 0.845 0.742 0.790 1401

avg / total 0.817 0.814 0.812 2961

Testing features: 0, 2, 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.773 0.869 0.818 1560 1 0.831 0.716 0.769 1401

avg / total 0.800 0.797 0.795 2961

Testing features: 0, 2, 3, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.777 0.863 0.817 1560 1 0.826 0.724 0.771 1401

avg / total 0.800 0.797 0.796 2961

Testing features: 0, 2, 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.739

precision recall f1-score support

0 0.721 0.823 0.768 1560

1 0.766 0.645 0.700 1401

avg / total 0.742 0.739 0.736 2961

Testing features: 0, 2, 3, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.746

precision recall f1-score support

0 0.716 0.856 0.780 1560 1 0.796 0.622 0.698 1401

avg / total 0.754 0.746 0.741 2961

Testing features: 0, 2, 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.732

precision recall f1-score support

0 0.710 0.830 0.766 1560 1 0.767 0.623 0.688 1401

avg / total 0.737 0.732 0.729 2961

Testing features: 0, 2, 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.728

precision recall f1-score support

0 0.717 0.799 0.756 1560 1 0.744 0.648 0.693 1401

avg / total 0.729 0.728 0.726 2961

Testing features: 0, 2, 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.737

precision recall f1-score support

0 0.718 0.823 0.767 1560

1 0.765 0.640 0.697 1401

avg / total 0.740 0.737 0.734 2961

Testing features: 0, 2, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.792

precision recall f1-score support

 $0 \quad 0.775 \quad 0.854 \quad 0.813 \quad 1560$

1 0.817 0.723 0.767 1401

avg / total 0.795 0.792 0.791 2961

Testing features: 0, 2, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.799

precision recall f1-score support

0 0.777 0.867 0.819 1560

1 0.830 0.723 0.773 1401

avg / total 0.802 0.799 0.797 2961

Testing features: 0, 2, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.781

precision recall f1-score support

0 0.769 0.836 0.801 1560 1 0.798 0.721 0.757 1401

avg / total 0.783 0.781 0.780 2961

Testing features: 0, 2, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

 $0 \quad \ 0.734 \quad 0.829 \quad 0.779 \quad 1560$

1 0.778 0.665 0.717 1401

avg / total 0.755 0.752 0.750 2961

Testing features: 0, 2, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.765

precision recall f1-score support

 $0 \quad \ 0.739 \quad 0.856 \quad 0.793 \quad 1560$

1 0.805 0.664 0.728 1401

avg / total 0.770 0.765 0.762 2961

Testing features: 0, 2, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.719

precision recall f1-score support

 $0 \quad \ 0.712 \quad 0.782 \quad 0.745 \quad 1560$

1 0.728 0.648 0.686 1401

avg / total 0.719 0.719 0.717 2961

Testing features: 0, 3, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.787 0.870 0.826 1560

1 0.836 0.738 0.784 1401

avg / total 0.810 0.807 0.806 2961

Testing features: 0, 3, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.785 0.869 0.824 1560 1 0.834 0.734 0.781 1401

avg / total 0.808 0.805 0.804 2961

Testing features: 0, 3, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.796

precision recall f1-score support

0 0.779 0.854 0.815 1560 1 0.818 0.730 0.772 1401

avg / total 0.798 0.796 0.795 2961

Testing features: 0, 3, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.777

precision recall f1-score support

0 0.772 0.817 0.794 1560 1 0.782 0.732 0.756 1401

avg / total 0.777 0.777 0.776 2961

Testing features: 0, 3, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.788 0.853 0.819 1560 1 0.820 0.744 0.780 1401

avg / total 0.803 0.802 0.801 2961

Testing features: 0, 3, 6, 7, 8, 9, 10

finished training svm finished predicting

Accuracy: 0.720

precision recall f1-score support

0 0.710 0.792 0.749 1560 1 0.735 0.640 0.684 1401

avg / total 0.722 0.720 0.718 2961

Testing features: 0, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.733 0.829 0.778 1560 1 0.777 0.664 0.716 1401

avg / total 0.754 0.751 0.749 2961

Testing features: 1, 2, 3, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.821

precision recall f1-score support

0 0.804 0.872 0.837 1560 1 0.843 0.764 0.801 1401

avg / total 0.822 0.821 0.820 2961

Testing features: 1, 2, 3, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.802 0.870 0.834 1560 1 0.840 0.760 0.798 1401

avg / total 0.820 0.818 0.817 2961

Testing features: 1, 2, 3, 5, 6, 8, 9

finished training svm

finished predicting Accuracy: 0.819

precision recall f1-score support

0 0.807 0.862 0.833 1560 1 0.833 0.771 0.801 1401

avg / total 0.820 0.819 0.818 2961

Testing features: 1, 2, 3, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.827

precision recall f1-score support

0 0.810 0.878 0.842 1560 1 0.850 0.771 0.808 1401

avg / total 0.829 0.827 0.826 2961

Testing features: 1, 2, 3, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.797 0.856 0.826 1560 1 0.826 0.757 0.790 1401

avg / total 0.811 0.810 0.809 2961

Testing features: 1, 2, 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.826

precision recall f1-score support

0 0.810 0.876 0.841 1560 1 0.848 0.771 0.807 1401

avg / total 0.828 0.826 0.825 2961

Testing features: 1, 2, 3, 5, 7, 8, 10

finished training svm finished predicting

Accuracy: 0.830

precision recall f1-score support

 $0 \quad \ 0.814 \quad 0.878 \quad 0.845 \quad 1560$

1 0.851 0.776 0.812 1401

avg / total 0.831 0.830 0.829 2961

Testing features: 1, 2, 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.820

precision recall f1-score support

 $0 \quad 0.802 \quad 0.872 \quad 0.836 \quad 1560$

1 0.843 0.761 0.800 1401

avg / total 0.822 0.820 0.819 2961

Testing features: 1, 2, 3, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.828

precision recall f1-score support

0 0.816 0.870 0.842 1560 1 0.843 0.781 0.811 1401

avg / total 0.829 0.828 0.827 2961

Testing features: 1, 2, 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.758 0.842 0.798 1560 1 0.800 0.700 0.747 1401

avg / total 0.778 0.775 0.774 2961

Testing features: 1, 2, 3, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.773

precision recall f1-score support

0 0.745 0.864 0.800 1560 1 0.816 0.671 0.736 1401

avg / total 0.779 0.773 0.770 2961

Testing features: 1, 2, 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.728 0.831 0.776 1560 1 0.776 0.654 0.710 1401

avg / total 0.751 0.747 0.745 2961

Testing features: 1, 2, 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.748 0.828 0.786 1560 1 0.782 0.689 0.732 1401

avg / total 0.764 0.762 0.760 2961

Testing features: 1, 2, 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.783

precision recall f1-score support

0 0.762 0.854 0.805 1560 1 0.813 0.702 0.753 1401

avg / total 0.786 0.783 0.781 2961

Testing features: 1, 2, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.817

precision recall f1-score support

0 0.805 0.861 0.832 1560 1 0.832 0.767 0.798 1401

avg / total 0.818 0.817 0.816 2961

Testing features: 1, 2, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.819

precision recall f1-score support

0 0.806 0.865 0.835 1560 1 0.837 0.768 0.801 1401

avg / total 0.821 0.819 0.819 2961

Testing features: 1, 2, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.795 0.858 0.825 1560 1 0.826 0.754 0.789 1401

avg / total 0.810 0.809 0.808 2961

Testing features: 1, 2, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.786 0.857 0.820 1560 1 0.823 0.741 0.780 1401 avg / total 0.804 0.802 0.801 2961

Testing features: 1, 2, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.783 0.863 0.821 1560 1 0.828 0.733 0.778 1401

avg / total 0.804 0.802 0.801 2961

Testing features: 1, 2, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.749

precision recall f1-score support

0 0.742 0.804 0.772 1560 1 0.760 0.688 0.722 1401

avg / total 0.750 0.749 0.748 2961

Testing features: 1, 3, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.825

precision recall f1-score support

0 0.810 0.874 0.841 1560 1 0.846 0.772 0.807 1401

avg / total 0.827 0.825 0.825 2961

Testing features: 1, 3, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.829

precision recall f1-score support

0 0.811 0.881 0.844 1560 1 0.853 0.771 0.810 1401 avg / total 0.831 0.829 0.828 2961

Testing features: 1, 3, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.795 0.875 0.833 1560 1 0.843 0.749 0.793 1401

avg / total 0.818 0.815 0.814 2961

Testing features: 1, 3, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.804 0.860 0.831 1560 1 0.831 0.767 0.797 1401

avg / total 0.817 0.816 0.815 2961

Testing features: 1, 3, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.806 0.874 0.839 1560 1 0.845 0.766 0.803 1401

avg / total 0.824 0.823 0.822 2961

Testing features: 1, 3, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.752 0.813 0.781 1560

1 0.771 0.701 0.734 1401

avg / total 0.761 0.760 0.759 2961

Testing features: 1, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.802 0.843 0.822 1560 1 0.815 0.768 0.791 1401

avg / total 0.808 0.807 0.807 2961

Testing features: 2, 3, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.783 0.870 0.824 1560 1 0.835 0.732 0.780 1401

avg / total 0.808 0.805 0.804 2961

Testing features: 2, 3, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.789 0.875 0.830 1560 1 0.842 0.740 0.788 1401

avg / total 0.814 0.811 0.810 2961

Testing features: 2, 3, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.797

0 0.781 0.855 0.816 1560

1 0.820 0.733 0.774 1401

avg / total 0.799 0.797 0.796 2961

Testing features: 2, 3, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

 $0 \quad \ 0.790 \quad 0.859 \quad 0.823 \quad 1560$

1 0.826 0.745 0.783 1401

avg / total 0.807 0.805 0.804 2961

Testing features: 2, 3, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.782 0.874 0.825 1560

