

# SkillArbitrage Bootcamp COMPANION WORKBOOK

Complete the hands-on exercises in the Bootcamp Companion Workbook to build your personalized roadmap.



It's recommended to print out the workbook to use during the bootcamp.



Your Personalised Route to a  
**6-Figure Data Science Career**



## ROADMAP & BOOTCAMP



**Your Bootcamp link is in your email**

SUBJECT: 😎 6-Figure Bootcamp Details Inside!

- ✓ Print this plan prior to the bootcamp.
- ✓ Customize it during the bootcamp.
- ✓ Stay uninterrupted at your computer.



### AN IMPORTANT MESSAGE:

Ready to build a thriving career? Join our bootcamp to learn and take action on personalizing your game plan through hands-on projects.

In the era of Data Science and A.I., now is the prime time to pursue a career in this field. Demand exceeds supply, offering vast opportunities.

Before joining, know this journey won't be easy. While we can help you progress faster, success isn't guaranteed. Unlike "gurus," we respect your intelligence and guide you authentically to great and recession free career.

Let's begin this beautiful and rewarding journey together! 🌟

# MEET YOUR Instructors



**Priyanka  
Sinnarkar**

Head of the International  
Vertical at SkillArbitrage  
 SkillArbitrage



**Yash  
Vijayvargiya**

 SkillArbitrage



**Josh  
Temin**

Data Scientist

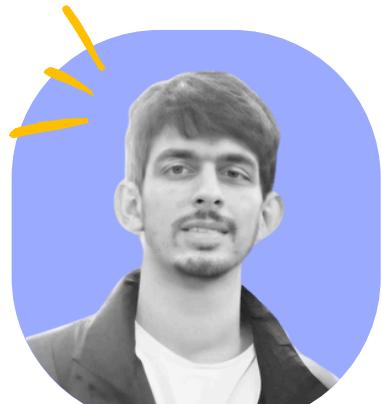
 Clarivate™



**Vicky  
Ikonomidou**

Professor

 GEORGE MASON  
UNIVERSITY.



**Ananya Joshi**

Data Scientist

 SkillArbitrage



**Swapnil  
Narayan**

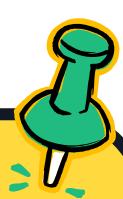
Data Engineer

 Microsoft

**We are thrilled to introduce the instructors for this bootcamp!**

Handpicked from the very best in the field, these are not just instructors, but seasoned practitioners, successful entrepreneurs, and recognized experts in Data Science.

With decades of experience working with some of the world's largest corporations, they are eager to share their wealth of knowledge with you. Their shared goal is to help you jumpstart your career in Data Science. Brace yourself for an exciting, transformative journey!





# TARGET

## Set Your Salary Goals



### DREAM BIG

**One Year Salary Goal:**  
Write down how much you want to be making in one year from now. Don't overthink it, just put down the first number that comes to your mind.

1

**Three Year Salary Goal:** Now, think a bit further. Where do you want to be in three years? How much do you want to be making then?

3

**Five Year Salary Goal:** Finally, let's look even further into the future. What's your salary goal for five years from now?

5



## Competency Audit: DARE To UNLEASH YOUR POTENTIAL

D

A

R

E

# DST FRAMEWORK

## Jumpstart Your Career in Data Science



This is your strategic plan to excel in data science, represented by DST: Domain, Skills, and Track Record. Identify the appropriate domain, focus on the necessary skills, and construct a tactical plan to build an impressive track record.

This approach not only maximizes your salary potential, but also accelerates your career progression. It's like having a personal GPS for your data science journey, guaranteeing that each step you take brings you closer to your career goals.



### DOMAIN

Start by listing the domains you have experience in or are interested in. This will give you a focused direction.



### SKILLS\*

Once you've identified a domain, research and list the skills that are in high demand in that area.

# DST FRAMEWORK

## Building Track Record



Finally, outline a tactical plan on how you could establish a track record in your chosen domain.

### DEBUT FRAMEWORK

D

#### Domain Specific Data Science Portfolio



It is a specialized collection of projects showcasing your data science skills within a specific industry. This approach enhances your professional reputation by demonstrating your expertise and understanding of that particular domain. It aids in distinguishing you from generalists, meeting the rising demand for domain-focused data scientists, and promoting career advancement.

E

#### Effective Communication Skills



Communication is key in data science. It's not just about crunching numbers, but also about clearly articulating your findings to stakeholders. Being able to translate complex data into understandable insights is crucial for building a solid track record. It's your bridge between technical expertise and business impact.



B

#### Bulletproof Data Science Resume

A Bulletproof Social Resume is termed such because it serves as a shield against rejections from non-decision makers, HR, or ATS software that may dismiss your resume without granting a proper interview. In this digital age, your resume extends beyond a mere piece of paper. It is your professional presence across various social media platforms including your social identity, your CV, LinkedIn profile, portfolios etc

U

#### Understanding Stakeholder Needs & Business Outcomes

Start your data science career by focusing on what businesses need, not just on technical tools. Align your projects with key business objectives. This strategy shifts you from a typical tech expert to an essential business partner. Your contributions become critical and directly tied to business success. This is how you truly make an impact and distinguish yourself in the field!



T

#### Testimonials and Recommendations



Testimonials and recommendations are invaluable in establishing your credibility and expertise in the field. They serve as social proof of your skills and abilities. You can obtain these testimonials by undertaking small projects, gigs, or internships related to data science and also gain practical exposure to real-world problems and data sets

