

Project Name

# COVID-19 Patient's Stay (Phase-2)

Domain -Machine Learning

# Group Information

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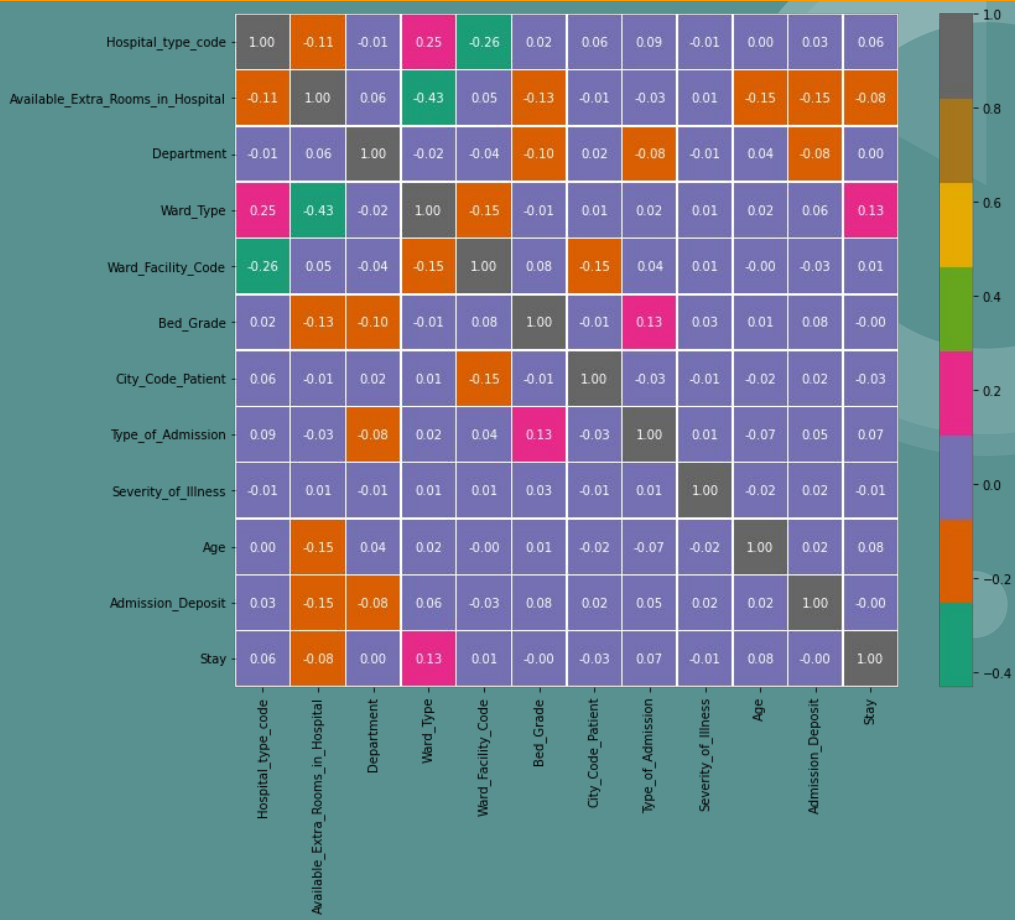


# GitHub

Github link :

**[https://github.com/RoboSpark-2021/robospark-2021-FT-Covid\\_Stay](https://github.com/RoboSpark-2021/robospark-2021-FT-Covid_Stay)**