1 0.838 0.728 0.779 1401

avg / total 0.808 0.805 0.803 2961

Testing features: 2, 3, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.740

precision recall f1-score support

0 0.710 0.856 0.776 1560 1 0.792 0.611 0.690 1401

avg / total 0.749 0.740 0.735 2961

Testing features: 2, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.802

0 0.784 0.862 0.821 1560

1 0.827 0.735 0.778 1401

avg / total 0.804 0.802 0.801 2961

Testing features: 3, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.785 0.871 0.826 1560

1 0.836 0.735 0.782 1401

avg / total 0.809 0.806 0.805 2961

Testing features: 0, 1, 2, 3, 5, 6, 7, 9

finished training svm finished predicting Accuracy: 0.798

precision recall f1-score support

0 0.786 0.848 0.816 1560

1 0.814 0.742 0.777 1401

avg / total 0.799 0.798 0.797 2961

Testing features: 0, 1, 2, 3, 5, 6, 7, 10

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.792 0.849 0.819 1560 1 0.817 0.751 0.783 1401

avg / total 0.804 0.803 0.802 2961

Testing features: 0, 1, 2, 3, 5, 6, 8, 9

finished training svm finished predicting Accuracy: 0.796

precision recall f1-score support

0 0.789 0.837 0.812 1560 1 0.806 0.751 0.777 1401

avg / total 0.797 0.796 0.796 2961

Testing features: 0, 1, 2, 3, 5, 6, 8, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.805 0.838 0.821 1560 1 0.811 0.774 0.792 1401

avg / total 0.808 0.807 0.807 2961

Testing features: 0, 1, 2, 3, 5, 6, 9, 10

finished training svm finished predicting Accuracy: 0.791

precision recall f1-score support

0 0.786 0.829 0.807 1560 1 0.797 0.748 0.772 1401

avg / total 0.791 0.791 0.790 2961

Testing features: 0, 1, 2, 3, 5, 7, 8, 9

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.806 0.856 0.831 1560 1 0.828 0.771 0.799 1401

avg / total 0.817 0.816 0.815 2961

Testing features: 0, 1, 2, 3, 5, 7, 8, 10

finished training svm finished predicting

Accuracy: 0.829

precision recall f1-score support

0 0.816 0.874 0.844 1560 1 0.847 0.780 0.812 1401

avg / total 0.831 0.829 0.829 2961

Testing features: 0, 1, 2, 3, 5, 7, 9, 10

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.788 0.858 0.822 1560 1 0.825 0.743 0.782 1401

avg / total 0.806 0.804 0.803 2961

Testing features: 0, 1, 2, 3, 5, 8, 9, 10

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.797 0.856 0.825 1560 1 0.826 0.757 0.790 1401

avg / total 0.810 0.809 0.808 2961

Testing features: 0, 1, 2, 3, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.741

precision recall f1-score support

0 0.734 0.796 0.764 1560 1 0.749 0.680 0.713 1401

avg / total 0.741 0.741 0.740 2961

Testing features: 0, 1, 2, 3, 6, 7, 8, 10

finished training svm

finished predicting Accuracy: 0.755

precision recall f1-score support

0 0.741 0.823 0.780 1560 1 0.775 0.680 0.725 1401

avg / total 0.757 0.755 0.754 2961

Testing features: 0, 1, 2, 3, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.733 0.817 0.773 1560 1 0.766 0.669 0.714 1401

avg / total 0.749 0.747 0.745 2961

Testing features: 0, 1, 2, 3, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.737 0.799 0.767 1560 1 0.754 0.683 0.717 1401

avg / total 0.745 0.744 0.743 2961

Testing features: 0, 1, 2, 3, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.760

precision recall f1-score support

0 0.749 0.819 0.782 1560 1 0.775 0.694 0.732 1401

avg / total 0.761 0.760 0.758 2961

Testing features: 0, 1, 2, 5, 6, 7, 8, 9

finished training svm finished predicting

Accuracy: 0.794

precision recall f1-score support

0 0.785 0.837 0.810 1560

1 0.804 0.745 0.774 1401

avg / total 0.794 0.794 0.793 2961

Testing features: 0, 1, 2, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.808

precision recall f1-score support

 $0 \quad \ 0.800 \quad 0.847 \quad 0.823 \quad 1560$

1 0.818 0.764 0.790 1401

avg / total 0.809 0.808 0.808 2961

Testing features: 0, 1, 2, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.788

precision recall f1-score support

0 0.782 0.828 0.804 1560 1 0.795 0.743 0.768 1401

avg / total 0.788 0.788 0.787 2961

Testing features: 0, 1, 2, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.774

precision recall f1-score support

0 0.768 0.819 0.793 1560 1 0.782 0.725 0.753 1401

avg / total 0.775 0.774 0.774 2961

Testing features: 0, 1, 2, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.783

precision recall f1-score support

0 0.773 0.834 0.802 1560 1 0.797 0.727 0.760 1401

avg / total 0.784 0.783 0.782 2961

Testing features: 0, 1, 2, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.725

precision recall f1-score support

0 0.721 0.779 0.749 1560 1 0.730 0.665 0.696 1401

avg / total 0.725 0.725 0.724 2961

Testing features: 0, 1, 3, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.800 0.855 0.827 1560 1 0.825 0.762 0.792 1401

avg / total 0.812 0.811 0.810 2961

Testing features: 0, 1, 3, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.806 0.857 0.831 1560 1 0.829 0.770 0.798 1401

avg / total 0.817 0.816 0.815 2961

Testing features: 0, 1, 3, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.788 0.842 0.814 1560 1 0.809 0.748 0.777 1401

avg / total 0.798 0.797 0.797 2961

Testing features: 0, 1, 3, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.785

precision recall f1-score support

0 0.788 0.809 0.798 1560 1 0.781 0.758 0.769 1401

avg / total 0.785 0.785 0.785 2961

Testing features: 0, 1, 3, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.802 0.840 0.821 1560 1 0.812 0.769 0.790 1401

avg / total 0.807 0.807 0.806 2961

Testing features: 0, 1, 3, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.734

precision recall f1-score support

0 0.729 0.790 0.758 1560 1 0.742 0.672 0.705 1401 avg / total 0.735 0.734 0.733 2961

Testing features: 0, 1, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.789

precision recall f1-score support

0 0.787 0.821 0.804 1560 1 0.791 0.753 0.771 1401

avg / total 0.789 0.789 0.789 2961

Testing features: 0, 2, 3, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.793

precision recall f1-score support

0 0.776 0.853 0.813 1560 1 0.816 0.727 0.769 1401

avg / total 0.795 0.793 0.792 2961

Testing features: 0, 2, 3, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.786 0.860 0.821 1560 1 0.825 0.739 0.780 1401

avg / total 0.805 0.803 0.802 2961

Testing features: 0, 2, 3, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.786

precision recall f1-score support

0 0.777 0.832 0.804 1560 1 0.797 0.734 0.764 1401 avg / total 0.787 0.786 0.785 2961

Testing features: 0, 2, 3, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.781

precision recall f1-score support

0 0.777 0.819 0.798 1560 1 0.786 0.738 0.761 1401

avg / total 0.781 0.781 0.780 2961

Testing features: 0, 2, 3, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.794

precision recall f1-score support

0 0.784 0.840 0.811 1560 1 0.807 0.742 0.773 1401

avg / total 0.795 0.794 0.793 2961

Testing features: 0, 2, 3, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.729

precision recall f1-score support

0 0.721 0.794 0.756 1560 1 0.742 0.657 0.697 1401

avg / total 0.731 0.729 0.728 2961

Testing features: 0, 2, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.777

precision recall f1-score support

0 0.774 0.814 0.794 1560

1 0.780 0.735 0.757 1401

avg / total 0.777 0.777 0.776 2961

Testing features: 0, 3, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.773 0.819 0.795 1560 1 0.784 0.732 0.757 1401

avg / total 0.778 0.778 0.777 2961

Testing features: 1, 2, 3, 5, 6, 7, 8, 9

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.806 0.856 0.830 1560 1 0.828 0.770 0.798 1401

avg / total 0.816 0.816 0.815 2961

Testing features: 1, 2, 3, 5, 6, 7, 8, 10

finished training svm finished predicting Accuracy: 0.826

precision recall f1-score support

0 0.809 0.878 0.842 1560 1 0.849 0.769 0.807 1401

avg / total 0.828 0.826 0.825 2961

Testing features: 1, 2, 3, 5, 6, 7, 9, 10

finished training svm finished predicting Accuracy: 0.807

 $0 \quad \ 0.794 \quad 0.855 \quad 0.823 \quad 1560$

1 0.824 0.753 0.787 1401

avg / total 0.808 0.807 0.806 2961

Testing features: 1, 2, 3, 5, 6, 8, 9, 10

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

 $0 \quad \ 0.805 \quad 0.853 \quad 0.828 \quad 1560$

1 0.825 0.769 0.796 1401

avg / total 0.814 0.814 0.813 2961

Testing features: 1, 2, 3, 5, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.822

precision recall f1-score support

0 0.811 0.864 0.837 1560

1 0.837 0.776 0.805 1401

avg / total 0.823 0.822 0.822 2961

Testing features: 1, 2, 3, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.761

precision recall f1-score support

0 0.747 0.826 0.785 1560 1 0.781 0.689 0.732 1401

avg / total 0.763 0.761 0.760 2961

Testing features: 1, 2, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.813

0 0.801 0.857 0.828 1560

1 0.827 0.763 0.794 1401

avg / total 0.814 0.813 0.812 2961

Testing features: 1, 3, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.802 0.865 0.832 1560

