

## Week 5: Introduction to Data Science

### 1. Mini Project: EDA on a real-world dataset

Perform Exploratory Data Analysis (EDA) on the "Heart Disease" dataset. This dataset contains various attributes related to heart disease.

**Objectives:**

- a. Understand the structure and content of the Heart Disease dataset.
- b. Perform data cleaning and preprocessing.
- c. Conduct univariate, bivariate, and multivariate analyses.
- d. Visualize the findings using various plots.

**Dataset:**

website = <https://archive.ics.uci.edu/dataset/45/heart+disease>

url =

<https://archive.ics.uci.edu/ml/machine-learning-databases/heart-disease/processed.cleveland.data>

### 2. Python coding challenge

**Problem Statement:** Given a string s, find the longest palindromic substring in s.

**Note:** A palindrome is a string that reads the same forward and backward. For example, "madam" and "racecar" are palindromes.

**Below are examples.**

Input: "babad" → Output: "bab" or Output: "aba" is also a valid answer.

Input: "cbbd" → Output: "bb"

Input: "d" → Output: "d"