

Harnessing ChatGPT for Domain Driven Design

Is there potential for AI in domain modeling?



Phillip Bohnenkamp

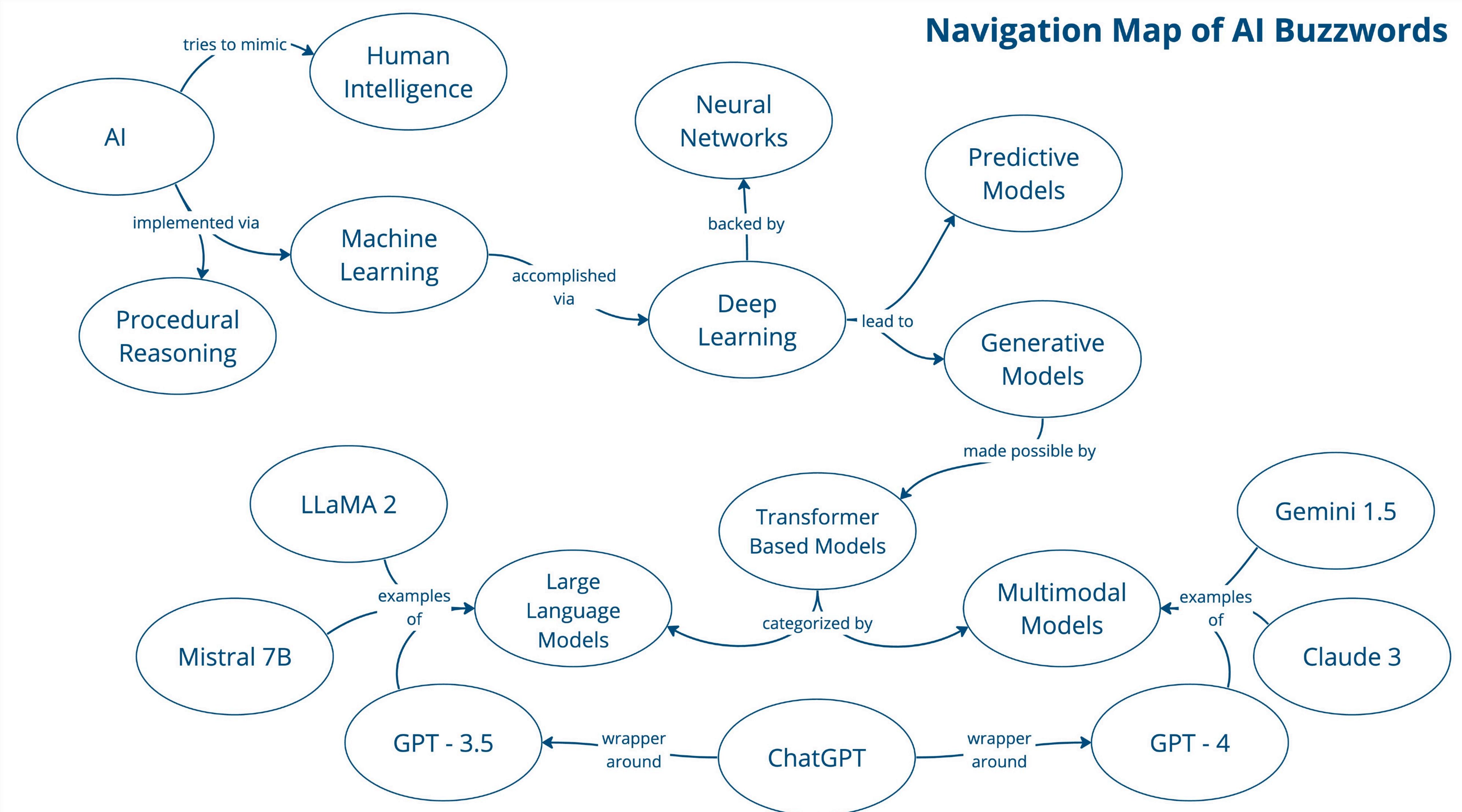


@PhillipBohenka

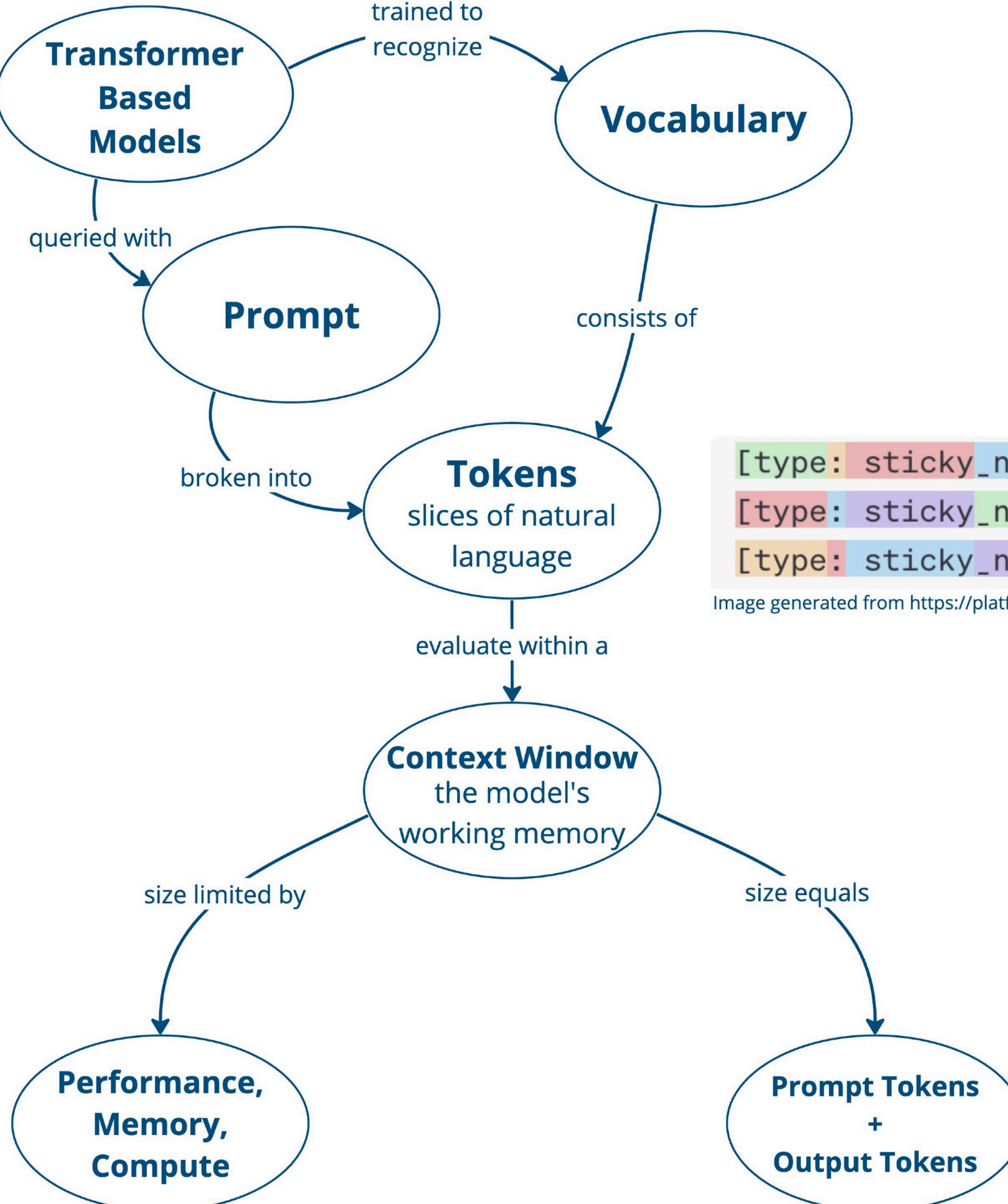


/in/phillip-bohenkamp

Navigation Map of AI Buzzwords



Tokens and Context Windows

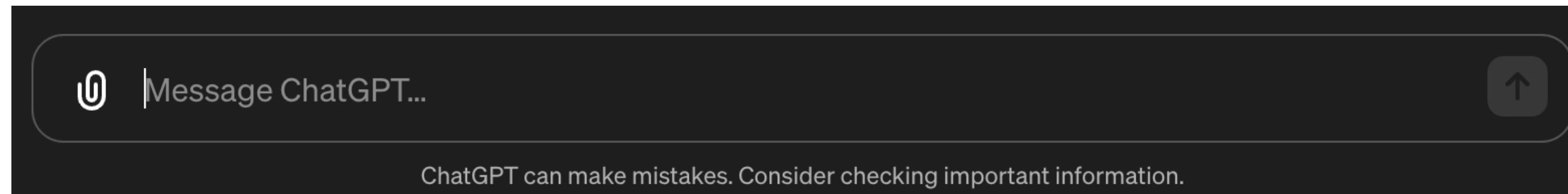


[type: sticky_note, color: pink] High effort
[type: sticky_note, color: orange] Bonus points tallied
[type: sticky_note, color: orange] Tally entered into confirmed teams

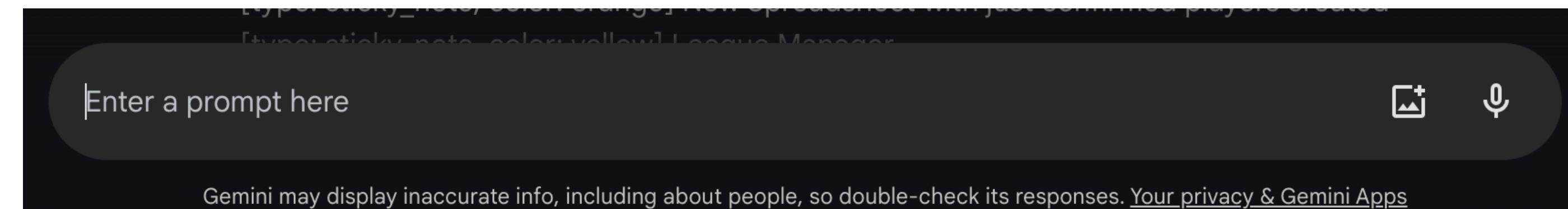
Image generated from <https://platform.openai.com/tokenizer>

Model	Context Window
gpt-4-turbo	128,000
gpt-4	8,192
gpt-3.5-turbo	16,385
Gemini 1.5	1,000,000