1 0.835 0.762 0.797 1401

avg / total 0.818 0.816 0.816 2961

Testing features: 2, 3, 5, 6, 7, 8, 9, 10

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

 $0 \quad \ 0.789 \quad 0.854 \quad 0.820 \quad \ 1560$

1 0.821 0.745 0.781 1401

avg / total 0.804 0.802 0.802 2961

Testing features: 0 finished training svm finished predicting Accuracy: 0.551

precision recall f1-score support

0 0.546 0.874 0.672 1560

1 0.576 0.191 0.287 1401

avg / total 0.560 0.551 0.490 2961

Testing features: 1 finished training svm finished predicting Accuracy: 0.654

0 0.633 0.817 0.713 1560 1 0.699 0.473 0.564 1401

avg / total 0.664 0.654 0.643 2961

Testing features: 2 finished training svm finished predicting Accuracy: 0.662

precision recall f1-score support

0 0.613 0.969 0.751 1560 1 0.902 0.320 0.473 1401

avg / total 0.750 0.662 0.620 2961

Testing features: 3 finished training svm finished predicting Accuracy: 0.662

precision recall f1-score support

0 0.627 0.885 0.734 1560 1 0.764 0.413 0.536 1401

avg / total 0.692 0.662 0.640 2961

Testing features: 5 finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.698 0.929 0.797 1560 1 0.876 0.552 0.677 1401

avg / total 0.782 0.751 0.741 2961

Testing features: 6 finished training svm finished predicting Accuracy: 0.628

precision recall f1-score support

0 0.597 0.900 0.718 1560 1 0.745 0.325 0.452 1401

avg / total 0.667 0.628 0.592 2961

Testing features: 7 finished training svm finished predicting Accuracy: 0.642

precision recall f1-score support

0 0.620 0.829 0.709 1560 1 0.695 0.433 0.534 1401

avg / total 0.655 0.642 0.626 2961

Testing features: 8 finished training svm finished predicting Accuracy: 0.559

precision recall f1-score support

0 0.736 0.253 0.377 1560 1 0.519 0.899 0.658 1401

avg / total 0.633 0.559 0.510 2961

Testing features: 0, 1 finished training svm finished predicting Accuracy: 0.655

precision recall f1-score support

0 0.634 0.815 0.713 1560 1 0.698 0.476 0.566 1401

avg / total 0.664 0.655 0.643 2961

Testing features: 0, 2 finished training svm finished predicting

Accuracy: 0.674

precision recall f1-score support

0 0.630 0.923 0.749 1560 1 0.822 0.396 0.535 1401

avg / total 0.721 0.674 0.648 2961

Testing features: 0, 3 finished training svm finished predicting Accuracy: 0.664

precision recall f1-score support

0 0.629 0.879 0.734 1560 1 0.759 0.423 0.544 1401

avg / total 0.691 0.664 0.644 2961

Testing features: 0, 5 finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.702 0.918 0.795 1560 1 0.861 0.565 0.682 1401

avg / total 0.777 0.751 0.742 2961

Testing features: 0, 6 finished training svm finished predicting Accuracy: 0.641

precision recall f1-score support

0 0.610 0.883 0.722 1560 1 0.740 0.372 0.495 1401

avg / total 0.672 0.641 0.614 2961

Testing features: 0, 7 finished training svm

finished predicting Accuracy: 0.641

precision recall f1-score support

0 0.613 0.866 0.718 1560 1 0.724 0.391 0.508 1401

avg / total 0.665 0.641 0.619 2961

Testing features: 0, 8 finished training svm finished predicting Accuracy: 0.563

precision recall f1-score support

0 0.557 0.837 0.669 1560 1 0.587 0.259 0.360 1401

avg / total 0.571 0.563 0.522 2961

Testing features: 1, 2 finished training svm finished predicting Accuracy: 0.755

precision recall f1-score support

0 0.729 0.852 0.785 1560 1 0.797 0.647 0.714 1401

avg / total 0.761 0.755 0.752 2961

Testing features: 1, 3 finished training svm finished predicting Accuracy: 0.677

precision recall f1-score support

0 0.647 0.852 0.736 1560 1 0.746 0.483 0.586 1401

avg / total 0.694 0.677 0.665 2961

Testing features: 1, 5

finished training svm finished predicting

Accuracy: 0.815

precision recall f1-score support

0 0.798 0.869 0.832 1560 1 0.838 0.754 0.794 1401

avg / total 0.817 0.815 0.814 2961

Testing features: 1, 6 finished training svm finished predicting Accuracy: 0.722

precision recall f1-score support

0 0.706 0.808 0.754 1560 1 0.746 0.625 0.680 1401

avg / total 0.725 0.722 0.719 2961

Testing features: 1, 7 finished training svm finished predicting Accuracy: 0.697

precision recall f1-score support

0 0.671 0.837 0.744 1560 1 0.749 0.542 0.629 1401

avg / total 0.708 0.697 0.690 2961

Testing features: 1, 8 finished training svm finished predicting Accuracy: 0.651

precision recall f1-score support

0 0.631 0.814 0.711 1560 1 0.694 0.469 0.560 1401

avg / total 0.660 0.651 0.639 2961

Testing features: 2, 3 finished training svm finished predicting Accuracy: 0.732

precision recall f1-score support

0 0.684 0.913 0.782 1560 1 0.845 0.531 0.652 1401

avg / total 0.761 0.732 0.721 2961

Testing features: 2, 5 finished training svm finished predicting Accuracy: 0.776

precision recall f1-score support

0 0.735 0.901 0.809 1560 1 0.852 0.638 0.730 1401

avg / total 0.790 0.776 0.772 2961

Testing features: 2, 6 finished training svm finished predicting Accuracy: 0.680

precision recall f1-score support

0 0.635 0.919 0.751 1560 1 0.820 0.413 0.550 1401

avg / total 0.723 0.680 0.656 2961

Testing features: 2, 7 finished training svm finished predicting Accuracy: 0.694

precision recall f1-score support

0 0.650 0.908 0.758 1560 1 0.817 0.455 0.584 1401

avg / total 0.729 0.694 0.675 2961

Testing features: 2, 8 finished training svm finished predicting Accuracy: 0.674

precision recall f1-score support

0 0.671 0.747 0.707 1560 1 0.678 0.592 0.632 1401

avg / total 0.674 0.674 0.672 2961

Testing features: 3, 5 finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.764 0.903 0.828 1560 1 0.864 0.690 0.767 1401

avg / total 0.811 0.802 0.799 2961

Testing features: 3, 6 finished training svm finished predicting Accuracy: 0.708

precision recall f1-score support

0 0.677 0.853 0.755 1560 1 0.769 0.547 0.640 1401

avg / total 0.721 0.708 0.700 2961

Testing features: 3, 7 finished training svm finished predicting Accuracy: 0.695

precision recall f1-score support

0 0.661 0.867 0.750 1560 1 0.773 0.504 0.610 1401 avg / total 0.714 0.695 0.684 2961

Testing features: 3, 8 finished training svm finished predicting Accuracy: 0.663

precision recall f1-score support

0 0.635 0.850 0.727 1560 1 0.732 0.455 0.561 1401

avg / total 0.681 0.663 0.649 2961

Testing features: 5, 6 finished training svm finished predicting Accuracy: 0.758

precision recall f1-score support

0 0.707 0.924 0.801 1560 1 0.872 0.573 0.692 1401

avg / total 0.785 0.758 0.749 2961

Testing features: 5, 7 finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.718 0.915 0.805 1560 1 0.863 0.600 0.708 1401

avg / total 0.787 0.766 0.759 2961

Testing features: 5, 8 finished training svm finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.698 0.929 0.797 1560 1 0.876 0.552 0.677 1401 avg / total 0.782 0.751 0.741 2961

Testing features: 6, 7 finished training svm finished predicting Accuracy: 0.675

precision recall f1-score support

0 0.638 0.886 0.742 1560 1 0.776 0.440 0.562 1401

avg / total 0.703 0.675 0.657 2961

Testing features: 6, 8 finished training svm finished predicting Accuracy: 0.628

precision recall f1-score support

0 0.605 0.851 0.707 1560 1 0.696 0.380 0.492 1401

avg / total 0.648 0.628 0.605 2961

Testing features: 7, 8 finished training svm finished predicting Accuracy: 0.646

precision recall f1-score support

0 0.626 0.815 0.708 1560 1 0.690 0.458 0.551 1401

avg / total 0.657 0.646 0.634 2961

Testing features: 0, 1, 2 finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.722 0.846 0.779 1560

1 0.788 0.637 0.704 1401

avg / total 0.753 0.747 0.744 2961

Testing features: 0, 1, 3 finished training svm finished predicting Accuracy: 0.684

precision recall f1-score support

0 0.655 0.847 0.739 1560 1 0.747 0.503 0.601 1401

avg / total 0.698 0.684 0.674 2961

Testing features: 0, 1, 5 finished training svm finished predicting Accuracy: 0.797

precision recall f1-score support

0 0.768 0.879 0.820 1560 1 0.839 0.705 0.766 1401

avg / total 0.802 0.797 0.795 2961

Testing features: 0, 1, 6 finished training svm finished predicting Accuracy: 0.717

precision recall f1-score support

0 0.705 0.797 0.748 1560 1 0.735 0.628 0.677 1401

avg / total 0.719 0.717 0.715 2961

Testing features: 0, 1, 7 finished training svm finished predicting Accuracy: 0.699

0 0.677 0.823 0.743 1560

1 0.740 0.562 0.639 1401

avg / total 0.707 0.699 0.693 2961

Testing features: 0, 1, 8 finished training svm finished predicting Accuracy: 0.656

precision recall f1-score support

0 0.639 0.797 0.709 1560 1 0.688 0.499 0.578 1401

avg / total 0.662 0.656 0.647 2961

Testing features: 0, 2, 3 finished training svm finished predicting Accuracy: 0.736

precision recall f1-score support

0 0.687 0.915 0.785 1560 1 0.851 0.536 0.658 1401

avg / total 0.764 0.736 0.725 2961

Testing features: 0, 2, 5 finished training svm finished predicting Accuracy: 0.782

precision recall f1-score support

0 0.744 0.893 0.812 1560 1 0.847 0.658 0.741 1401

avg / total 0.793 0.782 0.778 2961

Testing features: 0, 2, 6 finished training svm finished predicting Accuracy: 0.685

