Homework Submission 2

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| SVM Accuracy Table for Hard/Soft Margin | | | | | | | | | | |
|---|-------------------|-------|-------|------------------|-------|-------|--|--|--|--|
| Type of SVM | Training Accuracy | | | Testing Accuracy | | | | | | |
| Hard Margin with Linear Kernel | 1 | | | 0.93 | | | | | | |
| Hard Margin with Polynomial Kernel | P=2 | P=3 | P=4 | P=2 | P=3 | P=4 | | | | |
| | 1 | 1 | 1 | 0.91 | 0.94 | 0.91 | | | | |
| Soft Margin with Polynomial Kernel | C=0.1 | C=0.5 | C=1.0 | C=0.1 | C=0.5 | C=1.0 | | | | |
| P=1 | 1 | 1 | 1 | 0.89 | 0.91 | 0.91 | | | | |
| P=2 | 1 | 1 | 1 | 0.94 | 0.94 | 0.94 | | | | |
| P=3 | 1 | 1 | 1 | 0.91 | 0.91 | 0.91 | | | | |

| SVM Accuracy (%) Table for Hard/Soft Margin | | | | | | | | | | |
|---|-------------------|-------|-------|------------------|-------|-------|--|--|--|--|
| Type of SVM | Training Accuracy | | | Testing Accuracy | | | | | | |
| Hard Margin with Linear Kernel | 100 | | | 93 | | | | | | |
| Hard Margin with Polynomial Kernel | P=2 | P=3 | P=4 | P=2 | P=3 | P=4 | | | | |
| | 100 | 100 | 100 | 91 | 94 | 91 | | | | |
| Soft Margin with Polynomial Kernel | C=0.1 | C=0.5 | C=1.0 | C=0.1 | C=0.5 | C=1.0 | | | | |
| P=1 | 100 | 100 | 100 | 89 | 91 | 91 | | | | |
| P=2 | 100 | 100 | 100 | 94 | 94 | 94 | | | | |
| P=3 | 100 | 100 | 100 | 91 | 91 | 91 | | | | |

NOTE: User manual for MATLAB code is available in "MATLAB CODE" folder