A Bit About Prompt Engineering



https://twitter.com/mattshumer_



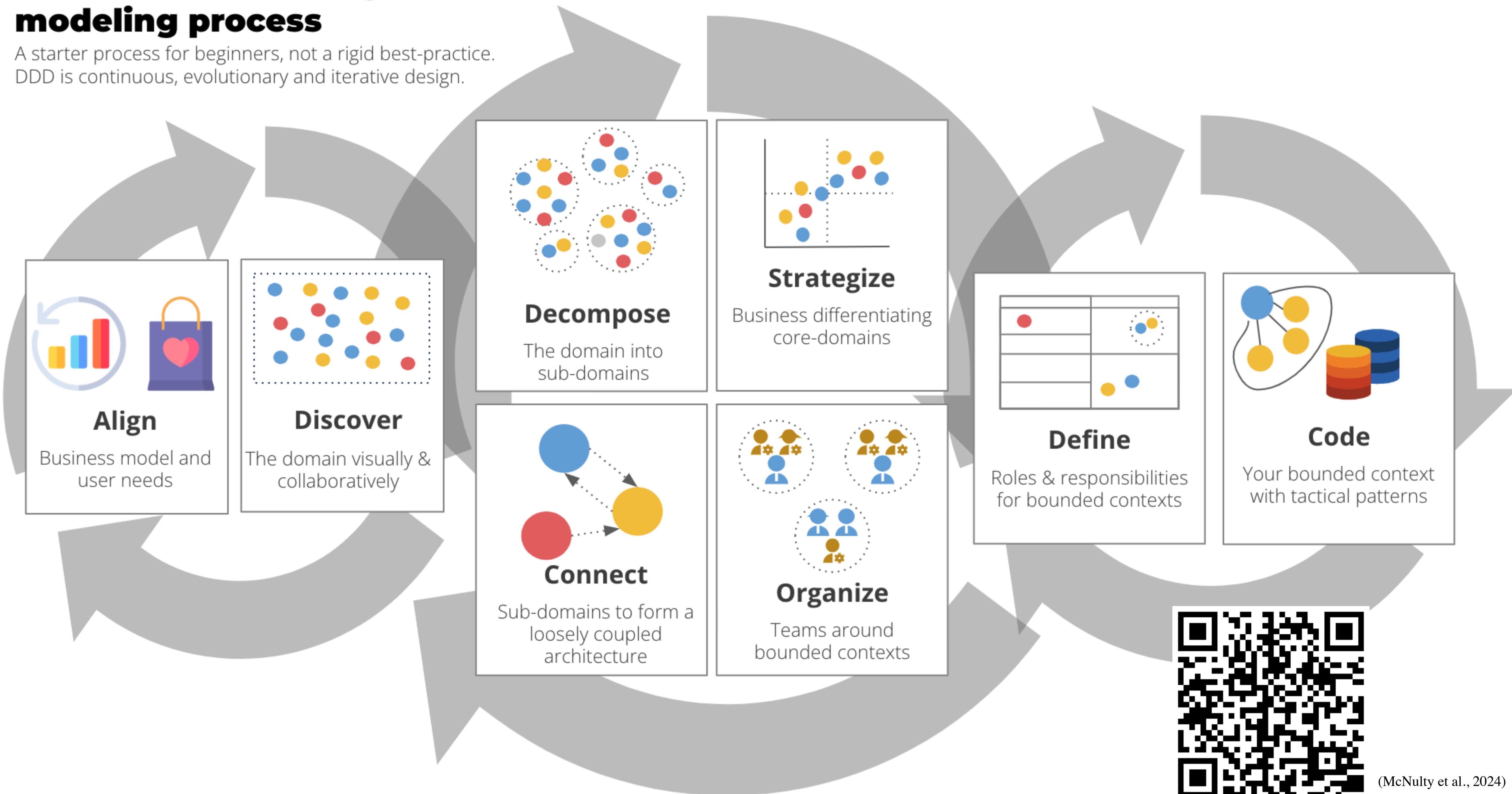
Fine Tuning and RAG

The screenshot shows the Cohere Playground interface. On the left, there's a sidebar with icons for Chat, Video, Text, API, Lock, and Help. The main area has tabs for Chat and Video. At the top, there are buttons for "Your presets" (with a dropdown arrow), "Save", "View code", "Share", and three dots. Below this, there's a "SYSTEM" message box containing "You are a helpful assistant." and a "USER" message box with the placeholder "Enter a user message here." A "Model" dropdown is set to "gpt-3.5-turbo", and a "Temperature" slider is set to 1.

The screenshot shows the Google AI Studio interface. The left sidebar includes "Get API key", "+ Create new", "New tuned model", "My library" (with "No prompts yet"), "Getting started", "Documentation", "Prompt gallery", and "Discord community". The main area is titled "Untitled prompt" and contains a "Chat" window with the placeholder "Model responses will show here". On the right, there are sections for "Run settings" (Save, Get code, Run, Reset), "Model" (Gemini 1.0 Pro), "Temperature" (set to 0.9), "Add stop sequence" (Add stop...), "Safety settings" (Edit safety settings), "Advanced settings" (Top K: 1, Top P: 1), and a "Help" section.

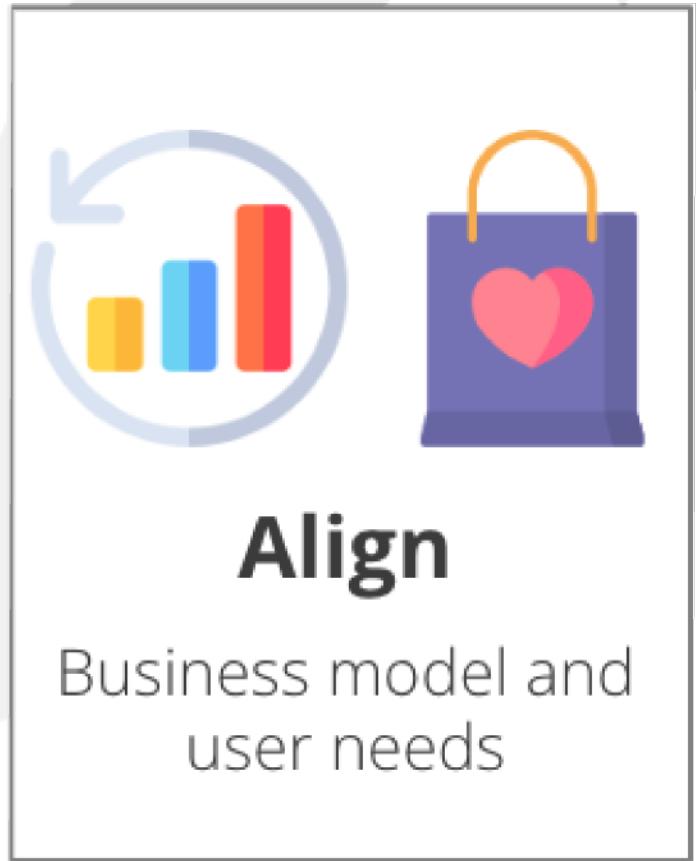
Domain-Driven Design starter modeling process

A starter process for beginners, not a rigid best-practice.
DDD is continuous, evolutionary and iterative design.



Domain-Driven Design star modeling process

A starter process for beginners, not a rigid best-practice.
DDD is continuous, evolutionary and iterative design.



Align

Business model and user needs

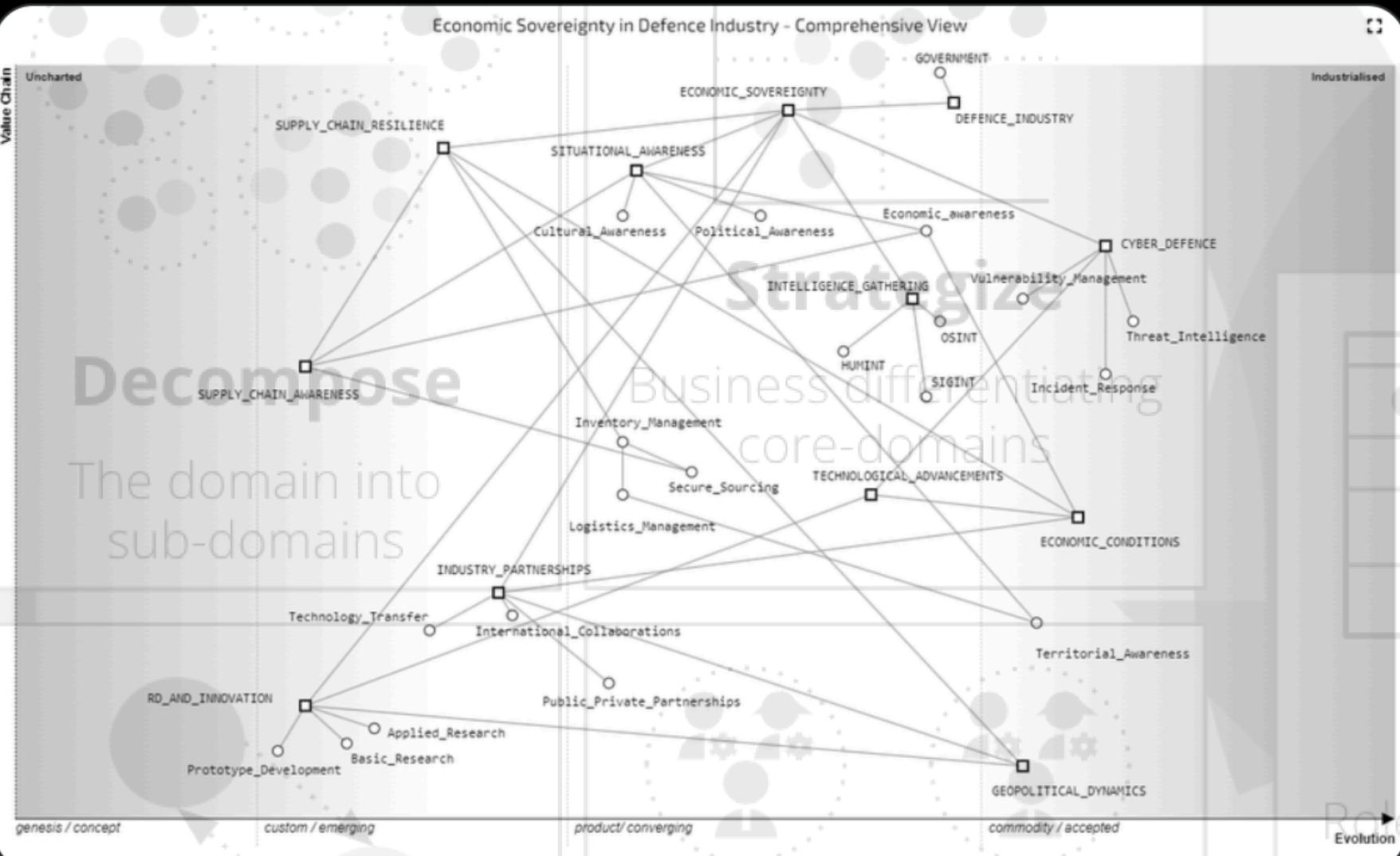
Discover

← Post

A couple of prompts with Claude 3 creates a Wardley Map for economic sovereignty in the defence space.

Not bad at all - onlinewardleymaps.com/#clone:XvHskl...

On par with political, military and defence folk I've spoken to. I'm also finding I can have a reasonable discussion about mapping with Claude 3.



9:00 AM · Mar 5, 2024 · 9,353 Views

Q 8

20

72

52

↑

Post your reply

Reply

Simon Wardley  @swardley · 11h

's not perfect but it's not bad. There's more I want to interrogate Claude over ... i.e. the link to secure sourcing, the positioning of some components etc. But it's almost good enough that I can start a discussion over strategy and investment.

