



WISH GRANTED:

CREATE LOW-TO-NO COST INTERACTIVES WITH AI



NATHAN EWINGS

SENIOR MANAGER OF
ID & MEDIA, OPLR



JESSICA O'NEEL

INSTRUCTIONAL
DESIGNER, OPLR



“I WISH...”

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Population Growth Calculator

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Enter the current population, number of years, and growth rate into the population growth calculator. The calculator will display the new population after the number of years entered.

Population Growth Calculator

Select a growth model and enter any 3 of the 4 variables below, leaving the one to be calculated blank.

Growth Model

Exponential

Initial Population (X_0)

Enter Initial Population

Rate of Growth (%) (r)

Enter Rate of Growth (%)

Number of Years (t)

Enter Number of Years

Final Population (X_t)

Enter Final Population

Calculate Reset

Calculator not solving your problem? Describe the change you want to dynamically adjust the calculator. The more specific you are, the better the result

Change Calculator Restore Original



Hello! Ask me anything about this calculator!

How do I use this calculator? Send

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Reverse percentage

Simple fraction

HCF calculator

Natural Increase given Design Period Calculator

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Population Forecast Method Conveyance of Water Design of a Chlorinati

Growth Composition Analysis Method Arithmetic Increase Method Geome

Forecasted Population [P_n] 350000 +10% -10%

Last Known Population [P_o] 275000 +10% -10%

Number of Years [N] 10 +10% -10%
Year

Average Migration Rate per Year [M.R.] 2500 +10% -10%
1 Per Year

Natural Increase given Design Period [N.I.] 5000 Copy

Calculate Steps

Formula LaTeX Reset

Download Population Forecast Method Formulas PDF

Natural Increase given Design Period Solution

Click Here to Continue

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Tap Here, to Proceed
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Create an interactive HTML file that I can use to showcase the Natural Increase Rate impact on population dynamics.

What is Natural Increase Rate (NIR)?

The Natural Increase Rate (NIR) is the difference between birth rate and death rate, expressed as a percentage. It shows the rate at which a population is growing or declining due to natural causes, excluding migration.

$$\text{NIR} = \text{Birth Rate} - \text{Death Rate}$$

Population Parameters

Initial Population:

Birth Rate (per 1000):



20.0

Death Rate (per 1000):



8.0

Projection Years:



50

Natural Increase Rate: 1.2%

This population is growing moderately. Typical of developing countries transitioning to lower fertility.

Population Growth Chart

Elapsed Time:
~45 seconds

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Death Rate (per 1000):



Projection Years:

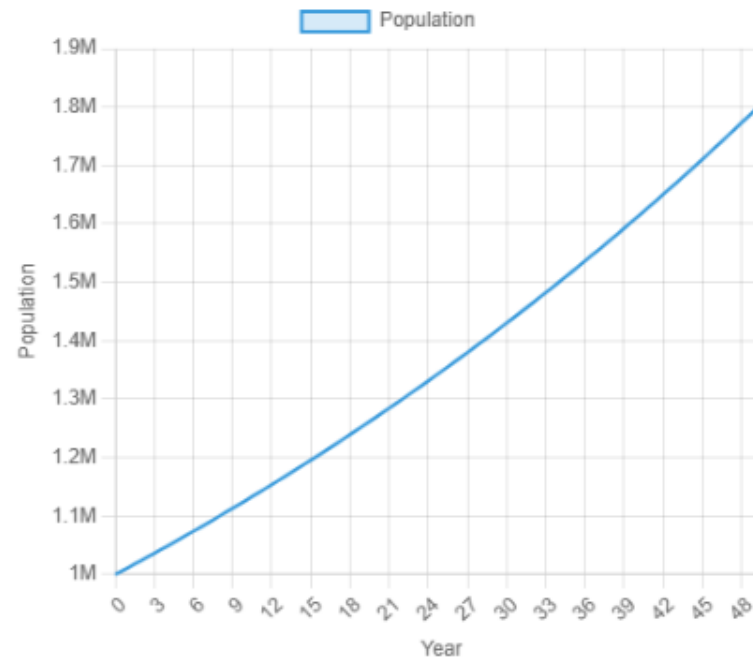


Natural Increase Rate: 1.2%

This population is growing moderately. Typical of developing countries transitioning to lower fertility.

Calculate Population Projection

Population Growth Chart



Elapsed Time:
~2 min.

What is Natural Increase Rate (NIR)?