# Domain Specific Data Science Portfolio



# Week 1 - 8



## OBJECTIVES



## Skills



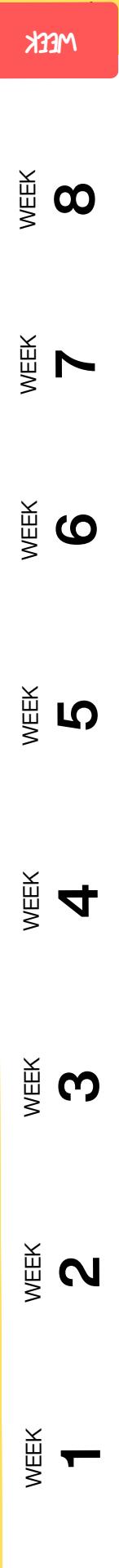
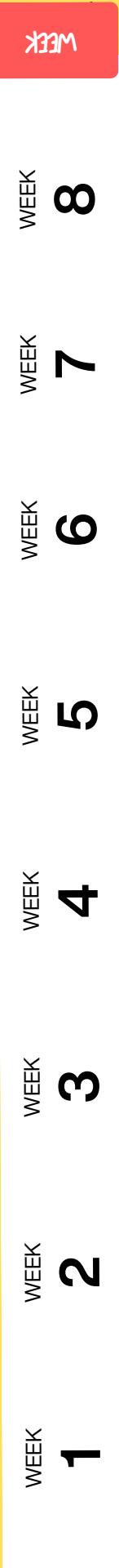
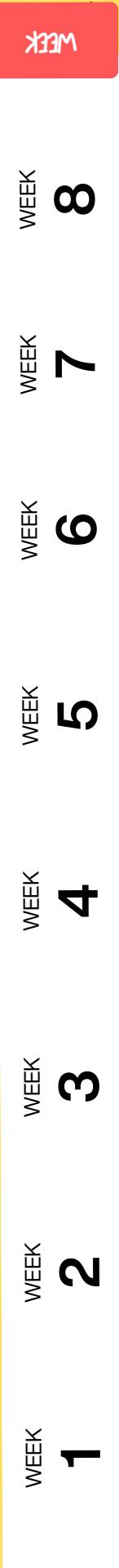
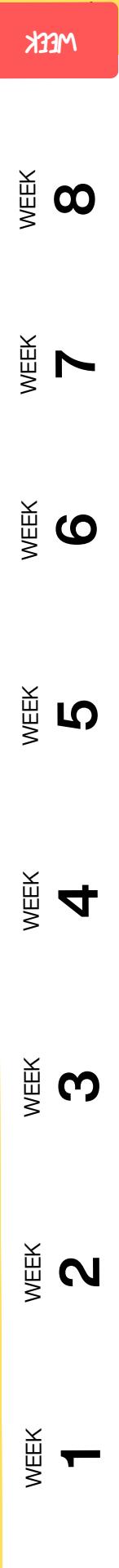
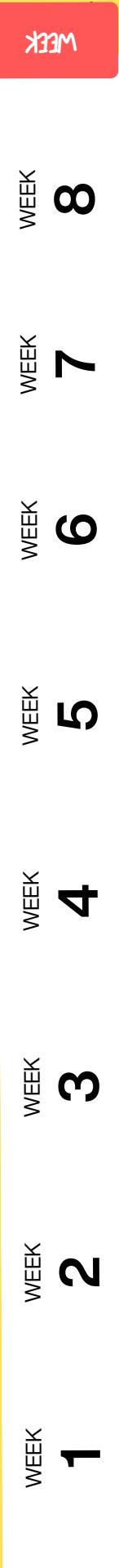
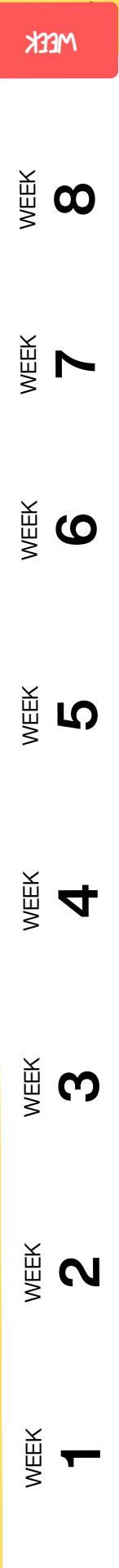
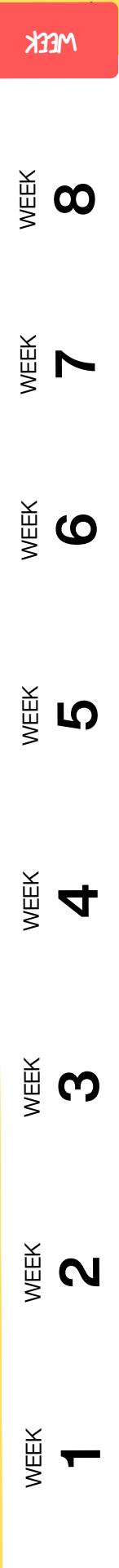
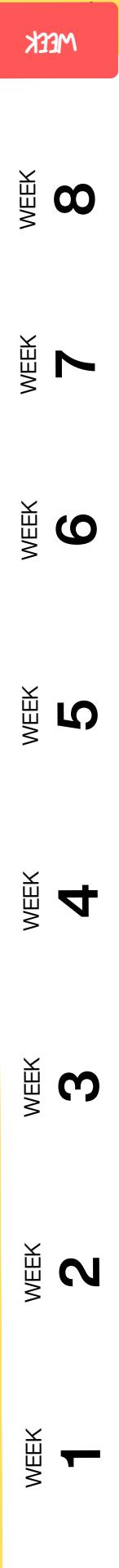
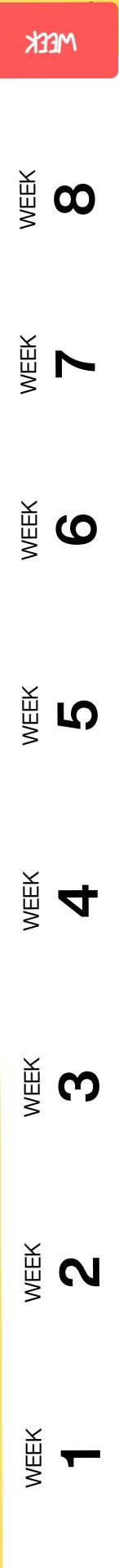
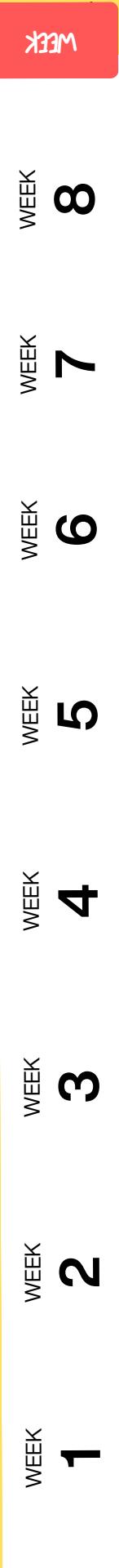