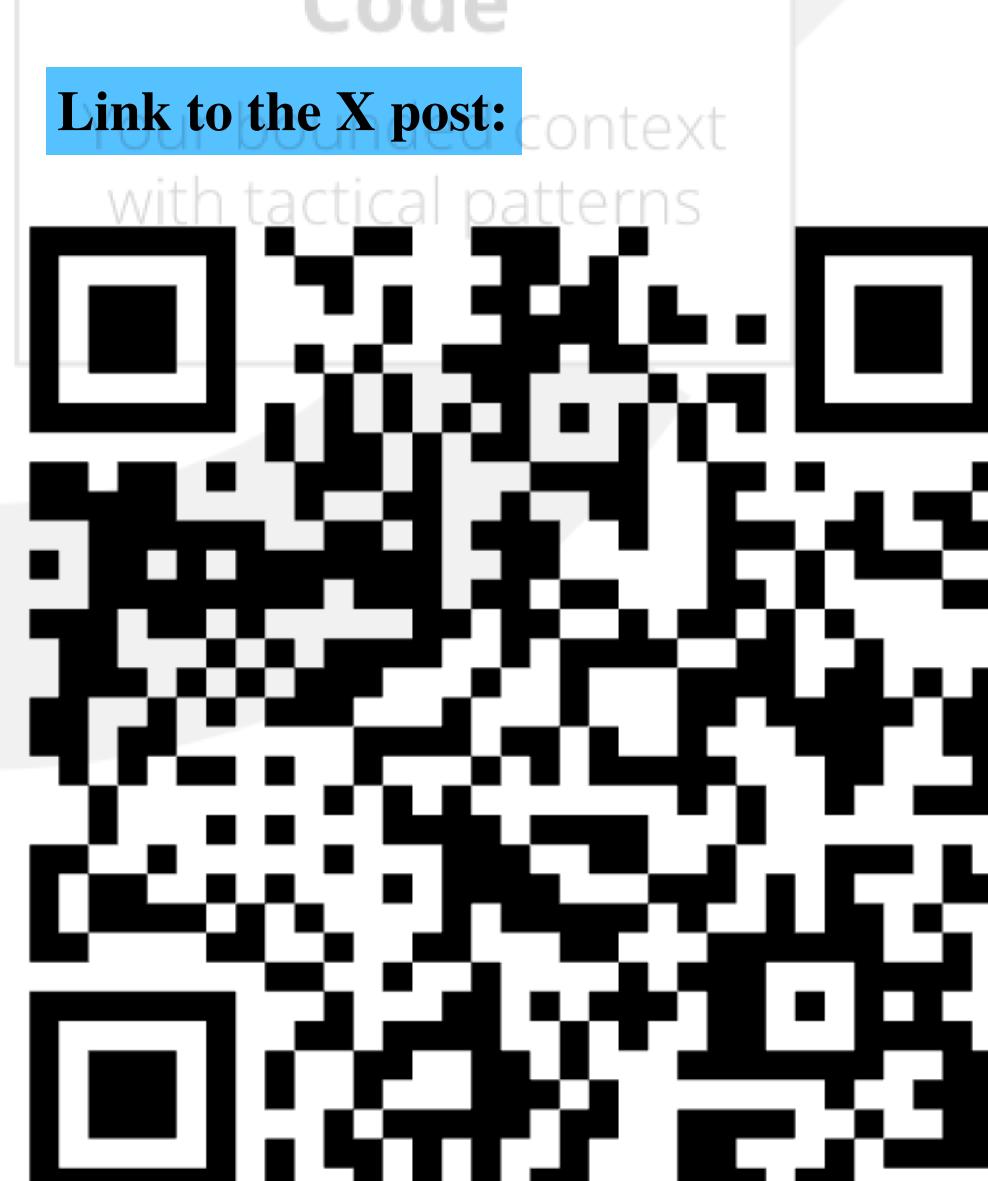
6

1

3

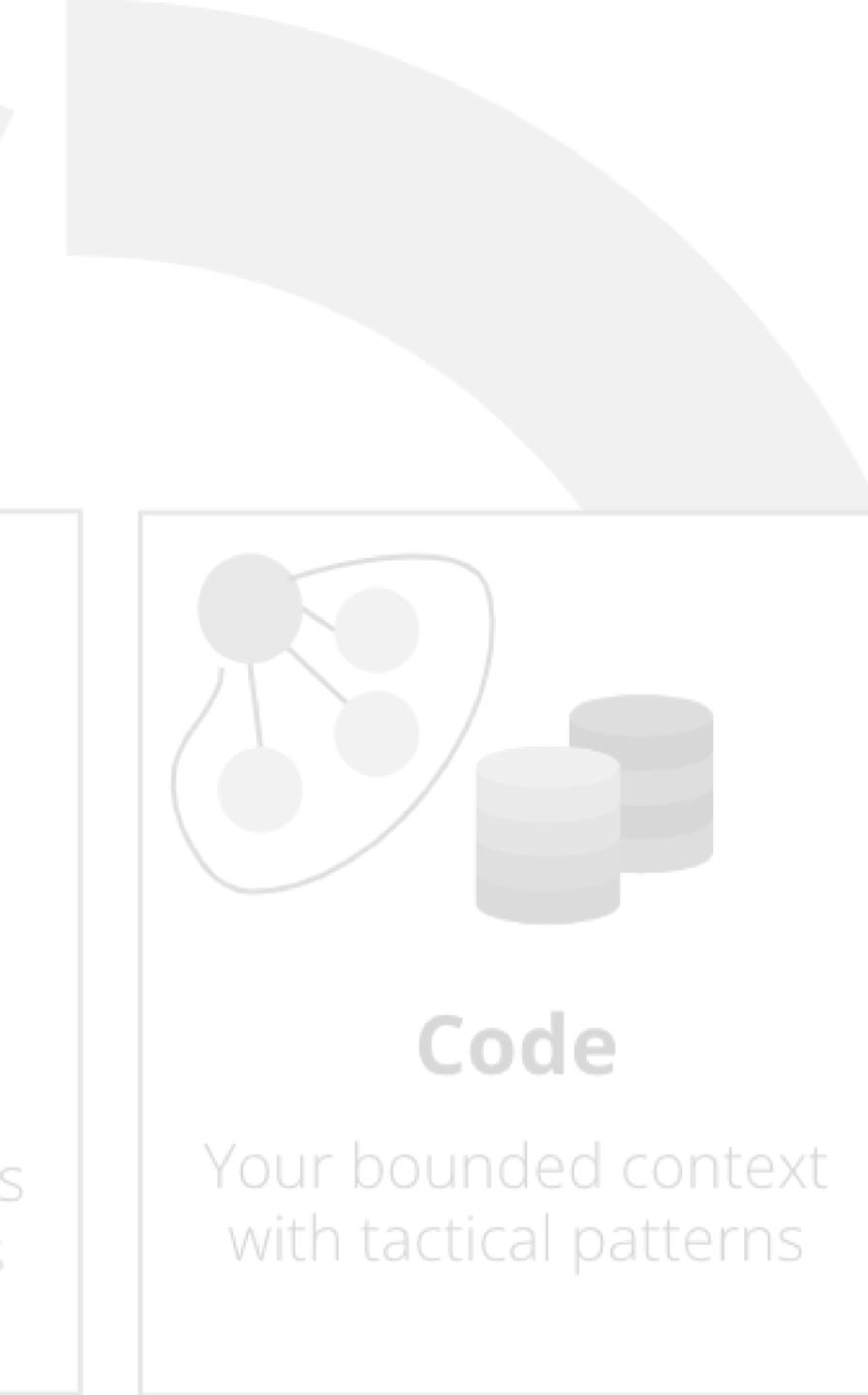
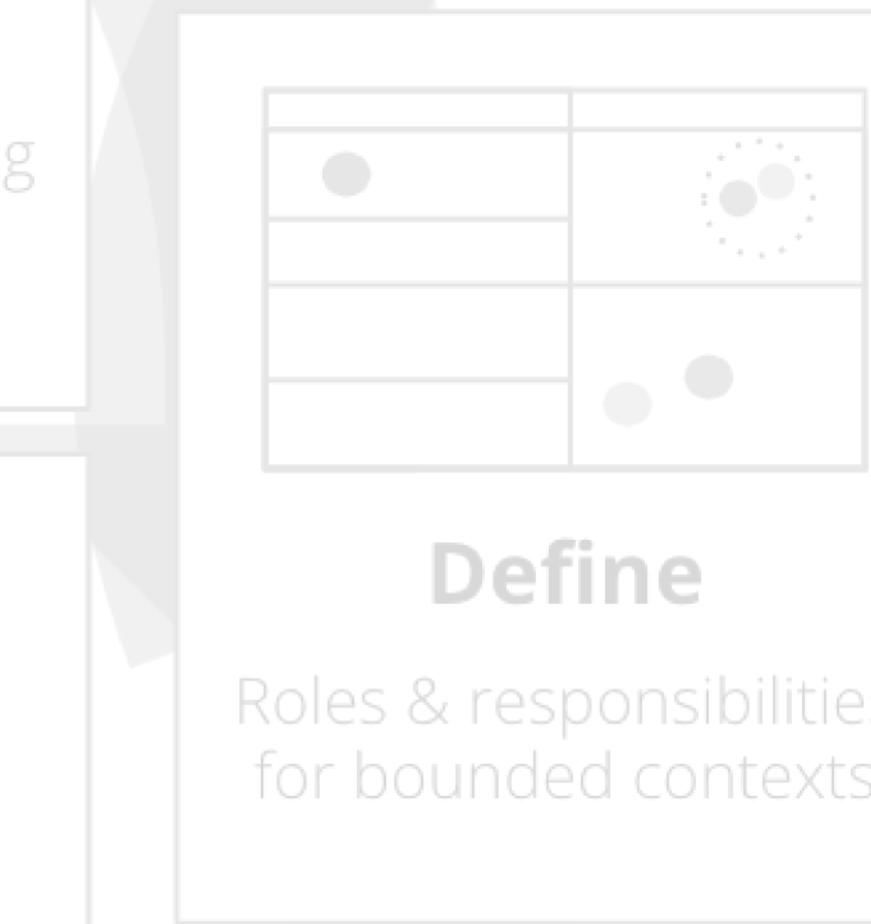
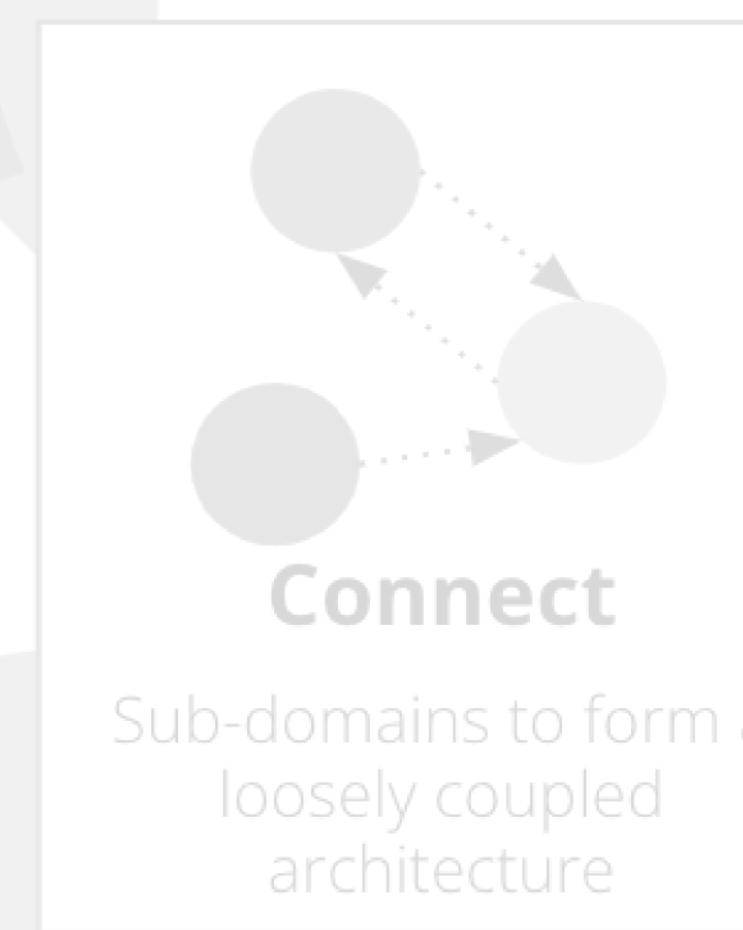
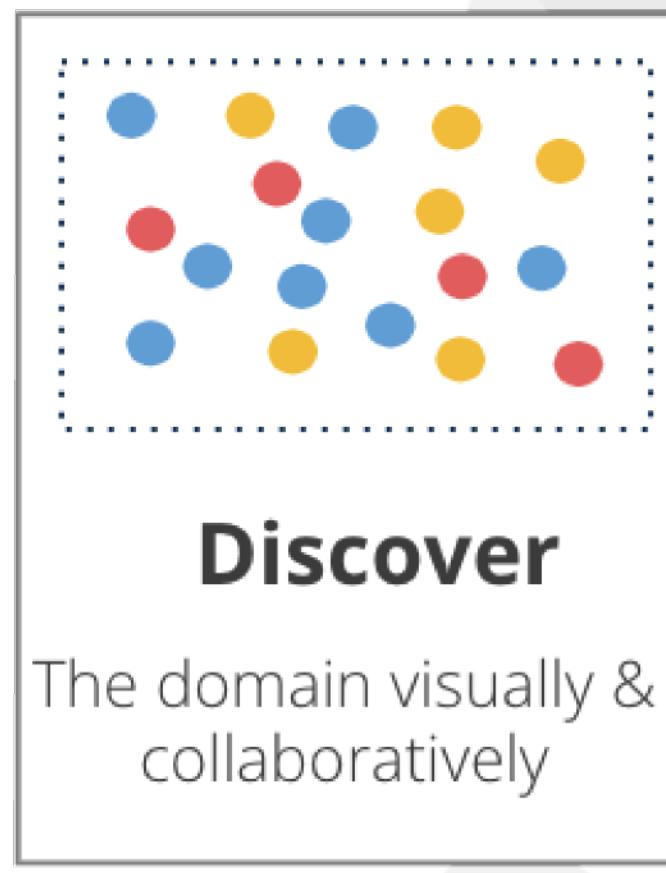
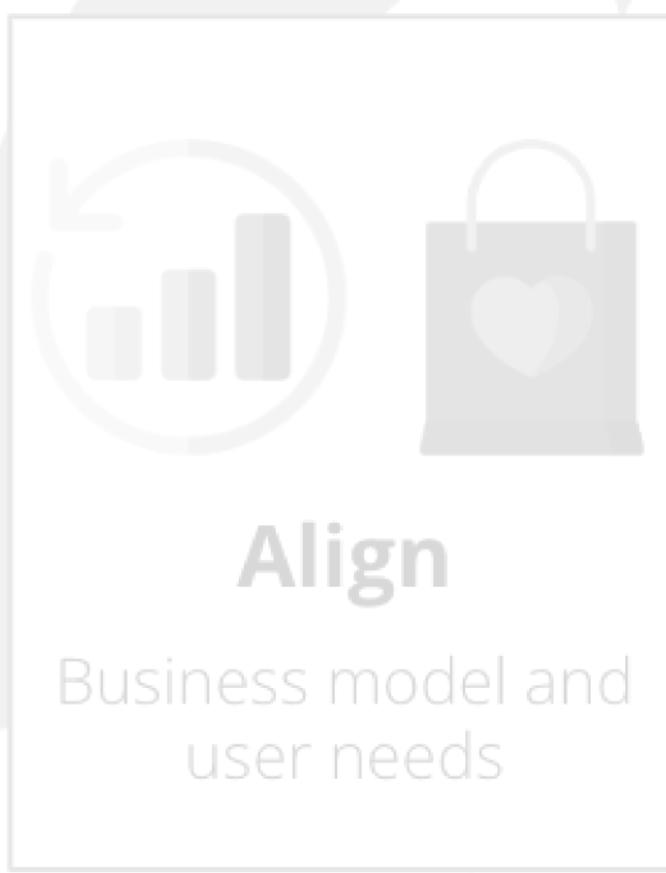
980

