

# MLOps

Part 7.

**W&B reports: Turn your  
experiment tracking into  
insightful narratives**



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Deep Learning

# What are W&B reports?

## Definition

Interactive, collaborative documents built on top of your W&B experiments.

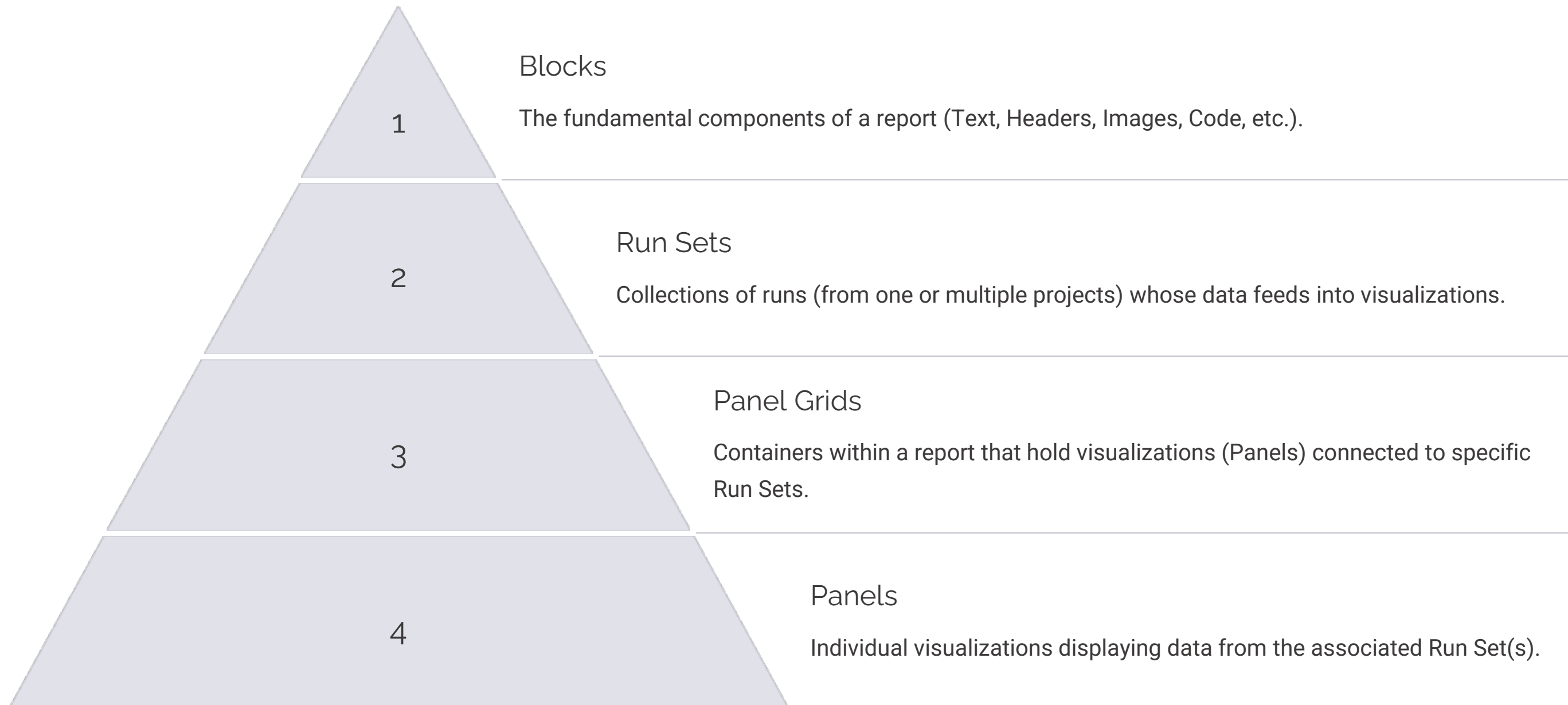
## Purpose

- Organize and group related Runs (experiments).
- Embed dynamic, automated visualizations and plots.
- Describe your findings, methodology, and conclusions using rich text (Markdown).
- Share progress and insights easily with collaborators.

## Think

A live, data-driven lab notebook or research paper for your ML projects.

# Core Concepts: Building Blocks of a Report



# Creating your first report

## Method 1: From the W&B App UI

- Navigate to your Project Workspace.
- Click "Create report" button.
- Select initial charts/panels to include.
- Optionally freeze run sets initially.
- Start editing!

## Method 2: Programmatically via Python SDK

- `pip install wandb wandb-workspaces`
- Import `wandb_workspaces.reports.v2` as `wr`
- Instantiate `wr.Report(project="your-project")`.
- Add blocks (`report.blocks = [...]`)
- `report.save()`

# Editing Reports: Adding Content & Visualizations

## Rich Text

Use Markdown blocks (/ Markdown) for descriptions, analysis, and context. Add Headers, Lists, etc.

## Plots & Panels

- Add Panel Grids (/ Panel Grid) to group visualizations.
- Add specific panels (/ Add panel -> Line Plot, Scatter Plot, etc.) within a grid.
- Panels automatically visualize data from the grid's Run Sets.

## Run Sets

Define which runs power the panels in a grid. Add runs from the current project or other projects.

## Code Blocks

Display code snippets (/ Code) with syntax highlighting.

# Editing Reports: Fine-tuning & Advanced Features



## Rename Runs

Give runs clearer names within the report context (for a specific Panel Grid or the entire Project).



