TOPDOWN APPROACH

Journey to your best program 2024

Topdown Approach

1. What is top down approach
2. Topdown approach principles
3. How it works
4. Topdown approach vs Bottom up
5. Benefits of Topdown approach
6. How to apply Topdown approach on programming

What is topdown approach ?

A method of analysis or decision-making that starts with the general or big picture and then moves to the specific or details.

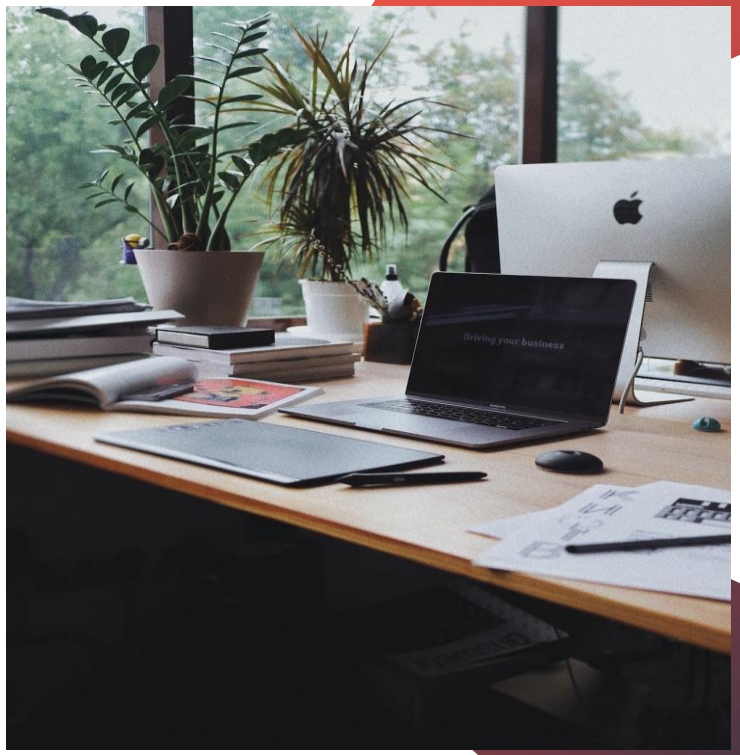
Example

Imagine you have a big, complex project in front of you, like building a house. The top-down approach is like starting at the roof and working your way down, floor by floor, wall by wall, until you reach the foundation. It's a method of problem-solving or decision-making that starts with the big picture and then breaks it down into smaller, more manageable pieces.

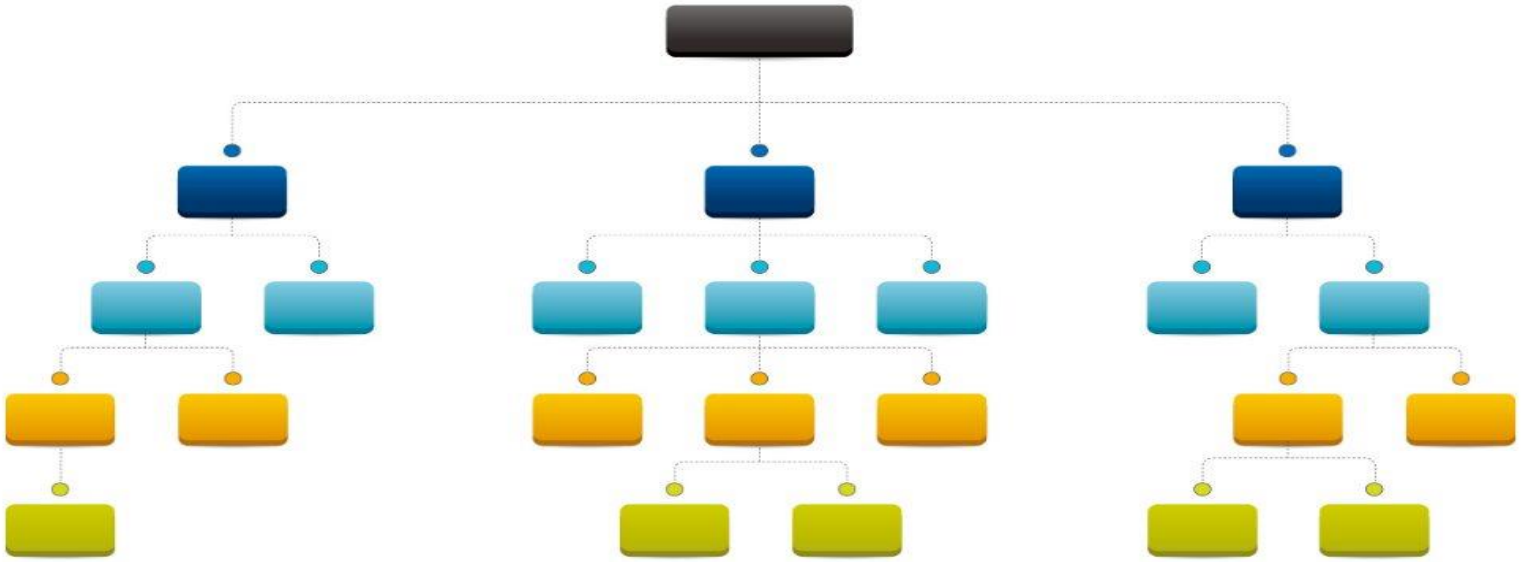
Topdown approach principles

1. Define the Big Picture
2. Breaking Down the Goal
3. Developing Plans for Each Sub-Goal
4. Implementation and Delegation
5. Monitoring and Adjusting