0 0.647 0.887 0.748 1560 1 0.786 0.460 0.581 1401

avg / total 0.712 0.685 0.669 2961

Testing features: 0, 2, 7 finished training svm finished predicting Accuracy: 0.695

precision recall f1-score support

0 0.652 0.903 0.758 1560 1 0.811 0.464 0.590 1401

avg / total 0.728 0.695 0.678 2961

Testing features: 0, 2, 8 finished training svm finished predicting

Accuracy: 0.681

precision recall f1-score support

0 0.640 0.900 0.748 1560 1 0.797 0.437 0.564 1401

avg / total 0.714 0.681 0.661 2961

Testing features: 0, 3, 5 finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.772 0.899 0.831 1560 1 0.863 0.704 0.775 1401

avg / total 0.815 0.807 0.804 2961

Testing features: 0, 3, 6 finished training svm finished predicting Accuracy: 0.707

precision recall f1-score support

0 0.677 0.850 0.754 1560 1 0.766 0.548 0.639 1401

avg / total 0.719 0.707 0.699 2961

Testing features: 0, 3, 7 finished training svm finished predicting Accuracy: 0.700

precision recall f1-score support

0 0.666 0.864 0.752 1560 1 0.774 0.517 0.620 1401

avg / total 0.717 0.700 0.689 2961

Testing features: 0, 3, 8 finished training svm finished predicting Accuracy: 0.667

precision recall f1-score support

0 0.636 0.861 0.731 1560 1 0.744 0.451 0.562 1401

avg / total 0.687 0.667 0.651 2961

Testing features: 0, 5, 6 finished training svm finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.717 0.905 0.800 1560 1 0.851 0.602 0.705 1401

avg / total 0.780 0.762 0.755 2961

Testing features: 0, 5, 7 finished training svm finished predicting

Accuracy: 0.766

precision recall f1-score support

0 0.720 0.909 0.803 1560

1 0.857 0.606 0.710 1401

avg / total 0.785 0.766 0.759 2961

Testing features: 0, 5, 8 finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.706 0.909 0.795 1560 1 0.851 0.578 0.688 1401

avg / total 0.774 0.752 0.744 2961

Testing features: 0, 6, 7 finished training svm finished predicting Accuracy: 0.689

precision recall f1-score support

0 0.656 0.860 0.744 1560 1 0.761 0.498 0.602 1401

avg / total 0.706 0.689 0.677 2961

Testing features: 0, 6, 8 finished training svm finished predicting Accuracy: 0.649

precision recall f1-score support

0 0.618 0.872 0.724 1560 1 0.738 0.400 0.519 1401

avg / total 0.675 0.649 0.627 2961

Testing features: 0, 7, 8 finished training svm

finished predicting Accuracy: 0.651

precision recall f1-score support

0 0.629 0.827 0.714 1560 1 0.703 0.456 0.553 1401

avg / total 0.664 0.651 0.638 2961

Testing features: 1, 2, 3 finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.730 0.890 0.802 1560 1 0.838 0.633 0.721 1401

avg / total 0.781 0.768 0.764 2961

Testing features: 1, 2, 5 finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.784 0.879 0.829 1560 1 0.845 0.729 0.783 1401

avg / total 0.812 0.809 0.807 2961

Testing features: 1, 2, 6 finished training svm finished predicting Accuracy: 0.750

precision recall f1-score support

0 0.721 0.856 0.783 1560 1 0.798 0.631 0.705 1401

avg / total 0.757 0.750 0.746 2961

Testing features: 1, 2, 7

finished training svm finished predicting

Accuracy: 0.755

precision recall f1-score support

0 0.723 0.869 0.789 1560 1 0.811 0.629 0.708 1401

avg / total 0.765 0.755 0.751 2961

Testing features: 1, 2, 8 finished training svm finished predicting Accuracy: 0.758

precision recall f1-score support

0 0.738 0.838 0.785 1560 1 0.788 0.668 0.723 1401

avg / total 0.761 0.758 0.756 2961

Testing features: 1, 3, 5 finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.785 0.883 0.831 1560 1 0.849 0.730 0.785 1401

avg / total 0.815 0.811 0.809 2961

Testing features: 1, 3, 6 finished training svm finished predicting Accuracy: 0.729

precision recall f1-score support

0 0.703 0.840 0.766 1560 1 0.773 0.605 0.679 1401

avg / total 0.736 0.729 0.725 2961

Testing features: 1, 3, 7 finished training svm finished predicting Accuracy: 0.710

precision recall f1-score support

0 0.681 0.847 0.755 1560 1 0.766 0.558 0.646 1401

avg / total 0.721 0.710 0.703 2961

Testing features: 1, 3, 8 finished training svm finished predicting Accuracy: 0.693

precision recall f1-score support

0 0.664 0.847 0.744 1560 1 0.754 0.522 0.617 1401

avg / total 0.707 0.693 0.684 2961

Testing features: 1, 5, 6 finished training svm finished predicting Accuracy: 0.795

precision recall f1-score support

0 0.765 0.880 0.819 1560 1 0.840 0.700 0.763 1401

avg / total 0.801 0.795 0.792 2961

Testing features: 1, 5, 7 finished training svm finished predicting Accuracy: 0.798

precision recall f1-score support

0 0.772 0.875 0.820 1560 1 0.836 0.712 0.769 1401

avg / total 0.802 0.798 0.796 2961

Testing features: 1, 5, 8 finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.806 0.863 0.834 1560 1 0.835 0.768 0.800 1401

avg / total 0.819 0.818 0.818 2961

Testing features: 1, 6, 7 finished training svm finished predicting Accuracy: 0.743

precision recall f1-score support

0 0.734 0.803 0.767 1560 1 0.755 0.677 0.714 1401

avg / total 0.744 0.743 0.742 2961

Testing features: 1, 6, 8 finished training svm finished predicting Accuracy: 0.730

precision recall f1-score support

0 0.719 0.801 0.757 1560 1 0.746 0.651 0.695 1401

avg / total 0.731 0.730 0.728 2961

Testing features: 1, 7, 8 finished training svm finished predicting Accuracy: 0.715

precision recall f1-score support

0 0.694 0.820 0.752 1560 1 0.749 0.598 0.665 1401 avg / total 0.720 0.715 0.711 2961

Testing features: 2, 3, 5 finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.776 0.896 0.832 1560 1 0.860 0.712 0.779 1401

avg / total 0.816 0.809 0.807 2961

Testing features: 2, 3, 6 finished training svm finished predicting Accuracy: 0.742

precision recall f1-score support

0 0.692 0.917 0.789 1560 1 0.855 0.547 0.667 1401

avg / total 0.769 0.742 0.731 2961

Testing features: 2, 3, 7 finished training svm finished predicting Accuracy: 0.740

precision recall f1-score support

0 0.690 0.920 0.788 1560 1 0.858 0.540 0.663 1401

avg / total 0.769 0.740 0.729 2961

Testing features: 2, 3, 8 finished training svm finished predicting Accuracy: 0.743

precision recall f1-score support

0 0.692 0.922 0.791 1560 1 0.863 0.542 0.666 1401 avg / total 0.773 0.743 0.732 2961

Testing features: 2, 5, 6 finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.734 0.908 0.811 1560 1 0.860 0.633 0.729 1401

avg / total 0.794 0.778 0.773 2961

Testing features: 2, 5, 7 finished training svm finished predicting Accuracy: 0.781

precision recall f1-score support

0 0.742 0.896 0.812 1560 1 0.849 0.653 0.738 1401

avg / total 0.792 0.781 0.777 2961

Testing features: 2, 5, 8 finished training svm finished predicting Accuracy: 0.777

precision recall f1-score support

0 0.733 0.907 0.811 1560 1 0.859 0.632 0.728 1401

avg / total 0.793 0.777 0.772 2961

Testing features: 2, 6, 7 finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.694 0.888 0.779 1560

1 0.820 0.564 0.668 1401

avg / total 0.753 0.735 0.727 2961

Testing features: 2, 6, 8 finished training svm finished predicting Accuracy: 0.690

precision recall f1-score support

0 0.655 0.872 0.748 1560 1 0.774 0.488 0.599 1401

avg / total 0.711 0.690 0.677 2961

Testing features: 2, 7, 8 finished training svm finished predicting Accuracy: 0.702

precision recall f1-score support

0 0.662 0.887 0.758 1560 1 0.797 0.496 0.612 1401

avg / total 0.726 0.702 0.689 2961

Testing features: 3, 5, 6 finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.779 0.890 0.831 1560 1 0.854 0.719 0.781 1401

avg / total 0.815 0.809 0.807 2961

Testing features: 3, 5, 7 finished training svm finished predicting Accuracy: 0.808

0 0.776 0.894 0.831 1560

1 0.857 0.712 0.778 1401

avg / total 0.814 0.808 0.806 2961

Testing features: 3, 5, 8 finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.769 0.895 0.827 1560 1 0.857 0.700 0.771 1401

avg / total 0.810 0.803 0.800 2961

Testing features: 3, 6, 7 finished training svm finished predicting Accuracy: 0.733

precision recall f1-score support

0 0.696 0.873 0.775 1560 1 0.803 0.576 0.671 1401

avg / total 0.747 0.733 0.726 2961

Testing features: 3, 6, 8 finished training svm finished predicting Accuracy: 0.711

precision recall f1-score support

0 0.675 0.872 0.761 1560 1 0.789 0.532 0.635 1401

avg / total 0.729 0.711 0.702 2961

Testing features: 3, 7, 8 finished training svm finished predicting Accuracy: 0.710

