■ Student Attendance Dashboard

Author: Sandeep Yadav
Email: sandeepyadav6386814254@gmail.com
GitHub: https://github.com/im-sandeep-yadav/Student-Attendance-Dashboard

Problem Statement

Managing student attendance manually is time-consuming and error-prone. Schools need a quick way to identify students with low attendance to take timely action. This dashboard automates calculation of attendance%, categorizes students, and provides visual insights for teachers and admins.

Dataset Overview (sample)

| StudentID	Name	TotalClasses	ClassesAttended	Attendance%	Category
1	Ankit	50	41	82.0	High (>75%)
2	Priya	50	38	76.0	High (>75%)
3	Ramesh	50	23	46.0	Medium (40-75%)
4	Neha	50	46	92.0	High (>75%)
5	Amit	50	16	32.0	Low (<40%)
6	Sneha	50	34	68.0	Medium (40-75%)
7	Vikas	50	28	56.0	Medium (40-75%)
8	Kiran	50	44	88.0	High (>75%)
9	Pooja	50	20	40.0	Low (<40%)
10	Sandeep	50	48	96.0	High (>75%)

The dataset includes StudentID, Name, TotalClasses, ClassesAttended. Attendance% is calculated and Category assigned.
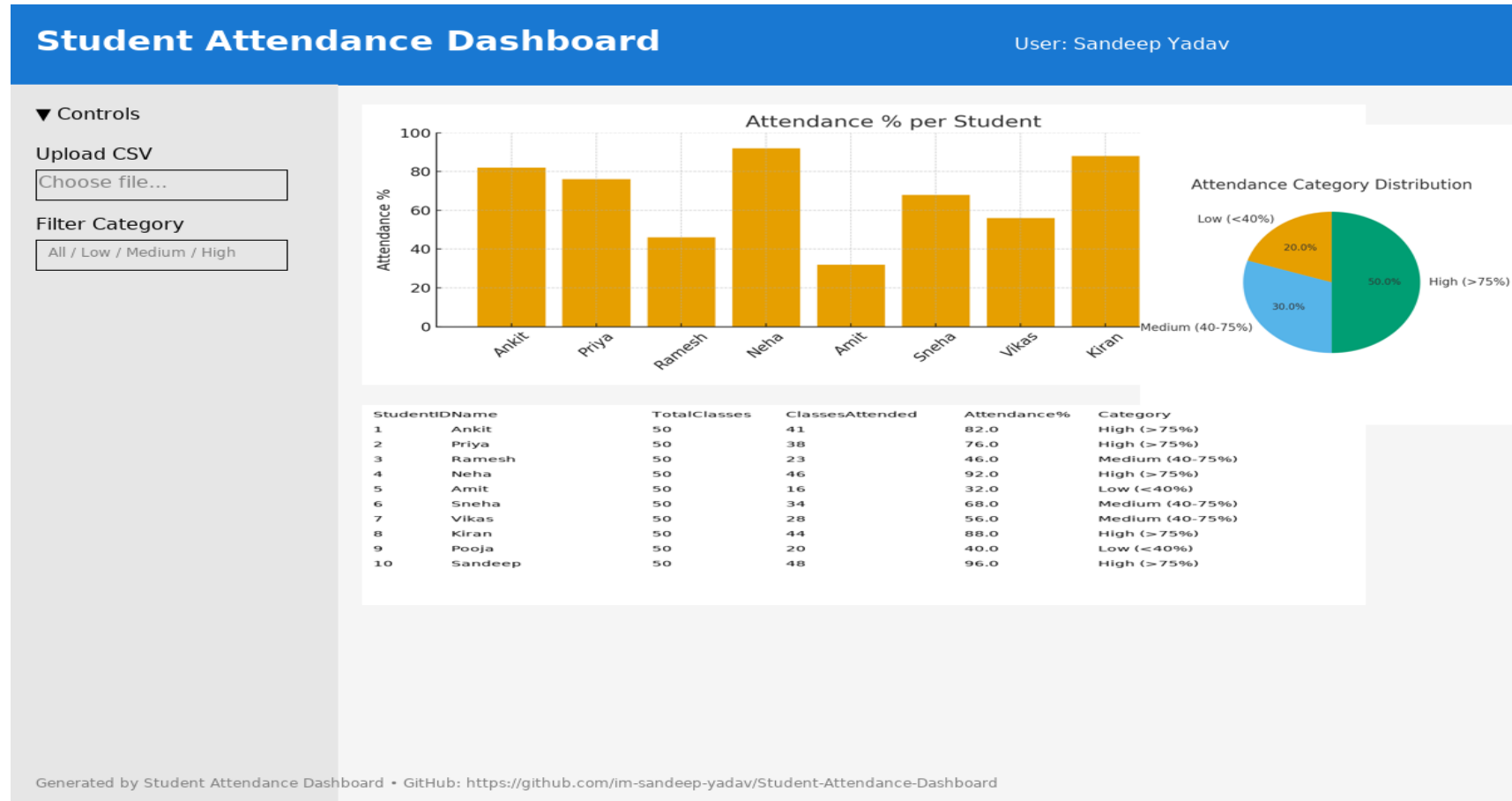
Bar Chart - Attendance %

