# Universal Data Analysis Tool

A powerful, user-friendly web app for analyzing any Excel or CSV file—no coding required!

Built with \*\*Streamlit\*\* and \*\*Pandas\*\*, this tool empowers anyone to explore, summarize, and visualize their data with just a few clicks.

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## 🚀 Features

- \*\*Upload any Excel or CSV file\*\* (no template required)

- \*\*Automatic detection of numeric columns\*\*

- \*\*Interactive data preview\*\* with filtering

- \*\*Descriptive statistics\*\* (mean, median, min, max, std) for selected columns

- \*\*Plain-language summary insights\*\* for easy understanding

- \*\*Conditional formatting\*\* to highlight key values

- \*\*Compare any rows and columns\*\* side-by-side

- \*\*Visualizations:\*\*

- Bar chart

- Line chart

- Box plot

- \*\*Export\*\* statistics, comparisons, and plots (CSV, Excel, PNG)

- \*\*No coding skills required!\*\*

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## 🖥️ How to Use

1. \*\*Clone or download this repository\*\*

2. Install requirements:

```bash

pip install -r requirements.txt

```

3. Run the app:

```bash

streamlit run main.py

```

4. Open your browser to the provided local URL

5. Upload your Excel/CSV file and start exploring!

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## 📊 Example Use Cases

- Quickly summarize large datasets

- Compare sales, grades, or any metrics across different entries

- Visualize trends and distributions

- Export insights for reports or presentations

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## 🤝 Who Is This For?

- Business analysts

- Students and educators

- Researchers

- Anyone with data in Excel/CSV format!

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## 🛠️ Tech Stack

- Python

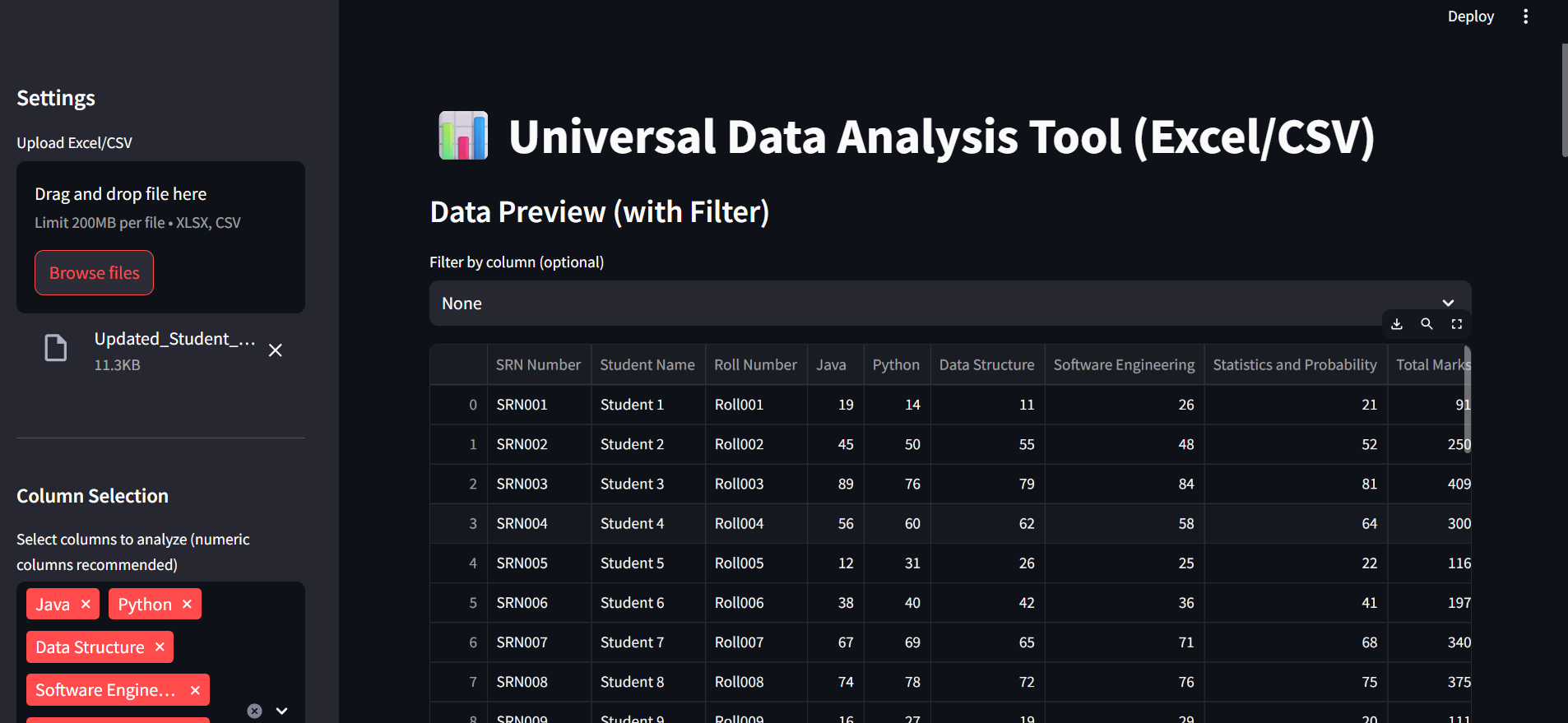
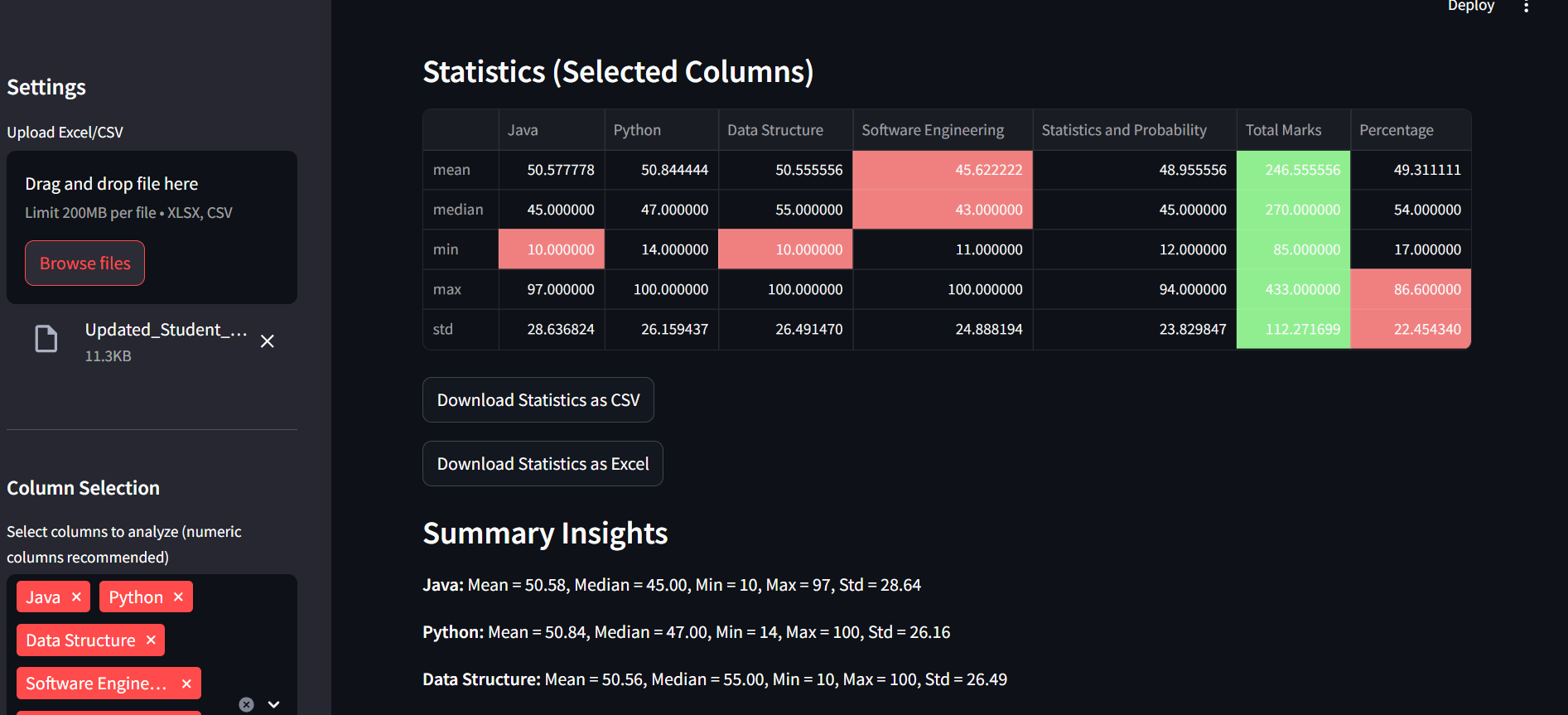
- Streamlit