0 0.678 0.855 0.756 1560 1 0.773 0.548 0.641 1401

avg / total 0.723 0.710 0.702 2961

Testing features: 5, 6, 7 finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.718 0.917 0.805 1560 1 0.866 0.598 0.707 1401

avg / total 0.788 0.766 0.759 2961

Testing features: 5, 6, 8 finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.726 0.853 0.784 1560 1 0.796 0.642 0.711 1401

avg / total 0.759 0.753 0.749 2961

Testing features: 5, 7, 8 finished training svm finished predicting Accuracy: 0.767

precision recall f1-score support

0 0.720 0.910 0.804 1560 1 0.859 0.607 0.711 1401

avg / total 0.786 0.767 0.760 2961

Testing features: 6, 7, 8 finished training svm finished predicting Accuracy: 0.684

precision recall f1-score support

0 0.655 0.846 0.738 1560 1 0.746 0.504 0.601 1401

avg / total 0.698 0.684 0.673 2961

Testing features: 0, 1, 2, 3

finished training svm finished predicting Accuracy: 0.774

precision recall f1-score support

0 0.738 0.885 0.805 1560 1 0.836 0.650 0.731 1401

avg / total 0.784 0.774 0.770 2961

Testing features: 0, 1, 2, 5 finished training svm finished predicting

Accuracy: 0.804

precision recall f1-score support

0 0.778 0.879 0.825 1560 1 0.842 0.721 0.777 1401

avg / total 0.809 0.804 0.802 2961

Testing features: 0, 1, 2, 6 finished training svm finished predicting Accuracy: 0.744

precision recall f1-score support

0 0.720 0.841 0.776 1560 1 0.782 0.636 0.702 1401

avg / total 0.750 0.744 0.741 2961

Testing features: 0, 1, 2, 7 finished training svm finished predicting

Accuracy: 0.741

precision recall f1-score support

0 0.711 0.856 0.777 1560 1 0.793 0.612 0.691 1401

avg / total 0.750 0.741 0.736 2961

Testing features: 0, 1, 2, 8 finished training svm finished predicting Accuracy: 0.764

precision recall f1-score support

0 0.741 0.847 0.791 1560 1 0.798 0.670 0.728 1401

avg / total 0.768 0.764 0.761 2961

Testing features: 0, 1, 3, 5 finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.785 0.890 0.834 1560 1 0.857 0.729 0.788 1401

avg / total 0.819 0.814 0.812 2961

Testing features: 0, 1, 3, 6 finished training svm finished predicting Accuracy: 0.728

precision recall f1-score support

0 0.709 0.821 0.761 1560 1 0.758 0.625 0.685 1401

avg / total 0.732 0.728 0.725 2961

Testing features: 0, 1, 3, 7 finished training svm

finished predicting Accuracy: 0.714

precision recall f1-score support

0 0.689 0.835 0.755 1560 1 0.759 0.580 0.657 1401

avg / total 0.722 0.714 0.709 2961

Testing features: 0, 1, 3, 8

finished training svm finished predicting Accuracy: 0.692

precision recall f1-score support

0 0.665 0.835 0.741 1560 1 0.744 0.532 0.620 1401

avg / total 0.702 0.692 0.684 2961

Testing features: 0, 1, 5, 6

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.775 0.872 0.821 1560 1 0.835 0.719 0.773 1401

avg / total 0.804 0.800 0.798 2961

Testing features: 0, 1, 5, 7

finished training svm finished predicting Accuracy: 0.799

precision recall f1-score support

0 0.772 0.877 0.821 1560 1 0.839 0.712 0.770 1401

avg / total 0.803 0.799 0.797 2961

Testing features: 0, 1, 5, 8

finished training svm finished predicting

Accuracy: 0.808

precision recall f1-score support

0 0.789 0.867 0.827 1560 1 0.834 0.742 0.785 1401

avg / total 0.810 0.808 0.807 2961

Testing features: 0, 1, 6, 7 finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.741 0.798 0.769 1560 1 0.754 0.690 0.720 1401

avg / total 0.747 0.747 0.746 2961

Testing features: 0, 1, 6, 8

finished training svm finished predicting Accuracy: 0.729

precision recall f1-score support

0 0.718 0.802 0.757 1560 1 0.746 0.649 0.694 1401

avg / total 0.731 0.729 0.728 2961

Testing features: 0, 1, 7, 8

finished training svm finished predicting Accuracy: 0.709

precision recall f1-score support

0 0.689 0.816 0.747 1560 1 0.742 0.590 0.658 1401

avg / total 0.714 0.709 0.705 2961

Testing features: 0, 2, 3, 5

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.784 0.896 0.836 1560 1 0.862 0.726 0.788 1401

avg / total 0.821 0.815 0.813 2961

Testing features: 0, 2, 3, 6 finished training svm finished predicting Accuracy: 0.747

precision recall f1-score support

0 0.703 0.901 0.790 1560 1 0.840 0.576 0.683 1401

avg / total 0.768 0.747 0.739 2961

Testing features: 0, 2, 3, 7 finished training svm finished predicting Accuracy: 0.745

precision recall f1-score support

0 0.698 0.910 0.790 1560 1 0.849 0.561 0.676 1401

avg / total 0.769 0.745 0.736 2961

Testing features: 0, 2, 3, 8 finished training svm finished predicting Accuracy: 0.743

precision recall f1-score support

0 0.694 0.913 0.789 1560 1 0.851 0.552 0.670 1401

avg / total 0.769 0.743 0.733 2961

Testing features: 0, 2, 5, 6 finished training svm finished predicting

Accuracy: 0.777

precision recall f1-score support

0 0.739 0.893 0.808 1560 1 0.845 0.648 0.733 1401

avg / total 0.789 0.777 0.773 2961

Testing features: 0, 2, 5, 7 finished training svm finished predicting Accuracy: 0.783

precision recall f1-score support

0 0.739 0.908 0.815 1560 1 0.863 0.642 0.736 1401

avg / total 0.798 0.783 0.778 2961

Testing features: 0, 2, 5, 8

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.739 0.896 0.810 1560 1 0.848 0.647 0.734 1401

avg / total 0.791 0.778 0.774 2961

Testing features: 0, 2, 6, 7

finished training svm finished predicting Accuracy: 0.735

precision recall f1-score support

0 0.695 0.883 0.778 1560 1 0.813 0.570 0.670 1401 avg / total 0.751 0.735 0.727 2961

Testing features: 0, 2, 6, 8 finished training svm finished predicting Accuracy: 0.696

precision recall f1-score support

0 0.662 0.863 0.749 1560 1 0.769 0.510 0.613 1401

avg / total 0.713 0.696 0.685 2961

Testing features: 0, 2, 7, 8 finished training svm finished predicting Accuracy: 0.699

precision recall f1-score support

0 0.660 0.883 0.756 1560 1 0.791 0.495 0.609 1401

avg / total 0.722 0.699 0.686 2961

Testing features: 0, 3, 5, 6 finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.782 0.883 0.830 1560 1 0.848 0.726 0.782 1401

avg / total 0.813 0.809 0.807 2961

Testing features: 0, 3, 5, 7 finished training svm finished predicting Accuracy: 0.811

precision recall f1-score support

0 0.778 0.896 0.833 1560 1 0.860 0.716 0.781 1401 avg / total 0.817 0.811 0.809 2961

Testing features: 0, 3, 5, 8 finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.771 0.895 0.828 1560 1 0.857 0.704 0.773 1401

avg / total 0.812 0.804 0.802 2961

Testing features: 0, 3, 6, 7 finished training svm finished predicting Accuracy: 0.739

precision recall f1-score support

0 0.704 0.871 0.779 1560 1 0.805 0.592 0.682 1401

avg / total 0.752 0.739 0.733 2961

Testing features: 0, 3, 6, 8 finished training svm finished predicting Accuracy: 0.708

precision recall f1-score support

0 0.675 0.858 0.756 1560 1 0.774 0.540 0.636 1401

avg / total 0.722 0.708 0.699 2961

Testing features: 0, 3, 7, 8 finished training svm finished predicting Accuracy: 0.706

precision recall f1-score support

0 0.675 0.854 0.754 1560

1 0.770 0.541 0.635 1401

avg / total 0.720 0.706 0.698 2961

Testing features: 0, 5, 6, 7 finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.722 0.908 0.805 1560 1 0.856 0.612 0.714 1401

avg / total 0.786 0.768 0.762 2961

Testing features: 0, 5, 6, 8 finished training svm finished predicting Accuracy: 0.762

precision recall f1-score support

0 0.724 0.886 0.797 1560 1 0.831 0.624 0.713 1401

avg / total 0.774 0.762 0.757 2961

Testing features: 0, 5, 7, 8 finished training svm finished predicting Accuracy: 0.767

precision recall f1-score support

0 0.723 0.905 0.804 1560 1 0.853 0.613 0.713 1401

avg / total 0.784 0.767 0.761 2961

Testing features: 0, 6, 7, 8 finished training svm finished predicting Accuracy: 0.696

precision recall f1-score support

0 0.665 0.853 0.747 1560

1 0.760 0.521 0.618 1401

avg / total 0.710 0.696 0.686 2961

Testing features: 1, 2, 3, 5

finished training svm finished predicting Accuracy: 0.817

precision recall f1-score support

 $0 \quad \ 0.798 \quad 0.872 \quad 0.834 \quad 1560$

1 0.842 0.754 0.796 1401

avg / total 0.819 0.817 0.816 2961

Testing features: 1, 2, 3, 6

finished training svm finished predicting

Accuracy: 0.767

precision recall f1-score support

0 0.729 0.889 0.801 1560

1 0.836 0.632 0.720 1401

avg / total 0.780 0.767 0.763 2961

Testing features: 1, 2, 3, 7

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.739 0.895 0.810 1560

1 0.847 0.649 0.735 1401

avg / total 0.790 0.778 0.774 2961

Testing features: 1, 2, 3, 8

finished training svm finished predicting Accuracy: 0.776

precision recall f1-score support

0 0.745 0.874 0.804 1560

1 0.826 0.667 0.738 1401

avg / total 0.783 0.776 0.773 2961

Testing features: 1, 2, 5, 6 finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.778 0.878 0.825 1560 1 0.842 0.722 0.777 1401