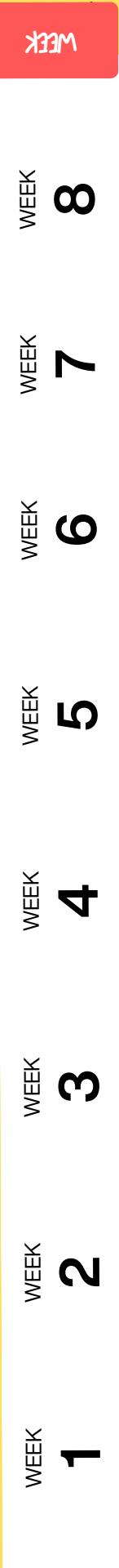
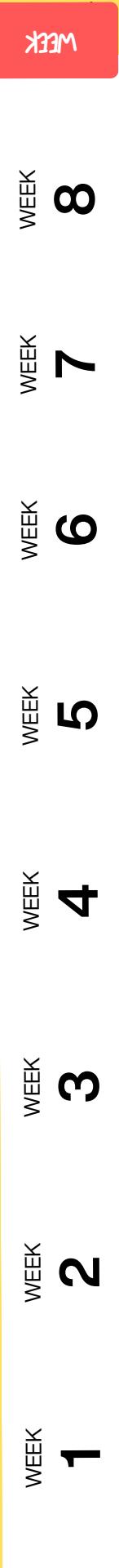
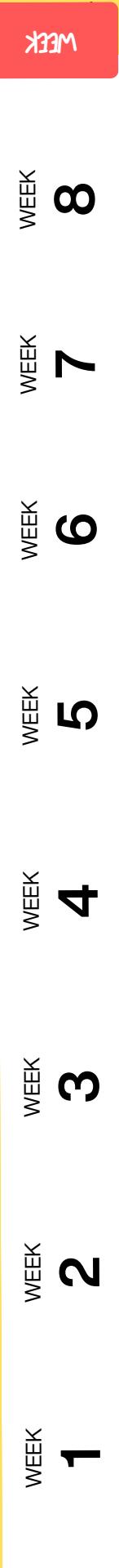
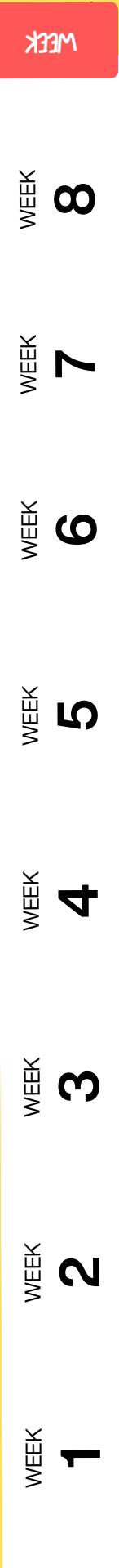
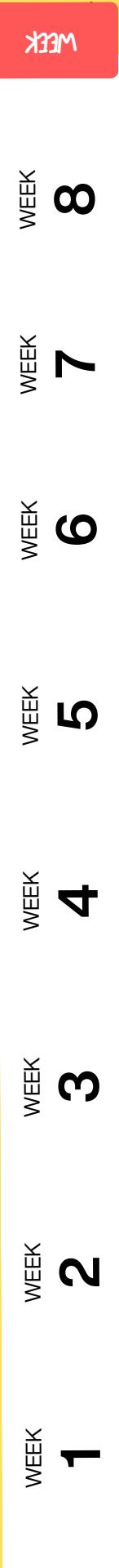
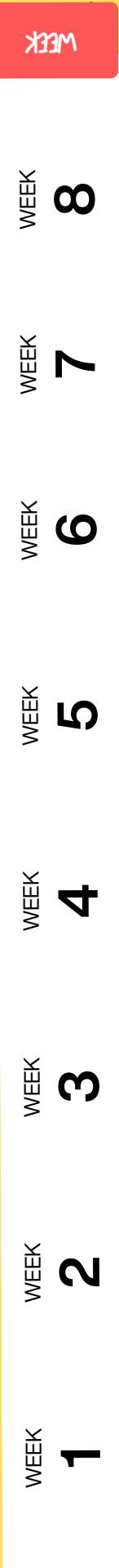
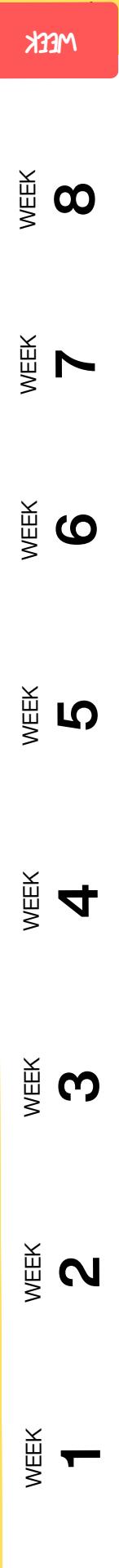
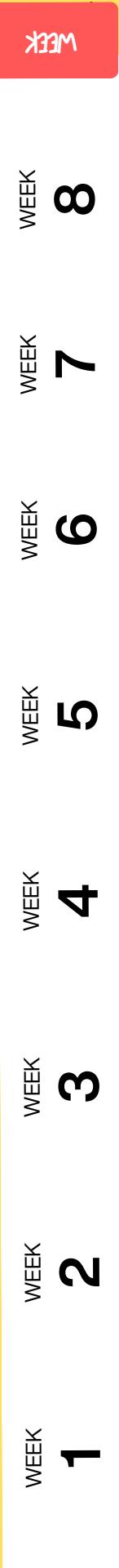
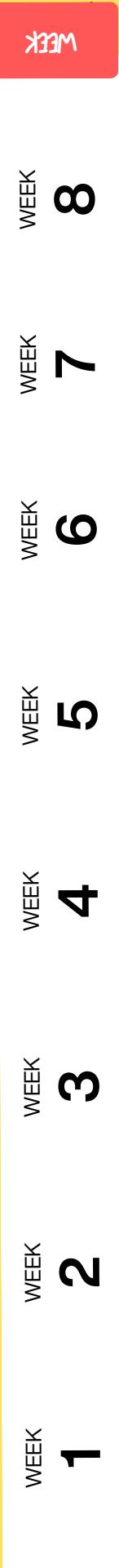
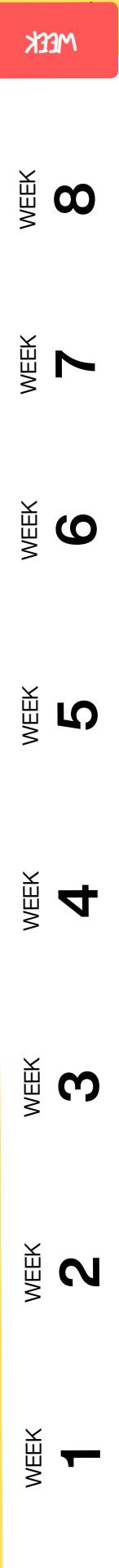
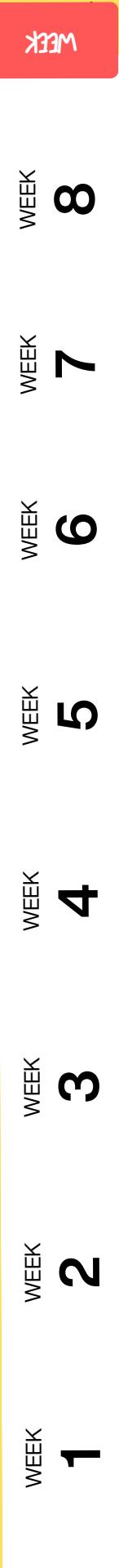
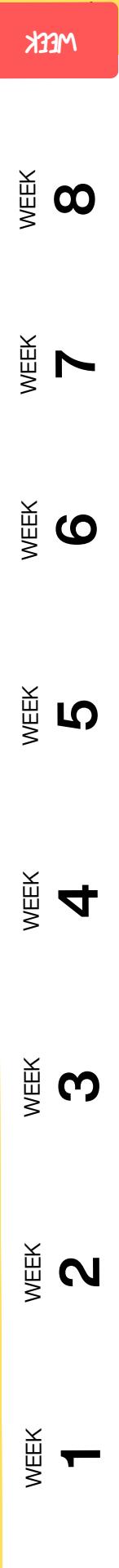