## Freeze Run Sets

Lock the runs included in a Run Set to prevent new runs from automatically appearing (use the snowflake icon). Useful for static analysis.



## Embed Rich Media

Paste URLs directly from Twitter, YouTube, SoundCloud, etc., to embed content.



## Collapse Headers

Organize long reports by making sections collapsible.



## Customize Panels

Extensive options for plots (axes, smoothing, grouping, colors, ranges, log scale, etc.).

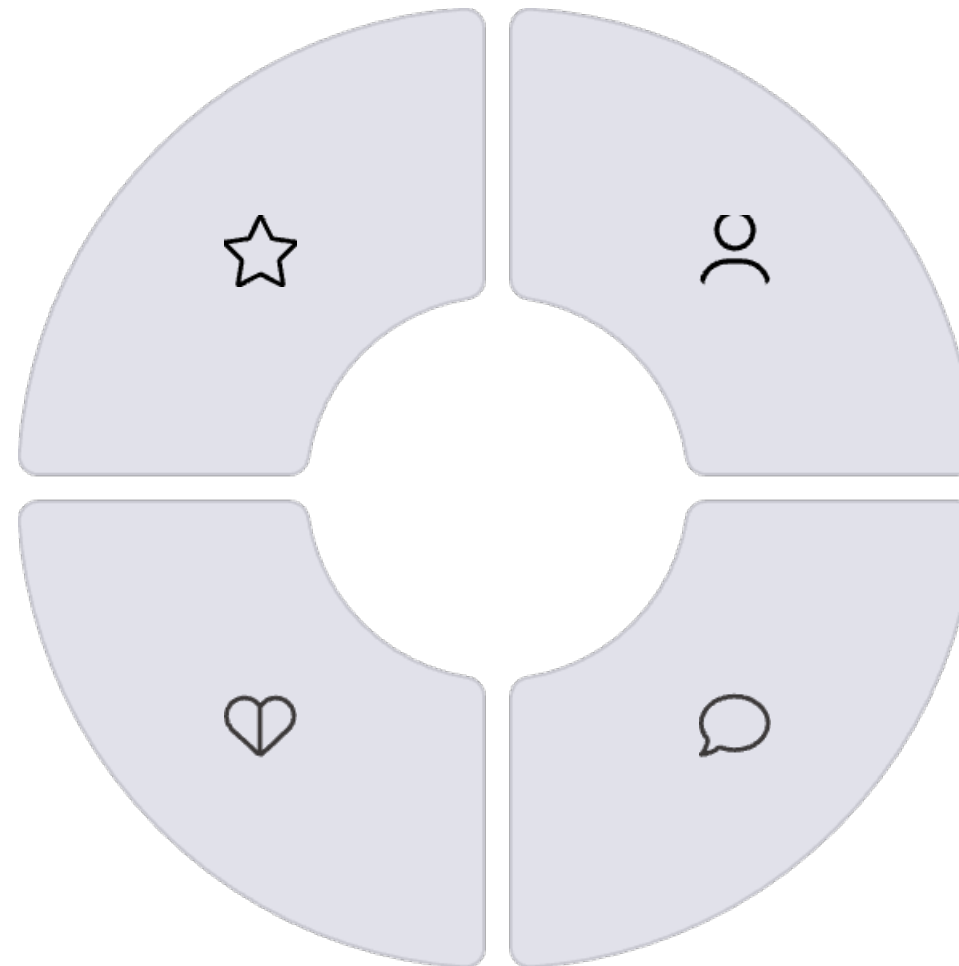
# Collaboration Features

## Sharing

- Invite specific users/emails with "View" or "Edit" permissions.
- Generate shareable links with specific permissions.
- View-only links for private/team projects allow viewing without login (adds a secret token).

## Starring

Favorite important reports for easy access; see popularity via star count.



## Co-Editing

Multiple users can edit simultaneously; W&B saves drafts and helps resolve conflicts.

## Commenting

Leave comments on the entire report or specific panels (hover over panel for comment bubble).

# Sharing Beyond W&B: Exporting, Cloning & Embedding



## Export

Download reports as PDF or LaTeX zip files (via kebab menu -> Download).



## Clone

Duplicate an existing report (within the same or a different project/entity) to reuse its structure and format (via kebab menu -> Clone this report or SDK `wr.Report.from_url`).



## Embed

- Get HTML iframe embed code (Share -> Copy embed code).
- Paste into Notion (using `/embed`), Confluence (using iframe macro), Gradio (`gr.HTML`), or any HTML page.
- Note: Only public reports are viewable when embedded.



# Advanced Use Case: Comparing Runs Across Projects

## Cross-Project Reports

Add Run Sets from *different* projects into the same Panel Grid.

## How

In the Run Set configuration within a Panel Grid, use the project selector dropdown to choose a different project.

## Benefit

Directly compare experiments or models trained in separate project spaces within a single view.

## Limitation

Visualizations primarily use columns from the *first* active runset; complex comparisons might require moving runs or careful setup.

# Summary



## W&B Reports

Powerful tools to organize, visualize, analyze, and share your ML experiments and findings.



## Key Benefits

Collaboration, reproducibility, dynamic updates, rich content integration.



## Get Started

- Click "Create Report" in your W&B project.
- Try the Colab Quickstart ([Report\\_API\\_Quickstart.ipynb](#)).
- Explore the [Reports Gallery](#) for inspiration.
- Check out curated reports on [W&B Fully Connected](#).