Attendance % per Student
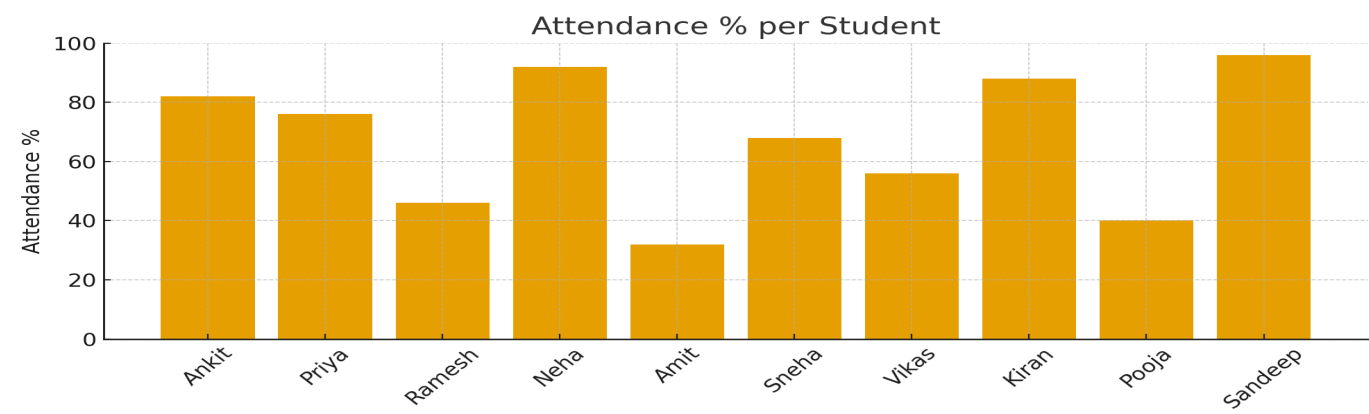
This chart shows individual student attendance percentages. Use it to spot students below target attendance.

Pie Chart - Category Distribution

Attendance Category Distribution
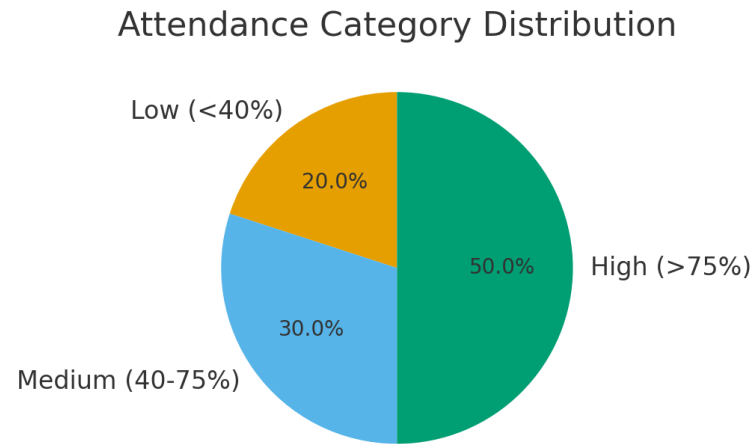
This pie chart summarizes how many students fall into Low / Medium / High attendance categories.

Interactive Dashboard - Streamlit (Working Screenshot)

This is a screenshot of the running Streamlit app (generated from the real code included in the repository). It shows table, bar chart, pie chart and sidebar filters.

Insights & Recommendations

Key Insights: - Total students: 10 - Low attendance (<40%): 2 - Medium attendance (40-75%): 6 - High attendance (>75%): 2 Recommendations: - Immediate counselling for students in Low category. - Parental notifications via SMS/email when attendance falls below threshold. - Reward programs for High performers to encourage others.

Implementation & Files

Included files: src/dashboard.py (processing), streamlit/attendance_dashboard.py (app), data/students.csv (sample), presentation files (PDF & PPTX). Run src script to generate charts or run Streamlit app to interact.

Future Work

- Subject-wise attendance, automated alerts, role-based access, cloud deployment, analytics (month-wise trends), ML predictions.

Contact

Sandeep Yadav
sandeepyadav6386814254@gmail.com
GitHub: https://github.com/im-sandeep-yadav/Student-Attendance-Dashboard