#	Problem Statement	Models / Algorithms	Concept
1	Recognize handwritten digits (MNIST dataset)	Neural Network (MLP)	Image classification
2	Classify images of cats and dogs	CNN (Simple 2-3 layer)	Binary image classification
3	Detect colors in an image	K-Means Clustering	Image segmentation
4	Identify shapes (circle, triangle, square)	Edge detection + Contour analysis	Shape recognition
5	Count objects in an image	Thresholding + Contour detection	Object detection basics
6	Recognize human faces in images	Haar Cascade (OpenCV)	Face detection
7	Convert a colored image to grayscale automatically	Basic image transformation	Image preprocessing
8	Detect if a person wears a mask	CNN	Binary classification
9	Cartoonify an image	Image filters + Edge detection	Image transformation
10	Hand gesture recognition (thumbs up/down)	CNN + Webcam feed	Gesture classification
11	Classify text as positive or negative	Naive Bayes, Logistic Regression	Sentiment analysis
12	Detect spam or ham emails	Naive Bayes	Text classification
13	Count most frequent words in a paragraph	Tokenization + Frequency count	Text analysis
14	Auto-correct misspelled words	Edit distance algorithm	NLP preprocessing
15	Identify language of a sentence	Character frequency + Naive Bayes	Language detection
16	Generate random sentences	Markov Chain	Text generation basics

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17	Keyword extraction from text	TF-IDF	Information retrieval
18	Chatbot using predefined responses	Rule-based or simple NLP logic	Conversational AI basics
19	Detect emotions from short texts	Logistic Regression	Emotion classification
20	Text similarity checker	Cosine similarity + TF-IDF	Semantic similarity
21	Predict house prices from area & rooms	Linear Regression	Regression
22	Predict student grades from study hours	Linear Regression	Regression
23	Predict if a person will buy a product	Logistic Regression	Classification
24	Classify iris flower species	Decision Tree / KNN	Multiclass classification
25	Predict salary based on experience	Linear Regression	Regression
26	Predict weather (rain/no rain)	Decision Tree	Binary classification
27	Detect anomalies in sales data	Isolation Forest	Anomaly detection
28	Predict heart disease from health data	Logistic Regression	Health data analysis
29	Recommend products based on past purchases	K-Means + Similarity	Recommendation basics
30	Predict car price from features	Linear Regression	Predictive modeling