3



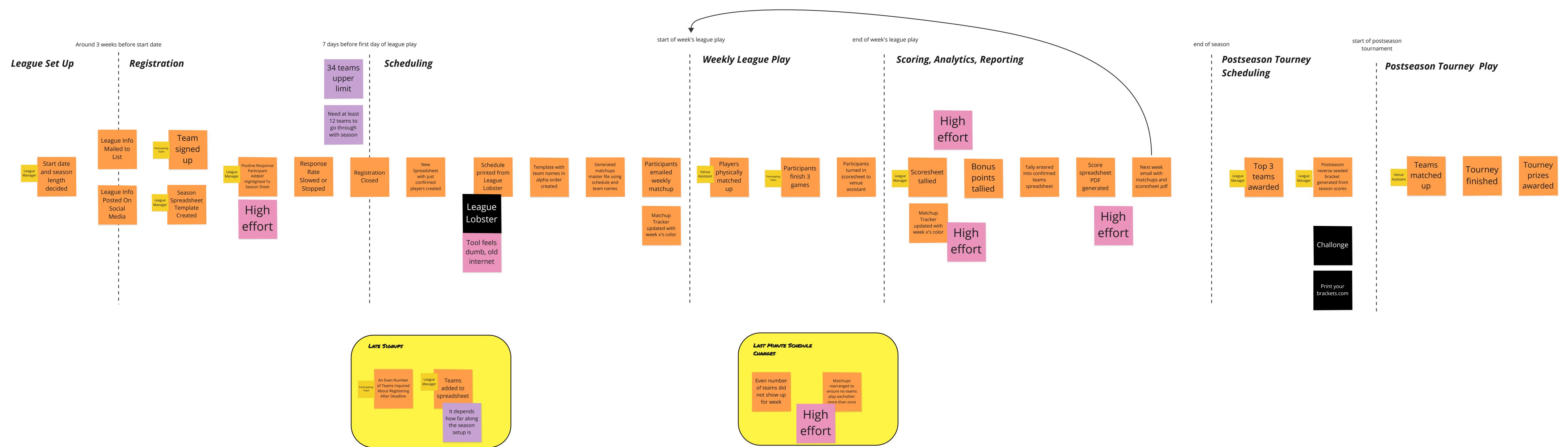
Domain-Driven Design starter modeling process

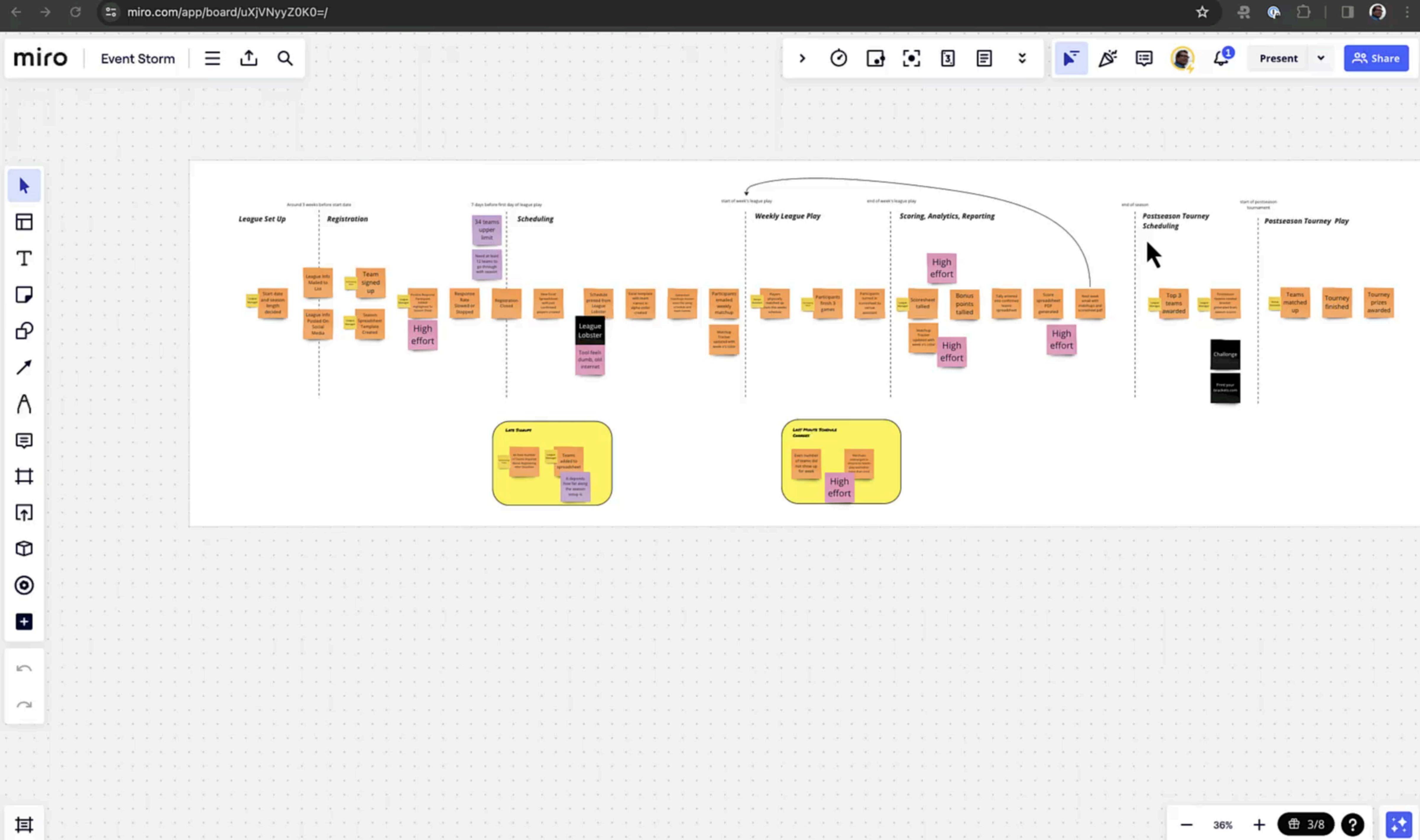
A starter process for beginners, not a rigid best-practice.
DDD is continuous, evolutionary and iterative design.











You are a domain driven design modeling wizard, with deep expertise in the whole domain driven design toolkit like EventStorming sessions, domain storytelling stories, example maps, etc. Your knowledge is both wide and deep. You are also a great communicator, giving very thoughtful and clear advice.

Given is a list miro board elements from the EventStorming session that have been translated into a text representation.

The elements are ordered by time from oldest to newest.

Each element has a type and color indicated with the tag `'[type: \$TYPE, color: \$COLOR]`.

Events are characterized by elements with [type: sticky_note, color: orange].

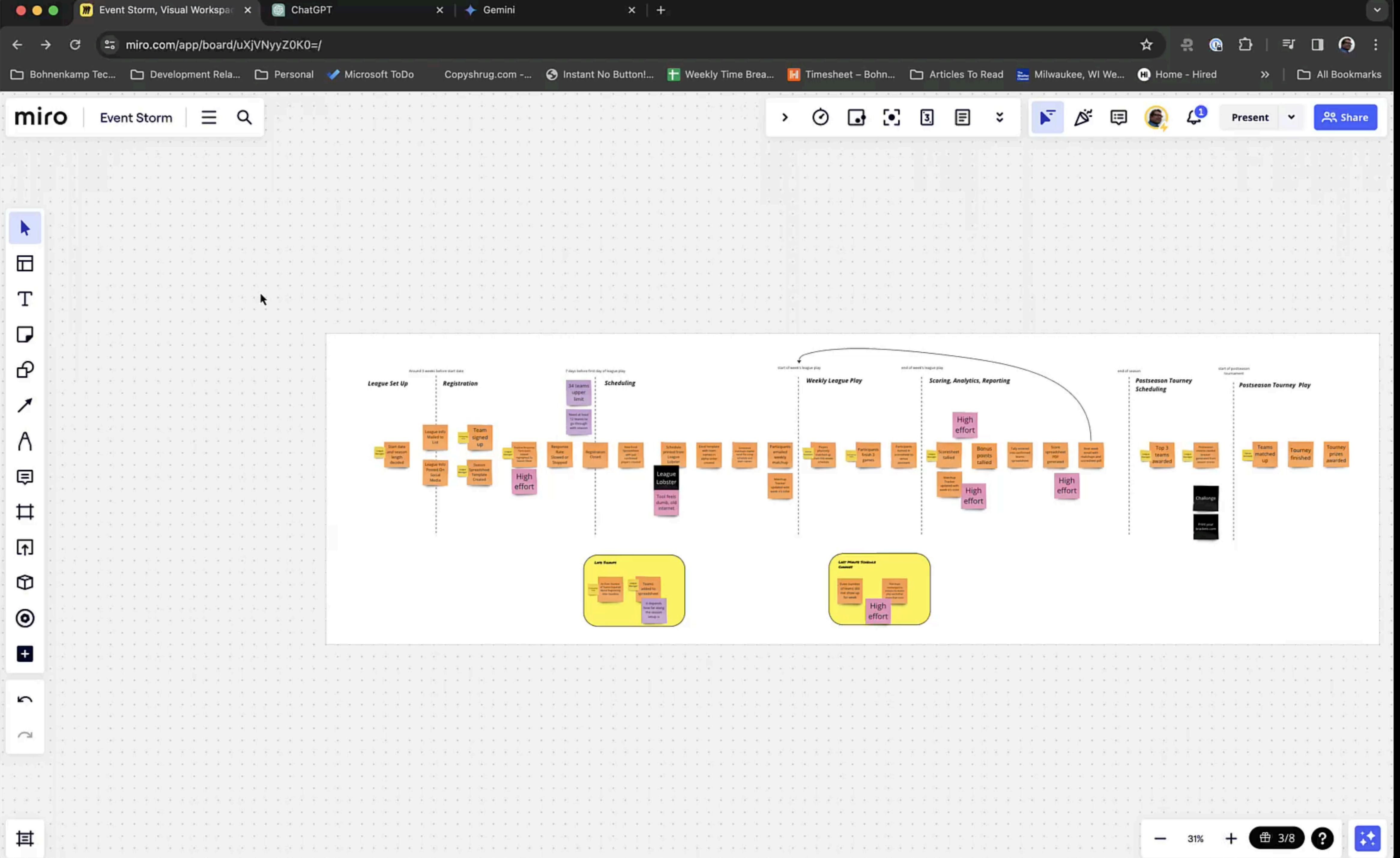
Actors are characterized by elements with [type: sticky_note, color: yellow].

Policies are characterized by elements with [type: sticky_note, color: violet].

Hotspots are characterized by elements with [type: sticky_note, color: pink].

Systems are characterized by elements with [type: sticky_note, color: black].

Here is the list of elements:



Event Storm, Visual Workspac x | ChatGPT x Gemini x +

gemini.google.com/app

Bohnenkamp Tec... Development Rela... Personal Microsoft ToDo Copyshrug.com -... Instant No Button!... Weekly Time Bre... Timesheet – Bohn... Articles To Read Milwaukee, WI We... Home - Hired All Bookmarks

Gemini Advanced ▾

+

Hello, Phillip

How can I help you today?

Generate a futuristic image



Help me write HTML, CSS, and JS

```
<!DOCTYPE html>
<html>
<head>
<title>Image Slider</title>
<link rel="stylesheet" href="style.css">
```

Role-play as an event planner

1. Type of event:
What kind of event do you envision (e.g., a film screening, a gala evening, a networking event, a workshop)?

2. Target Audience

Role-play as a character from a novel

Goodness, what a delightful day! The sun fairly beams upon us - I should say it's an exceptional day for a walk in the countryside, wouldn't you agree? Though I'm not certain what sign of weather you are enjoying.

Enter a prompt here

?

