

# Visual Analytics Final Project

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For the final project in the Visual Analytics course, you will create a free-topic project integrating **at least three** of the four main course components: **Tableau**, **Streamlit**, **Machine Learning (ML) models**, and **Explainable AI (XAI)**. Your project should address a specific topic of your choice, supported by an appropriate dataset.

## Project Guidelines

- **Topic and Dataset:** Begin by selecting a topic and identifying a relevant dataset for your analysis.
- **Group Structure:** Projects may be completed **individually** or in **pairs**. Groups of three are **not permitted**.

## Project Deliverables and Evaluation

Your project will consist of three main components, each evaluated as part of the final grade:

### 1. Project Report

Develop a concise report (3 pages, PDF format) covering the following elements:

- **Problem Statement:** Clearly define the problem you aim to explore or solve.
- **Dataset Overview:** Specify the dataset used, including its source and a basic exploratory analysis.
- **Business Questions and Objectives:** Describe the key questions your project addresses and its overall goals.
- **Methodology:** Outline the methods used, e.g., building an ML model with explainability and presenting results using Streamlit or Tableau.
- **Conclusions:** Summarize your findings and key insights.

### 2. Executable Project

The project deliverable should include the main analysis and tools needed to answer your business questions.

- Develop **at least three** of the following components:
  - Tableau storytelling
  - Streamlit web app
  - Trained ML model
  - Explainability using XAI (this requires an ML model).
- Submit the project as a **.zip file** containing all files necessary to run your work.

### 3. Presentation

Present your project **online** in a session scheduled a few days after file submission.

- Duration: **10 minutes per group**.
- Format: Use supporting materials such as slides, Tableau dashboards, Streamlit apps, etc.
- Presentation links and time slots will be shared after project submissions.

- During the presentation, a couple of questions about the course content will be asked.

## Key Dates

- **24/11**: Submit the project template (no class).
- **28/11**: Feedback session for **Group 101** (Group 102 does not attend).
- **02/12**: Feedback session for **Group 101** (Group 102 does not attend).
- **08/12**: Submit the final project deliverables (Report + Executable Project).
- **09–13/12**: Project presentations (exact schedule to be announced).

Please ensure you adhere to these guidelines and deadlines to successfully complete the course.