avg / total 0.808 0.804 0.802 2961

Testing features: 1, 2, 5, 7 finished training svm finished predicting Accuracy: 0.806

precision recall f1-score support

0 0.779 0.883 0.828 1560 1 0.847 0.721 0.779 1401

avg / total 0.811 0.806 0.805 2961

Testing features: 1, 2, 5, 8 finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.789 0.880 0.832 1560 1 0.847 0.737 0.788 1401

avg / total 0.816 0.813 0.811 2961

Testing features: 1, 2, 6, 7 finished training svm finished predicting Accuracy: 0.759

precision recall f1-score support

0 0.726 0.871 0.792 1560 1 0.815 0.633 0.713 1401

avg / total 0.768 0.759 0.754 2961

Testing features: 1, 2, 6, 8

finished training svm finished predicting Accuracy: 0.768

precision recall f1-score support

0 0.752 0.835 0.792 1560 1 0.791 0.694 0.739 1401

avg / total 0.771 0.768 0.767 2961

Testing features: 1, 2, 7, 8 finished training svm

finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.744 0.847 0.792 1560 1 0.799 0.675 0.731 1401

avg / total 0.770 0.766 0.763 2961

Testing features: 1, 3, 5, 6 finished training svm finished predicting

Accuracy: 0.818

precision recall f1-score support

0 0.795 0.880 0.836 1560 1 0.849 0.748 0.795 1401

avg / total 0.821 0.818 0.816 2961

Testing features: 1, 3, 5, 7 finished training svm finished predicting

Accuracy: 0.818

avg / total

precision recall f1-score support

0 0.794 0.884 0.837 1560 1 0.852 0.744 0.795 1401

0.818

0.817

2961

Testing features: 1, 3, 5, 8 finished training svm finished predicting Accuracy: 0.814

0.821

precision recall f1-score support

0 0.790 0.882 0.833 1560 1 0.849 0.739 0.790 1401

avg / total 0.818 0.814 0.813 2961

Testing features: 1, 3, 6, 7 finished training svm finished predicting Accuracy: 0.765

precision recall f1-score support

0 0.745 0.841 0.790 1560 1 0.794 0.680 0.733 1401

avg / total 0.768 0.765 0.763 2961

Testing features: 1, 3, 6, 8 finished training svm finished predicting Accuracy: 0.733

precision recall f1-score support

0 0.705 0.847 0.770 1560 1 0.781 0.605 0.682 1401

avg / total 0.741 0.733 0.728 2961

Testing features: 1, 3, 7, 8 finished training svm

finished predicting Accuracy: 0.724

precision recall f1-score support

0 0.692 0.860 0.767 1560 1 0.786 0.573 0.663 1401

avg / total 0.736 0.724 0.717 2961

Testing features: 1, 5, 6, 7 finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.795 0.863 0.827 1560 1 0.831 0.752 0.789 1401

avg / total 0.812 0.810 0.809 2961

Testing features: 1, 5, 6, 8 finished training svm finished predicting Accuracy: 0.808

precision recall f1-score support

0 0.786 0.874 0.828 1560 1 0.839 0.735 0.784 1401

avg / total 0.811 0.808 0.807 2961

Testing features: 1, 5, 7, 8 finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.797 0.870 0.832 1560 1 0.839 0.754 0.794 1401

avg / total 0.817 0.815 0.814 2961

Testing features: 1, 6, 7, 8

finished training svm finished predicting

Accuracy: 0.754

precision recall f1-score support

0 0.745 0.811 0.776 1560 1 0.766 0.690 0.726 1401

avg / total 0.755 0.754 0.753 2961

Testing features: 2, 3, 5, 6 finished training svm finished predicting

Accuracy: 0.812

precision recall f1-score support

0 0.782 0.891 0.833 1560 1 0.856 0.724 0.785 1401

avg / total 0.817 0.812 0.810 2961

Testing features: 2, 3, 5, 7 finished training svm finished predicting

Accuracy: 0.813

precision recall f1-score support

0 0.781 0.897 0.835 1560 1 0.862 0.719 0.784 1401

avg / total 0.819 0.813 0.811 2961

Testing features: 2, 3, 5, 8

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.776 0.892 0.830 1560 1 0.855 0.713 0.778 1401

avg / total 0.813 0.807 0.805 2961

Testing features: 2, 3, 6, 7

finished training svm finished predicting Accuracy: 0.749

precision recall f1-score support

0 0.702 0.910 0.793 1560 1 0.851 0.570 0.683 1401

avg / total 0.773 0.749 0.741 2961

Testing features: 2, 3, 6, 8 finished training svm finished predicting Accuracy: 0.743

precision recall f1-score support

0 0.697 0.905 0.788 1560 1 0.842 0.562 0.674 1401

avg / total 0.765 0.743 0.734 2961

Testing features: 2, 3, 7, 8 finished training svm finished predicting Accuracy: 0.741

precision recall f1-score support

0 0.691 0.920 0.789 1560 1 0.859 0.542 0.664 1401

avg / total 0.770 0.741 0.730 2961

Testing features: 2, 5, 6, 7 finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.778 0.896 0.833 1560 1 0.861 0.714 0.781 1401

avg / total 0.817 0.810 0.808 2961

Testing features: 2, 5, 6, 8

finished training svm finished predicting Accuracy: 0.780

precision recall f1-score support

0 0.734 0.913 0.814 1560 1 0.867 0.632 0.731 1401

avg / total 0.797 0.780 0.774 2961

Testing features: 2, 5, 7, 8 finished training svm finished predicting

Accuracy: 0.785

precision recall f1-score support

0 0.747 0.894 0.814 1560 1 0.848 0.663 0.744 1401

avg / total 0.795 0.785 0.781 2961

Testing features: 2, 6, 7, 8

finished training svm finished predicting Accuracy: 0.740

precision recall f1-score support

0 0.697 0.896 0.784 1560 1 0.829 0.566 0.673 1401

avg / total 0.760 0.740 0.731 2961

Testing features: 3, 5, 6, 7 finished training svm

finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.781 0.893 0.833 1560 1 0.858 0.721 0.784 1401 avg / total 0.817 0.812 0.810 2961

Testing features: 3, 5, 6, 8 finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.779 0.890 0.831 1560 1 0.855 0.718 0.780 1401

avg / total 0.815 0.809 0.807 2961

Testing features: 3, 5, 7, 8 finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.779 0.893 0.832 1560 1 0.858 0.718 0.782 1401

avg / total 0.816 0.810 0.808 2961

Testing features: 3, 6, 7, 8 finished training svm finished predicting Accuracy: 0.743

precision recall f1-score support

0 0.703 0.885 0.784 1560 1 0.820 0.585 0.682 1401

avg / total 0.758 0.743 0.736 2961

Testing features: 5, 6, 7, 8 finished training svm finished predicting Accuracy: 0.769

precision recall f1-score support

0 0.724 0.906 0.805 1560 1 0.854 0.616 0.716 1401 avg / total 0.786 0.769 0.763 2961

Testing features: 0, 1, 2, 3, 5

finished training svm finished predicting Accuracy: 0.829

precision recall f1-score support

0 0.814 0.876 0.844 1560 1 0.849 0.777 0.811 1401

avg / total 0.831 0.829 0.828 2961

Testing features: 0, 1, 2, 3, 6

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.737 0.877 0.801 1560 1 0.826 0.651 0.728 1401

avg / total 0.779 0.770 0.766 2961

Testing features: 0, 1, 2, 3, 7

finished training svm finished predicting Accuracy: 0.774

precision recall f1-score support

0 0.740 0.883 0.805 1560 1 0.833 0.654 0.733 1401

avg / total 0.784 0.774 0.771 2961

Testing features: 0, 1, 2, 3, 8

finished training svm finished predicting Accuracy: 0.775

precision recall f1-score support

0 0.746 0.868 0.802 1560

1 0.820 0.671 0.738 1401

avg / total 0.781 0.775 0.772 2961

Testing features: 0, 1, 2, 5, 6

finished training svm finished predicting Accuracy: 0.803

precision recall f1-score support

0 0.779 0.874 0.824 1560 1 0.838 0.724 0.777 1401

avg / total 0.807 0.803 0.802 2961

Testing features: 0, 1, 2, 5, 7

finished training svm finished predicting Accuracy: 0.804

precision recall f1-score support

0 0.779 0.878 0.825 1560 1 0.841 0.722 0.777 1401

avg / total 0.808 0.804 0.803 2961

Testing features: 0, 1, 2, 5, 8

finished training svm finished predicting Accuracy: 0.810

precision recall f1-score support

0 0.785 0.879 0.829 1560 1 0.844 0.732 0.784 1401

avg / total 0.813 0.810 0.808 2961

Testing features: 0, 1, 2, 6, 7

finished training svm finished predicting Accuracy: 0.759

precision recall f1-score support

 $0 \quad \ 0.733 \quad 0.851 \quad 0.788 \quad 1560$

1 0.798 0.655 0.720 1401

avg / total 0.764 0.759 0.756 2961

Testing features: 0, 1, 2, 6, 8

finished training svm finished predicting Accuracy: 0.756

precision recall f1-score support

 $0 \quad \ 0.740 \quad 0.826 \quad 0.781 \quad 1560$

1 0.778 0.677 0.724 1401

avg / total 0.758 0.756 0.754 2961

Testing features: 0, 1, 2, 7, 8

finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.734 0.834 0.781 1560

1 0.782 0.663 0.718 1401

avg / total 0.757 0.753 0.751 2961

Testing features: 0, 1, 3, 5, 6

finished training svm finished predicting Accuracy: 0.825

precision recall f1-score support

0 0.805 0.883 0.842 1560 1 0.854 0.762 0.805 1401

avg / total 0.828 0.825 0.824 2961

Testing features: 0, 1, 3, 5, 7

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.801 0.882 0.840 1560

1 0.852 0.757 0.802 1401

avg / total 0.825 0.823 0.822 2961

Testing features: 0, 1, 3, 5, 8

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

 $0 \quad \ 0.790 \quad 0.882 \quad 0.833 \quad 1560$

1 0.849 0.739 0.790 1401

avg / total 0.818 0.814 0.813 2961

Testing features: 0, 1, 3, 6, 7

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.748 0.838 0.790 1560

1 0.791 0.685 0.735 1401

avg / total 0.768 0.766 0.764 2961

Testing features: 0, 1, 3, 6, 8

finished training svm finished predicting Accuracy: 0.729

precision recall f1-score support

0 0.711 0.820 0.762 1560 1 0.758 0.629 0.687 1401

avg / total 0.733 0.729 0.726 2961

Testing features: 0, 1, 3, 7, 8

finished training svm finished predicting Accuracy: 0.730

precision recall f1-score support

0 0.703 0.847 0.768 1560 1 0.779 0.601 0.678 1401

avg / total 0.739 0.730 0.726 2961

Testing features: 0, 1, 5, 6, 7

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.799 0.864 0.830 1560 1 0.833 0.757 0.794 1401

