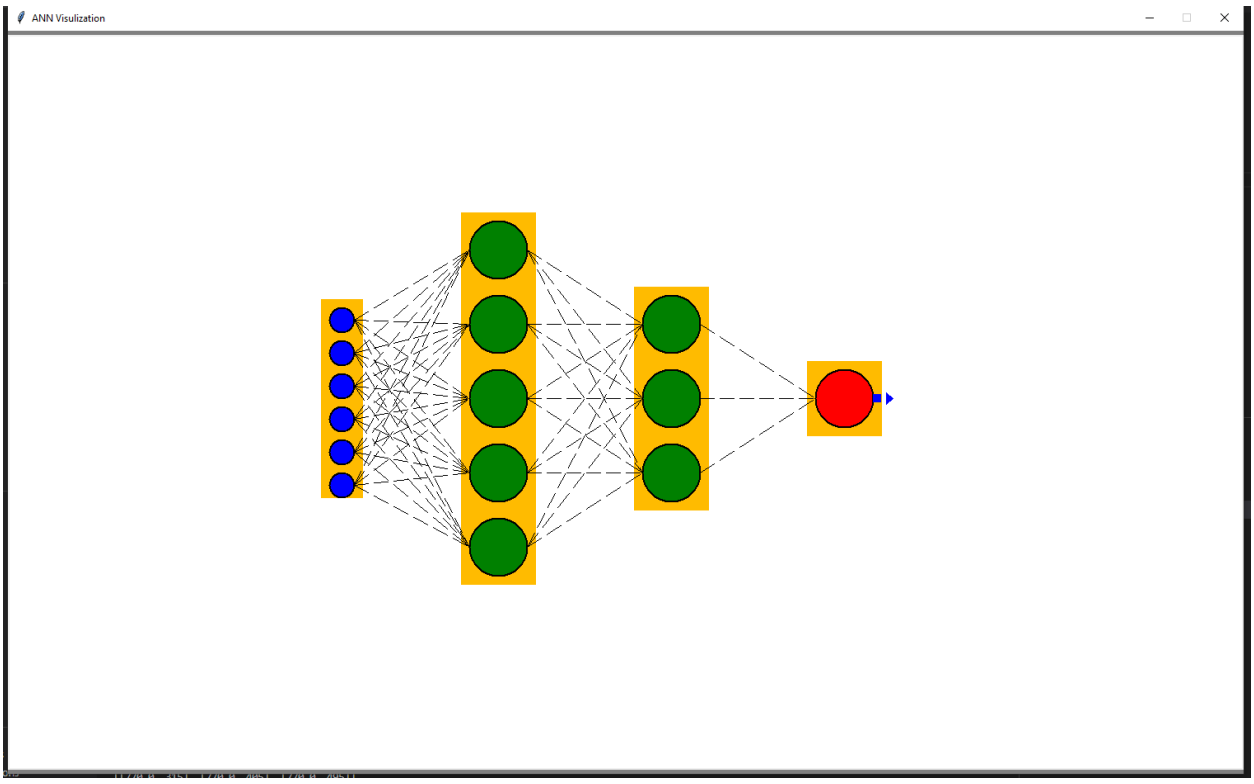
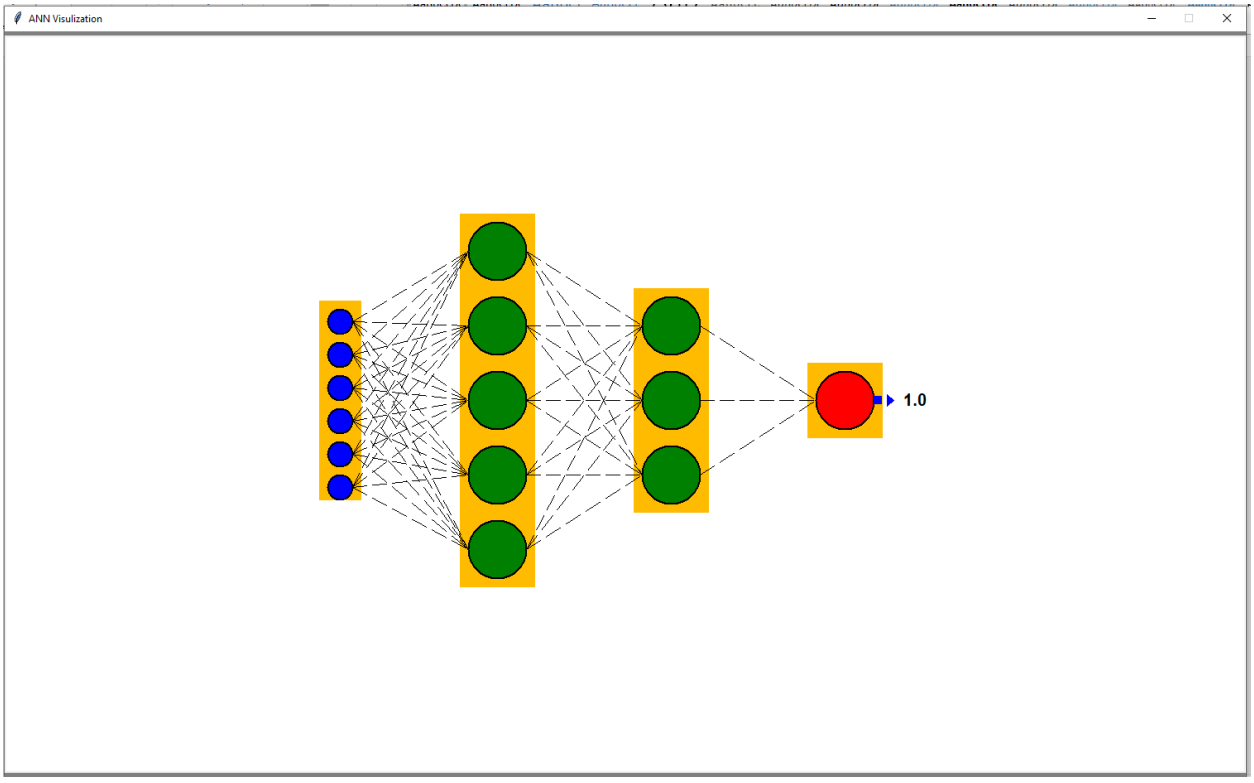
Example1.py

```
from DeepLearningTools import DeepLearning


model= DeepLearning()
model.Add_Layer(5, "Relu")
model.Add_Layer(3, "Relu")
model.Add_Layer(1, "Sigmoid", Threshold_Value=0.5)
Sample_Data=[200,100,121,88,77,99]
model.compile(Inputs=len(Sample_Data), Random_Values=[0,1])
model.ANNToolBox(Action="draw", Digram_Title="ANN Visulization")
```