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Population Parameters

Initial Population:

Birth Rate (per 1000):



Death Rate (per 1000):



Projection Years:

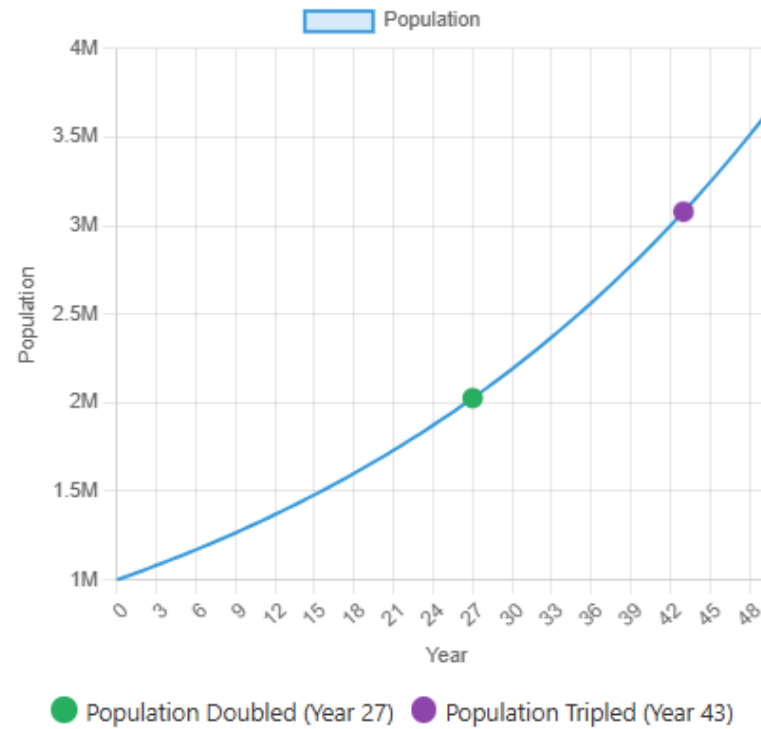


Natural Increase Rate: 2.6%

This population is growing moderately. Typical of developing countries transitioning to lower fertility.

Calculate Population Projection

Population Growth Chart



Elapsed Time:
~3 min.

What is Natural Increase Rate (NIR)?

The Natural Increase Rate (NIR) is the difference between birth rate and death rate, expressed as a percentage. It shows the rate at which a population is growing or declining due to natural causes, excluding migration.

$$\text{NIR} = \text{Birth Rate} - \text{Death Rate}$$

Population Parameters

Initial Population:

Birth Rate (per 1000):



Death Rate (per 1000):



Projection Years:

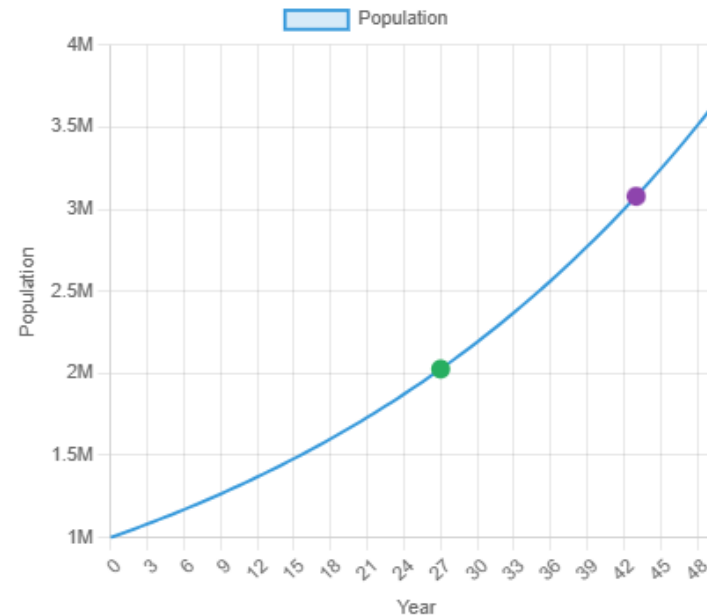


Natural Increase Rate: 2.6%

This population is growing moderately. Typical of developing countries transitioning to lower fertility.