avg / total 0.815 0.814 0.813 2961

Testing features: 0, 1, 5, 6, 8

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.780 0.871 0.823 1560 1 0.834 0.726 0.776 1401

avg / total 0.805 0.802 0.801 2961

Testing features: 0, 1, 5, 7, 8

finished training svm finished predicting Accuracy: 0.808

precision recall f1-score support

0 0.791 0.863 0.826 1560 1 0.831 0.747 0.786 1401

avg / total 0.810 0.808 0.807 2961

Testing features: 0, 1, 6, 7, 8

finished training svm finished predicting

Accuracy: 0.752

precision recall f1-score support

0 0.748 0.799 0.773 1560 1 0.758 0.700 0.728 1401

avg / total 0.753 0.752 0.752 2961

Testing features: 0, 2, 3, 5, 6

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.785 0.886 0.833 1560 1 0.852 0.730 0.786 1401

avg / total 0.817 0.812 0.811 2961

Testing features: 0, 2, 3, 5, 7

finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.788 0.895 0.838 1560 1 0.862 0.732 0.792 1401

avg / total 0.823 0.818 0.816 2961

Testing features: 0, 2, 3, 5, 8

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

0 0.781 0.896 0.834 1560 1 0.861 0.720 0.784 1401

avg / total 0.819 0.813 0.811 2961

Testing features: 0, 2, 3, 6, 7

finished training svm

finished predicting Accuracy: 0.751

precision recall f1-score support

0 0.709 0.894 0.791 1560 1 0.834 0.591 0.692 1401

avg / total 0.768 0.751 0.744 2961

Testing features: 0, 2, 3, 6, 8

finished training svm finished predicting Accuracy: 0.755

precision recall f1-score support

0 0.716 0.888 0.793 1560 1 0.829 0.607 0.701 1401

avg / total 0.770 0.755 0.749 2961

Testing features: 0, 2, 3, 7, 8

finished training svm finished predicting Accuracy: 0.753

precision recall f1-score support

0 0.710 0.899 0.793 1560 1 0.840 0.592 0.694 1401

avg / total 0.772 0.753 0.747 2961

Testing features: 0, 2, 5, 6, 7

finished training svm finished predicting Accuracy: 0.800

precision recall f1-score support

0 0.773 0.878 0.822 1560 1 0.840 0.713 0.771 1401

avg / total 0.805 0.800 0.798 2961

Testing features: 0, 2, 5, 6, 8

finished training svm finished predicting

Accuracy: 0.777

precision recall f1-score support

0 0.740 0.888 0.807 1560 1 0.839 0.653 0.735 1401

avg / total 0.787 0.777 0.773 2961

Testing features: 0, 2, 5, 7, 8

finished training svm finished predicting Accuracy: 0.780

precision recall f1-score support

0 0.740 0.899 0.812 1560 1 0.853 0.648 0.736 1401

avg / total 0.793 0.780 0.776 2961

Testing features: 0, 2, 6, 7, 8

finished training svm finished predicting Accuracy: 0.742

precision recall f1-score support

0 0.709 0.865 0.779 1560 1 0.801 0.605 0.689 1401

avg / total 0.752 0.742 0.736 2961

Testing features: 0, 3, 5, 6, 7

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.783 0.890 0.833 1560 1 0.855 0.725 0.785 1401

avg / total 0.817 0.812 0.810 2961

Testing features: 0, 3, 5, 6, 8

finished training svm finished predicting Accuracy: 0.808

precision recall f1-score support

0 0.783 0.879 0.828 1560 1 0.844 0.729 0.783 1401

avg / total 0.812 0.808 0.807 2961

Testing features: 0, 3, 5, 7, 8

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.784 0.894 0.835 1560 1 0.860 0.727 0.788 1401

avg / total 0.820 0.815 0.813 2961

Testing features: 0, 3, 6, 7, 8

finished training svm finished predicting Accuracy: 0.743

precision recall f1-score support

0 0.711 0.864 0.780 1560 1 0.801 0.609 0.692 1401

avg / total 0.754 0.743 0.738 2961

Testing features: 0, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.770

precision recall f1-score support

0 0.733 0.885 0.802 1560 1 0.833 0.642 0.725 1401

avg / total 0.781 0.770 0.765 2961

Testing features: 1, 2, 3, 5, 6

finished training svm finished predicting Accuracy: 0.826

precision recall f1-score support

0 0.806 0.881 0.842 1560 1 0.853 0.764 0.806 1401

avg / total 0.828 0.826 0.825 2961

Testing features: 1, 2, 3, 5, 7

finished training svm finished predicting Accuracy: 0.828

precision recall f1-score support

0 0.811 0.879 0.844 1560 1 0.852 0.772 0.810 1401

avg / total 0.830 0.828 0.828 2961

Testing features: 1, 2, 3, 5, 8

finished training svm finished predicting Accuracy: 0.824

precision recall f1-score support

0 0.806 0.876 0.840 1560 1 0.848 0.766 0.805 1401

avg / total 0.826 0.824 0.823 2961

Testing features: 1, 2, 3, 6, 7

finished training svm finished predicting Accuracy: 0.771

precision recall f1-score support

0 0.734 0.888 0.804 1560 1 0.838 0.641 0.726 1401 avg / total 0.783 0.771 0.767 2961

Testing features: 1, 2, 3, 6, 8

finished training svm finished predicting Accuracy: 0.778

precision recall f1-score support

0 0.742 0.887 0.808 1560 1 0.839 0.656 0.736 1401

avg / total 0.788 0.778 0.774 2961

Testing features: 1, 2, 3, 7, 8

finished training svm finished predicting Accuracy: 0.786

precision recall f1-score support

0 0.748 0.896 0.815 1560 1 0.851 0.665 0.746 1401

avg / total 0.797 0.786 0.783 2961

Testing features: 1, 2, 5, 6, 7

finished training svm finished predicting Accuracy: 0.824

precision recall f1-score support

0 0.802 0.883 0.841 1560 1 0.854 0.757 0.803 1401

avg / total 0.826 0.824 0.823 2961

Testing features: 1, 2, 5, 6, 8

finished training svm finished predicting Accuracy: 0.820

precision recall f1-score support

0 0.797 0.882 0.837 1560 1 0.851 0.750 0.797 1401 avg / total 0.823 0.820 0.819 2961

Testing features: 1, 2, 5, 7, 8

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.787 0.883 0.832 1560 1 0.849 0.734 0.787 1401

avg / total 0.816 0.812 0.811 2961

Testing features: 1, 2, 6, 7, 8

finished training svm finished predicting Accuracy: 0.773

precision recall f1-score support

0 0.741 0.874 0.802 1560 1 0.825 0.660 0.734 1401

avg / total 0.781 0.773 0.770 2961

Testing features: 1, 3, 5, 6, 7

finished training svm finished predicting Accuracy: 0.825

precision recall f1-score support

0 0.805 0.881 0.841 1560 1 0.852 0.762 0.805 1401

avg / total 0.827 0.825 0.824 2961

Testing features: 1, 3, 5, 6, 8

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.800 0.885 0.840 1560

1 0.854 0.754 0.801 1401

avg / total 0.826 0.823 0.822 2961

Testing features: 1, 3, 5, 7, 8

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.799 0.887 0.841 1560 1 0.857 0.751 0.800 1401

avg / total 0.826 0.823 0.822 2961

Testing features: 1, 3, 6, 7, 8

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.743 0.849 0.793 1560 1 0.800 0.674 0.731 1401

avg / total 0.770 0.766 0.764 2961

Testing features: 1, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.819

precision recall f1-score support

0 0.810 0.859 0.834 1560 1 0.832 0.775 0.802 1401

avg / total 0.820 0.819 0.819 2961

Testing features: 2, 3, 5, 6, 7

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.784 0.891 0.834 1560

1 0.857 0.727 0.787 1401

avg / total 0.819 0.814 0.812 2961

Testing features: 2, 3, 5, 6, 8

finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.795 0.882 0.836 1560

1 0.850 0.747 0.795 1401

avg / total 0.821 0.818 0.817 2961

Testing features: 2, 3, 5, 7, 8

finished training svm finished predicting

Accuracy: 0.817

precision recall f1-score support

0 0.786 0.898 0.838 1560

1 0.865 0.727 0.790 1401

avg / total 0.823 0.817 0.815 2961

Testing features: 2, 3, 6, 7, 8

finished training svm finished predicting Accuracy: 0.752

precision recall f1-score support

0 0.711 0.894 0.792 1560 1 0.834 0.595 0.695 1401

avg / total 0.769 0.752 0.746 2961

Testing features: 2, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.812

precision recall f1-score support

0 0.781 0.892 0.833 1560 1 0.858 0.722 0.784 1401

avg / total 0.817 0.812 0.810 2961

Testing features: 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.787 0.888 0.834 1560 1 0.854 0.732 0.789 1401