How the Topdown approach works

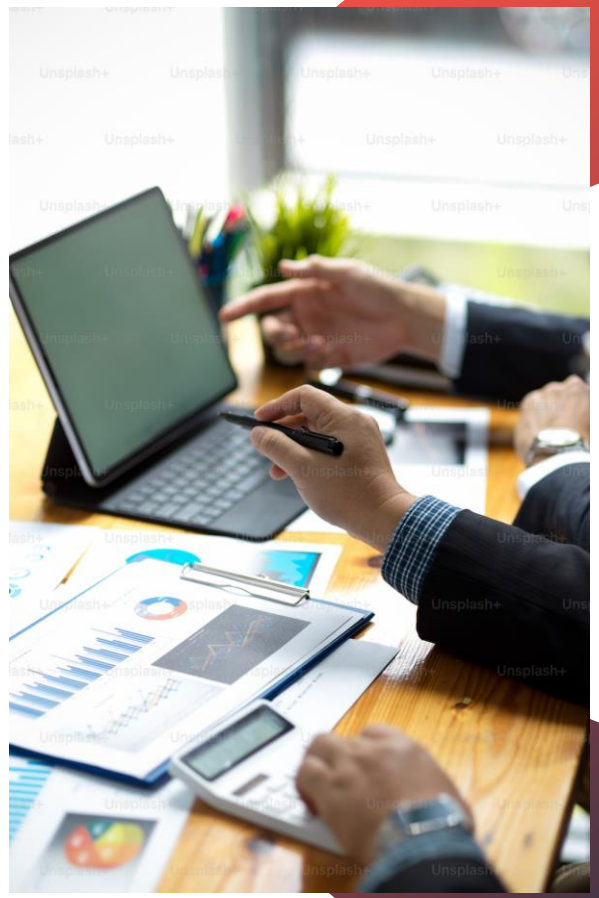


A top-down approach in a hierarchy system refers to the organizational structure where decisions and directives flow from the top-level management down to the lower levels. This hierarchical structure typically consists of different levels or layers, each with its own set of responsibilities and authority.



Hierarchy System image

Topdown approach vs Bottom up approach



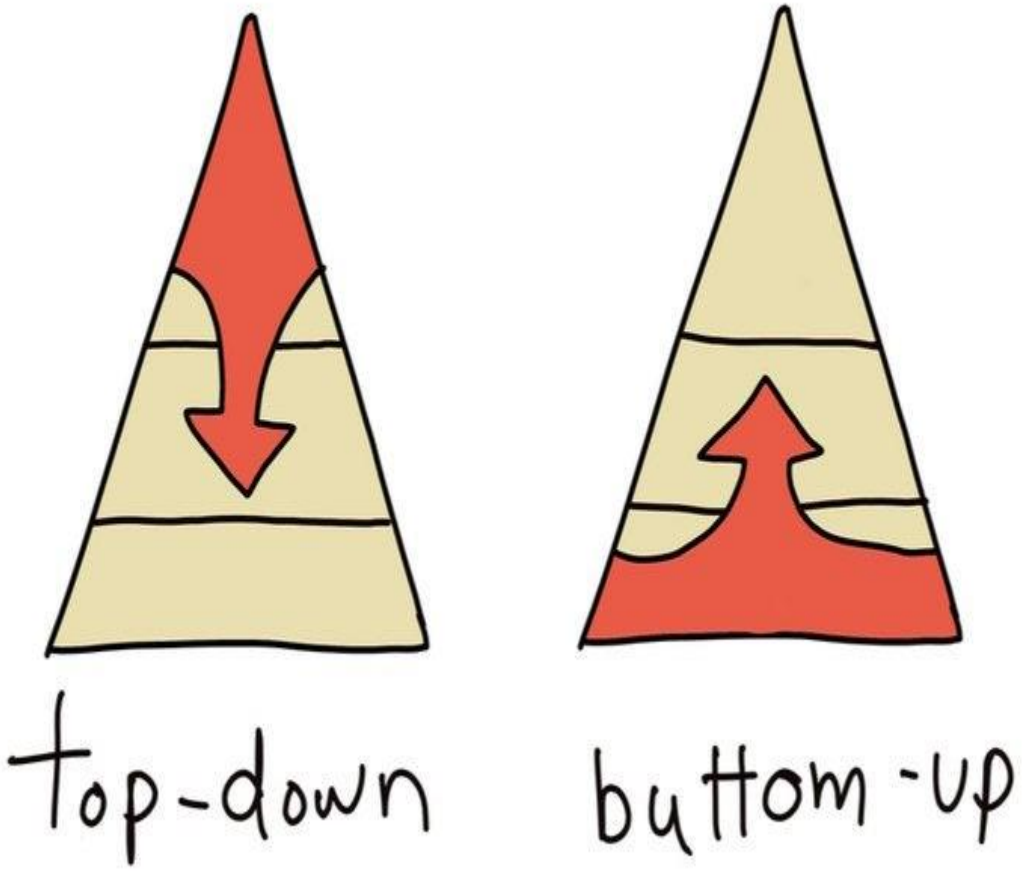
Topdown approach :

- **Start Point:** Begins with a broad, comprehensive system or idea.
- **Decomposition:** The system is broken down into smaller, more manageable parts.