⌚

⚙️

Gemini may display inaccurate info, including about people, so double-check its responses. [Your privacy & Gemini Apps](#)

Around 3 weeks before start date

7 days before first day of lea

League Set Up

Registration

League Manager

Start date
and season
length
decided

League Info
Mailed to
List

Participating Team

Team
signed
up

League Manager

Positive Response
Participant
Added/
Highlighted To
Season Sheet

High
effort

League Info
Posted On
Social
Media

League Manager

Season
Spreadsheet
Template
Created

34 teams
upper
limit

Need at least
12 teams to
go through
with season

Response
Rate
Slowed or
Stopped

Registration
Closed

Sc

end of week's league play

end of season

Scoring, Analytics, Reporting

High effort

Participants turned in scoresheet to venue assistant

League Manager

Scoresheet tallied

Bonus points tallied

Tally entered into confirmed teams spreadsheet

Score spreadsheet PDF generated

Next week email with matchups and scoresheet pdf

Matchup Tracker updated with week x's color

High effort

High effort

Postseason Schedule

League Manager

...

mapping provides a comprehensive overview of the league's operational framework, highlighting areas for potential improvement and the critical path of activities necessary for the league's success.

**You**

Summarize it so it will fit on one slide in a presentation

**ChatGPT**

The eventstorming session revealed a comprehensive workflow for league management, highlighting key roles (League Manager, Participating Teams, Venue Assistant), critical processes (team registration, match scheduling, score tallying), and tool usage (League Lobster, Challonge).

Key insights include:

- **Actors:** League Manager, Participating Teams, Venue Assistant.
- **Process Flow:** From season planning, team signup, and match scheduling to score tallying and awarding top teams.
- **Policies:** Minimum 12 teams required, with a cap at 34 teams for operational efficiency.
- **Tools:** Utilization of League Lobster for scheduling, Challonge for postseason brackets, indicating reliance on digital platforms for management tasks.
- **Challenges:** Identified "High effort" hotspots suggest areas needing optimization or tool improvement.

This summary encapsulates the eventstorming session's outcomes, focusing on the league's operational dynamics, stakeholder roles, and areas for process improvement.



Is this conversation helpful so far?



Message ChatGPT...



Write a Python script

to automate sending daily email reports

Design a database schema

for an online merch store

SEASON SCORES

[type: sticky_note, color: yellow] Venue Assistant

[type: sticky_note, color: orange] Teams matched up

[type: sticky_note, color: orange] Tourney finished

[type: sticky_note, color: orange] Tourney prizes awarded

This **eventstorming** session is the current way the league is managed. Using the domain storytelling technique, generate a big picture story of a new process using a software application called LeagueAce that follows the actors through one season of the league. Be sure to address the areas of high effort and follow the correct format of domain storytelling.

① Make each step in the story small and make the story complete



ChatGPT can make mistakes. Consider checking important information.

[type: sticky_note, color: orange] Scoresheet tallied
[type: sticky_note, color: orange] Matchup Tracker updated with week x's color
[type: sticky_note, color: pink] High effort
[type: sticky_note, color: pink] High effort
[type: sticky_note, color: orange] Bonus points tallied
[type: sticky_note, color: orange] Tally entered into confirmed teams spreadsheet
[type: sticky_note, color: orange] Score spreadsheet PDF generated
[type: sticky_note, color: pink] High effort
[type: sticky_note, color: orange] Next week email with matchups and scoresheet pdf
[type: sticky_note, color: yellow] League Manager
[type: sticky_note, color: orange] Top 3 teams awarded
[type: sticky_note, color: yellow] League Manager
[type: sticky_note, color: black] Print your brackets.com
[type: sticky_note, color: black] Challonge
[type: sticky_note, color: orange] Postseason reverse seeded bracket generated from season scores
[type: sticky_note, color: yellow] Venue Assistant
[type: sticky_note, color: orange] Teams matched up
[type: sticky_note, color: orange] Tourney finished
[type: sticky_note, color: orange] Tourney prizes awarded

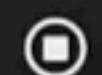
This eventstorming session is the current way the league is managed. Using the domain storytelling technique, generate a big picture story of a new process using a software application called LeagueAce that follows the actors through one season of the league. Be sure to address the areas of high effort and follow the correct format of domain storytelling. Make each step in the story small and make the story complete



ChatGPT

To reimagine the process using the LeagueAce software application, we'll narrate a comprehensive story covering a single season, focusing on efficiency, addressing high-effort areas, and ensuring that all ●

 Message ChatGPT...





You

try again specifically calling out the actor, action, and work item of each step



ChatGPT

To provide a detailed and structured narrative that aligns with domain storytelling, we'll break down the league management process through LeagueAce into specific actions, clearly calling out the actors, their actions, and the work items involved at each step. This approach will help visualize the interactions and processes within the system.

Pre-season

1. Actor: League Manager; Action: Configures season; Work Item: Season Settings

- The League Manager logs into LeagueAce and configures the new season's settings, including start dates and season length.

2. Actor: LeagueAce System; Action: Automates postings; Work Item: League Information

- Automatically posts league information on social media and mails it to the subscription list, addressing the manual effort of distributing this info.

3. Actor: Participating Teams; Action: Register; Work Item: Registration Forms

- Teams use LeagueAce to sign up for the season, filling out registration forms online.

4. Actor: LeagueAce System; Action: Verifies teams; Work Item: Team Registrations

- Automatically verifies team registrations against the policies (minimum 12 teams, maximum 34) and confirms eligibility.

Regular Season

1. Actor: LeagueAce System; Action: Generates schedule; Work Item: Season Schedule

- Generates a comprehensive season schedule, including matchups, which is automatically communicated to teams, streamlining the previously manual process.

2. Actor: LeagueAce System; Action: Sends matchup emails; Work Item: Weekly Matchups

- Automatically emails participants their weekly matchups and updates the digital Matchup Tracker in real-time.

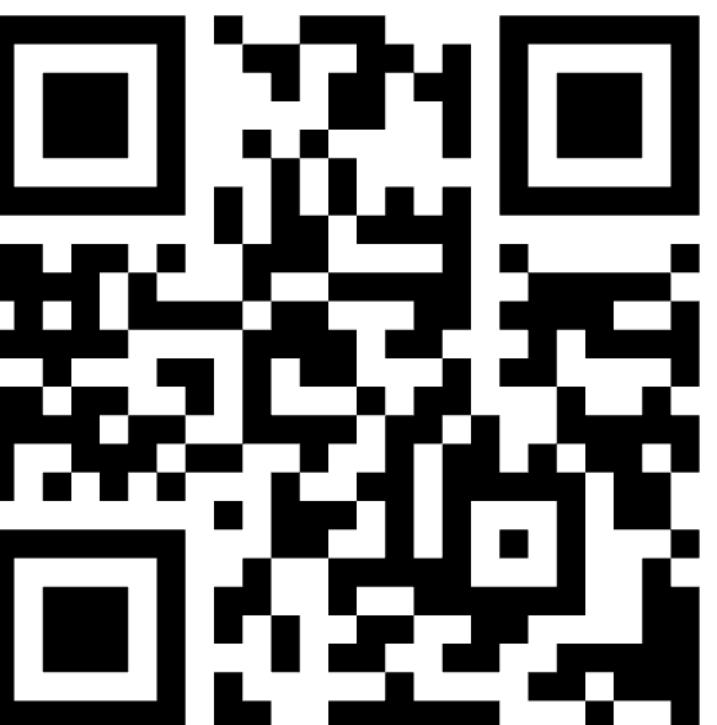
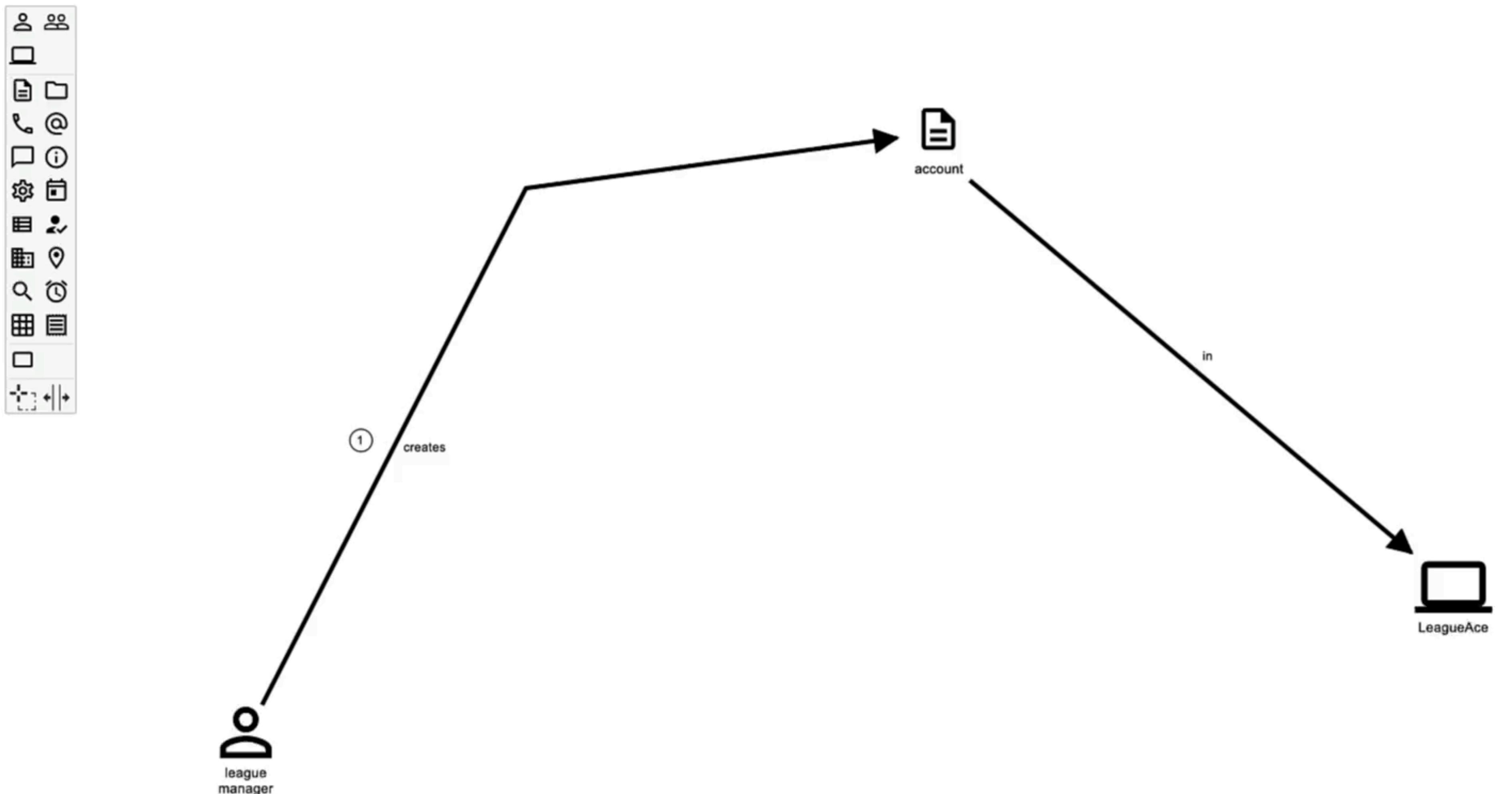


Message ChatGPT...