# Heatmap

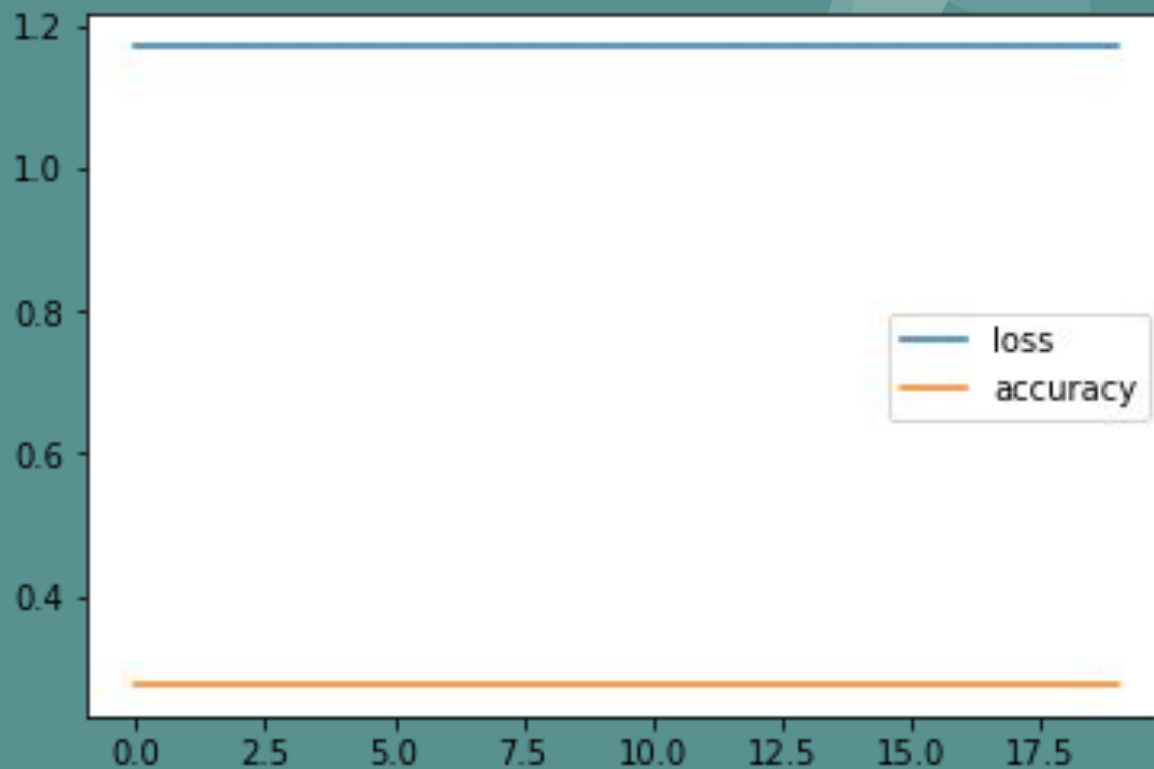


# Neural network Model 1

- In neural networks model 1 We have used (Sequential) which contains 3 layers in which 1 is output layer which contains [activation=softmax] and other 2 layers have [activation=relu].
- Also , Layer 1 have hidden neurons =100 and Layer 2 has hidden neurons =10 and Output layer has hidden neurons =1.
- We have compiled the model where [loss = mae],[optimizer = adam],[metrics=accuracy]
- Finally ,We have fitted the model on training dataset (X\_train,Y\_train) and number of epochs =20.

# Neural network Model 1

## LOSS CURVE

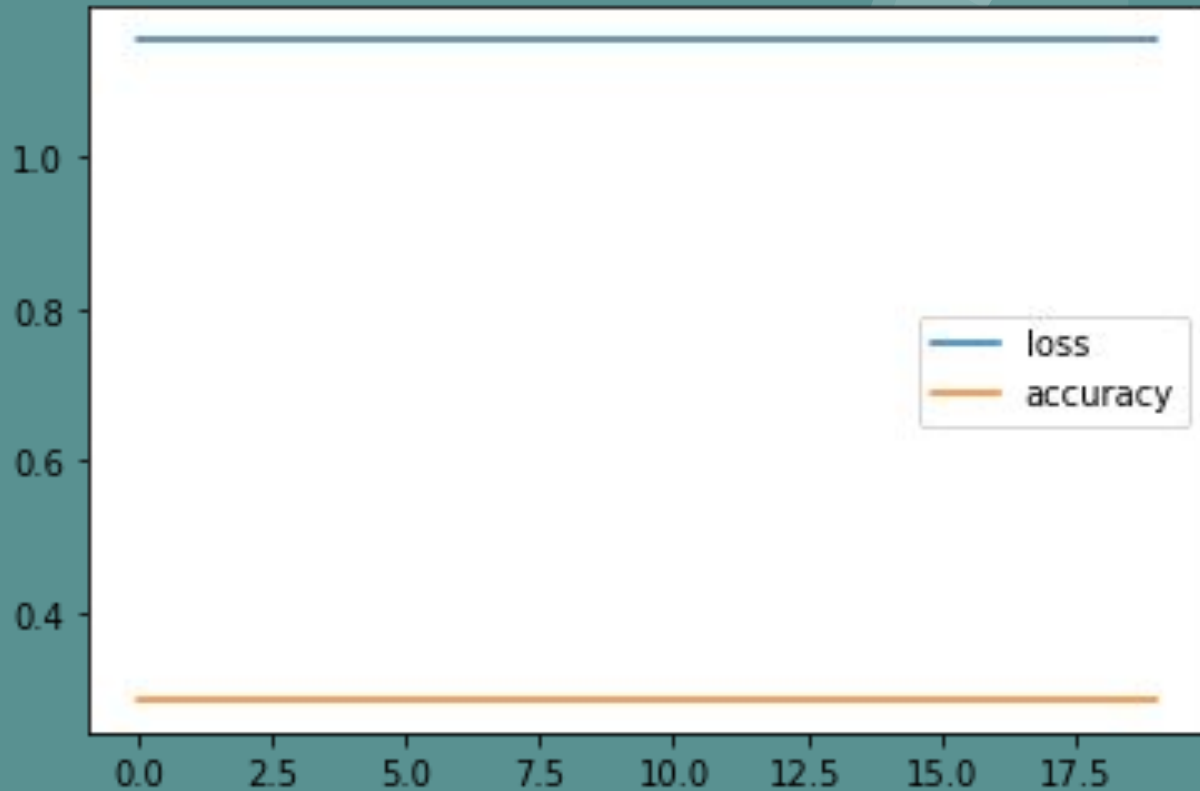


## Neural network Model 2

- We have created our model 2 similar to our model 1 but only have added extra 2 dense layers ,which makes model 2 entirely of 5 layers in which output layer has [activation=softmax] and other 4 layers have [activation=relu].
- We have compiled our model in which [loss=mae],[optimizer=adam] with learning rate of  $10^{-6}$  ,[metrics=accuracy]

# Neural network Model 2

## LOSS CURVE





## Neural network Model 3

- In model 3, We have used 4 layers in which 1 is output layer with [activation=softmax] and other 3 layers have [activation=relu], but here the number of hidden neurons are multiple of 8.
- We have compiled the model where [loss=mae], [optimizer=adam], [metrics=accuracy].

# Neural network Model 3

## LOSS CURVE



## Problems Faced

- Didn't get proper correlation of columns
- Didn't get proper Accuracy even with hidden neurons of multiple of 8