- **Focus:** Emphasizes the final outcome or the overall goal from the beginning.

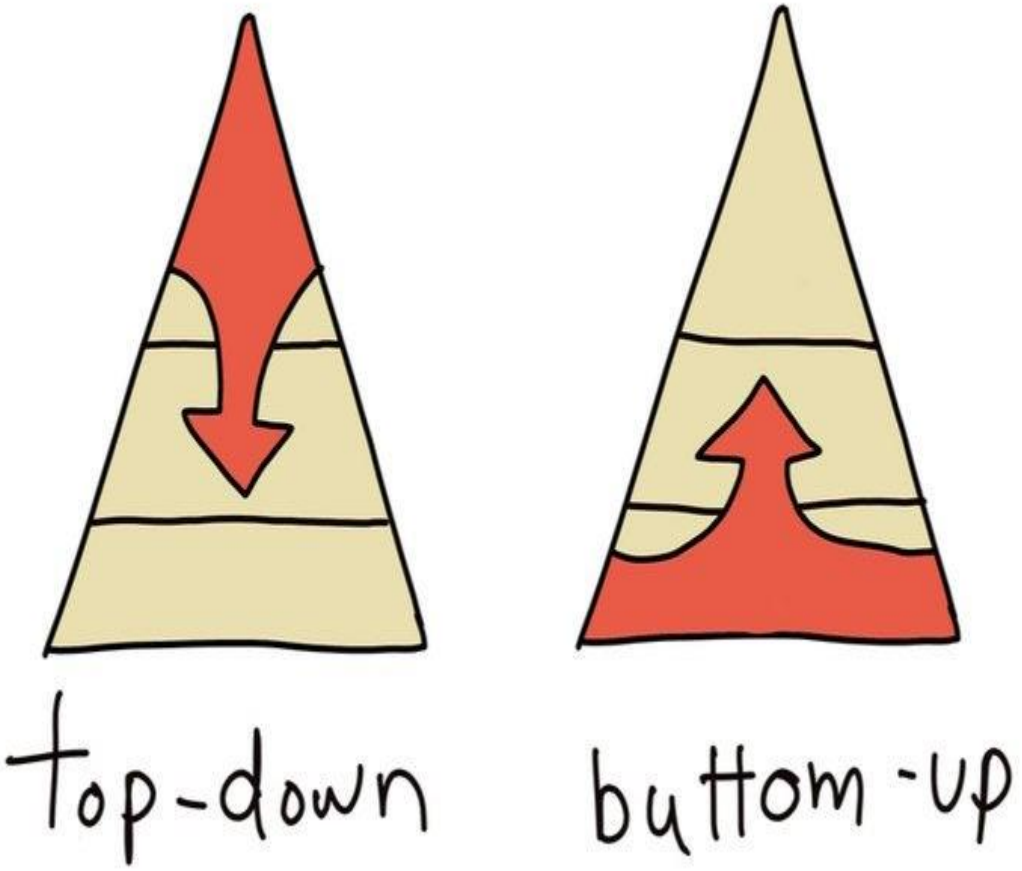
- **Implementation:** Components are developed in sequence, typically after the overall design or plan is completed.

- **Integration:** Individual components are integrated into the larger system, often after they have been developed.



Bottom up approach :

- **Start Point:** Begins with specific, small-scale components or elements.
- **Aggregation:** These components are developed and then combined to form larger systems or understandings.
- **Focus:** Emphasizes individual components and their functionality before considering the overall system.
- **Implementation:** Components are often developed simultaneously and independently
- **Integration:** The integration of these components gradually reveals the bigger picture or final outcome.



How to apply Topdown approach in real world

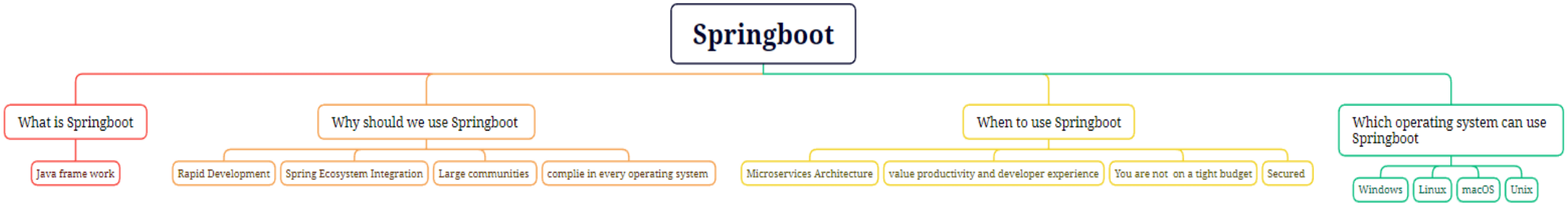
Problem

The professor has assigned you the task of rapidly learning Spring Boot to prepare for the presentation in the new course, "Introduction to Web Application." Your responsibility includes understanding and grasping some essential features in Spring Boot