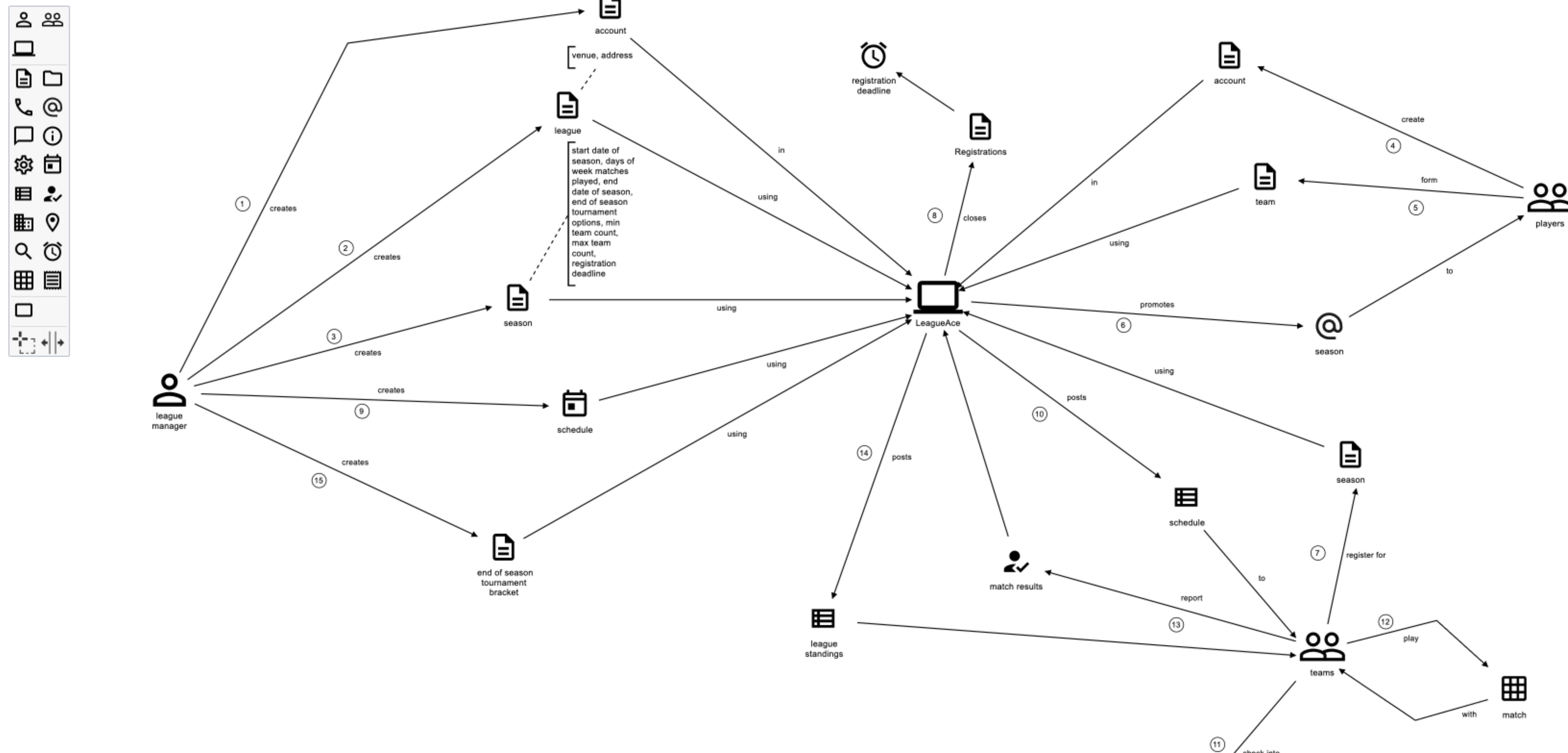


▼ League-Ace League Big Picture

Step: 1/15 |◀| ▶| ■



```
"dst": [
  {
    "type": "domainStory:actorPerson",
    "name": "venue assistant",
    "id": "shape_6678",
    "$type": "Element",
    "di": {},
    "$descriptor": {},
    "pickedColor": "black",
    "x": 1482,
    "y": 1172
  },
  {
    "type": "domainStory:workObjectDocument",
    "name": "end of season tournament bracket",
    "id": "shape_4418",
    "$type": "Element",
    "di": {},
    "$descriptor": {},
    "pickedColor": "black",
    "x": 852,
    "y": 752
  }...
```



```
{  
  "type": "domainStory:activity",  
  "name": "using",  
  "id": "connection_9716",  
  "$type": "Element",  
  "di": {},  
  "$descriptor": {},  
  "pickedColor": "black",  
  "number": null,  
  "waypoints": [  
    {  
      "original": {  
        "x": 980,  
        "y": 170  
      },  
      "x": 1014,  
      "y": 188  
    },  
    {  
      "original": {  
        "x": 1490,  
        "y": 440  
      },  
      "x": 1462,  
      "y": 425  
    }  
  ],  
  "source": "shape_9441",  
  "target": "shape_1476",  
  "multipleNumberAllowed": false  
},
```

ChatGPT Gemini chat.openai.com

Bohnenkamp Tec... Development Rela... Personal Microsoft ToDo Copyshrug.com -... Instant No Button!... Weekly Time Brea... Timesheet – Bohn... Articles To Read Milwaukee, WI We... Home - Hired All Bookmarks

ChatGPT 4

How can I help you today?

Write a spreadsheet formula
to convert a date to the weekday

Explain options trading
if I'm familiar with buying and selling stocks

Write an email
requesting a deadline extension for my project

Create a charter
to start a film club

League-Ace League Setup... File

this file is json output from a visual program. write a sed script to keep only the dst array of
objects and of those objects keep on the

ChatGPT can make mistakes. Consider checking important information.

```
jq '[.dst] | {type, name, id, source, target, text, number} | with_entries(select(.value != null))]' | {dst: .}
```

```
{  
  "dst": [  
    {  
      "type": "domainStory:connection",  
      "name": "",  
      "id": "connection_7259",  
      "source": "shape_9441",  
      "target": "shape_9084"  
    },  
    {  
      "type": "domainStory:textAnnotation",  
      "name": "",  
      "id": "shape_9084",  
      "text": "venue, address",  
      "number": 30  
    },  
    {  
      "type": "domainStory:workObjectDocument",  
      "name": "end of season tournament bracket",  
      "id": "shape_4418"  
    },  
    {  
      "type": "domainStory:workObjectView-List",  
      "name": "league standings",  
      "id": "shape_4763"  
    },  
    {  
      "type": "domainStory:workObjectHow-To-Reg",  
      "name": "match results"  
    }  
  ]  
}
```

Domain storytelling activity elements also have an id property that uniquely identifies the activity

Domain storytelling activity elements also have a source property that is the identity of the work object or actor the activity is sourced from

Domain storytelling activity elements also have a target property that is the identity of the work object or actor the activity is targeted to

Domain storytelling activity elements also can have a number property that orders the activities in the story from first (lowest number) to last (highest number)

Domain storytelling activity elements that do not have a number are prepositions that relate the work objects of an activity to another actor that receives that work item

Domain storytelling work object elements are characterized by elements with type:
domainStory:workObject\$description

The description part of the work object elements type further characterize the type of the work object

Domain storytelling work object elements also have a name property that is the specific name of the work object

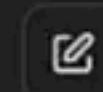
Domain storytelling work object elements also have an id property that uniquely identifies the work object

Domain storytelling actor elements are characterized by elements with type:
domainStory:actor\$description

The description part of the actor elements type further characterize the type of the actor

Domain storytelling actor elements also have a name property that is the specific name of the actor

Domain storytelling actor elements also have an id property that uniquely identifies the actor



ChatGPT 4 ▾



How can I help you today?

Write a course overview
on the psychology behind decision-making

Brainstorm incentives
for a customer loyalty program in a small bookstore

Plan a trip
to explore the Madagascar wildlife on a budget

Plan a trip
to experience Seoul like a local

Message ChatGPT...



```
"type": "domainStory:activity",
  "name": "using",
  "id": "connection_7048",
  "source": "shape_4418",
  "target": "shape_1476"
},
]
}
```

Using the EventStorming session data and the domain storytelling data, determine key words that should become part of the team's ubiquitous language when we are discussing the domain and coding the requirements. Put these keywords into a dictionary format, in alphabetical order, with a concise definition, and format the output as raw markdown code.