Calculate Population Projection

Population Growth Chart



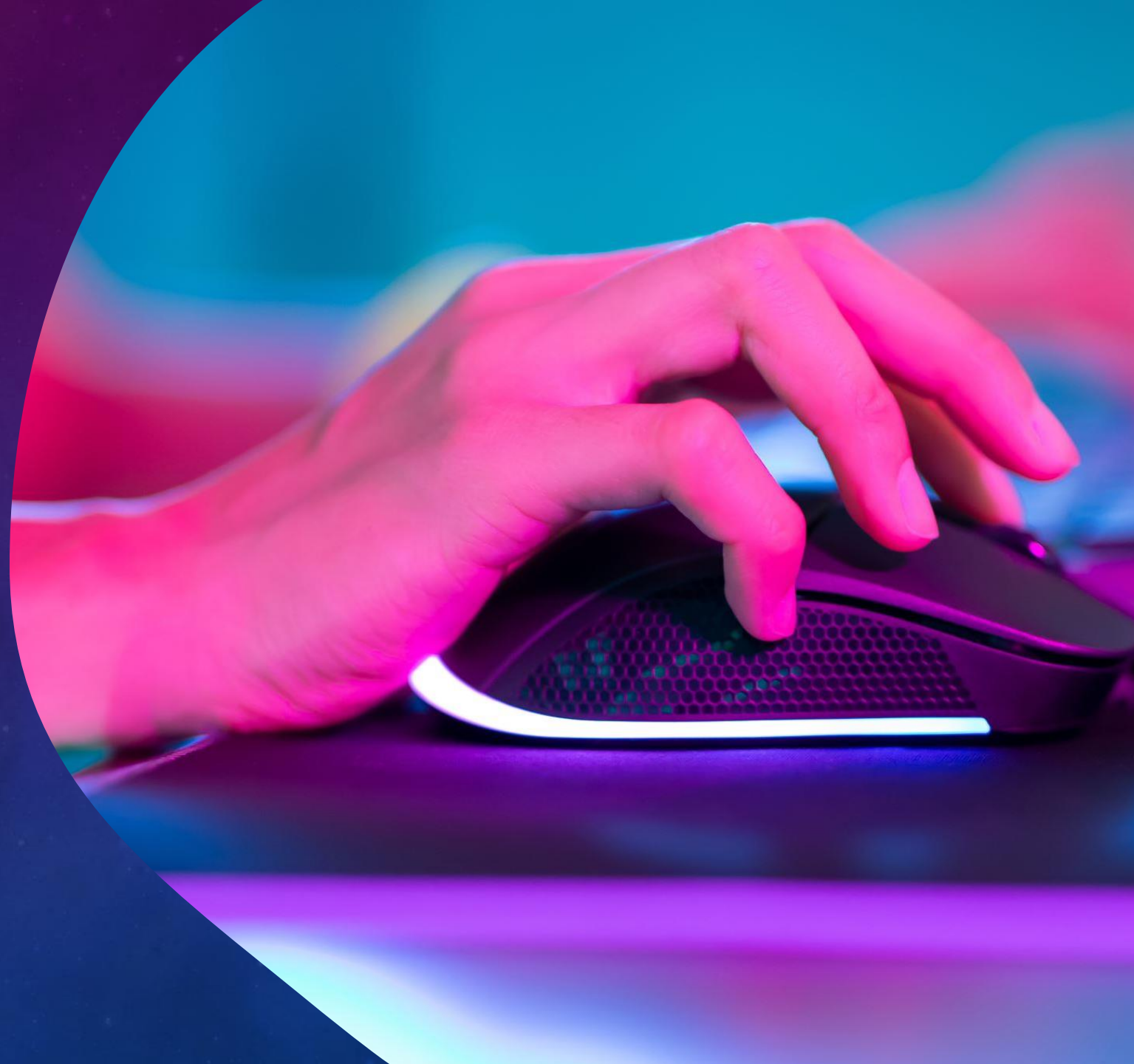
● Population Doubled (Year 27) ● Population Tripled (Year 43)

Starting with 1,000,000 people, after 50 years the population grows to 3,697,833 people, a 269.8% increase. Key milestones: Population doubles in year 27; Population triples in year 43.

Elapsed Time:
~15 min.



What makes an interactive activity effective in an online setting?



Hooks Learners/Reinforces Concepts



University of Wisconsin
Whitewater

True or False? The world's population took more than 1,000 years to grow from 1 billion to 8 billion people.

Show/Hide Answer

Introduction

Module 2:

Hooks Learners/Reinforces Concepts



University of Wisconsin
Whitewater

True or False? The world's population took more than 1,000 years to grow from 1 billion to 8 billion people.

Show/Hide Answer

False It took just over 200 years, with most growth occurring in the last century.

Introduction

Module 2:

Verbal Citation Practice

Check your understanding of effective verbal citations in public speaking.

1

2

3

4

Select the Best Verbal Citation

Choose the most effective verbal citation for the following source:

Source: "Mastering Public Speaking," Harvard Business Review, by Linda Reyes, published March 2020.

Linda Reyes talked about speaking in public in a magazine article.

There was an article called 'Mastering Public Speaking.'

In a Harvard article from a few years ago, the author said...

According to Linda Reyes in a 2020 Harvard Business Review article titled 'Mastering Public Speaking'...

Check Answer

Previous

Next

Is Scaffolded

Verbal Citation Practice

Check your understanding of effective verbal citations in public speaking.

1

2

3

4

Create Your Own Verbal Citation

Create an effective verbal citation for the following source:

Source: "The Science of Public Speaking: How to Overcome Anxiety and Connect with Your Audience," The Journal of Communication Studies, by Dr. Sarah Johnson, published January 2023.

Type your verbal citation below as you would say it in a speech:

Type your verbal citation here...

Check Answer

Previous

Next

Is Scaffolded

Source Analysis Exercise

Learn to critically analyze information sources in four steps

Sample Text

Excerpt from a 2024 study by the National Institutes of Health
"Understanding Social Media Addiction"
<https://pmc.ncbi.nlm.nih.gov/articles/PMC11594359/#sec3>

"Critical considerations concerning the relationship between technology, mental health, and social standards are brought up by the growing problem of teen social media addiction. Social media platforms are meant to encourage connection, but they can also create circumstances that promote obsessive habits, especially in young people who are more vulnerable. The psychological elements, such as poor confidence and mental health issues, highlight the necessity to understand more about how social media can be a cause of anxiety as well as a coping method. Many youngsters find that their feelings of inadequacy are momentarily alleviated by the validation they receive from likes and comments. But frequently, this validation is ephemeral, creating a vicious cycle of dependency that can worsen pre-existing mental health conditions."

