Assignment:-1
CS671: Deep Learning

Submitted by:Group 10
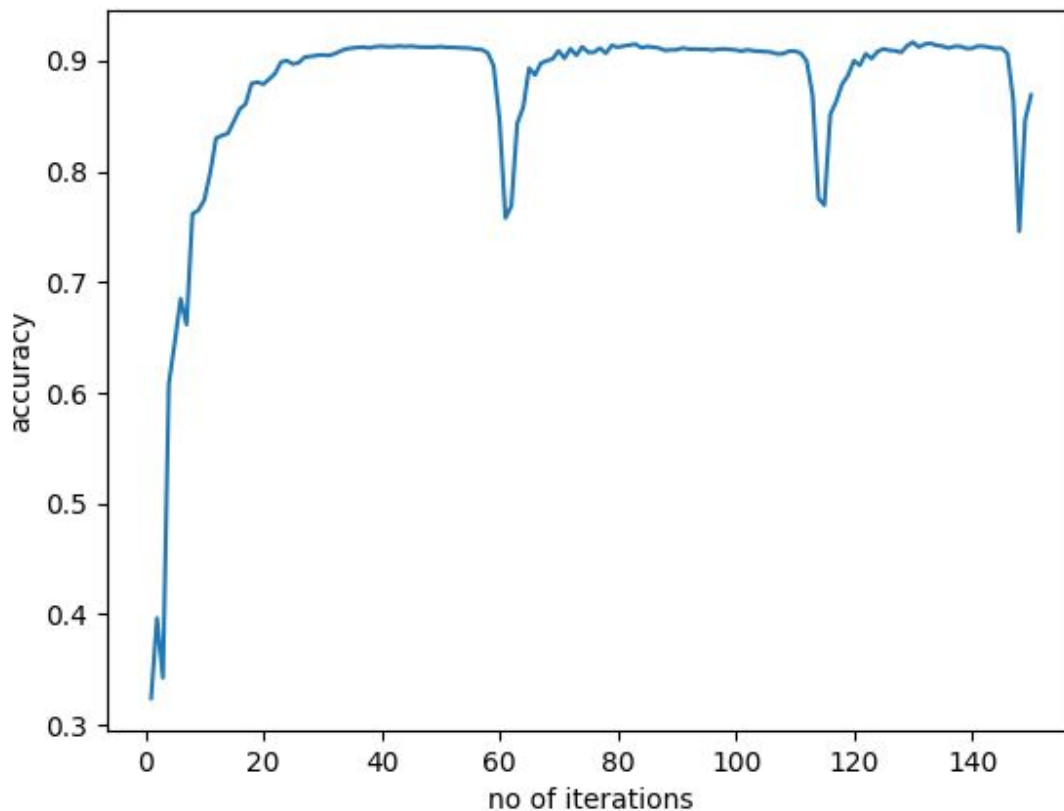
Dilip chauhan b16018
Randheer kumar b16139
Himanshi Thakkar T18036

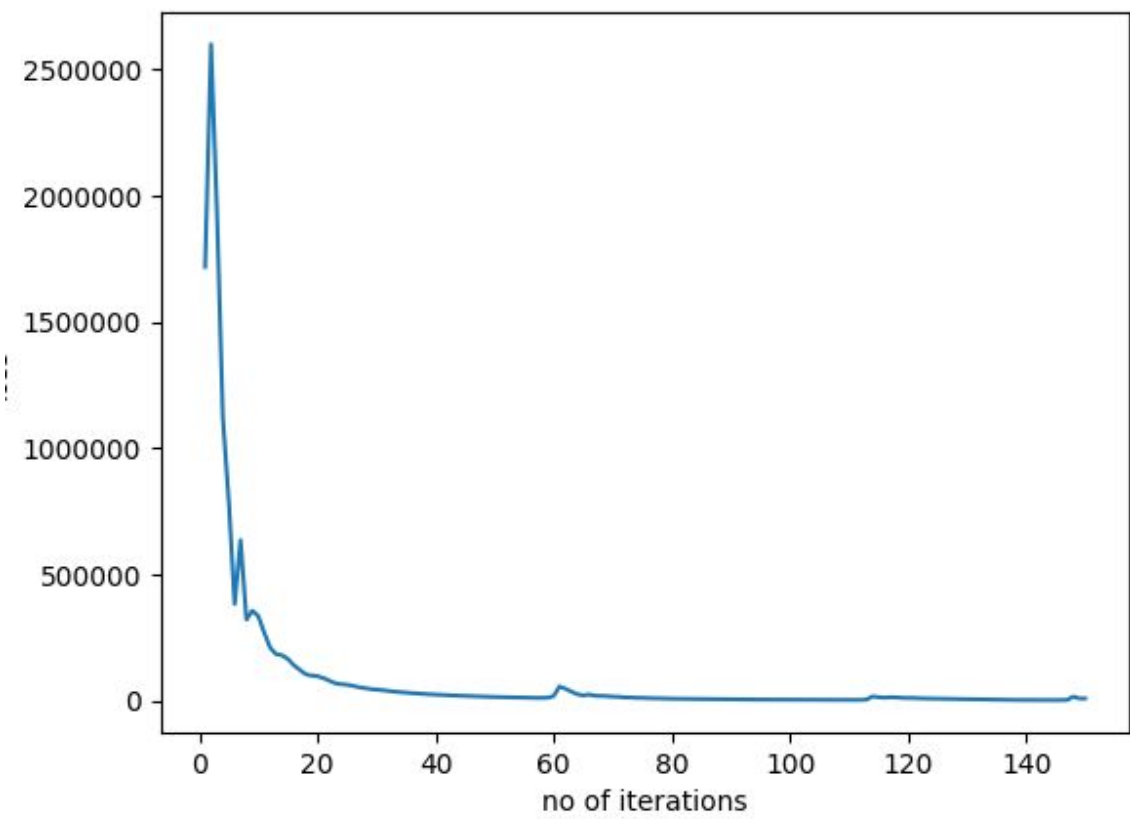MNIST DATA SET

Learning curves :

1 Accuracy vs number of iterations:

2 Loss vs number of iterations

Loss vs number of iterations curve

Confusion matrix for MNIST dataset

	class0	class1	class2	class3	class4	class5	class6	class7	class8	class9
class0	2619	1	31	9	9	3142	77	13	20	21
class1	1	62401	105	45	6	68	3	17	253	4
class2	18	43	5406	87	32	142	64	27	132	13

class3	41	12	176	4293	4	1505	10	20	832	24
class4	6	16	60	25	5145	289	74	25	77	105
class5	2	10	40	43	13	5228	27	4	59	4
class6	7	6	76	6	11	462	5313	4	31	2
class7	1	9	77	108	51	278	2	5583	54	102
class8	10	41	147	172	12	2418	36	17	2988	10
class9	7	17	17	63	278	1157	4	424	91	3891

Inferences:

- The number of layers required to best train the model on MNIST data is less than the layers for Images dataset generated in question1 because number of training images in dataset generated in question1 is more..
- Test accuracy Is more for MNIST data set as compare to self generated dataset in question1