**Working on the Diabetes Dataset – Predictions**

**Please run the pre-req step :**

**pip install tensorflow**

1. Import the Libraries

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| from numpy import loadtxt  from tensorflow.keras.models import Sequential  from tensorflow.keras.layers import Dense |

1. Load the dataset

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| dataset = loadtxt('/Users/kshitijjoy\_1/Downloads/pima-indians-diabetes.data.csv', delimiter=',') |

1. Split into the input (X) and output (y) variables

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| X = dataset[:,0:8]  y = dataset[:,8] |

1. Define Keras Model

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| model = Sequential()  model.add(Dense(12, input\_shape=(8,), activation='relu'))  model.add(Dense(8, activation='relu'))  model.add(Dense(1, activation='sigmoid')) |

1. Compile Keras Model

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| model.compile(loss='binary\_crossentropy', optimizer='adam', metrics=['accuracy']) |

1. Train the Keras Model

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| model.fit(X, y, epochs=150, batch\_size=10, verbose=0) |

1. Evaluate the accuracy

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| \_, accuracy = model.evaluate(X, y)  print('Accuracy: %.2f' % (accuracy\*100)) |

1. Make Class Predictions with the model

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| predictions = (model.predict(X) > 0.5).astype(int) |
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1. Summarize the first 50 test cases

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| for i in range(50):  print('%s => %d (expected %d)' % (X[i].tolist(), predictions[i], y[i])) |