Step 1 of 4

Step 1: Characterize the Main Point

Read the source text carefully and identify the **central argument** or **main point** the author is making.

In your own words, what is the main point of this excerpt?

Describe the central argument or main idea of the text...

Which of the following best describes the tone of this excerpt?

- Concerned and analytical
- Dismissive and critical
- Neutral and objective
- Alarmist and sensational

Submit Step 1

Provides
Feedback

Source Analysis Exercise

Learn to critically analyze information sources in four steps

Sample Text

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Step 1 of 4

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Submit Step 1

Which of the following best describes the tone of this excerpt?

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Dismissive and critical

Neutral and objective

Alarmist and sensational

Model Answer

Main Point: This NIH study excerpt reveals a concerning paradox in teen social media use, where platforms designed to foster connection instead create conditions that promote addictive behaviors among vulnerable adolescents.

Tone: The correct answer is "Concerned and analytical." The text presents a serious issue using academic language and demonstrates genuine concern while maintaining an analytical approach to the problem.

Now that you understand the main argument the author is making, you are ready to take the next step in analysis - determining what evidence supports the author's stance.

Provides
Feedback

Explore Multiple Perspectives & Scenario-Based Learning



Jordan

Safety Specialist

Jordan makes sure everyone goes home safe. They monitor protective equipment, machine guards, and safety procedures, and review new processes for hazards before production begins.



Riley

Engineer

Riley focuses on efficiency and quality. They develop and improve manufacturing processes to reduce waste, boost consistency, and maintain safety while meeting production goals.



Sam

Maintenance Supervisor

Sam keeps equipment running smoothly. Their team handles preventive maintenance and urgent repairs to reduce downtime, while ensuring equipment upgrades stay safe and reliable.



Tasha


Floor Worker

Tasha operates the equipment and understands daily production best. She values clear instructions and dependable tools, and speaks up when something could cause issues for her or other workers.

 **Sam** — Maintenance Supervisor

Recommends: Concerned about tooling costs and maintenance

Sam worries about the wear and tear on cutting tools. Aluminum is softer than steel, but it can stick to tooling (a phenomenon called built-up edge), requiring frequent cleaning and possible replacement of tooling components. Sam is considering the long-term impact on maintenance schedules and costs. While aluminum may machine faster, Sam wants to account for the increased time spent on tool maintenance and the cost of specialized cutting fluids or coatings that prevent aluminum from adhering to tools.

 **Tasha** — Floor Worker

Recommends: Soldering for familiarity, open to adhesives

Tasha is thinking about the learning curve. Aluminum machining may require different speeds, feeds, or tooling compared to steel. Workers will need training to avoid mistakes, scrap, or delays. Tasha wants to ensure that any transition does not disrupt production or lower morale on the shop floor. Tasha suggests a phased approach with hands-on training sessions, updated work instructions, and time allocated for workers to practice with the new material before full-scale production begins.

Which perspective do you agree with most, and why?

Explain your reasoning here (minimum 20 characters)...

0 characters (minimum 20 required)

Submit Your Response

Replacing Steel with Aluminum

✓ Safety-First Approach

Your Reasoning:

"If safety isn't factored in, remediating the process could get expensive."

Strengths of Your Choice:

- You recognized that material changes can introduce new workplace hazards
- Prioritizing worker health and compliance with OSHA regulations is essential
- Proactive safety planning prevents accidents and costly citations

