# Phase 4 Project Introduction

// FLATIRON SCHOOL

# Agenda

- Overview Across Projects
- Project Deliverables
- Schedule

# Overview

# Key Points

## Advanced Data Types / Modeling

- Tailor your notebook to a technical data science audience, since this could be the most advanced project you complete from a technical perspective and is an excellent opportunity to demonstrate your understanding of an advanced modeling technique

## Validation Strategy

- You should demonstrate how you've ensured your model will perform well on unseen data, using validation strategies which make sense for your specific project type - this may or may not be just a `train_test_split`!

- HIGHLY encourage the use of cross validation where appropriate

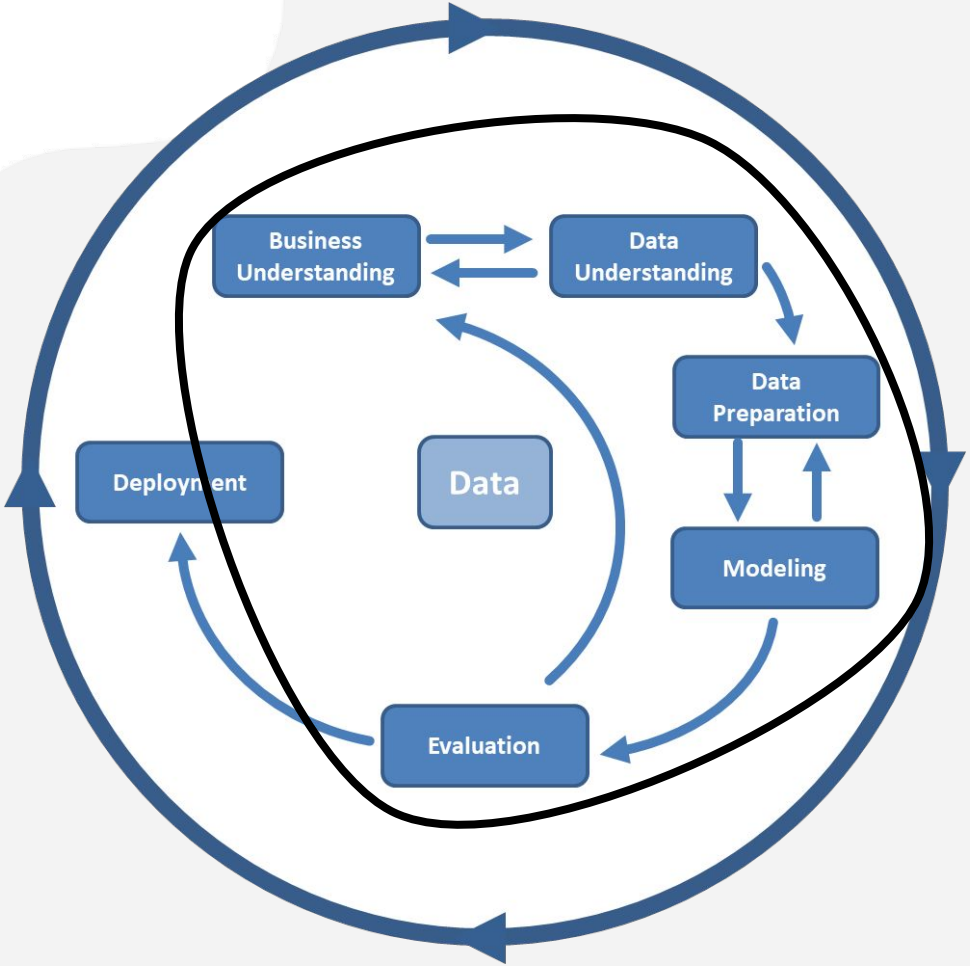
## Don't Get Bogged Down

- This is a great chance to demonstrate advanced skills - but remember that your much larger capstone project is just around the corner

