1 → own prog → poisson & gaussian fit

2 → Iris & heart disease ds. → i) 50-50% train & test split
ii) SVM (csvd) } import statements
iii) PCA
iv) 1st & 2nd PCA component - result

4 → Heart ds (largest) → ~~50-50% train test split~~
ii) SVD
iii) visualization (2Axes 3D) } import statements
iv) Cumulative explained variations
v) Correlation

3 → Heart → i) 50-50% train, test split
ii) Classification (SVC, Random forest)
iii) minmax norm, Z-Score (Standard scaler)
import

5 → Chronic Kidney → i) Factors analysis to distinguish BW features
import
ii) Arrange features based on importance
base features based on imp
iii) ! pip install factor-analyzer

6 → optical rec of handwritten disease → i) naive Bayes, KNN, RF, precision-rec
ii) list performance in table format - Precision, Recall, F1 score, Accuracy
iii) Compare F1 score
import
import classification report

7 → optical rec. handwritten dis. → i) SVM (=SVD)
ii) table
import
name	learning rate	F1 score
linear	0.1	
	0.3	
	0.5	
poly		
radial		

iii) Justify → import

8 → real estate valuation → i) linear & logistic regression
ii) justify outcomes
iii) sns, gridsearch CV
import
In import

9 → Diabetes 130 US hospital (2nd largest) (abnormal o/p) → i) classification (any types) & clustering (any type) (PPP) ~~SVM~~
ii) Reinforcement learning to analyze & justify
iii) gym ! pip install gym
iv) PCA - visualization
import
KMeans, silhouette_score, defaultdict

10 → Diabetes (D), heart (H), thyroid (T) dis → i) Fuzzy Inference System (FIS)
ii) Build fuzzification system
iii) ! pip install fuzzy
import
Control System

11 → Thyroid d's → import → PCA → classification report

i) Classification using diff classifiers (svm, RF, Logistic regression)
ii) List results in table format
iii) Visualize the clustering of all 5 features with their diff in single plot

---

12 → magic gamma telescope → i) loss function to classify the nature of features (binary crossentropy, hinge, focal) - loss funcs

import (shuffle)

---

13 → magic gamma telescope → i) ANN (1-1-1, 1-2-1) (1-1-1-1) [Though they aren't same]

import (input, layers)

ii) Keras

---

14 → magic gamma telescope → i) ANN (1-2-1)
ii) Activation func (Sigmoid, Tanh, ReLU, Leary ReLU)

import (layers's dense) ii) tensorflow (Sequential)