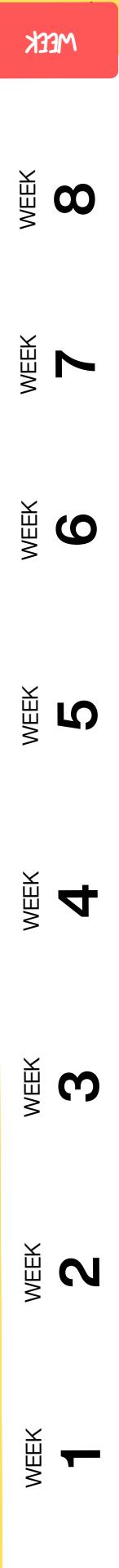
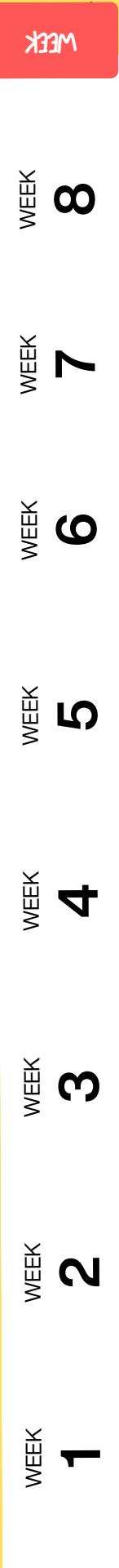
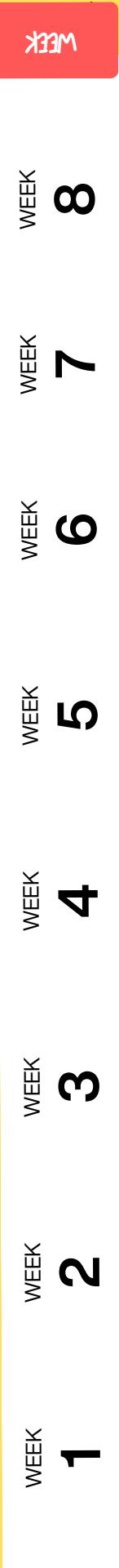
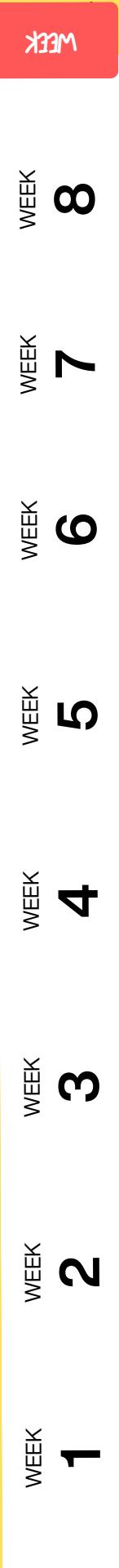
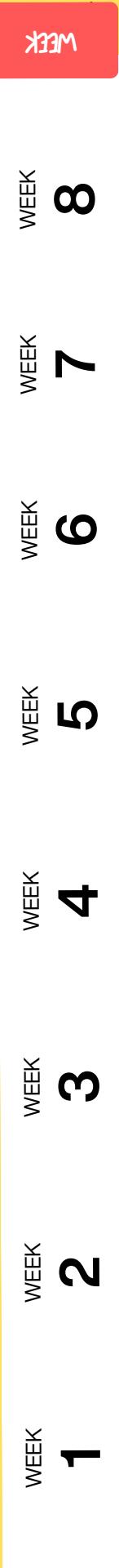
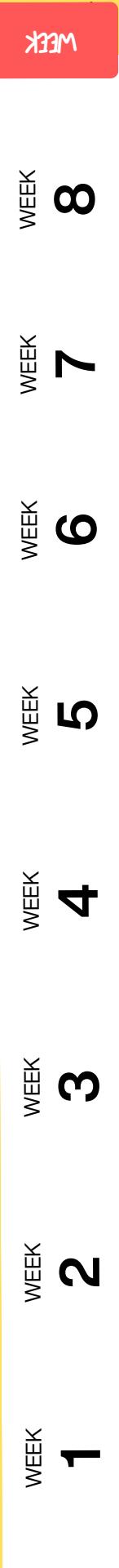
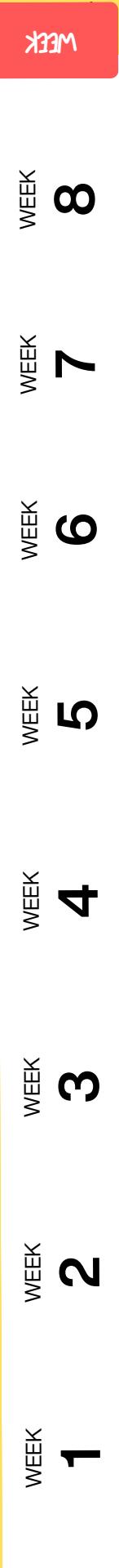
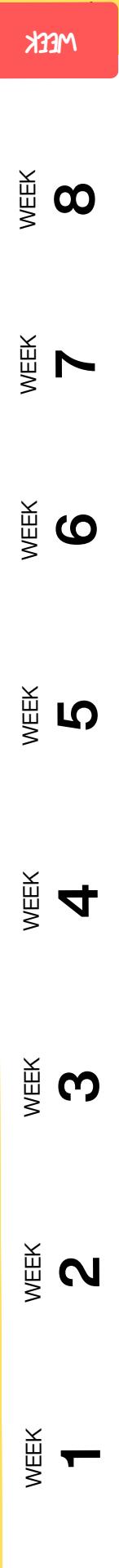
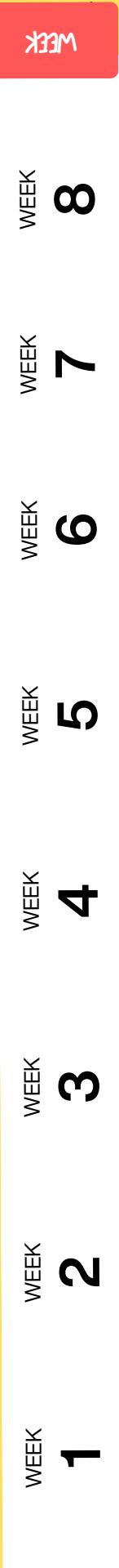
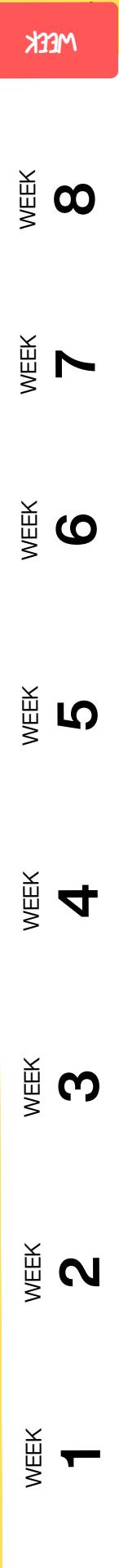
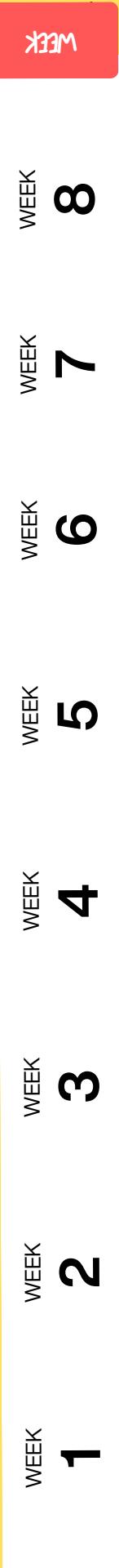
## Tools & Technologies