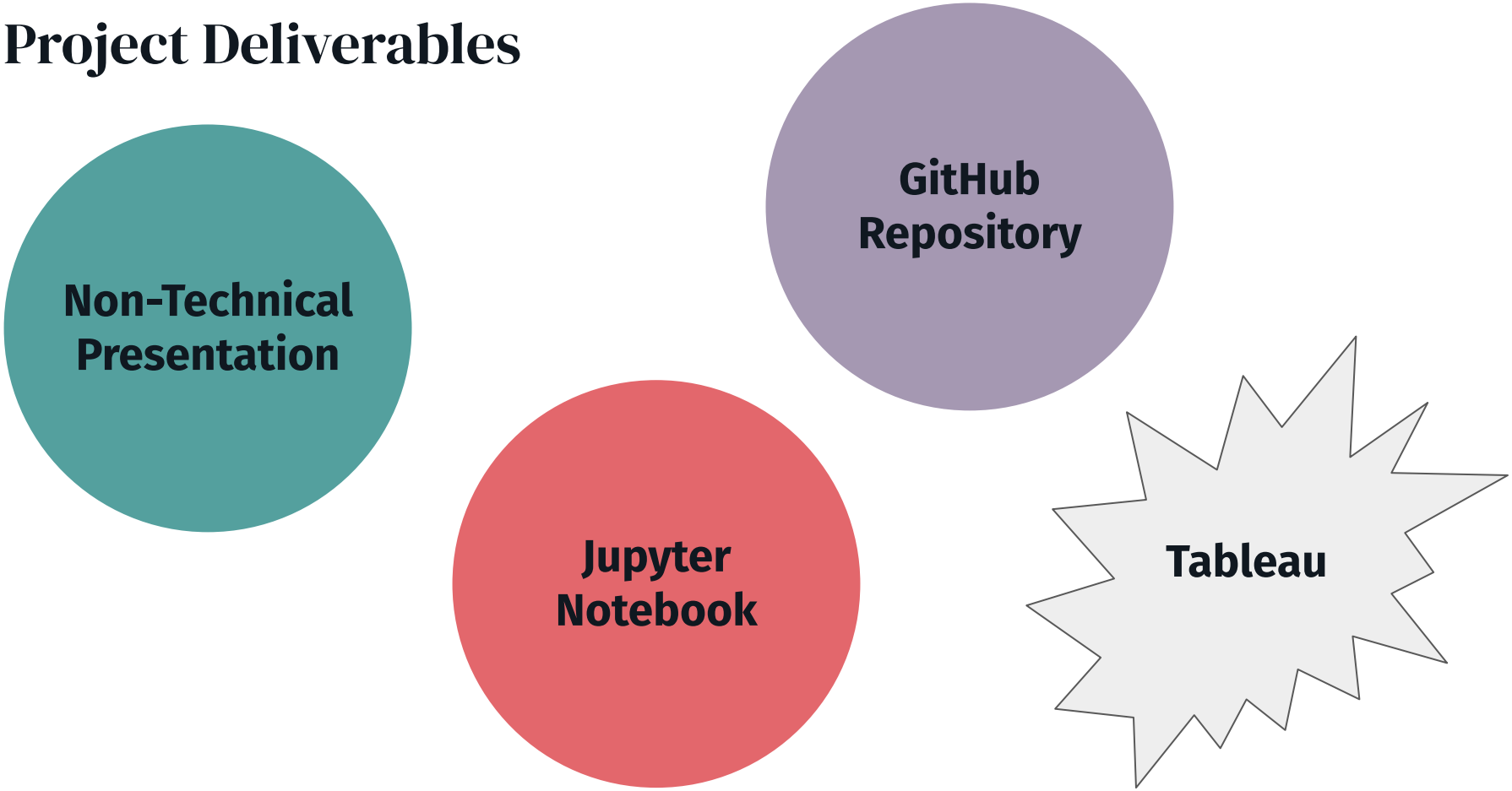
# Project Deliverables

# DS Process: CRISP-DM

Consider the **CRISP-DM** process and headers while creating each deliverable.



# Project Deliverables



# Non-Technical Presentation

- Slide deck for a **five minute** presentation
- **Non-technical audience**
- Professional style
  - Light on text
  - Effective template
  - Legible and labeled visualizations

**Example slide deck**

# Non-Technical Presentation

## Tell a Story:

### Beginning

- Overview
- Business Understanding
- Stakeholder
- Key Business Questions

### Middle

- Data Understanding
- **Final Model Results (nontechnically!)**
- Discuss considerations for **metric choice (nontechnically!)**

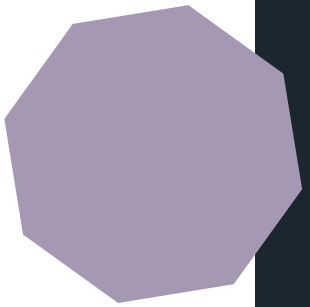
### End

- Recommendations
- Next Steps
- Thank You Slide

# GitHub Repository

- Where your project lives and grows - want to see a consistent commit history throughout
- **This will be part of your portfolio at the end of this course!**
- Recommend **starting your repository from scratch** rather than forking the template repository

**Example repository and templates**



# GitHub Repository

## Must-Haves

1. **README.md**
   - More detail on the next slide
2. **Commit History**
   - Commit history with clear messages
   - Contributions throughout the project period
3. **Organization**
   - Clear folder structure
   - Clear naming conventions for files and folders
   - Technical notebooks and presentation file are easily located
4. **Notebook**
   - Final technical notebook on main level of repo
   - Working notebooks (if applicable) in subfolders
5. **.gitignore**
   - Ignores large files as well as junk files (like .ipynb_checkpoints or .DS_Store)
   - GitHub's python .gitignore template

# GitHub Repository

## README Sections

Your README should act as a **high-level technical summary**

- **General Overview**
- **Business Understanding**
  - Include stakeholder and business questions
- **Data Understanding**
  - Source of data (either describe or link)
  - Description of data (high level, go into more detail in your technical notebook)
- **Modeling**
  - Describe techniques or methods
  - Written interpretation of results (final model)
- **Conclusion**
  - Summary of conclusions / recommendations
- **Repository File Structure**
  - (nice-to-have not need-to-have)

# Jupyter Notebook

- Blends code, markdown, and visualizations to tell the **full story** of your project
- Includes **justifications and rationale** for every decision made throughout the project
- Notebook should be free of errors and run from top to bottom
- Use CRISP-DM steps as markdown headers to divide your final notebook into **sections**

# Important Links

- **Project Description**
  - Explains the project goal, dataset, and deliverables
  - Contains rubric explanations
- **Rubric & Checklist Overview**
  - Use to check off requirements
- **Choosing a Dataset**
  - Recommender System (Movies)
  - Image Classification (NN - Pneumonia)
  - NLP Sentiment (Tweets)
  - Model Interaction (CYOA/CYOD)

# Working Groups and Schedule

# Group Project Best Practices

1. Get to Know Your Group Members
2. Define Individual Project Contributions
3. Meet Regularly
4. Communicate Actively, Clearly, and Transparently

# Working Groups

- TBD - Based on choices

# Schedule

**Project Kickoff:** Right now!

**Group Check Ins:** Wed AM

**Office Hours:** Mon, Tues, Wed PM

**Thursday PM:** Practice Presentations

**Friday PM:** Final Presentations

**Friday EOD pm ET:** Submit deliverables

# Questions?