

Business Analytics Practicum (MGT 6214)

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About Me



- Ph.D. in business analytics.
- Applied statistician, business practitioner.
- Foodie and more....

Welcome to Business Analytics Practicum!

Welcome and Course Overview

- **Purpose**

- Foster creativity, enhance analytical and problem-solving capabilities, and improve communication skills.

- **Real-World Business Problems & Business Acumen**

- Equip students with the ability to apply their skills in practical scenarios.
- Train students to think critically about business challenges.
- Utilize data analysis techniques to generate tangible business value.
- Construct models, dashboards, and other tools for comprehensive solutions to client companies.

Project Types



DESCRIPTIVE

What happened?

exploratory analysis
visualization
dashboards



PREDICTIVE

What's ahead?

data mining
machine learning
forecasting



CAUSAL

Did x truly cause y?

a/b testing
experimentation
econometrics



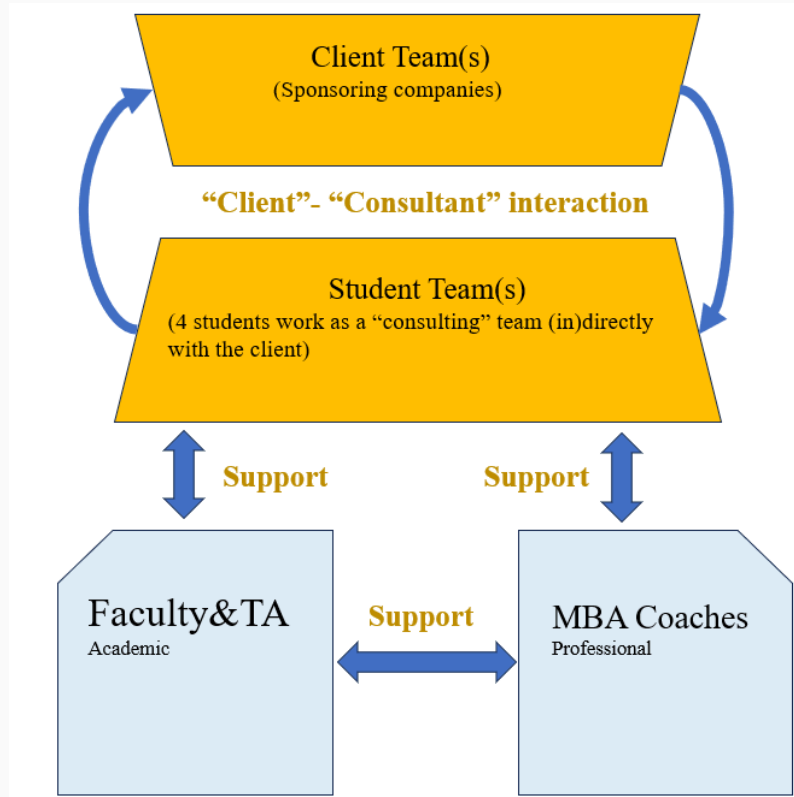
PRESCRIPTIVE

What should we do?

optimization
simulation
rules

Learning through exploration and doing

- Focusing on **Engagement, Discovery, Application**, and **Critical Thinking**.



Learning through exploration and doing (cont'd)

- **Creative Thinking and Analytical Skills:** Enhances your problem-solving abilities and communication through real-world data projects.
- **Teamwork:** Collaborate in small groups of 3-5 with industry partners like **Cherry Street Energy** and **Comfama from Colombia**.
- **Practical Learning:** Merges demonstrations and hands-on tutorials to help you turn raw data into actionable business insights.

Learning through exploration and doing (cont'd)

- **Flipped Classroom Approach**

- Explanation of the flipped classroom model

- **Generative AI in Business Analytics**

- Introduction to Generative AI and its capabilities.
- Discussion on its applications in textual analyses, such as sentiment analysis.

How it works?

- **Small team collaboration (3-5)**
- **Support and Guidance:** Provided by the instructor and TAs.
- **At the end of the semester, you will be able to deliver the three core deliverables of a data science project:**
 - Technical (code, cleansed data),
 - Dashboard visualization (Tableau, ggplot),
 - Executive deck (business result)

Today's Agenda

- Projects presentation by Sponsors
 - **Course overview** (6:30 pm-7:00pm)
 - **Ben, CTO of Cherry Street Energy** (7:00 pm-7:30pm)
 - **Santiago and/or Susana from Comfama's data sciences team** (7:45 pm-8:15pm)

What's next?