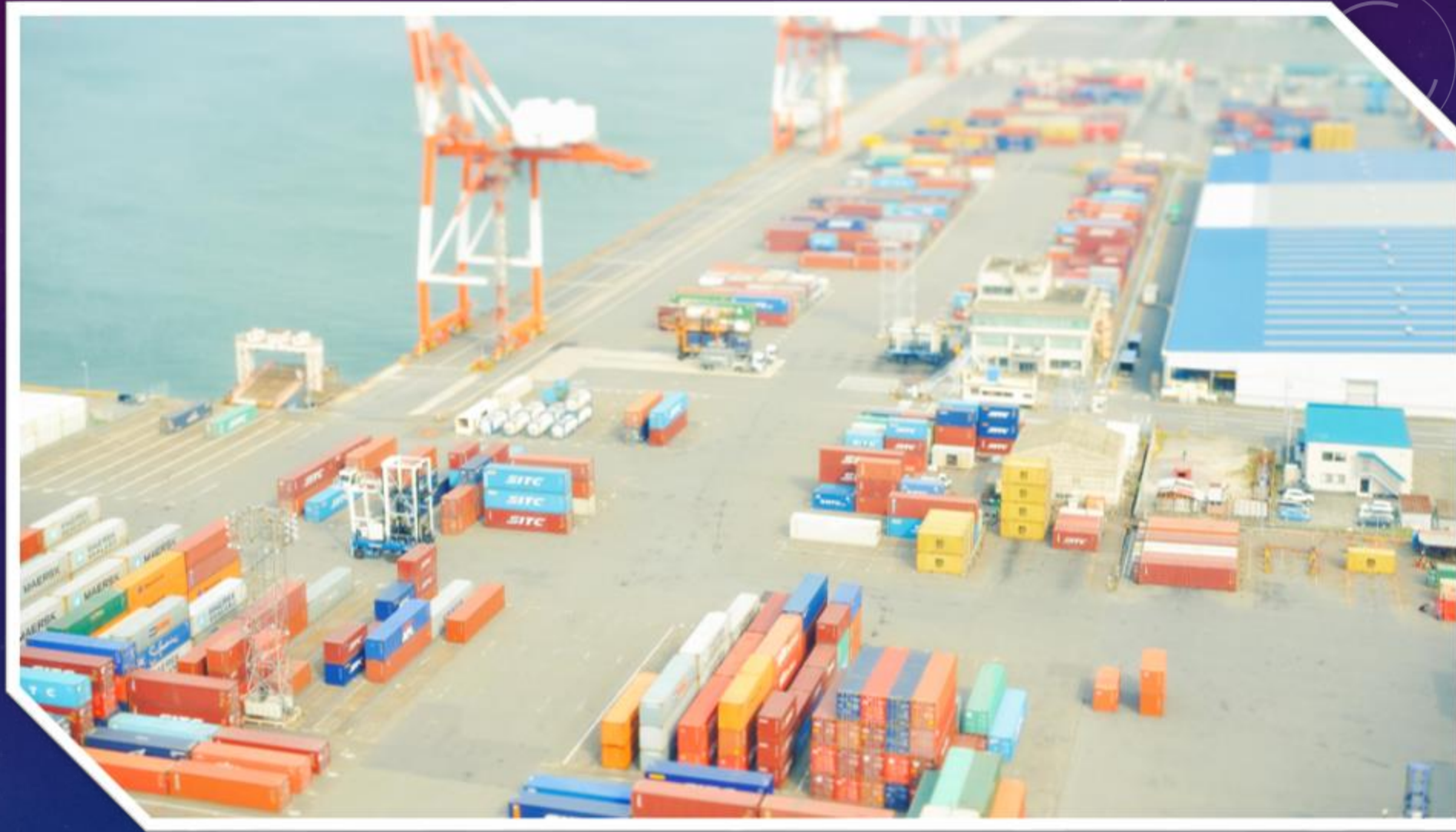
Additional Considerations:

- Many facilities successfully machine aluminum with proper ventilation and dust collection
- Initial safety investments may be offset by other benefits like easier machining
- Safety concerns should inform the decision but not necessarily prevent material changes

i Real-World Context:

Aluminum machining is widespread in manufacturing, from aerospace to automotive industries. Facilities manage the risks through engineering controls (local exhaust ventilation, mist collectors), administrative controls (training, procedures), and PPE (respirators when needed). Your safety-first mindset ensures that any material transition includes proper planning and worker protection, which is critical for regulatory compliance and long-term operational success.

Encourages
Multiple
Attempts

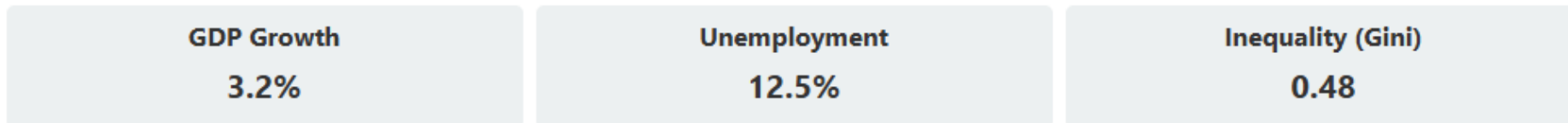
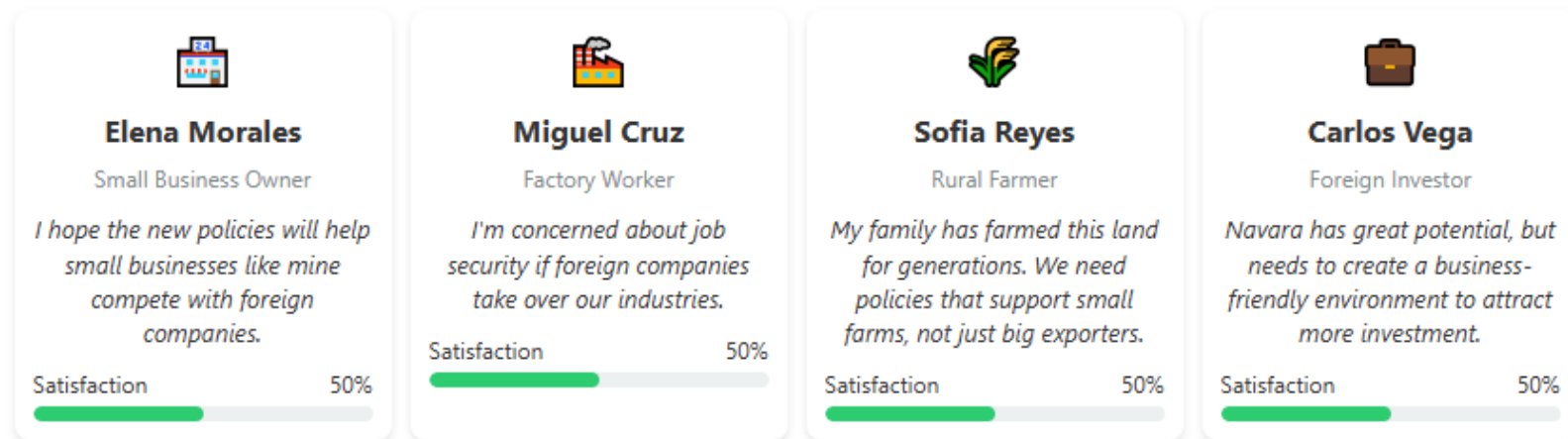


Analyze the outcomes and critiques of trade policies.



