

	SR UNIVERSITY Campus Warangal	
	Program: III - B.Tech (CS& AI)	
	Professor(a): Dr. Venkataramana Veeramsetty, Professor	
	Department: Computer Science and AI	Semester: II
Generative AI - Assignment - 8.2		
Instructions:		

1. (1 ponto) Design a multilayer ANN architecture according to the requirements shown below. Train, test, save (.h5) and deploy the model to predict the quality of wine using the **Keras** deep learning library
2. (1 ponto) Calculate training and testing accuracy, build confusion matrix, also calculate recall, precision and F1-score.
3. (1 ponto) Build the application by loading the saved ANN model.

Tabela 1: ANN Architecture

Layer	Neurons	Activation Function
Hidden Layer - 1	12	tanh
Hidden Layer - 2	24	tanh
Hidden Layer - 3	30	tanh
Hidden Layer - 4	20	tanh
Hidden Layer - 5	10	tanh

Tabela 2: Training Parameters

epochs	batch size	error metric	Optimizer
200	32	accuracy	adam

Dataset: https://drive.google.com/file/d/1uutPAkOSYb2Uror1mk2dZUtoYbCgz6D0/view?usp=drive_link

- **Expected learning Outcomes from this assignment related to python**
 - Students are able to build ANN model with python deep learning libraries
 - Students are able to deploy trained ANN model
 - Students are able to measure training and testing performance of trained model
- Last date to submit: 13.03.2025
- Date of activity: 13.03.2025
- Naming convention
 - Report File Name: RollNo_Week No._Assignment No.

Date: 2025-02-23