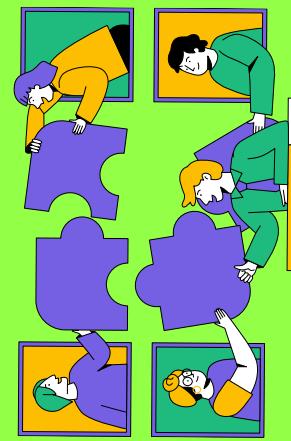
## Projects



## Case Studies



# Domain Specific Data Science Portfolio



# Week 9 - 16



OBJECTIVES



Skills



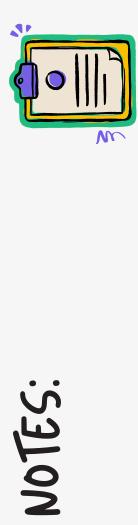
Tools &  
Technologies



Projects



Case Studies



Notes:

WEEK

16

TIMELINE

WEEK

14

WEEK

13

WEEK

12

WEEK

11

WEEK

10

WEEK

9

# Domain Specific Data Science Portfolio



Week 17 - 24

| WEEK     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | WEEK |
|----------|----|----|----|----|----|----|----|----|------|
| TIMELINE |    |    |    |    |    |    |    |    |      |
|          |    |    |    |    |    |    |    |    |      |



OBJECTIVES



Skills



Tools &  
Technologies



Projects



Case Studies



Notes:

# Effective Communication Skills



## 1 Verbal and Written Communication Skills

Essential for clearly articulating complex data findings to diverse audiences, influencing decisions and facilitating collaboration.

- Clarity and coherence in spoken and written explanations.

I AM CLEAR BUT USE TOO MUCH TECHNICAL JARGON



- Ability to adjust language for different audiences.

MY EXPLANATIONS CONFUSE THE MARKETING DEPT.



- Conciseness and relevance of content.

I OFTEN PROVIDE MORE DETAIL THAN NECESSARY, LOSING THE AUDIENCE'S INTEREST



- Effectiveness in using technical and non-technical language appropriately



## 2 Visual Communication & Data Interpretation

Vital for creating clear visuals that aid understanding and for accurately interpreting and communicating data insights.

- Proficiency in selecting appropriate visualizations for different data sets.

I STRUGGLE WITH SELECTING THE BEST CHART TYPE FOR COMPLEX DATA.



- Ability to simplify complex data insights into understandable visuals.



- Skill in using visualization tools effectively.



- Accuracy in representing data without distorting the facts.



# Effective Communication Skills

## 3 Storytelling with Data

Crucial for translating data into meaningful stories that resonate with stakeholders and drive action.

- Ability to construct a narrative that highlights key findings and conclusions.

I CAN CREATE COMPELLING STORIES, BUT THEY SOMETIMES LACK A CLEAR MESSAGE.



- Skill in linking data insights logically to the narrative.



- Effectiveness in engaging and persuading the audience.



- Use of storytelling elements (e.g., characters, conflict, resolution) to enhance



## 4 Pitching for Remote Work Opportunities

Important for demonstrating capability and professionalism in a virtual environment, expanding career opportunities globally.

- Confidence and professionalism in virtual communication.

I'M GOOD AT EXPLAINING MY BACKGROUND BUT NEED TO BE MORE CONCISE.



- Ability to simplify complex data insights into understandable visuals.



- Skill in using technology to enhance remote presentations.



- Persuasiveness in virtual settings.



# **Effective Communication Skills**



# Mastering Data Science Job Interviews

*Critical for articulating the relevance of skills and experience in potential roles, ensuring a good match and securing job offers.*

- Effectiveness in answering technical and behavioral questions.



- Ability to showcase problem-solving and project management skills.



- Professionalism and ability to communicate fit with company culture.



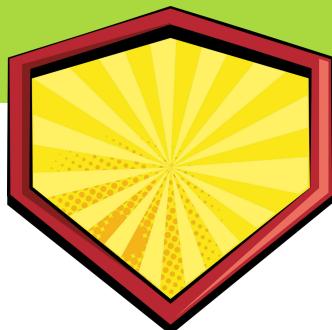
- Skill in negotiating job offers and articulating career goals.



## NOTES:



# Bullet-Proof Social Resume



A Bulletproof Social Resume is your shield against initial screening barriers like HR and ATS software.

In today's digital world, your resume is more than a document—it's a multi-platform professional identity, including your CV, LinkedIn, and online portfolios. This approach ensures you stand out and secure interviews in the competitive job market.

## SET YOUR GOALS

kaggle



Novice



Contributor



Expert



Master



Grandmaster



GitHub  
PROJECTS

5+  
Projects

10+  
Projects

20+  
Projects

30+  
Projects

50+  
Projects



HackerRank

<5L  
Rank

<1L  
Rank

<50K  
Rank

<25K  
Rank

<10K  
Rank



Medium

5+  
Posts

10+  
Posts

20+  
Posts

30+  
Posts

50+  
Posts

LinkedIn

25+  
Posts

50+  
Posts

75+  
Posts

100+  
Posts

150+  
Posts

\*Select your goals after discussing with your career coach.



# Understanding **Stakeholder Needs & Business Outcomes**



**Kick off your data science career with a strategic approach: focus on what industries and businesses really need from your projects.**

Instead of just learning technical tools, align your work with key business objectives. This shifts you from a typical tech expert to an essential business partner. Your contributions become critical and directly tied to business success. This is how you truly make an impact and distinguish yourself in the field!

# **PROJECT 1 Building an Enterprise Dashboard for a Coffee Chain Company**

| 1 | Project Description | Stakeholder Needs | Business Outcomes |
|---|---------------------|-------------------|-------------------|
|   |                     |                   |                   |

**PROJECT 2 Web Scraping with Octoparse for Efficient Data Extraction & Automation**

| 2 | Project Description | Stakeholder Needs | Business Outcomes |
|---|---------------------|-------------------|-------------------|
|   |                     |                   |                   |

**PROJECT 3 Customer Segmentation for Starbucks, Kuala Lumpur**

| 3 | Project Description | Stakeholder Needs | Business Outcomes |
|---|---------------------|-------------------|-------------------|
|   |                     |                   |                   |

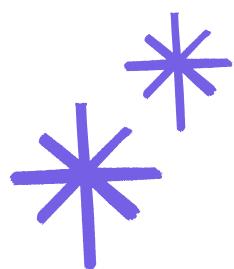
# Testimonials & Recommendations



For a data science aspirant, testimonials and recommendations demonstrate your credibility and expertise. They provide social proof of your skills and can be obtained by undertaking data science projects or internships.



- ✓ **Show Your Worth:** Testimonials and recommendations from others prove your skills and expertise.
- ✓ **Get Noticed:** They act as social proof that you're good at what you do.
- ✓ **How to Get Them:** Work on real data science projects or internships to earn these valuable endorsements.



## SUPERVISORS



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## CLIENTS



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## PEERS



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Aim for 3-5 detailed recommendations that speak to your work ethic, project impact, and technical skills.