Development Policy Simulation: Republic of Navara

You are a policy advisor to the newly elected government of Navara, a developing nation with abundant natural resources but significant economic challenges. Your decisions will shape the nation's development path.



Scenario 1: Trade Policy

Navara's economy relies heavily on exporting raw materials. International financial institutions are offering loans with conditions related to trade policy. What approach do you recommend?

Reduce tariffs and open markets to attract foreign investment and increase exports

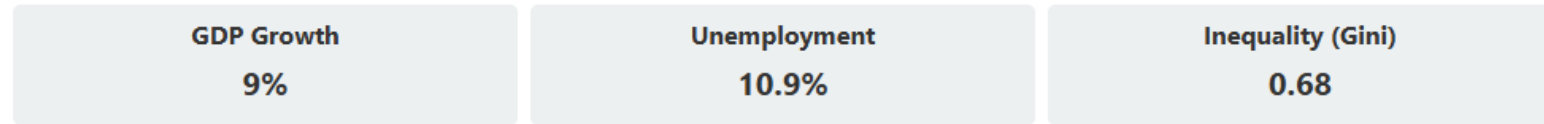
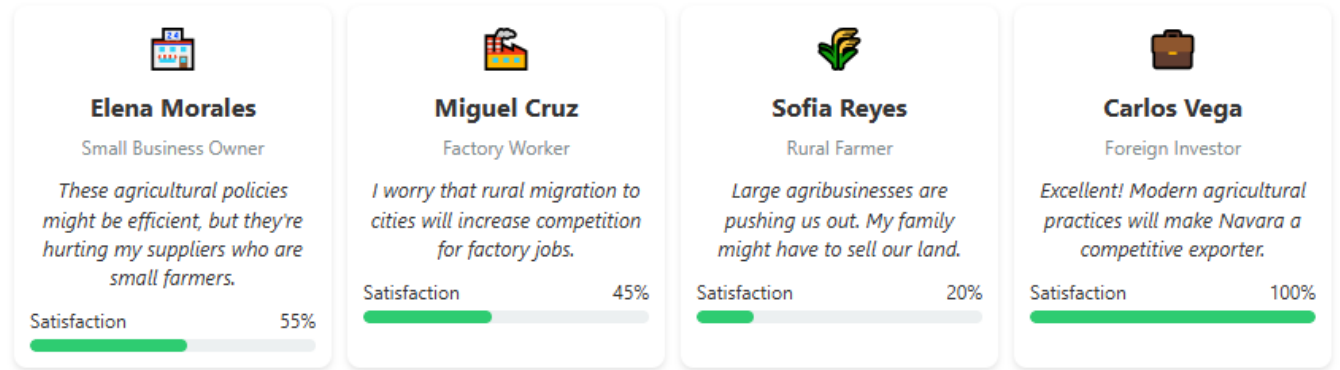
Goal: Increase economic growth through trade liberalization

Implement selective tariffs to protect local industries and focus on developing domestic manufacturing

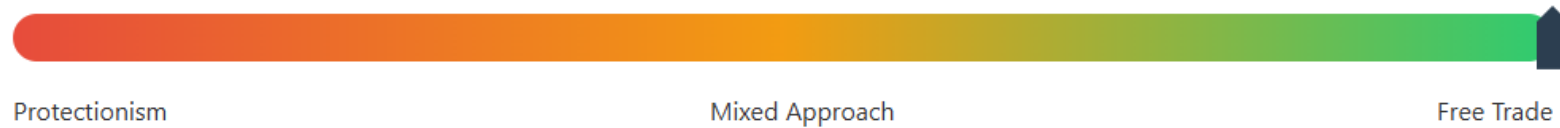
Goal: Build self-sufficiency and reduce dependence on foreign markets

Development Policy Simulation: Republic of Navara

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Policy Analysis: Your Development Approach



Your Policy Framework

Your policy choices strongly align with Free Trade. You've emphasized free markets and international trade.

Possible Outcome

Navara has transformed into a showcase for market-led development. The economy has integrated deeply into global supply chains, attracting substantial foreign investment and experiencing rapid GDP growth. Economic efficiency has improved dramatically as competitive pressures drive innovation and productivity gains.

The private sector has become the primary engine of economic activity, with entrepreneurship flourishing in an environment of reduced regulation and taxation. New industries have emerged, particularly in export-oriented manufacturing and services, creating a more diversified economic base than the previous resource-dependent model.