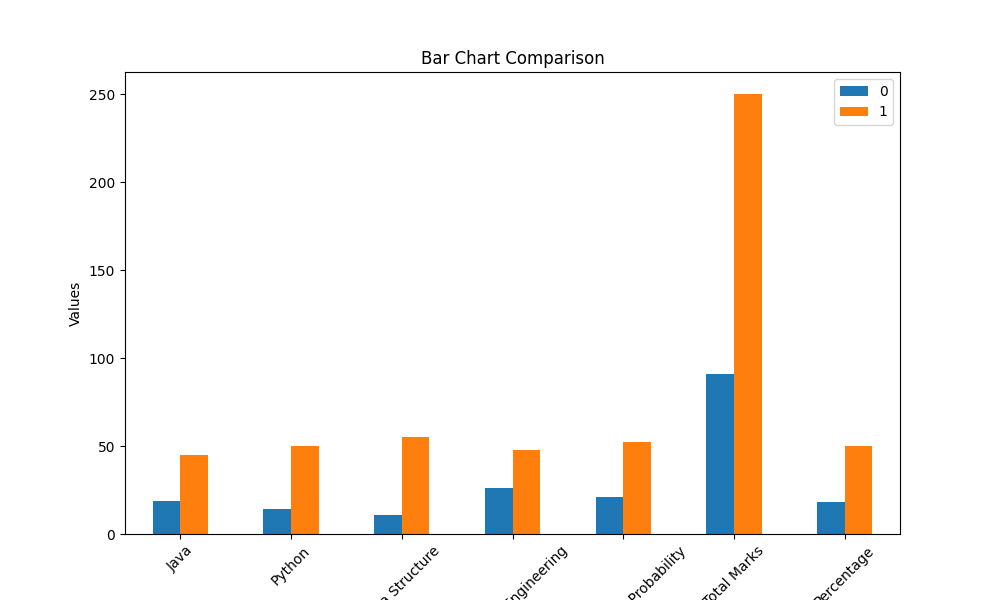
- Pandas

- Matplotlib

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## 🌐 Demo



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## 📣 Connect

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