

## considering epochs as 200:

**epochs=200, lr=0.01**

Training finished!

Best Test Accuracy: 0.9513

Number of correct predictions: 9959/10500

## considering epochs as 500:(k=5)

**epochs=500, lr=0.01**

Training finished!

Best Test Accuracy: 0.9579

Number of correct predictions: 10028/10500

**epochs=500, lr=0.05**

Training finished!

Best Test Accuracy: 0.9333

Number of correct predictions: 9472/10500

**epochs=500, lr=0.1**

Training finished!

Best Test Accuracy: 0.8509

Number of correct predictions: 8364/10500

**epochs=500, lr=0.5**

Training finished!

Best Test Accuracy: 0.3000

Number of correct predictions: 2870/10500

**epochs=500, lr=0.001**

Training finished!

Best Test Accuracy: 0.9553

Number of correct predictions: 10029/10500

**epochs=500, lr=0.005**

Training finished!

Best Test Accuracy: 0.9578

Number of correct predictions: 10041/10500

**epochs=500, lr=0.0001**

Training finished!

Best Test Accuracy: 0.9313

Number of correct predictions: 9779/10500

## Considering epochs as 700:

```
epochs=700, lr=0.01
Training finished!
Best Test Accuracy: 0.9590
Number of correct predictions: 9878/10500
```

```
epochs=700, lr=0.0001
Training finished!
Best Test Accuracy: 0.9422
Number of correct predictions: 9892/10500
```

```
epochs=700, lr=0.05
Training finished!
Best Test Accuracy: 0.9360
Number of correct predictions: 9824/10500
```

```
epochs=700, lr=0.005
Training finished!
Best Test Accuracy: 0.9591
Number of correct predictions: 10047/10500
```

```
epochs=700, lr=0.001
Training finished!
Best Test Accuracy: 0.9566
Number of correct predictions: 10030/10500
```

```
epochs=700, lr=0.1
Training finished!
Best Test Accuracy: 0.8330
Number of correct predictions: 8523/10500
```

```
epochs=700, lr=0.5
Training finished!
Best Test Accuracy: 0.3458
Number of correct predictions: 2100/10500
```

## Considering epochs as 900:

```
epochs=900, lr=0.01
Training finished!
Best Test Accuracy: 0.9579
Number of correct predictions: 10018/10500
```

## **considering epochs as 1100:**

```
epochs=1100, lr=0.01)
Training finished!
Best Test Accuracy: 0.9582
Number of correct predictions: 10029/10500
```

## **considering epochs as 2000:**

```
epochs=2000, lr=0.01)
Training finished!
Best Test Accuracy: 0.9576
Number of correct predictions: 9994/10500
```

## **Considering epochs as 500 ,lr= 0.01 and changing k:**

**k=6**

```
epochs=500, lr=0.01
Training finished!
Best Test Accuracy: 0.9564
Number of correct predictions: 9946/10500
```

**k=7**

Training finished!

Best Test Accuracy: 0.9559  
Number of correct predictions: 9831/10500

**K= 8**

Training finished!  
Best Test Accuracy: 0.9561  
Number of correct predictions: 9934/10500

**K=9**

Training finished!  
Best Test Accuracy: 0.9573  
Number of correct predictions: 9776/10500

**K=10**

Training finished!  
Best Test Accuracy: 0.9556  
Number of correct predictions: 9987/10500