- Final stakeholder satisfaction
- 15 years later outcome
 - Final Economic Indicators
 - Sectoral Developments
 - Stakeholder Perspectives
- Start over or Save Results as PDF

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Stakeholder Perspectives:

"The market moves fast these days. I've had to completely reinvent my business twice already to keep up with changing consumer preferences and international competition." — Elena Morales, Small Business Owner

"The new factory has cutting-edge technology, but the pressure to meet production targets is intense. You need to constantly prove your value to keep your position." — Miguel Cruz, Factory Worker

"Many of our neighbors have sold their land to the big agricultural companies. We're considering the same - farming just can't compete with their economies of scale." — Sofia Reyes, Rural Farmer

"The business-friendly policies have allowed us to expand operations significantly. The talent pool is developing nicely, though more advanced skills training would help." — Carlos Vega, Foreign Investor

Start Over

Save Your Results as PDF

BENEFITS & RISKS

**Learning &
Motivation**

**Compliance
& Safety**

**Build &
Maintenance**



LEARNING & MOTIVATION

Benefits

- Provides scaffolding & feedback
- Aligned to course content
- Increased student confidence

Risks

- Misalignment
- Interactivity fatigue
- Overly complex

COMPLIANCE & SAFETY

Benefits

- Reduced risk of exposure to data collecting/malware sites
- ADA compliance

Risks

- **ADA compliance**
 - Keyboard accessible
 - Color contrast
 - Font size
 - Screen reader callouts

BUILD & MAINTENANCE

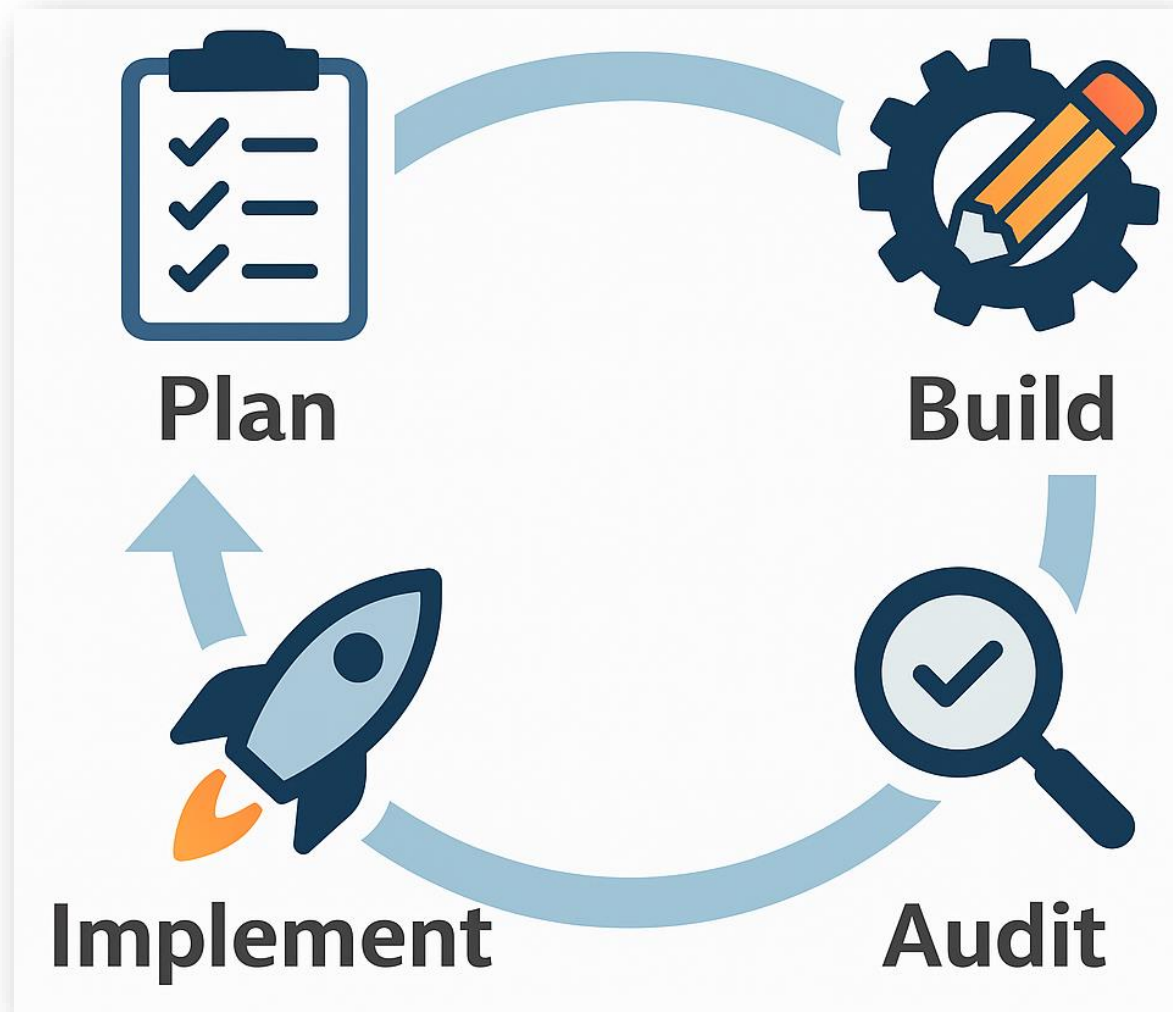
Benefits

- Free
- You “own” the activity
 - Can make adjustments
 - Can change scenarios

Risks/Limitations

- Overly complex interactives
- AI output can be unpredictable
- Frequently changing content
- Possible “tech” issues in the future

WORKING
WITH AI



WORKING WITH AI

Plan

- Work with AI to define scope, content, interactive behavior, and a few structural accessibility guardrails. No code yet.