Target 2-4 powerful testimonials that can highlight your professionalism, problem-solving capabilities, and the business value you added.

Collect at least 5 endorsements that cover your teamwork, technical expertise, and role in joint projects.

# MAPPING Domain and Skills

Let's map various domains and their sought-after Data Science and A.I. skills!



## Media & Entertainment

Audience Analytics, Content Personalization, Predictive Analytics, Content Creation, etc.



- Audience Analytics involves gathering and analyzing data about the viewing, reading, and listening habits of users to understand their preferences and behavior.
- Content Personalization uses this data to tailor media and entertainment offerings to individual user's tastes.
- Predictive Analytics uses historical data to forecast viewer trends and preferences, helping in the creation and marketing of future content.
- Content Creation utilizes data to assist in designing and producing media that resonates with target audiences.

These Data Science skills are essential for optimizing user engagement, personalizing entertainment experiences, and enhancing content strategies in the media and entertainment industry.



# E-Commerce

Data visualization, A/B testing, Customer segmentation, Recommendation systems, etc



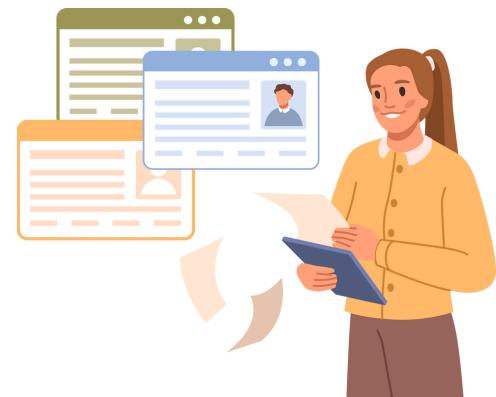
- Data visualization involves creating charts and graphs to understand data trends.
- A/B testing compares webpage versions to optimize performance.
- Customer segmentation groups consumers by shared traits for targeted marketing.
- Recommendation systems use algorithms to suggest personalized content.

These skills are crucial for data-driven insights and user experience in data science.



# Human Resources (HR)

Employee Analytics, Predictive Modeling, Workforce Planning, Employee Retention Analysis, etc.



- Employee Analytics involve using data to understand workforce trends and patterns.
- Predictive Modeling uses statistical methods to predict future employee behavior or HR trends.
- Workforce Planning uses data to strategize hiring needs to meet company goals.
- Employee Retention Analysis uses data to identify key factors that keep employees and develop strategies to increase retention.

These skills are crucial for strategic decision-making, improving employee satisfaction, and optimizing workforce in the HR field.



# Travel & Hospitality

Demand Forecasting, Pricing Strategies, Customer Segmentation, Sentiment Analysis, etc.



- Demand Forecasting involves using historical data to predict future demand for services or products, which is crucial for inventory and staff management.
- Pricing Strategies use data to determine optimal pricing to maximize revenue and customer acquisition.
- Customer Segmentation groups consumers by shared traits for targeted marketing.
- Sentiment Analysis uses machine learning and natural language processing to interpret and classify customer feedback or reviews.

These skills are essential for maximizing profits, improving customer satisfaction, and creating personalized experiences in the travel and hospitality industry.

# Education \*

Learning Analytics, Personalized Learning, Predictive Analytics, Curriculum Design, etc.



- Learning Analytics involves the measurement, collection, analysis, and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning
- Personalized Learning uses data to customize learning for each student's strengths, needs, skills, and interests.
- Predictive Analytics uses historical data to predict students' future academic performance.
- Curriculum Design uses data to develop lessons and assessments that meet defined educational objectives.

These skills are crucial for enhancing educational outcomes and improving teaching methodologies in the education industry.

# Legal

Legal Analytics, Legal Research, Predictive Analytics, Contract Analysis, etc.



- Legal Analytics involves gathering and analyzing data from legal documents and proceedings to make informed decisions.  
\_\_\_\_\_
- Legal Research employs \_\_\_\_\_  
\_\_\_\_\_
- Predictive Analytics uses \_\_\_\_\_  
\_\_\_\_\_
- Contract Analysis utilizes \_\_\_\_\_  
\_\_\_\_\_

# Operations



Operations Management, Process Improvement, Supply Chain Management, Project Management, etc.



- Operations Management involves \_\_\_\_\_  
\_\_\_\_\_
- Process Improvement uses \_\_\_\_\_  
\_\_\_\_\_
- Supply Chain Management focuses \_\_\_\_\_  
\_\_\_\_\_
- Project Management involves \_\_\_\_\_  
\_\_\_\_\_

# Marketing



Martech, Automation, Marketing  
Analytics, Customer  
Segmentation etc



- Martech involves \_\_\_\_\_  
\_\_\_\_\_
- Automation in marketing streamlines \_\_\_\_\_  
\_\_\_\_\_
- Marketing Analytics involves \_\_\_\_\_  
\_\_\_\_\_
- Customer Segmentation is \_\_\_\_\_  
\_\_\_\_\_

# Sales



Sales Analytics, CRM Data  
Management, Predictive  
Analytics, Sales Forecasting  
etc



- Sales Analytics involves \_\_\_\_\_  
\_\_\_\_\_
- CRM Data Management \_\_\_\_\_  
\_\_\_\_\_
- CRM Data Management \_\_\_\_\_  
\_\_\_\_\_
- Sales Forecasting \_\_\_\_\_  
\_\_\_\_\_



## Health Data Analytics, Electronic Health Record (EHR) Management, Patient Outcome Forecasting



- Health Data Analytics \_\_\_\_\_
- Electronic Health Record (EHR) Management is about \_\_\_\_\_
- Patient Outcome Forecasting is the process of \_\_\_\_\_

## Sports



## Sports Data Analytics, Athlete Performance Tracking, Predictive Analytics, Game Outcome Forecasting



- Sports Data Analytics involves \_\_\_\_\_
- Athlete Performance Tracking is about \_\_\_\_\_
- Predictive Analytics \_\_\_\_\_
- Game Outcome Forecasting \_\_\_\_\_

