



**Building Python web-apps with Streamlit and Gradio
(Part-1)**

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RESEARCH, INNOVATION & IMPACT
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- Python library designed for creating web apps for machine learning (ML) and data science.
- Allows users to turn data scripts into shareable web applications with minimal effort and coding.
- Excellent for showcasing data science projects, with easy integration of Python code and real-time interactivity.



- Python library, focused on creating user interfaces (UI) for ML models.
- Enable developers to create UI for models with just a few lines of code.
- Adept at handling a variety of inputs and outputs, making it suitable for demos and prototyping machine learning models.



Gradio organizes the app around functions that get inputs and return outputs, unlike Streamlit which uses a script-like flow.

Today's Agenda

Introduction to UI elements and development of some web-apps.

- Learning about various components like buttons, text fields, dropdown menus, sliders, and checkboxes.
- Develop a data explorer and a college fest registration website.

Summary

Aspect	 Streamlit	 gradio
Purpose	Ideal for quick web app development from data scripts.	Designed for building UIs for machine learning models.
Ease of Use	Simple, pythonic, few lines of code for interactive web apps.	User-friendly, minimal code for machine learning model UIs.
Flexibility	Best for simple applications and dashboards, some customization limits.	Specialized for ML model interfaces, less suited for general web dev.
Learning Curve	Beginner-friendly, especially for Python users.	Easy for those with machine learning knowledge.

