sru	**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 - 7.2
Instructions:	

1. (1 ponto) Design a multilayer ANN architecture according to the requirements shown below. Train, test, save (.h5) and deploy the model to diagnose diabatic disease 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	10	tanh
Hidden Layer - 2	15	tanh
Hidden Layer - 3	20	tanh
Hidden Layer - 4	10	tanh
Hidden Layer - 5	5	tanh

Tabela 2: Training Parameters

epochs	batch size	error metric	Optimizer
250	32	accuracy	adam

Dataset: https://drive.google.com/file/d/1AcdENlVm5dccNyo_vgdMbneX8YVvH5R3/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: 27.02.2025
- Date of activity: 27.02.2025
- Naming convention
  - Report File Name: RollNo_Week No._Assignment No.

Date: 2025-02-23