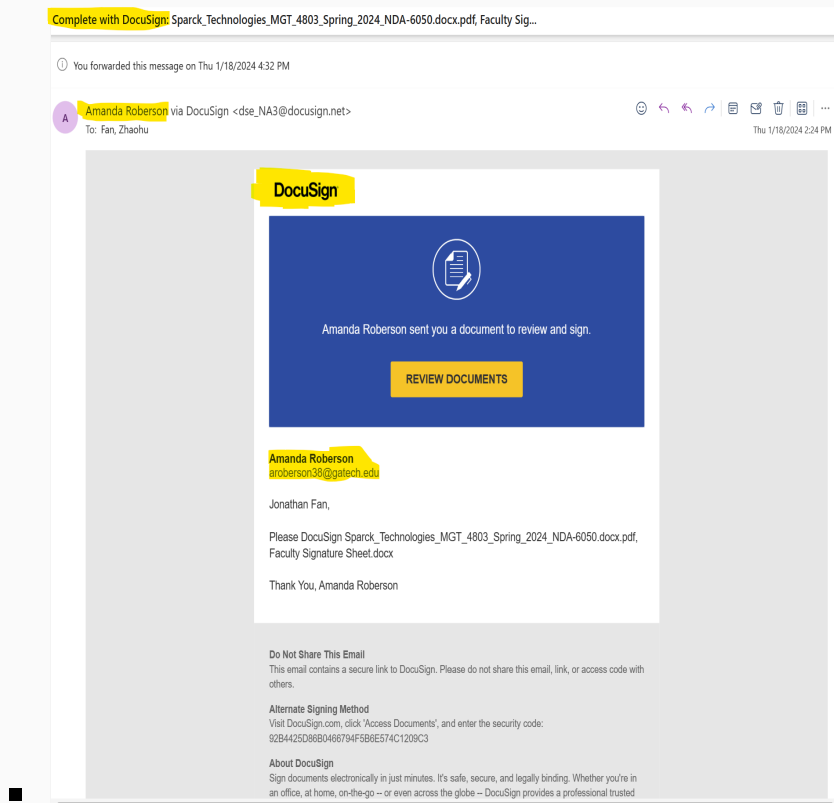
What's next?

- **Post-presentations:**

- Each student needs complete the background survey.
- The instructor will use the survey results to form well-rounded teams.
- Choose a Team Name & Leader: Pick a fun name and decide who leads.
- Teams are required to submit their rank-ordered list of project preferences.
- The instructor will assign each student team to a project.

Non-Disclosure Agreement, or NDA

- An NDA, or Non-Disclosure Agreement, is a legally binding contract.
 - Parties agree not to disclose sensitive information to others.
 - Emails from Amanda containing **NDAs** include a **DocuSign** link for easy online signing.

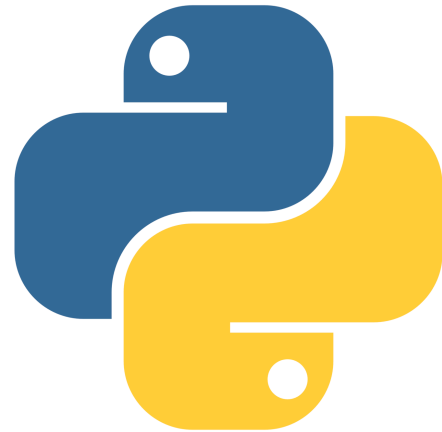
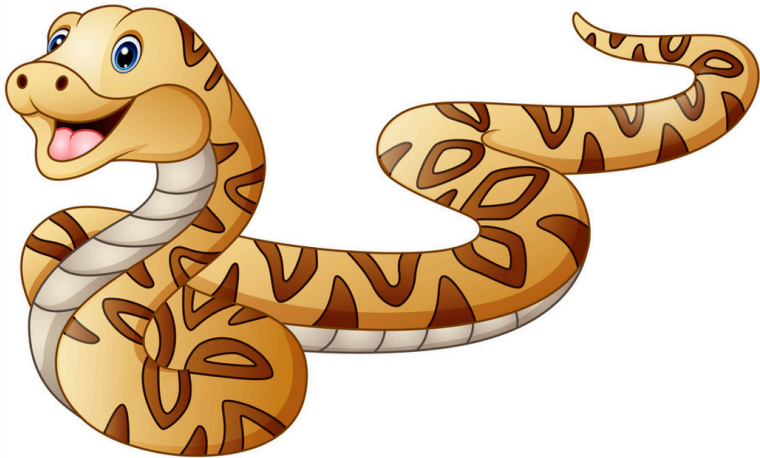


Previous experiences with Python

- I have never heard of Python/have heard of Python before, but have never used it.
- I have used Python before in a class or at work.

Python is...

- A cute snake



Previous experiences with R

- I have never heard of R/have heard of R before, but have never used it.
- I have used R before in a class or at work.

Course Introduction

- Canvas page
- Syllabus, office hours...

"The best investment you can make is in
yourself."

---Warren Buffet

Let's welcome Ben, the CTO of Cherry Street Energy, to introduce their business challenge.