Example2.py

```
from DeepLearningTools import DeepLearning


model= DeepLearning()

model.Add_Layer(5, "Relu")

model.Add_Layer(3, "Relu")

model.Add_Layer(1, "Sigmoid", Threshold_Value=0.5)

Sample_Data=[200,100,121,88,77,99]

model.compile(Inputs=len(Sample_Data), Random_Values=[0,1])

model.ANNToolBox(Action="predict", Sample_Data=Sample_Data, Digram_Title="ANN
Visulization")
```



Example3.py “Generate JSON ANN structure”

```
from DeepLearningTools import DeepLearning


model= DeepLearning()
model.Add_Layer(6, "Relu")
model.Add_Layer(2, "Relu")
model.Add_Layer(2, "Sigmoid", Threshold_Value=0.5)
Sample_Data=[200,100,121,88,77,99]
model.compile(Inputs=len(Sample_Data), Random_Values=[0,1])
model.Create_JSON_Structure("ANN.json")
```

ANN.json


```
{
    "1": [
        "ReLU",
        "None",
        [
            [
                0.6037326299633499,
                0.9460943651429344,
                0.6984360952121579,
                0.9114022967722655,
                0.6710425168884373,
                0.25640757096081745,
                -1
            ],
            [
                0.679011959685461,
                0.5422314583738986,
                0.3167478762100129,
                0.8873515424317816,
                0.8388460295881677,
                0.6428197077595998,
                1
            ],
            [
                0.13418556605817766,
                0.38486871387797195,
```