Step 1 : Define the big Picture

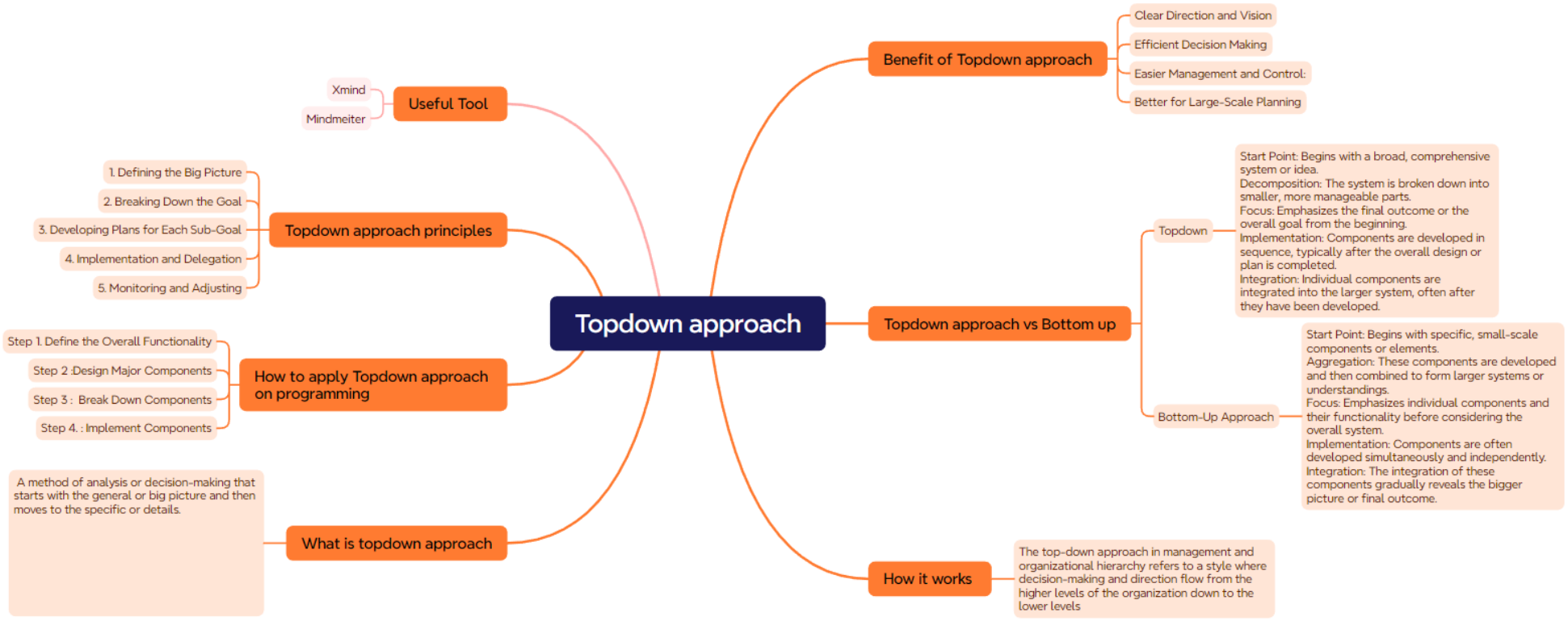
Step 2 : Break down the Goal

Step 3 : Development sub goals



Useful tools for Topdown approach

Summary by mindmap



THANKS

Any questions for my presentation & topdown approach

LEARN

How to learn fast

Journey to your best program 2024

Learn & How to learn fast

1. What is Learn ?
2. Why we need to learn fast ?
3. How to learn fast
4. Things should avoid During learning
5. Resource for learning

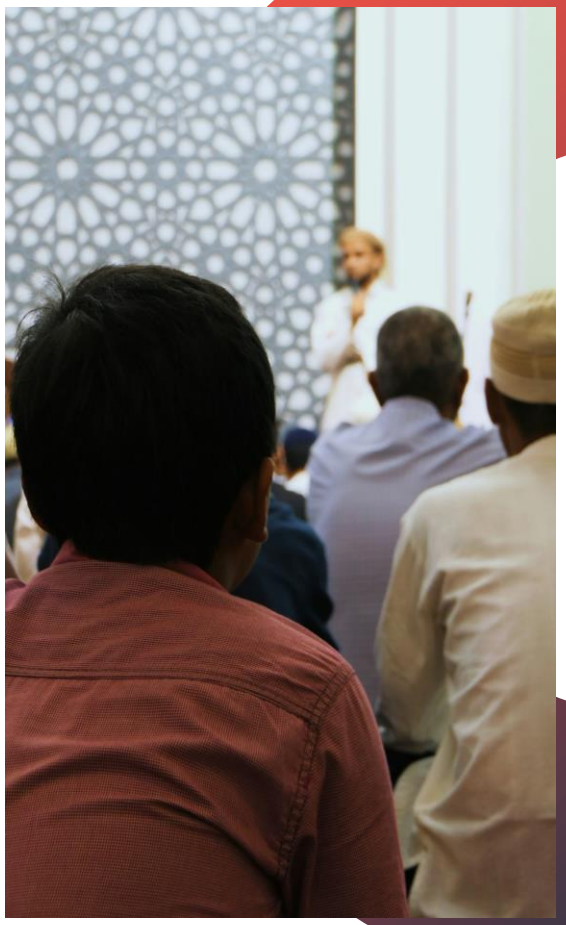
What is Learn ?

The overarching process of acquiring knowledge and skills , while studying is a deliberate and structured activity within the learn process

Why we need to learn fast ?

