

# **RAJESWARI VEDACHALAM GOVT.ARTS COLLEGE.**

**DEPARTMENT OF BCA**

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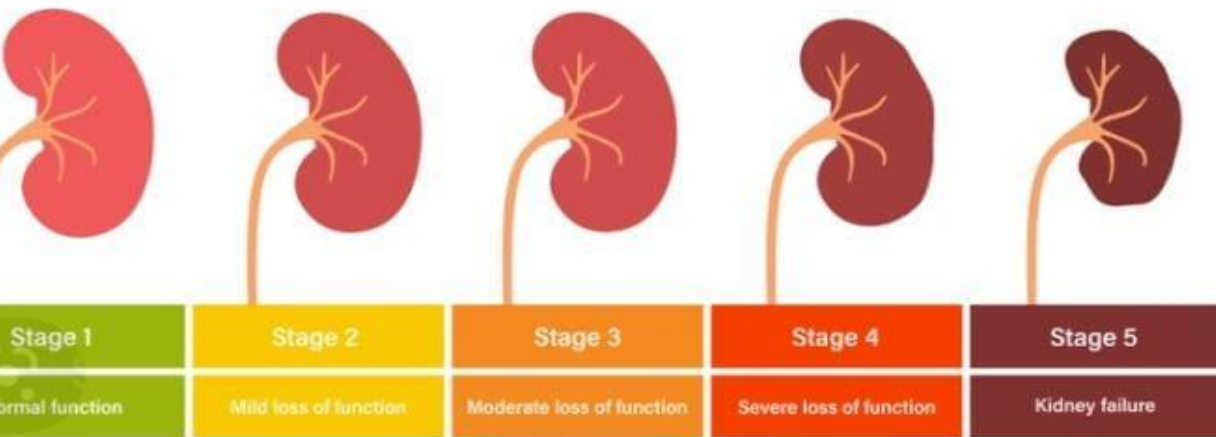
# PROJECT TITLE

**EARLY PREDICTION FOR CHRONIC KIDNEY DISEASE  
DETECTION: A PROGRESSIVE APPROACH TO HEALTH  
MANAGEMENT**

# CHRONIC KIDNEY DISEASE

- ❖ Involves progressive , irreversible loss of kidney function
- ❖ Defined as either presence of
  - ▶ Kidney damage
  - ▶ Glomerular filtration rate(GFR)

STAGES OF CHRONIC KIDNEY DISEASE



# CKD-RISK FACTORS

- ❖ Diabetes Mellitus
- ❖ Hypertension
- ❖ Obesity
- ❖ Metabolic Syndrome
- ❖ Kidney Stones
- ❖ Age and Race

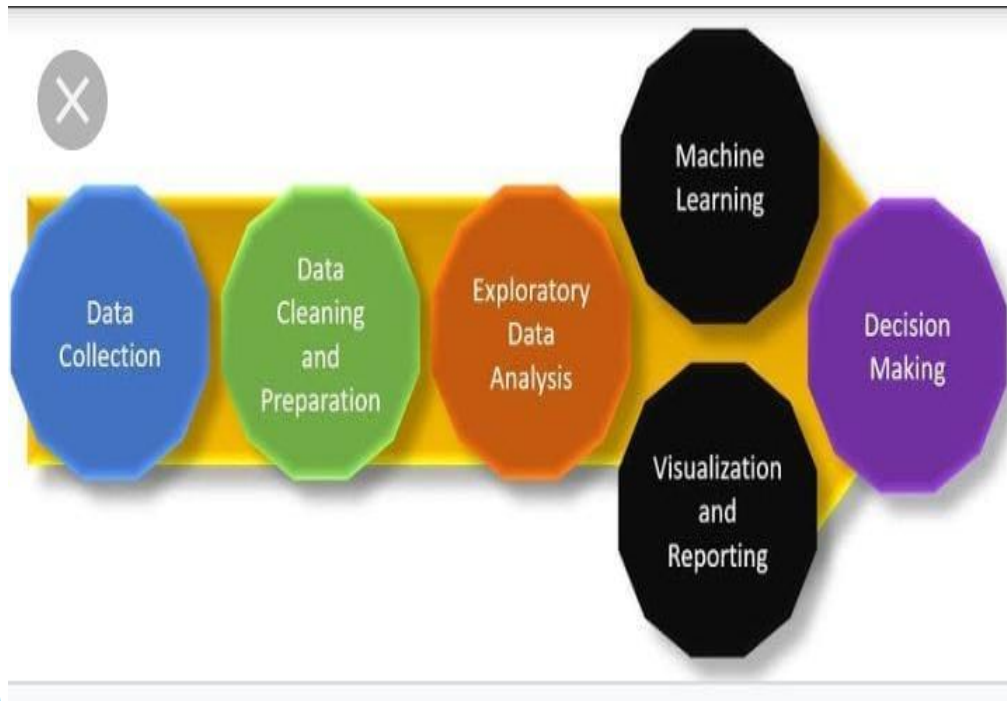
# MILESTONE TO COMPLETE THE PROJECT

- ❖ Define problem\problem understanding
- ❖ Data collection and preparation
- ❖ Exploratory data analysis
- ❖ Model building
- ❖ Performance testing and evaluate the result
- ❖ Model deployment
- ❖ Project demonstration and documentation

# Milestone1: Define Problem\Problem Understanding

- ❖ Specify the business problem
- ❖ Business requirements
- ❖ Literature Survey
- ❖ Social or Business Impact

# Milestone2: Data Collection and Preparation



- ❖ Collect the dataset
- ❖ Importing the libraries
- ❖ Read the dataset
- ❖ Data Presentation
- ❖ Rename the Columns
- ❖ Handling Missing Values
- ❖ Handling Categorical Columns
- ❖ Label Encoding for Categorical Columns
- ❖ Handling Numerical Columns

# Milestone 3: Exploratory Data Analysis

- ❖ Descriptive Statistical Analysis
- ❖ Visual Analysis
- ❖ Univariate Analysis
- ❖ Bivariate Analysis
- ❖ Multivariate Analysis



# Milestone 4: Model Building

- ❖ Training the model in multiple
- ❖ ANN model
- ❖ Random Forest Model
- ❖ Decision Tree Model
- ❖ Logistic Regression
- ❖ Testing the Model

# Milestone 5: Performance Testing & Evaluate the Results

- ❖ Testing Model with Multiple Evaluation
- ❖ Evaluate the Results

# Milestone 6: Model Deployment

- ❖ Save the Best Model
- ❖ Integrate with Web Framework
- ❖ Building html pages
- ❖ Building python code
- ❖ Run the web application

# Milestone 7: Project Demonstration & Documentation

- ❖ Record Explanation video
- ❖ Project Documentation

THANK YOU