# Domain Specific Data Science Portfolio



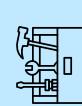
# Week 1 - 8



## OBJECTIVES



## Skills



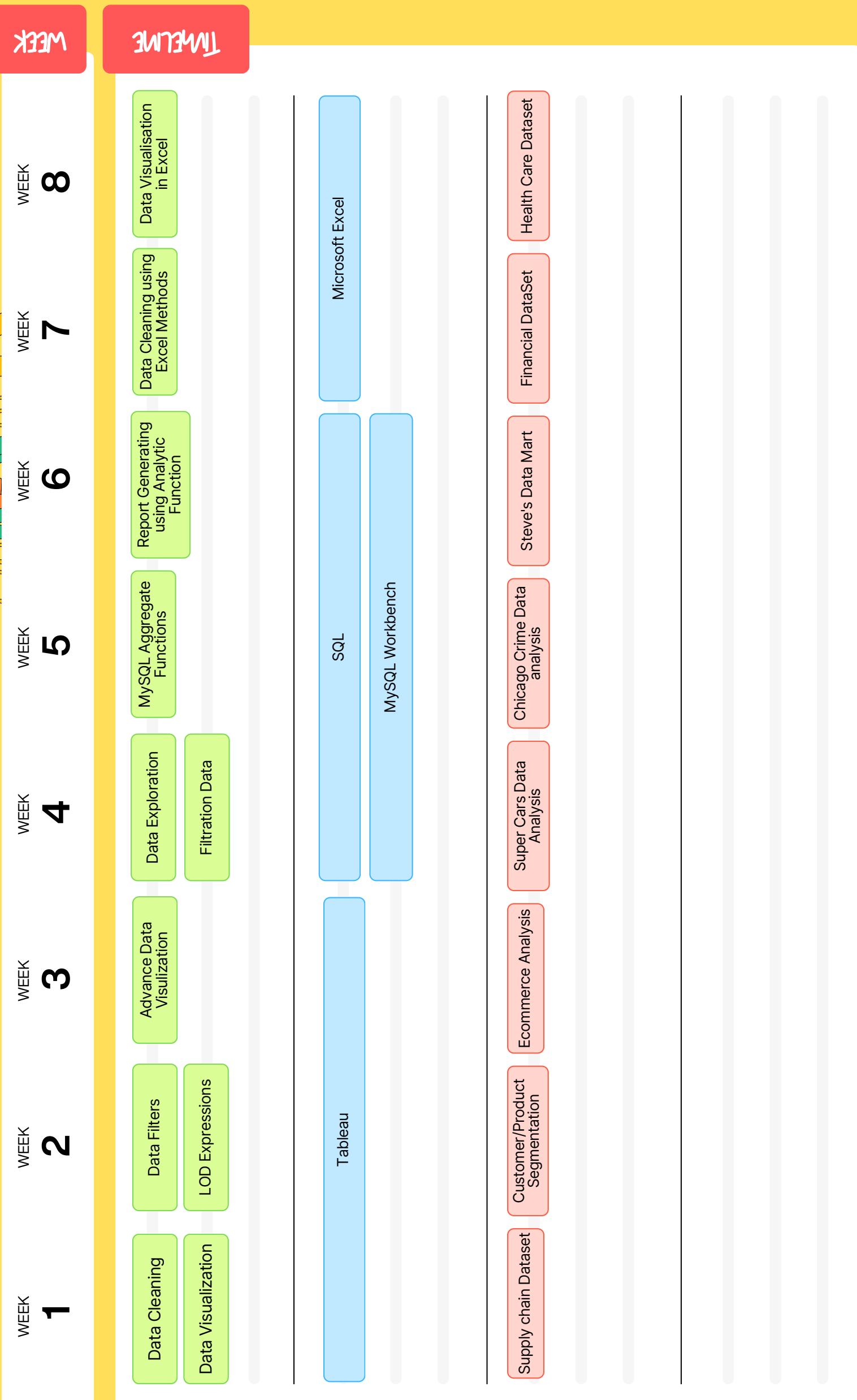
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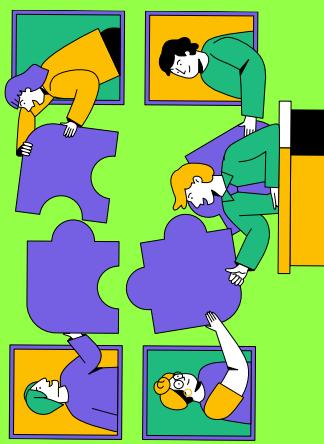
## Projects