- Changing Environment
- Project Deadlines
- Personal Development
- Facing problems

How to learn fast ?



Sharpen the axe

“Give me six hours to chop down a tree,
and I will spend the first four sharpening the axe.”

-Abraham Lincoln

5 minutes rules

Challenge yourself in **5 minutes** . If, after five minutes, it’s so horrible that you have to stop, you're free to do so. Mission accomplished. Done. However, most people find that after five minutes of doing something**, it’s easy to continue until the task is done**

Test yourself

Before progressing to new concepts, it's essential to assess your understanding of the knowledge acquired. Test yourself to ensure comprehension and engage in practical exercises to reinforce your learning before delving into unfamiliar material. This approach helps solidify your grasp on the subject matter and prepares you for more advanced concepts.

Get feedback

It is advisable to approach **your senpai** and inquire whether your understanding of the knowledge is accurate. **Seek feedback** from them to ensure alignment with the expected comprehension and to identify areas for improvement

Teaching

Sharing information with others not only benefits them but also solidifies your own grasp on the subject, making the learned concepts more memorable and effectively reinforcing your own expertise

Things should avoid during learning

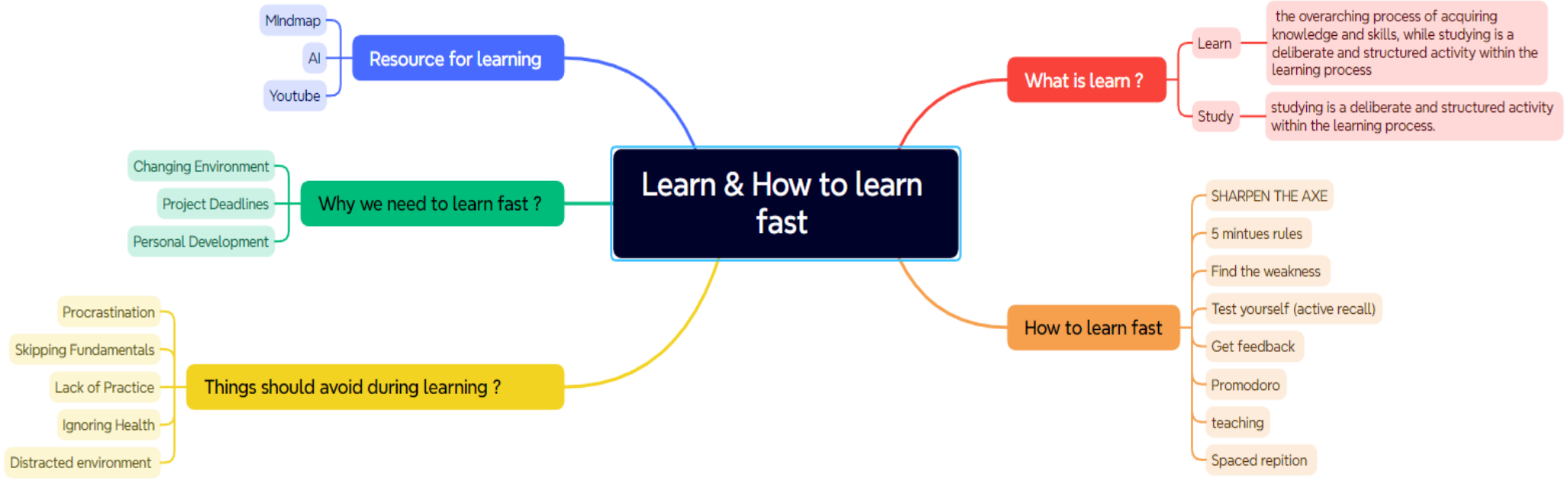
- Procrastination
- Skipping Fundamentals
- Lack of Practice
- Ignoring Health
- Distracted environment