Build

- Prompt AI to generate the interactive. Review content accuracy and behavior against your plan.

Audit

- The optimization pass. Verify and improve accessibility (WCAG 2.1 AA): contrast ratios, ARIA labels, focus indicators, screen reader flow.

Implement

- Add the interactive to your LMS.

WORKSHOP

Your Options

Option 1: On your own

Option 2: Work with us

The Focus

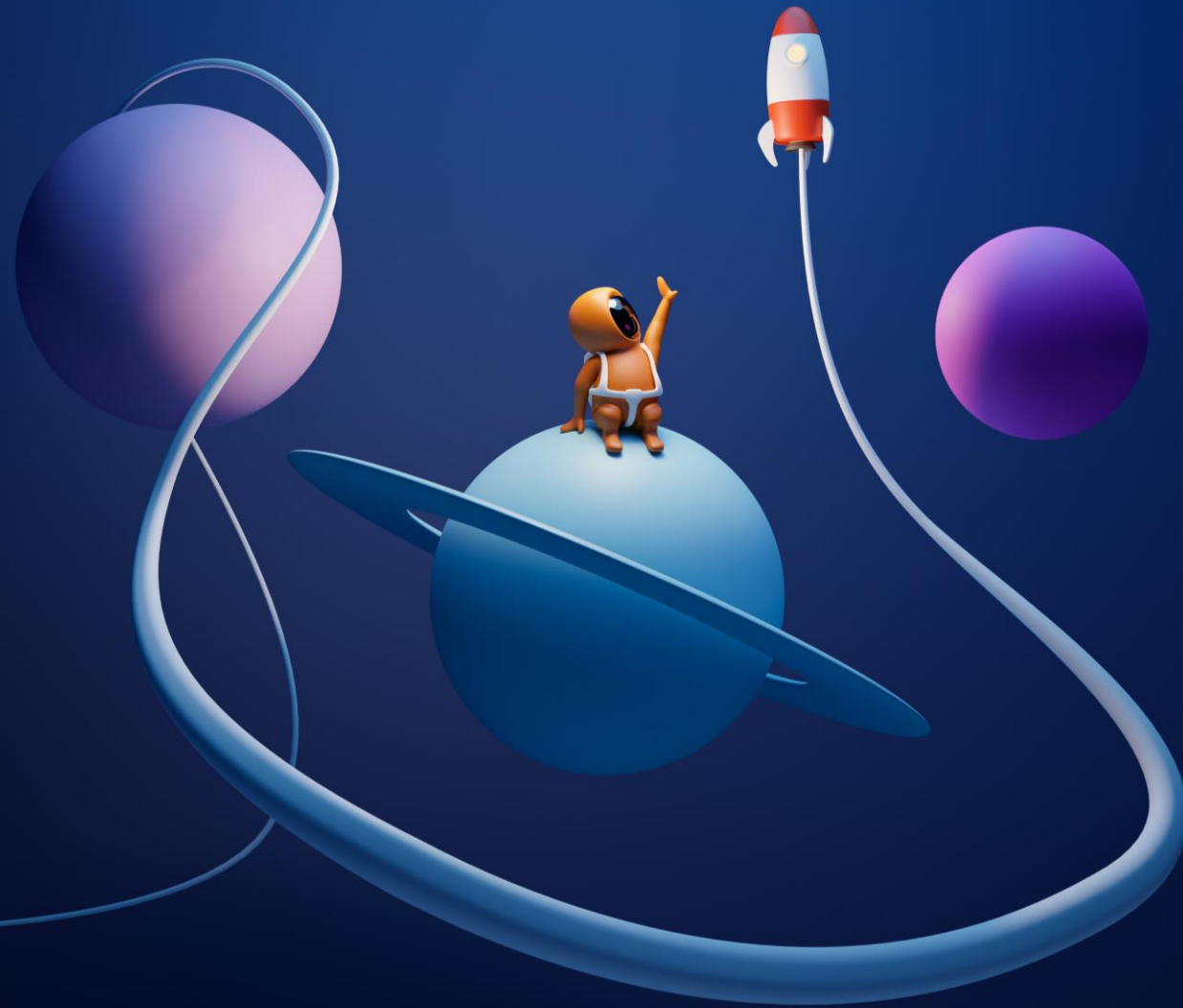


Plan



Build

QUESTIONS?



THANK YOU!

Feel free to connect with questions or find us on **LinkedIn!**



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