Page View Time Series Visualizer - Project Report

Project Overview

This project is part of the freeCodeCamp Data Analysis with Python Certification.

It focuses on analyzing and visualizing time series data of page views on the freeCodeCamp forum

from 2016 to 2019 using Pandas, Matplotlib, and Seaborn.

Dataset

File name: fcc-forum-pageviews.csv

Source: freeCodeCamp

Description: Each row represents daily page views on the forum.

Analysis Performed

- Cleaned the data by removing outliers (top and bottom 2.5%).

- Generated a line plot to visualize daily page views over time.

- Created a bar plot showing monthly average page views per year.

- Generated box plots to visualize yearly and monthly distribution trends.

Output

- line_plot.png: Daily views over time.

- bar_plot.png: Monthly average views grouped by year.

- box_plot.png: Year-wise and Month-wise distribution of views.

Technologies Used

- Python 3

- Pandas

- Matplotlib

- Seaborn

- Spyder IDE

Files in the Repository

File	Description
fcc-forum-pageviews.csv	Dataset file
time_series_visualizer.py	Analysis and plotting logic
main.py	Script to run all plots
README.md	Project documentation
line_plot.png	Output line plot
bar_plot.png	Output bar chart
box_plot.png	Output box plots
report.pdf	This report (optional)

Certification

This project contributes to the following certification:

freeCodeCamp - Data Analysis with Python Certification