Resource for learning

Using API chat bot

Using Mindmap tools

Summary by mindmap



Autonomy at work

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Autonomy at work

What is Autonomy 1

Autonomy vs alignment 2

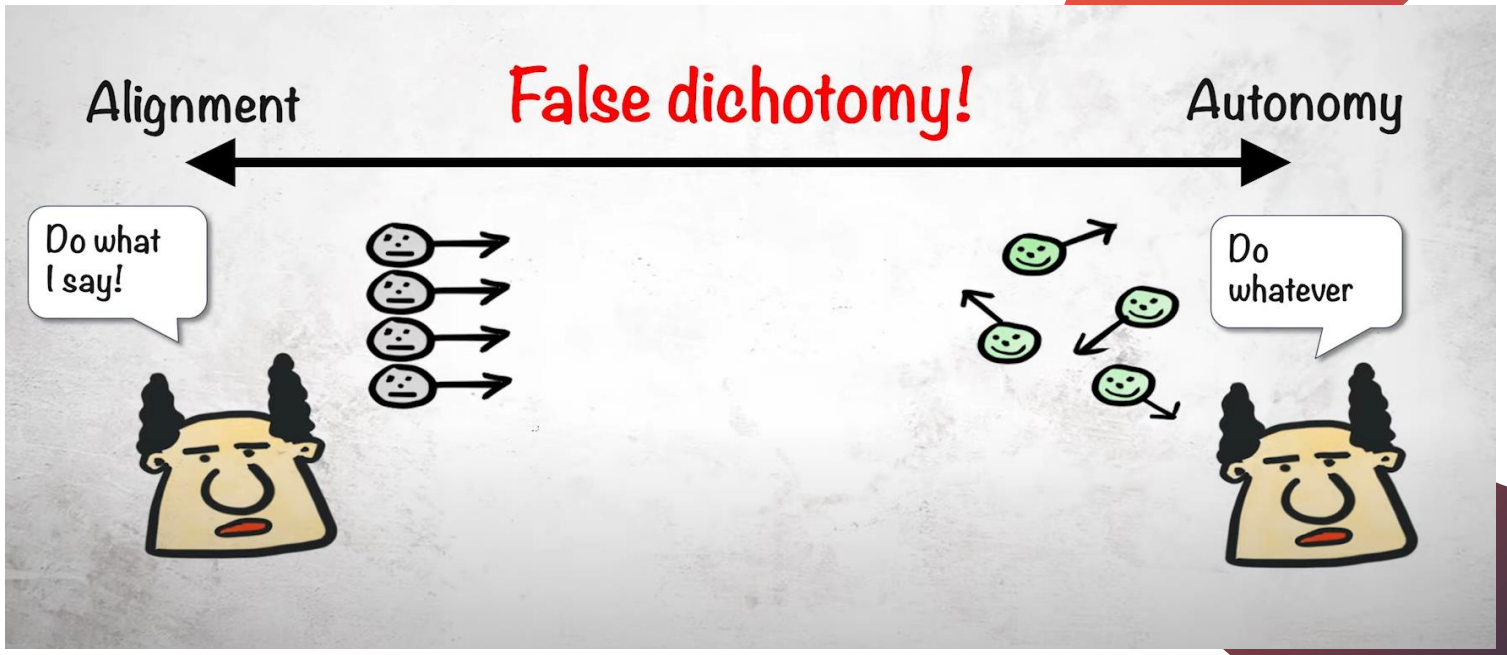
Autonomy is not get out of jail card 3

How to apply Autonomy on a daily basis 4

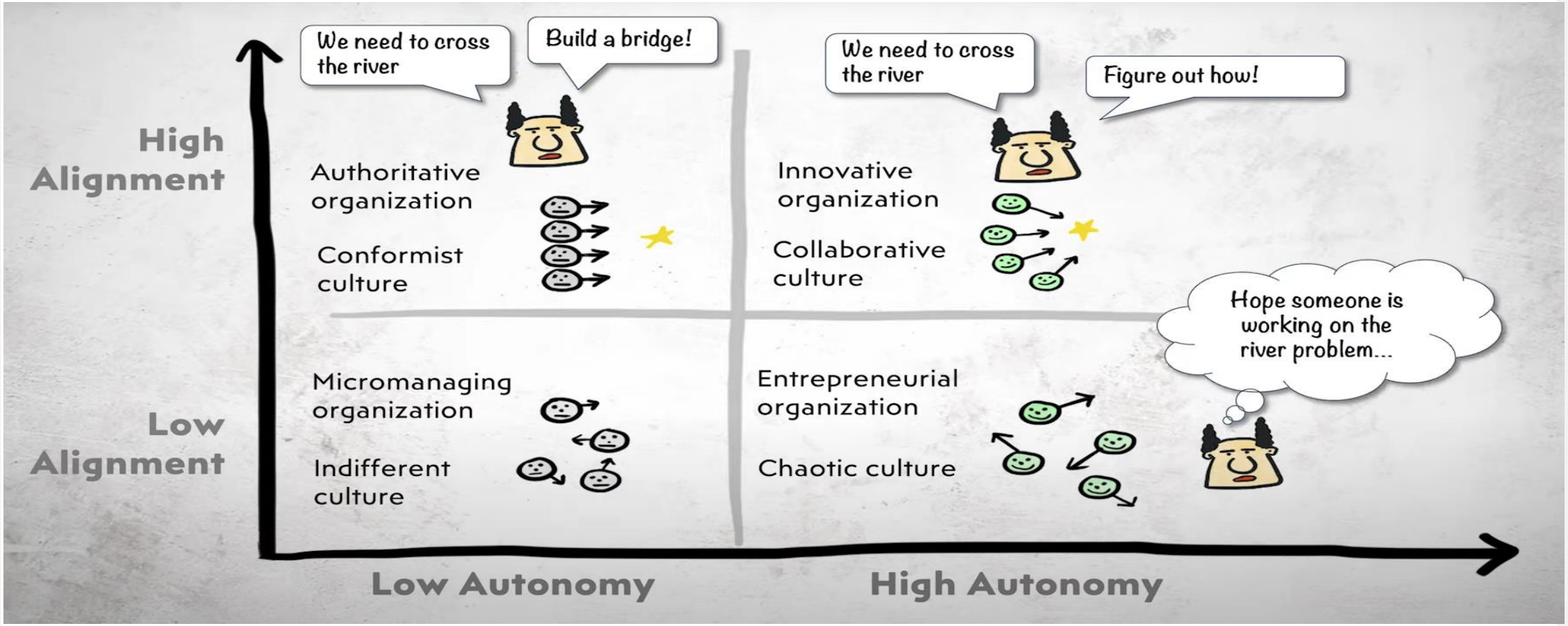
What is Autonomy ?

Autonomy is the feeling to **act freely, making decision** with all your capabilities to **contribute towards collective outcomes**

What is Alignment?