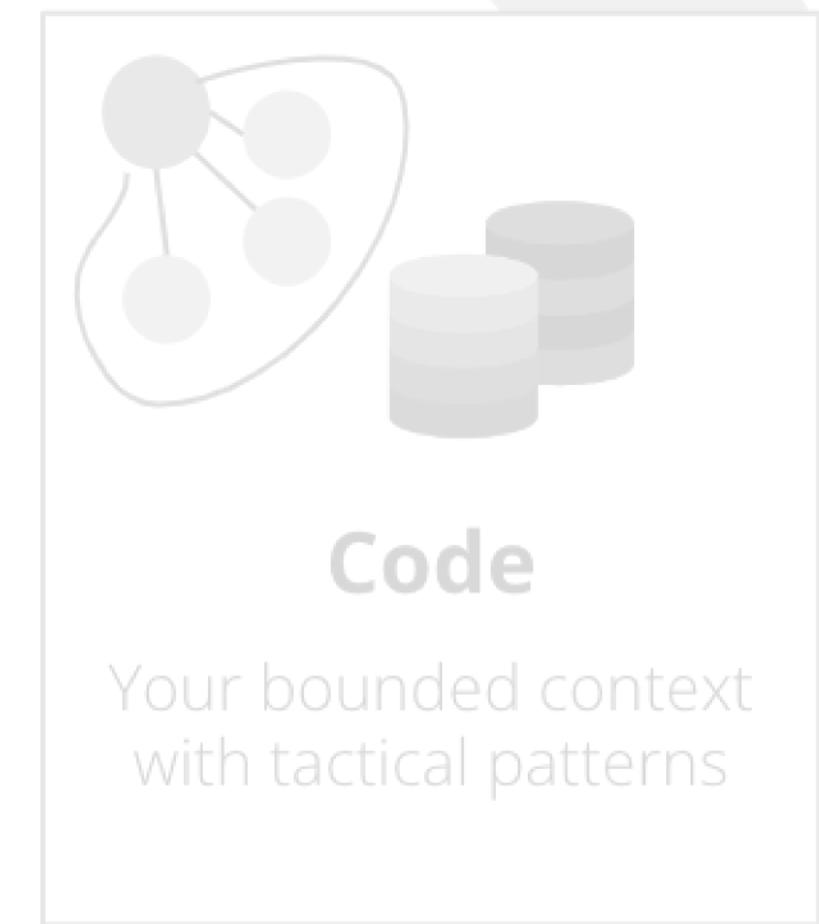
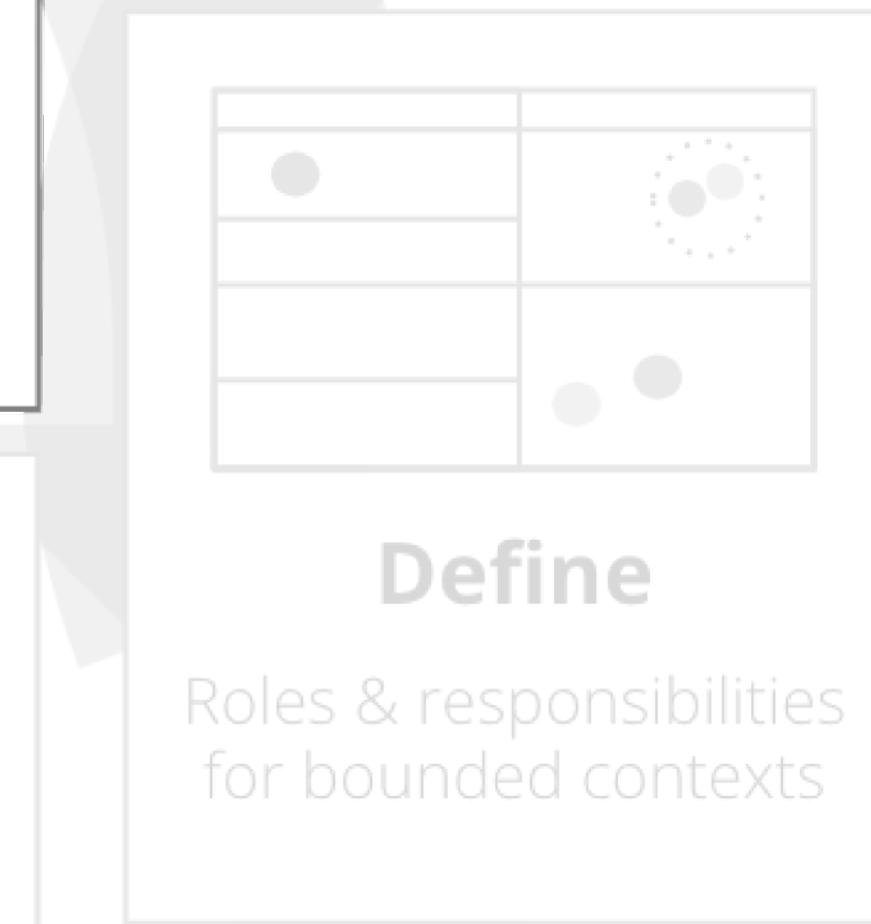
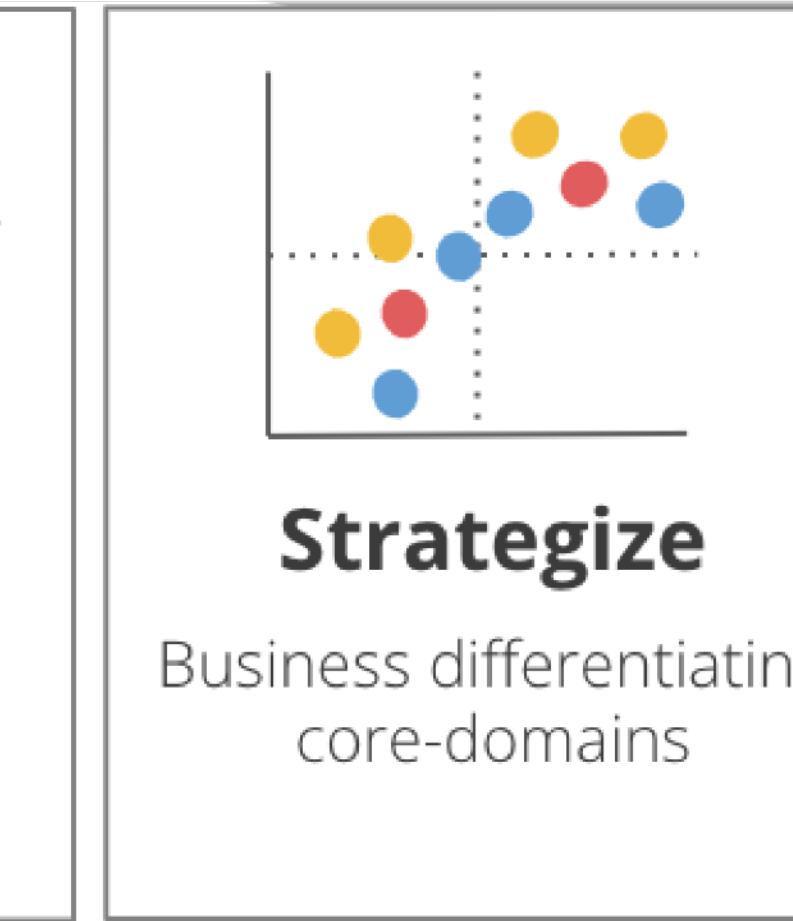
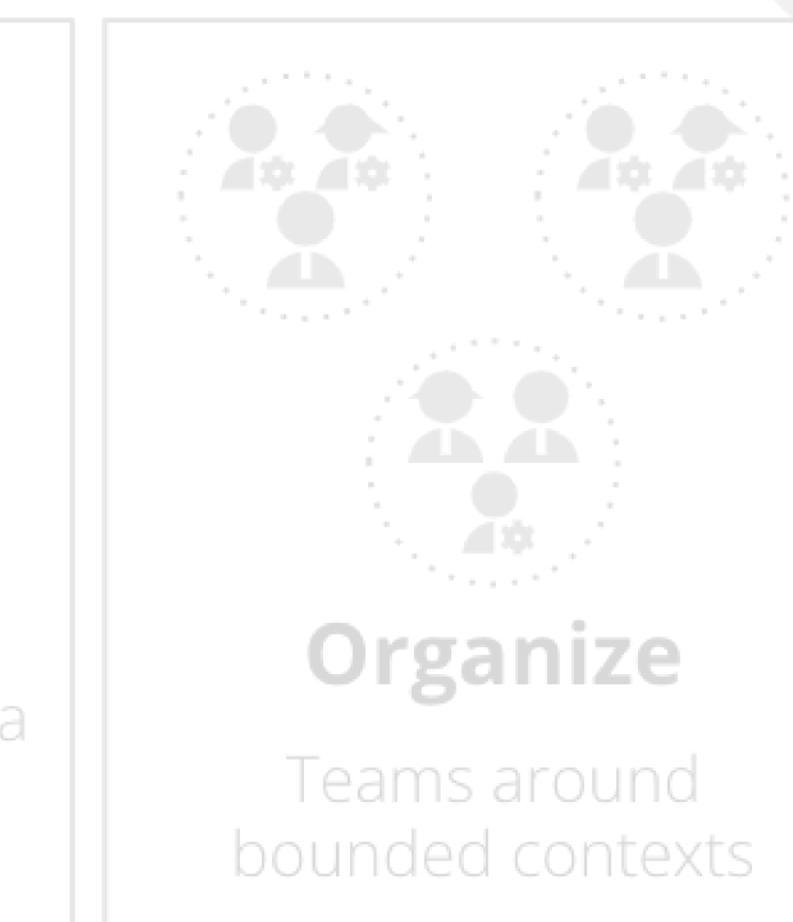
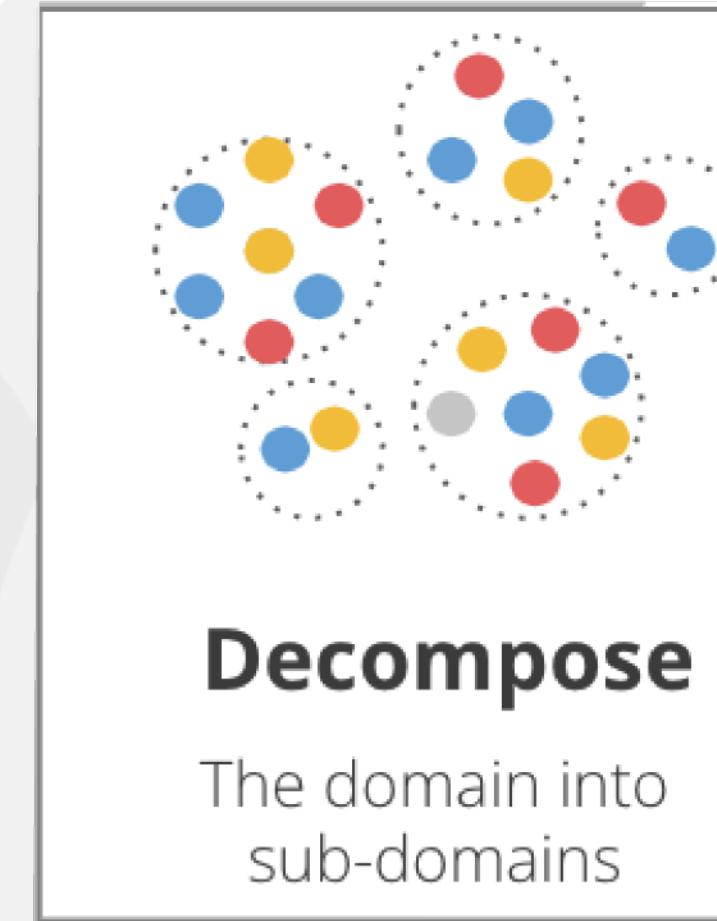
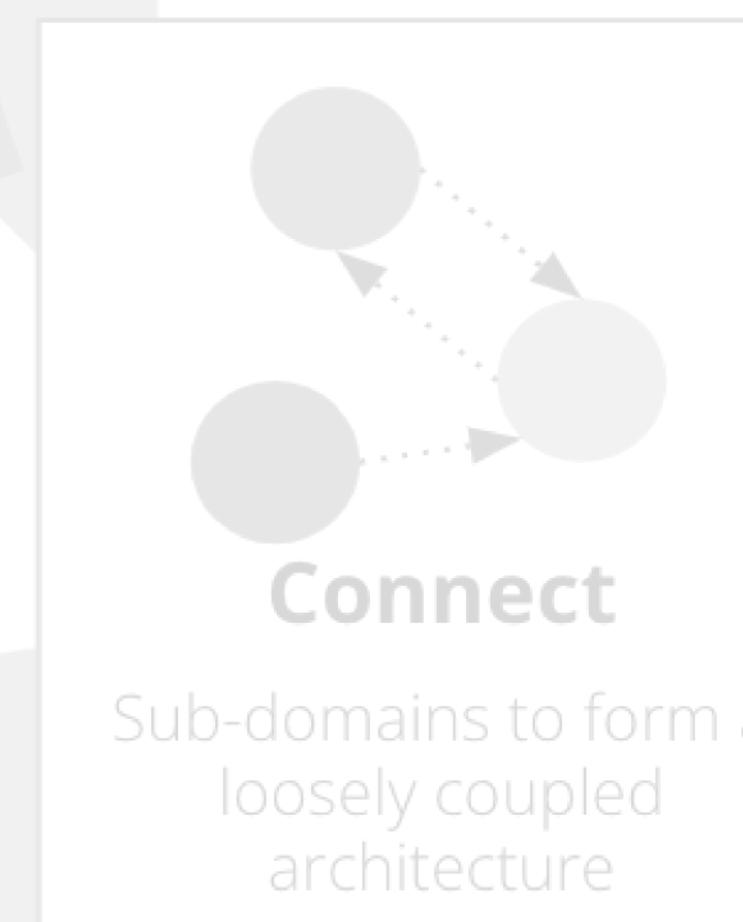
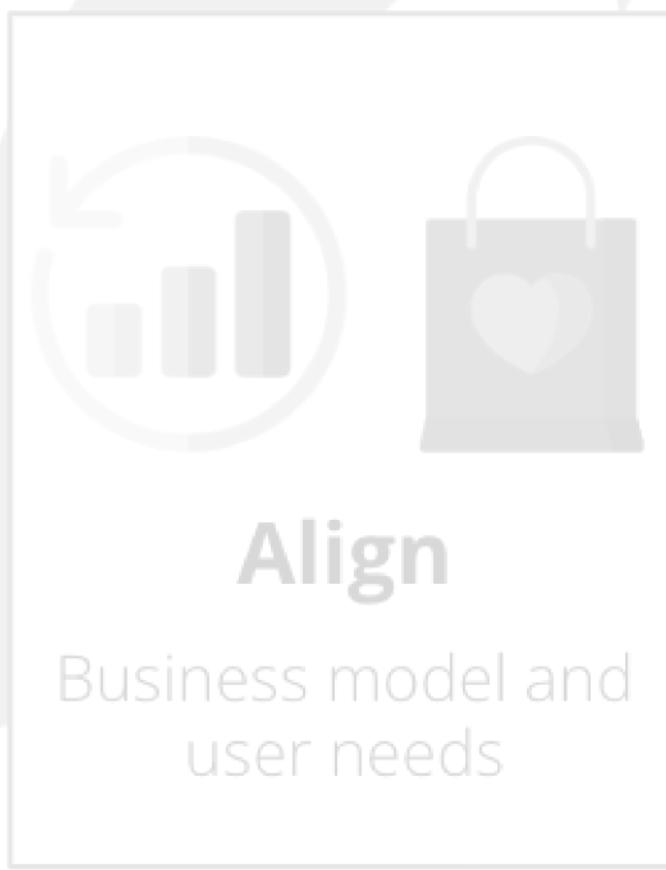
You are participant of a Domain Driven Design Eventstorming session using the digital collaboration platform Miro....



- **Award**: Recognition or prizes given to teams or players based on their performance.
- **Bracket**: The structure used for organizing tournament matchups, often in a single elimination format.
- **Calendar**: A system for scheduling matches, indicating dates and times for events.
- **Close Registration**: The action or policy of stopping the registration process at a specific time.
- **Create**: The action of generating new entities or documents, such as schedules, rosters, or reports.
- **Document**: Any form of digital document used within the system, including registrations, scoresheets, and league rules.
- **Email**: A method of communication used to send information, updates, or documents to league members.
- **Event**: Significant occurrences within the domain, such as the start of the season or a tournament.
- **Game**: An individual instance of competition between teams or players.
- **High Effort**: Indicates tasks or processes that require significant time and resources.
- **League**: The overarching organization or competition that encompasses the season.
- **League Manager**: The individual responsible for overseeing league operations, including registration and scheduling.
- **League Standings**: A list or document showing the current rankings of teams with their win-loss records.
- **Match**: A scheduled competition between teams or players as part of the league calendar.
- **Matchup Tracker**: A tool or document for tracking the outcomes of matches and team records.
- **Participating Team**: Teams that have registered and are actively competing in the league.
- **Player**: Individuals who compete in matches as members of teams.
- **Policy**: Guidelines or rules that govern how the league or tournaments are conducted.
- **Post**: To make information publicly available, such as schedules or standings, on the league website or social media.
- **Promote**: The action of advertising or raising awareness about the league, registration, or upcoming events.
- **Registration**: The process by which teams or players sign up to participate in the league.
- **Schedule**: The planned sequence of matches, including dates, times, and venues.
- **Score**: The outcome of a match, including points earned by each team or player.
- **Season**: A designated period during which league matches are played, culminating in a final tournament.
- **Spreadsheet**: A digital document used for organizing and tracking information, such as player statistics or team rosters.
- **System**: Software tools or platforms used to manage league operations, such as tournament management software.
- **Team**: Groups of players that compete together in the league or tournaments.
- **Tournament**: A competitive event that typically occurs at the end of the season, featuring multiple teams competing for a championship title.
- **Venue**: The physical location where matches are played.
- **Venue Assistant**: An individual responsible for managing the logistics of a venue, such as setting up equipment or ensuring safety.