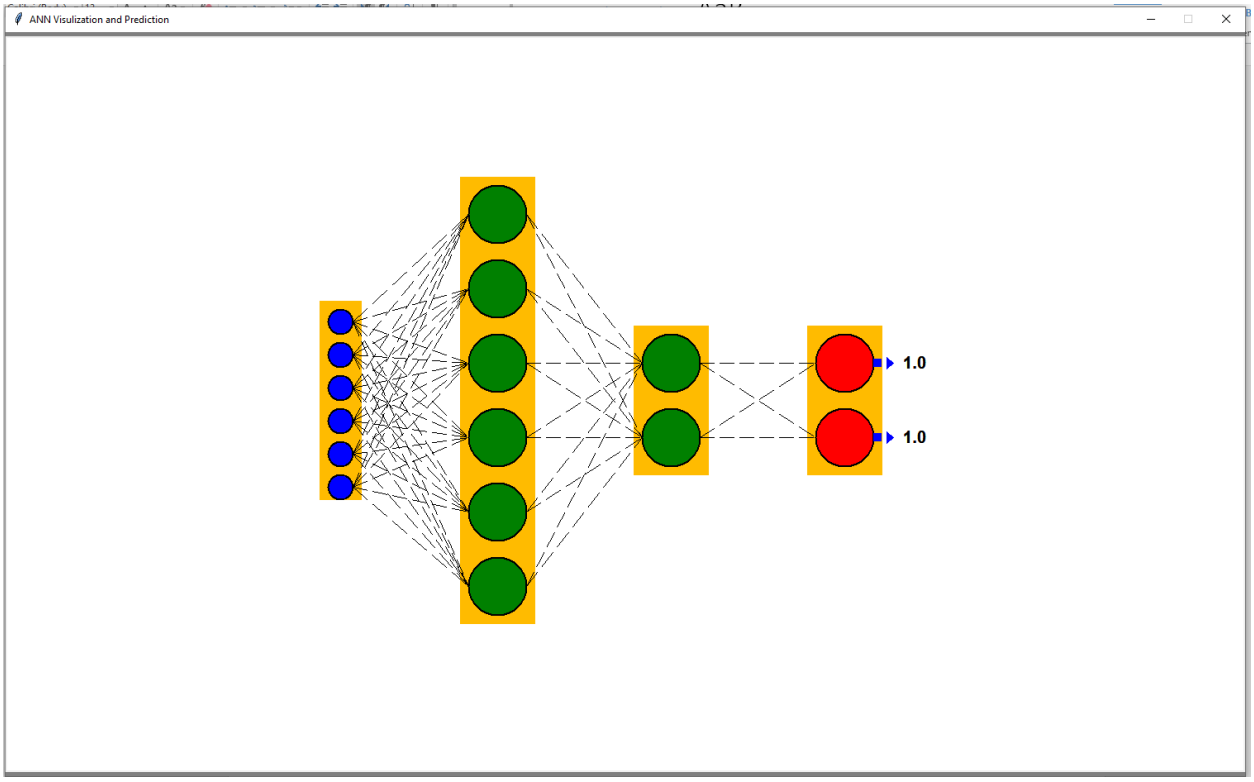
```
                0.2143792301492745,
                0.8235008308250561,
                0.9180478009436556,
                0.5852220745993881,
                -1
            ],
            [
                0.5035656351803225,
                0.568631614028282,
                0.8862336280868388,
                0.47925976864876263,
                0.5938478333403778,
                0.333952175928386,
                -1
            ],
            [
                0.46632204666121013,
                0.4509194657813054,
                0.19457331338036699,
                0.6040424893959644,
                0.41530127637769365,
                0.3831928701270385,
                1
            ],
            [
                0.077943022253254,
                0.2683570771445932,
                0.8102759479275348,
                0.5209120151627398,
                0.028508367117688893,
                0.6170445752228543,
                1
            ]
        ]
    ],
    "2": [
        "ReLU",
        "None",
        [
            [
                0.6126030916611198,
                0.8114677154292295,
                0.3523756303986111,
                0.20365592212011718,
                0.9592408887469981,
```

```
            0.37577866294431106,
            -1
        ],
        [
            0.4199101478696792,
            0.5026876986273995,
            0.5285941133636188,
            0.6340810451775518,
            0.582018195609481,
            0.872561239687532,
            1
        ]
    ]
],
"3": [
    "Sigmoid",
    0.5,
    [
        [
            0.21452548765293034,
            0.8579863117490844,
            1
        ],
        [
            0.9300490148265221,
            0.9648458586620694,
            1
        ]
    ]
],
"0": [
    "None",
    "None",
    [
        [
            0
        ],
        [
            0
        ],
        [
            0
        ],
        [
            0
```

```
            ],
            [
                0
            ],
            [
                0
            ]
        ]
    ]
```

Example4.py : Create ANN structure from json file “Load ANN.JSON”

```
from DeepLearningTools import DeepLearning

model= DeepLearning()

Sample_Data=[200,100,121,88,77,99]

model.compile("ANN.json")

model.ANNToolBox(Action="predict", Sample_Data=Sample_Data, Digram_Title="ANN
Visulization and Prediction")
```



Example5.py "Big ANN Structure"

```
from DeepLearningTools import DeepLearning


model= DeepLearning()

model.Add_Layer(100, "Relu")

model.Add_Layer(15, "Relu")

model.Add_Layer(15, "Relu")

model.Add_Layer(15, "Relu")

model.Add_Layer(15, "Relu")

model.Add_Layer(5, "Sigmoid", Threshold_Value=0.5)

Sample_Data=[2,1,1,8,7,9,9,9,9,9,9]

model.compile(Inputs=len(Sample_Data), Random_Values=[0,1])

model.ANNToolBox(Action="predict", Sample_Data=Sample_Data, Digram_Title="ANN
Visulization and Prediction")
```