Alignment vs Autonomy



Autonomy isn’t a get out of jail free card

Definition

get-out-of-jail-free card

noun [C] • informal

UK /ˌget.aʊt.əvˌdʒeɪlˈfriː ˌkɑːd/ US /ˌget.aʊt.əvˌdʒeɪlˈfriː ˌkɑːrd/

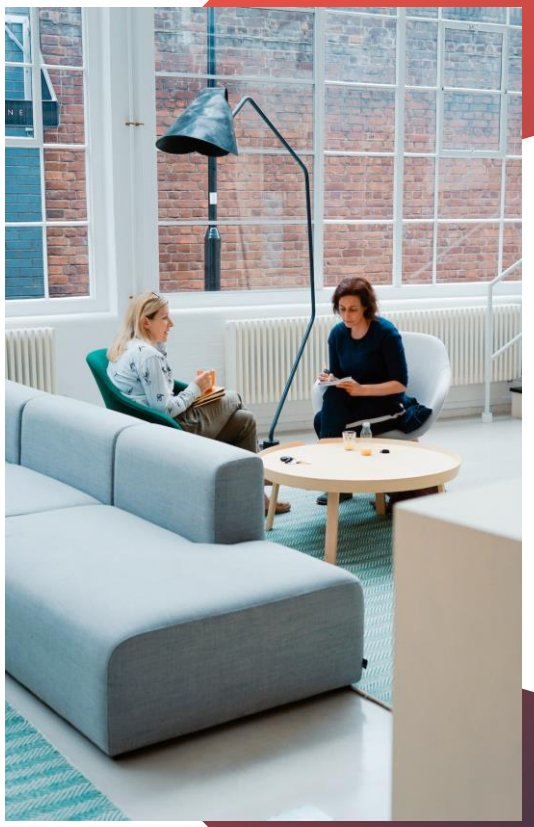
Add to word list

something that allows you to avoid an unpleasant result of your actions, for example a punishment or duty:

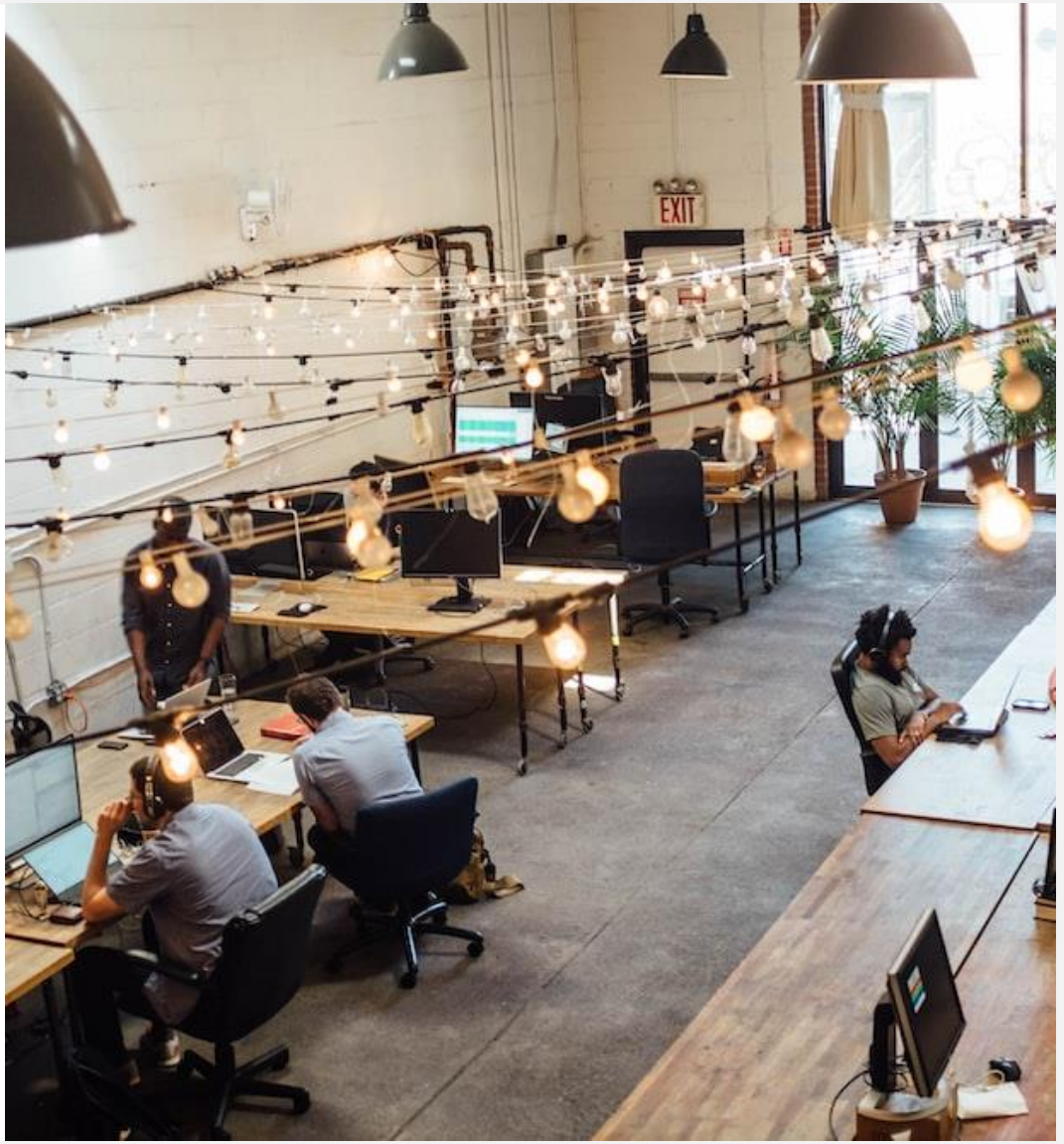
- *He warns Americans that their nationality is not a get-out-of-jail-free card if they break the law abroad.*