## Case Studies



# Domain Specific Data Science Portfolio



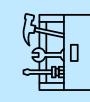
# Week 9 - 16



## OBJECTIVES



## Skills



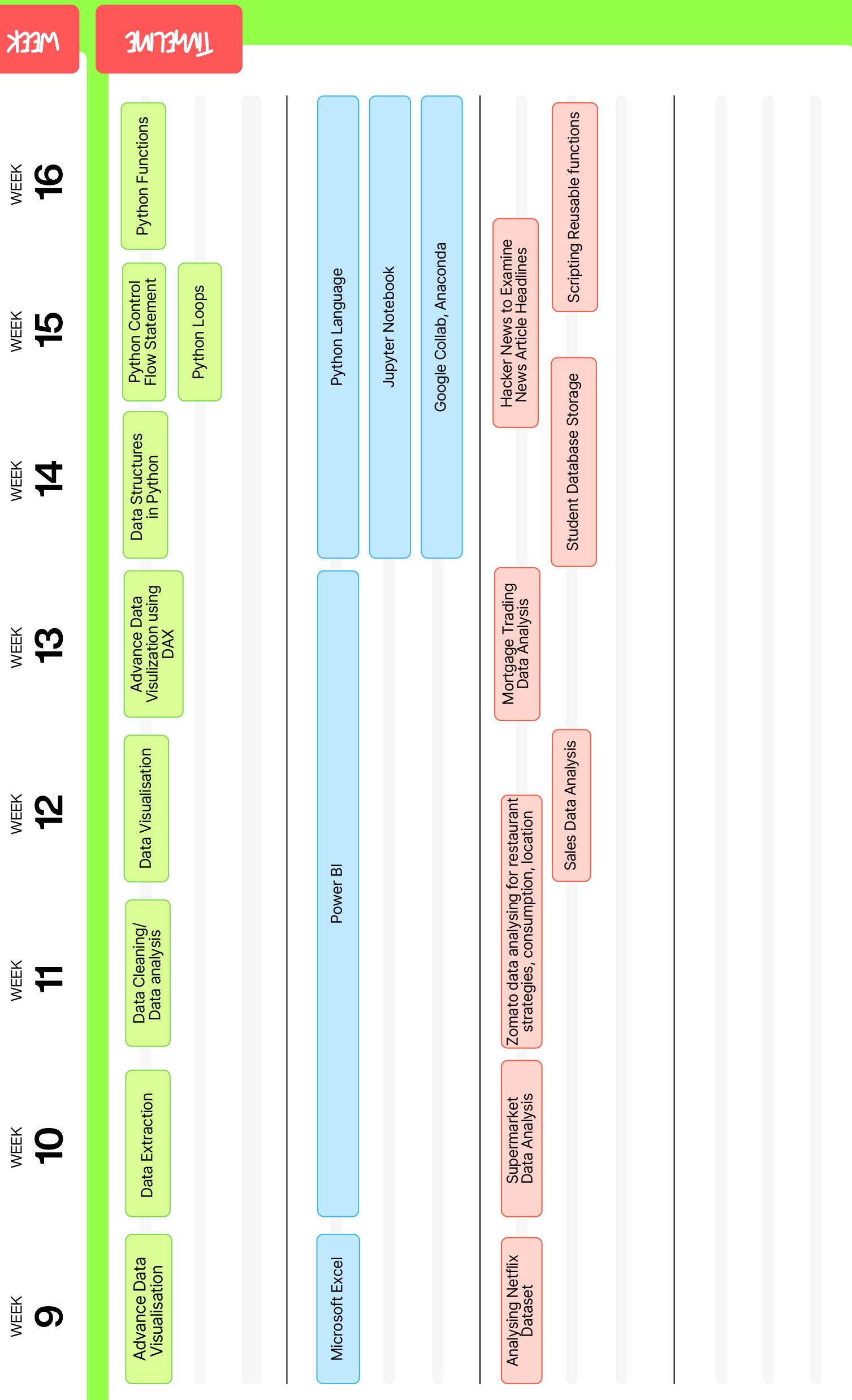
## Tools & Technologies



## Projects



## Case Studies



# Domain Specific Data Science Portfolio



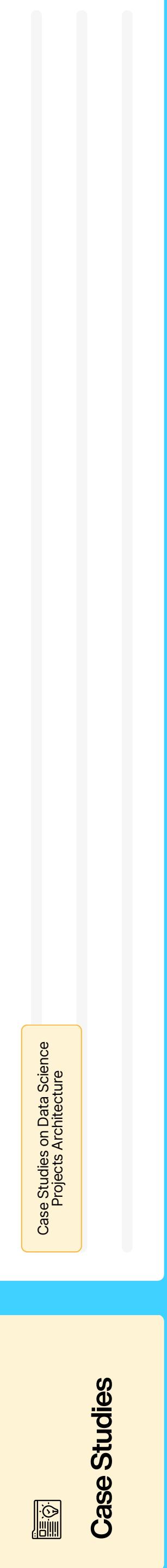
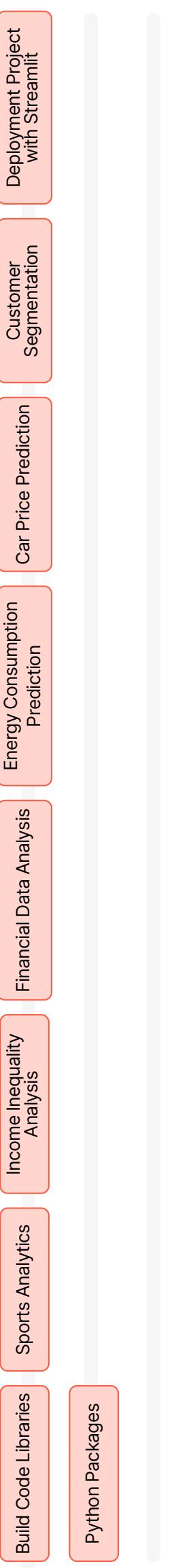
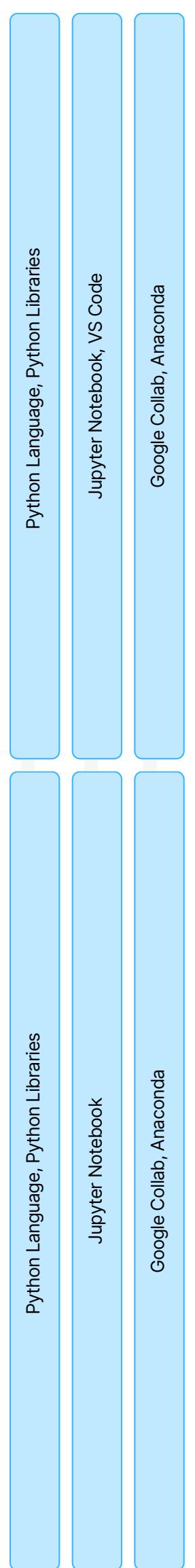
# Week 17 - 24



## OBJECTIVES



## Skills



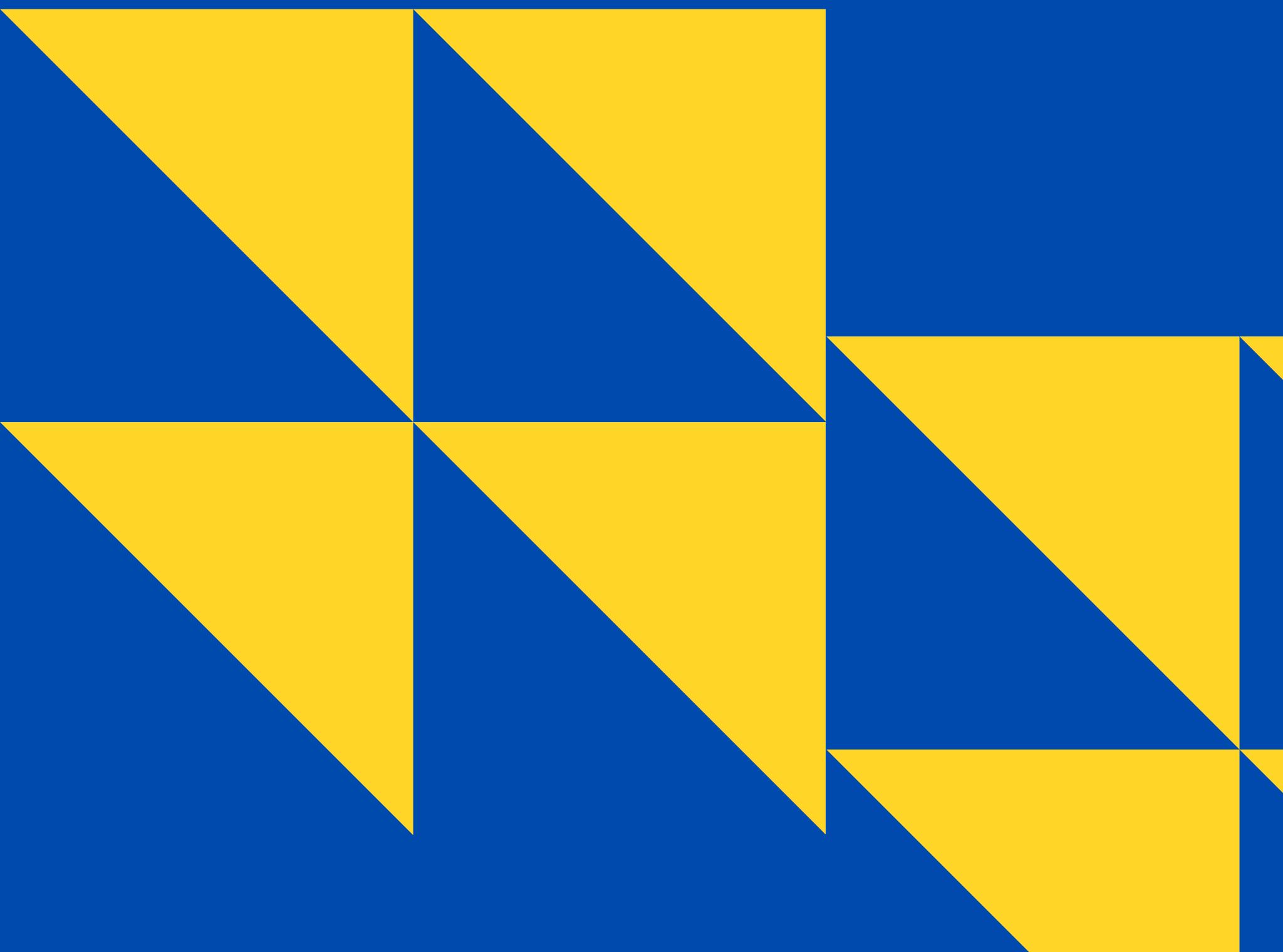
# IDEAS & NOTES:



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