avg / total 0.819 0.814 0.813 2961

Testing features: 0, 1, 2, 3, 5, 6

finished training svm finished predicting Accuracy: 0.820

precision recall f1-score support

0 0.804 0.870 0.836 1560 1 0.841 0.764 0.800 1401

avg / total 0.821 0.820 0.819 2961

Testing features: 0, 1, 2, 3, 5, 7

finished training svm finished predicting Accuracy: 0.828

precision recall f1-score support

0 0.813 0.876 0.843 1560 1 0.848 0.775 0.810 1401

avg / total 0.830 0.828 0.827 2961

Testing features: 0, 1, 2, 3, 5, 8

finished training svm finished predicting Accuracy: 0.829

precision recall f1-score support

0 0.811 0.879 0.844 1560 1 0.852 0.772 0.810 1401

avg / total 0.831 0.829 0.828 2961

Testing features: 0, 1, 2, 3, 6, 7

finished training svm finished predicting Accuracy: 0.771

precision recall f1-score support

0 0.741 0.871 0.801 1560 1 0.821 0.660 0.732 1401

avg / total 0.779 0.771 0.768 2961

Testing features: 0, 1, 2, 3, 6, 8

finished training svm finished predicting Accuracy: 0.767

precision recall f1-score support

0 0.743 0.854 0.795 1560 1 0.805 0.671 0.732 1401

avg / total 0.772 0.767 0.765 2961

Testing features: 0, 1, 2, 3, 7, 8

finished training svm finished predicting Accuracy: 0.784

precision recall f1-score support

0 0.756 0.872 0.810 1560 1 0.828 0.686 0.750 1401

avg / total 0.790 0.784 0.782 2961

Testing features: 0, 1, 2, 5, 6, 7

finished training svm finished predicting

Accuracy: 0.820

precision recall f1-score support

0 0.804 0.870 0.836 1560 1 0.841 0.764 0.800 1401

avg / total 0.821 0.820 0.819 2961

Testing features: 0, 1, 2, 5, 6, 8

finished training svm finished predicting Accuracy: 0.805

precision recall f1-score support

0 0.785 0.869 0.825 1560 1 0.835 0.734 0.781 1401

avg / total 0.808 0.805 0.804 2961

Testing features: 0, 1, 2, 5, 7, 8

finished training svm finished predicting Accuracy: 0.809

precision recall f1-score support

0 0.784 0.878 0.829 1560 1 0.843 0.731 0.783 1401

avg / total 0.812 0.809 0.807 2961

Testing features: 0, 1, 2, 6, 7, 8

finished training svm finished predicting Accuracy: 0.759

precision recall f1-score support

0 0.740 0.836 0.785 1560 1 0.786 0.672 0.725 1401

avg / total 0.762 0.759 0.756 2961

Testing features: 0, 1, 3, 5, 6, 7

finished training svm

finished predicting Accuracy: 0.829

precision recall f1-score support

0 0.811 0.881 0.844 1560 1 0.853 0.771 0.810 1401

avg / total 0.831 0.829 0.828 2961

Testing features: 0, 1, 3, 5, 6, 8

finished training svm finished predicting Accuracy: 0.824

precision recall f1-score support

0 0.807 0.875 0.839 1560 1 0.846 0.767 0.804 1401

avg / total 0.825 0.824 0.823 2961

Testing features: 0, 1, 3, 5, 7, 8

finished training svm finished predicting Accuracy: 0.826

precision recall f1-score support

0 0.805 0.884 0.843 1560 1 0.855 0.762 0.806 1401

avg / total 0.829 0.826 0.825 2961

Testing features: 0, 1, 3, 6, 7, 8

finished training svm finished predicting Accuracy: 0.766

precision recall f1-score support

0 0.748 0.838 0.790 1560 1 0.792 0.686 0.735 1401

avg / total 0.769 0.766 0.764 2961

Testing features: 0, 1, 5, 6, 7, 8

finished training svm finished predicting

Accuracy: 0.817

precision recall f1-score support

0 0.803 0.865 0.833 1560 1 0.836 0.763 0.798 1401

1 0.000 0.100 0.100 1.101

avg / total 0.818 0.817 0.816 2961

Testing features: 0, 2, 3, 5, 6, 7

finished training svm finished predicting Accuracy: 0.807

precision recall f1-score support

0 0.777 0.888 0.829 1560 1 0.852 0.717 0.779 1401

avg / total 0.813 0.807 0.805 2961

Testing features: 0, 2, 3, 5, 6, 8

finished training svm finished predicting Accuracy: 0.815

precision recall f1-score support

0 0.794 0.876 0.833 1560 1 0.844 0.747 0.792 1401

avg / total 0.818 0.815 0.814 2961

Testing features: 0, 2, 3, 5, 7, 8

finished training svm finished predicting Accuracy: 0.822

precision recall f1-score support

0 0.795 0.892 0.840 1560 1 0.860 0.744 0.798 1401

avg / total 0.826 0.822 0.820 2961

Testing features: 0, 2, 3, 6, 7, 8

finished training svm finished predicting Accuracy: 0.755

precision recall f1-score support

0 0.718 0.881 0.791 1560 1 0.823 0.615 0.704 1401

avg / total 0.768 0.755 0.750 2961

Testing features: 0, 2, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.802

precision recall f1-score support

0 0.778 0.874 0.823 1560 1 0.838 0.722 0.775 1401

avg / total 0.806 0.802 0.801 2961

Testing features: 0, 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.791 0.880 0.833 1560 1 0.847 0.741 0.791 1401

avg / total 0.818 0.814 0.813 2961

Testing features: 1, 2, 3, 5, 6, 7

finished training svm finished predicting Accuracy: 0.827

precision recall f1-score support

0 0.808 0.883 0.843 1560 1 0.854 0.766 0.808 1401

avg / total 0.830 0.827 0.827 2961

Testing features: 1, 2, 3, 5, 6, 8

finished training svm finished predicting Accuracy: 0.828

precision recall f1-score support

0 0.809 0.883 0.844 1560 1 0.855 0.767 0.809 1401

avg / total 0.831 0.828 0.828 2961

Testing features: 1, 2, 3, 5, 7, 8

finished training svm finished predicting Accuracy: 0.833

precision recall f1-score support

0 0.815 0.885 0.848 1560 1 0.858 0.776 0.815 1401

avg / total 0.835 0.833 0.832 2961

Testing features: 1, 2, 3, 6, 7, 8

finished training svm finished predicting Accuracy: 0.779

precision recall f1-score support

0 0.744 0.885 0.808 1560 1 0.837 0.662 0.739 1401

avg / total 0.788 0.779 0.776 2961

Testing features: 1, 2, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.828

precision recall f1-score support

0 0.810 0.879 0.844 1560 1 0.852 0.771 0.809 1401 avg / total 0.830 0.828 0.827 2961

Testing features: 1, 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.827

precision recall f1-score support

0 0.808 0.881 0.843 1560 1 0.853 0.767 0.808 1401

avg / total 0.830 0.827 0.827 2961

Testing features: 2, 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.814

precision recall f1-score support

0 0.787 0.886 0.834 1560 1 0.852 0.733 0.788 1401

avg / total 0.818 0.814 0.812 2961

Testing features: 0, 1, 2, 3, 5, 6, 7

finished training svm finished predicting Accuracy: 0.818

precision recall f1-score support

0 0.801 0.871 0.834 1560 1 0.840 0.759 0.797 1401

avg / total 0.819 0.818 0.817 2961

Testing features: 0, 1, 2, 3, 5, 6, 8

finished training svm finished predicting Accuracy: 0.823

precision recall f1-score support

0 0.809 0.871 0.839 1560 1 0.842 0.771 0.805 1401 avg / total 0.825 0.823 0.823 2961

Testing features: 0, 1, 2, 3, 5, 7, 8

finished training svm finished predicting Accuracy: 0.827

precision recall f1-score support

0 0.813 0.874 0.842 1560 1 0.847 0.776 0.810 1401

avg / total 0.829 0.827 0.827 2961

Testing features: 0, 1, 2, 3, 6, 7, 8

finished training svm finished predicting Accuracy: 0.772

precision recall f1-score support

0 0.749 0.854 0.798 1560 1 0.807 0.682 0.739 1401

avg / total 0.777 0.772 0.770 2961

Testing features: 0, 1, 2, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.816

precision recall f1-score support

0 0.803 0.863 0.832 1560 1 0.833 0.764 0.797 1401

avg / total 0.817 0.816 0.815 2961

Testing features: 0, 1, 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.827

precision recall f1-score support

0 0.814 0.872 0.842 1560

1 0.845 0.777 0.810 1401

avg / total 0.829 0.827 0.827 2961

Testing features: 0, 2, 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.813

precision recall f1-score support

 $0 \quad \ 0.789 \quad 0.881 \quad 0.832 \quad 1560$

1 0.847 0.737 0.789 1401

avg / total 0.817 0.813 0.812 2961

Testing features: 1, 2, 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.831

precision recall f1-score support

0 0.812 0.884 0.846 1560

1 0.857 0.772 0.812 1401

avg / total 0.833 0.831 0.830 2961

Testing features: 0, 1, 2, 3, 5, 6, 7, 8

finished training svm finished predicting Accuracy: 0.820

precision recall f1-score support

 $0 \quad \ 0.805 \quad 0.869 \quad 0.836 \quad \ 1560$

1 0.840 0.765 0.801 1401

avg / total 0.821 0.820 0.819 2961