In other words, being in control of your decisions doesn't exempt you from being accountable for the outcomes or repercussions of those decisions. Autonomy should not be used as an **excuse to escape accountability**

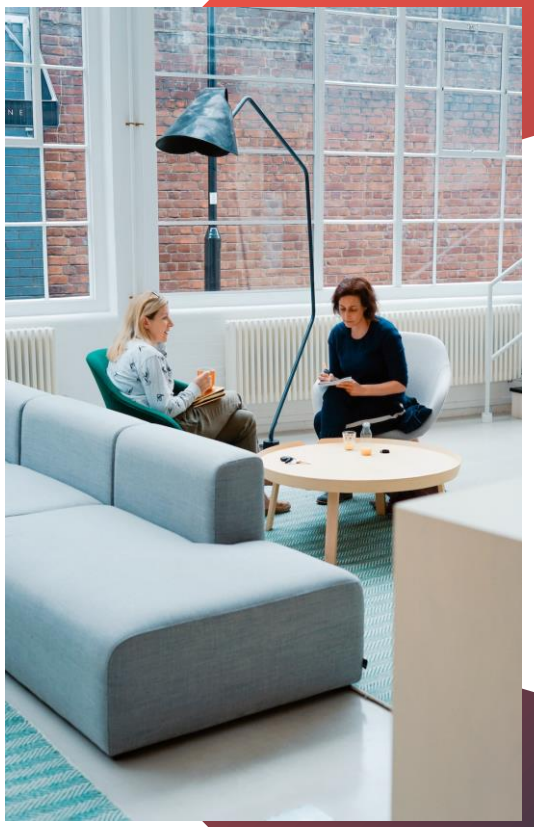
Why Autonomy important in workspace ?



- Increases Productivity
- Improves Job Satisfaction
- Improves Relationships with Customers
- Supports a Culture of Trust
- Improves Retention Rates



How to apply Autonomy ?



Personal choice

Make conscious choices : Instead of blindly following routines or external expectations, take time to reflect and actively choose your actions, thoughts, and emotions. Consider your values, goals, and needs before making decisions, even small ones

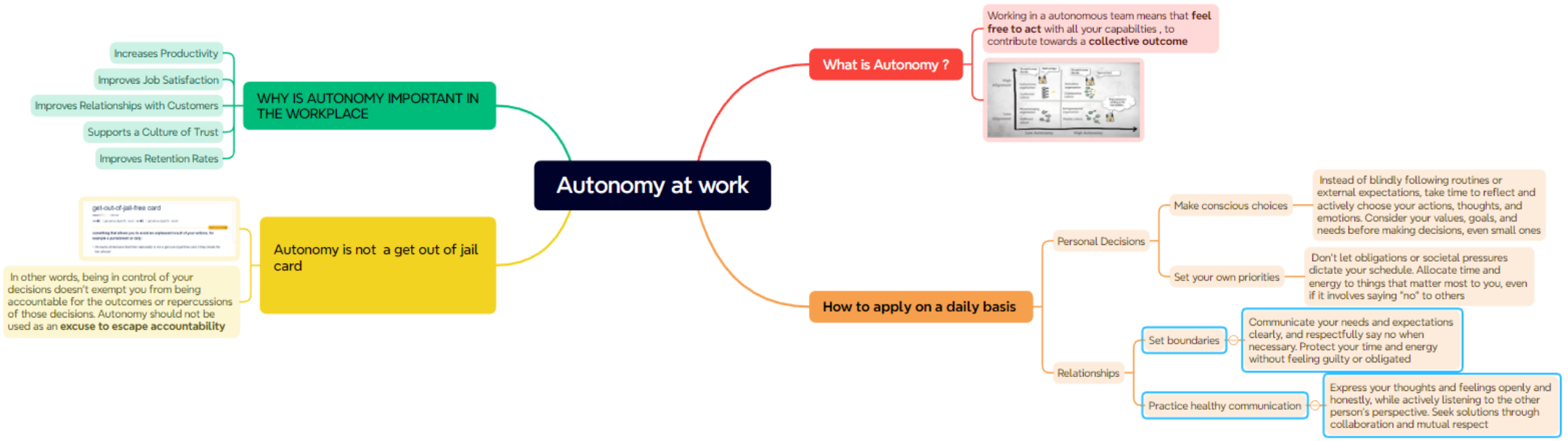
Set your own priorities : don't let obligations or societal pressures dictate your schedule. Allocate time and energy to things that matter most to you, even if it involves saying "no" to others

Relationships

•**Set boundaries :**Communicate your needs and expectations clearly, and respectfully say no when necessary. Protect your time and energy without feeling guilty or obligated

•**Practice healthy communication :** Express your thoughts and feelings openly and honestly, while actively listening to the other person's perspective. Seek solutions through collaboration and mutual respect

Summary by mindmap



THANKS

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