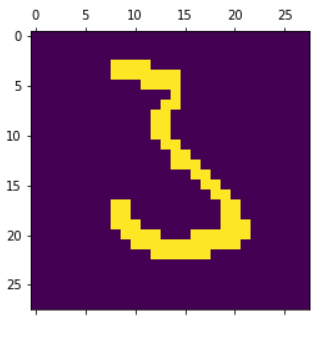
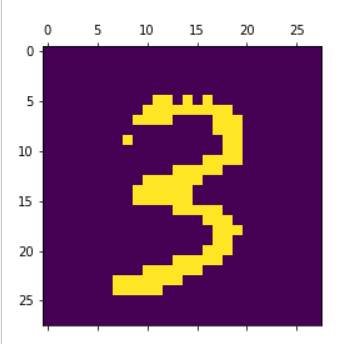
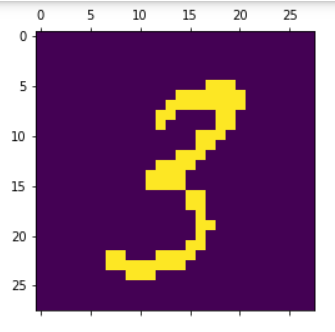
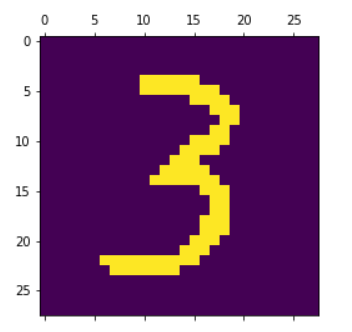
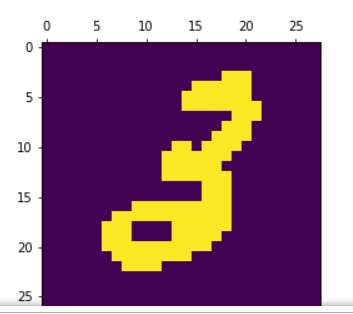
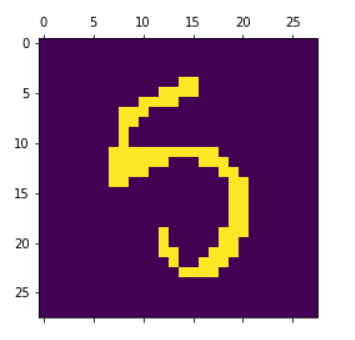
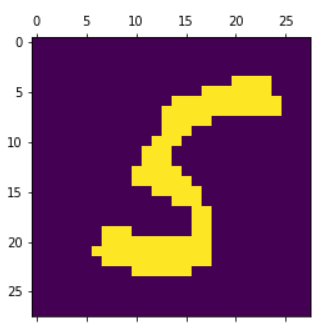
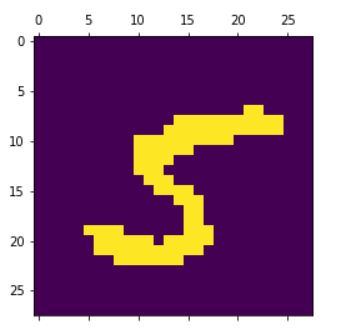
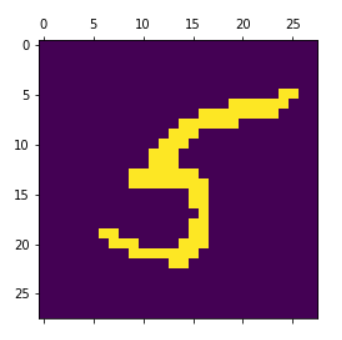
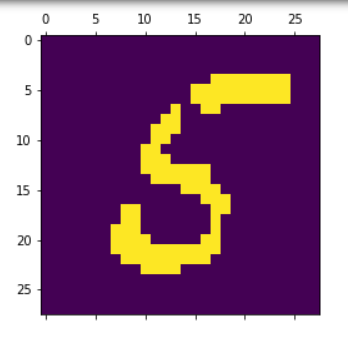
DIGIT 3 synthesized Sample Images



DIGIT 5 synthesized Sample Images



Code

def IMAGE\_SMOTE(df , sample):

n = df.shape[0]

for i in range(sample):

j = np.random.randint(0, n, 1)

k = np.random.randint(0, n, 1)

x = df.iloc[j,:].values

y = df.iloc[k,:].values

x\_hat = ((x - y ) \* np.random.sample(1)) + x

x\_hat = np.array([0 if i<=150 else 1 for i in np.ravel(x\_hat)])

plt.matshow(x\_hat.reshape(28,28))

plt.show()