Domain-Driven Design starter modeling process

A starter process for beginners, not a rigid best-practice.
DDD is continuous, evolutionary and iterative design.



I want to understand if different domains are needed for the LeagueAce system. What domains do you see the system being divided into and type them according to core, supporting or generic domains.



Core Domains

Core domains are the unique capabilities that give the system its competitive advantage and are central to the system's purpose.

1. **League Management:** This includes creating leagues, setting up seasons with detailed configurations (dates, team counts, registration deadlines), and managing season progress. It's the heart of the system, directly supporting its primary mission.
2. **Team and Player Management:** This involves player account creation, team formation, and registration for seasons. It's crucial for participant engagement and competition organization.
3. **Match Scheduling and Management:** Generating and managing match schedules, including venues, times, and participating teams. This domain directly impacts user experience and operational efficiency.
4. **Tournament Management:** Creating and managing end-of-season tournaments, including bracket generation and match scheduling. This domain enhances the competitive and entertainment value of the league.

Supporting Domains

Supporting domains complement the core domains by providing necessary capabilities that enhance the core functionalities but are not the primary focus of the system.

1. **Venue Management:** Handling venue information, including availability, scheduling, and check-ins. This domain supports the physical aspect of league matches.
2. **Results Reporting and Standings:** Collecting match results, updating standings, and possibly statistical analysis. This domain supports the competitive nature of the leagues by providing transparency and tracking performance.

Generic Domains

Generic domains are common functionalities that are not unique to the system but are necessary for operation. These can often be handled by off-the-shelf solutions or external services.

1. **Account Management:** Basic user account management functions such as registration, authentication, and profile management. This domain is necessary for any system that has user accounts but does not differentiate the system from competitors.
2. **Notification Services:** Sending emails or other forms of notifications for promotions, reminders, and updates. While crucial for communication, the underlying technology and processes are common across many systems.
3. **Calendar Integration:** Providing users with the ability to integrate schedules with personal or third-party calendar systems. This improves user convenience but is a widely available functionality.



✿ Absolutely! Let's analyze the LeagueAce system's story and consider how we might divide it into domains using Domain-Driven Design principles.

Core Domains

The core domains are the essential areas that provide LeagueAce with its unique competitive advantage. These likely include:

- **League Management:** The heart of the system handles league and season creation, configuration (rules, tournament options), team registration, and potentially the generation of the end-of-season tournament bracket.
- **Scheduling:** The logic and mechanisms behind generating match schedules, whether automated by LeagueAce or manually managed by the league manager.
- **Standings & Results:** This involves calculating and displaying league standings and allowing teams to report their match results.

Supporting Domains

These domains are important for the system's functionality but may not be what sets LeagueAce apart from similar solutions.

- **Account Management:** Handles player and league manager accounts, including creation and login.
- **Match Coordination:** This likely involves elements like venue management, check-in processes, and possibly communication with venue assistants.
- **Promotion:** How LeagueAce advertises seasons to potential players and teams.

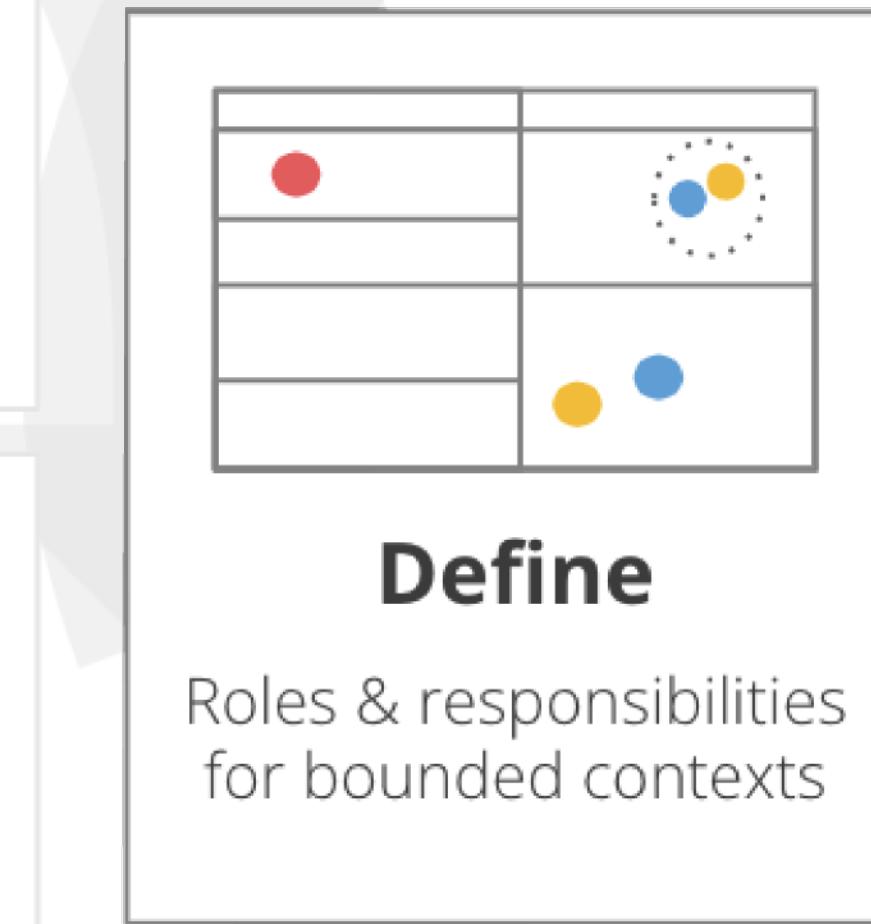
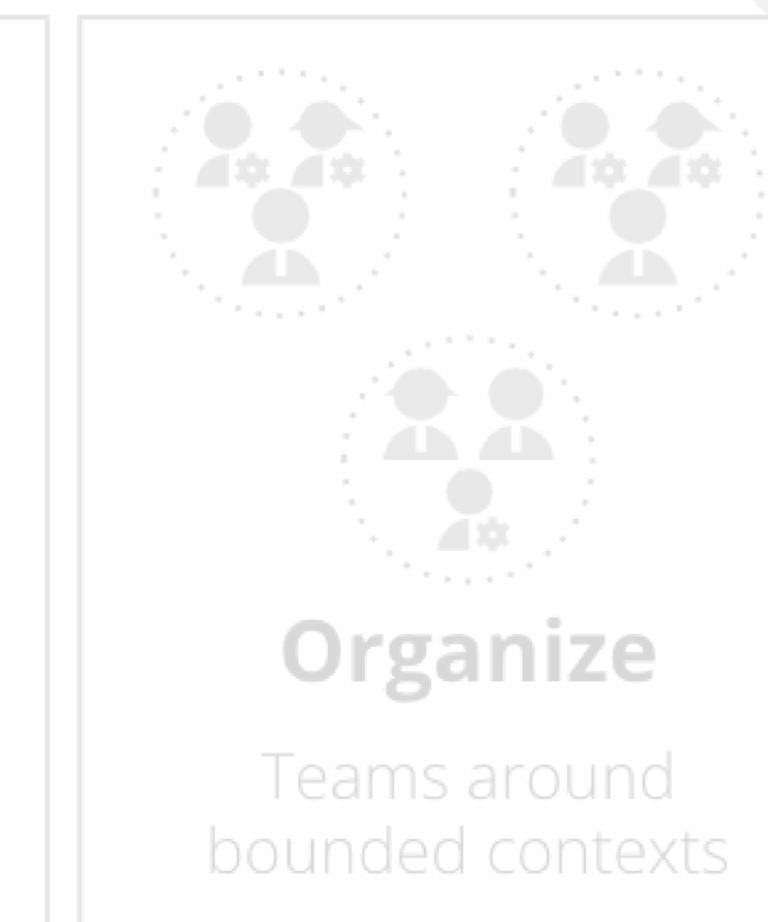
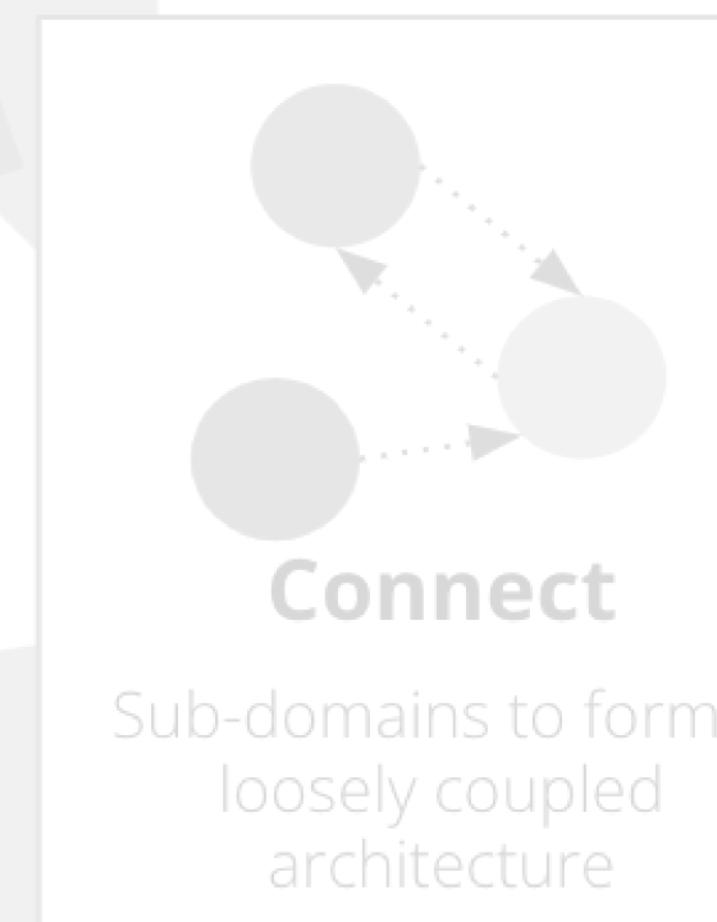
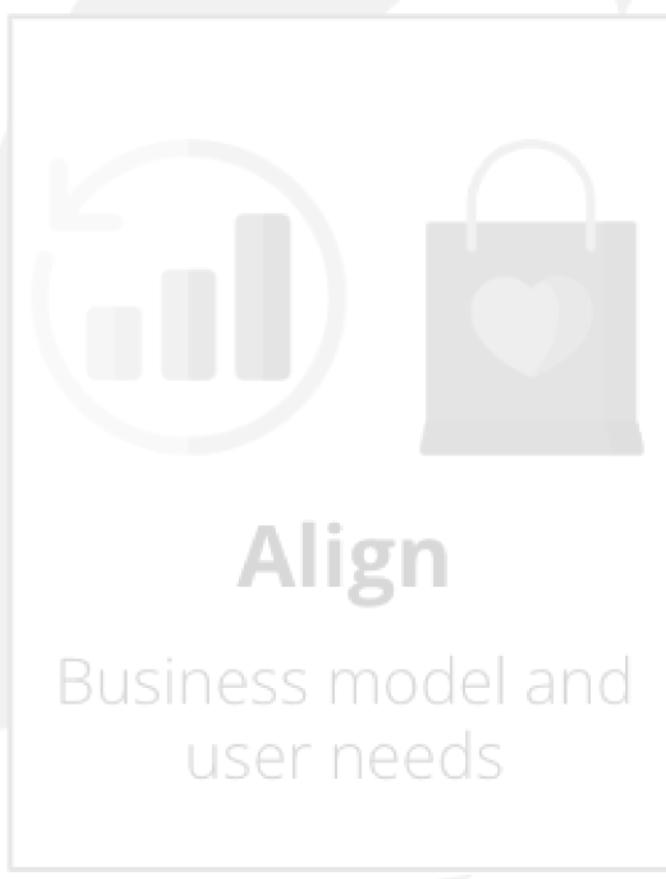
Generic Domains

These are domains common to many systems and might be better addressed using off-the-shelf tools or outsourced services.

- **Communication:** Features like the season email or any internal communication tools. Email providers likely handle this better.
- **System Infrastructure** (less evident in the story): Hosting, database technologies, etc. These are rarely core to the business value.

Domain-Driven Design starter modeling process

A starter process for beginners, not a rigid best-practice.
DDD is continuous, evolutionary and iterative design.



Purpose

Provide a fully automated, highly trustable and reliable assessment of the approvability of a credit application for retail mortgage loans.

Strategic Classification

Domain

core

Business Model

compliance

Evolution

custom built

Domain Roles

Role Types

draft context

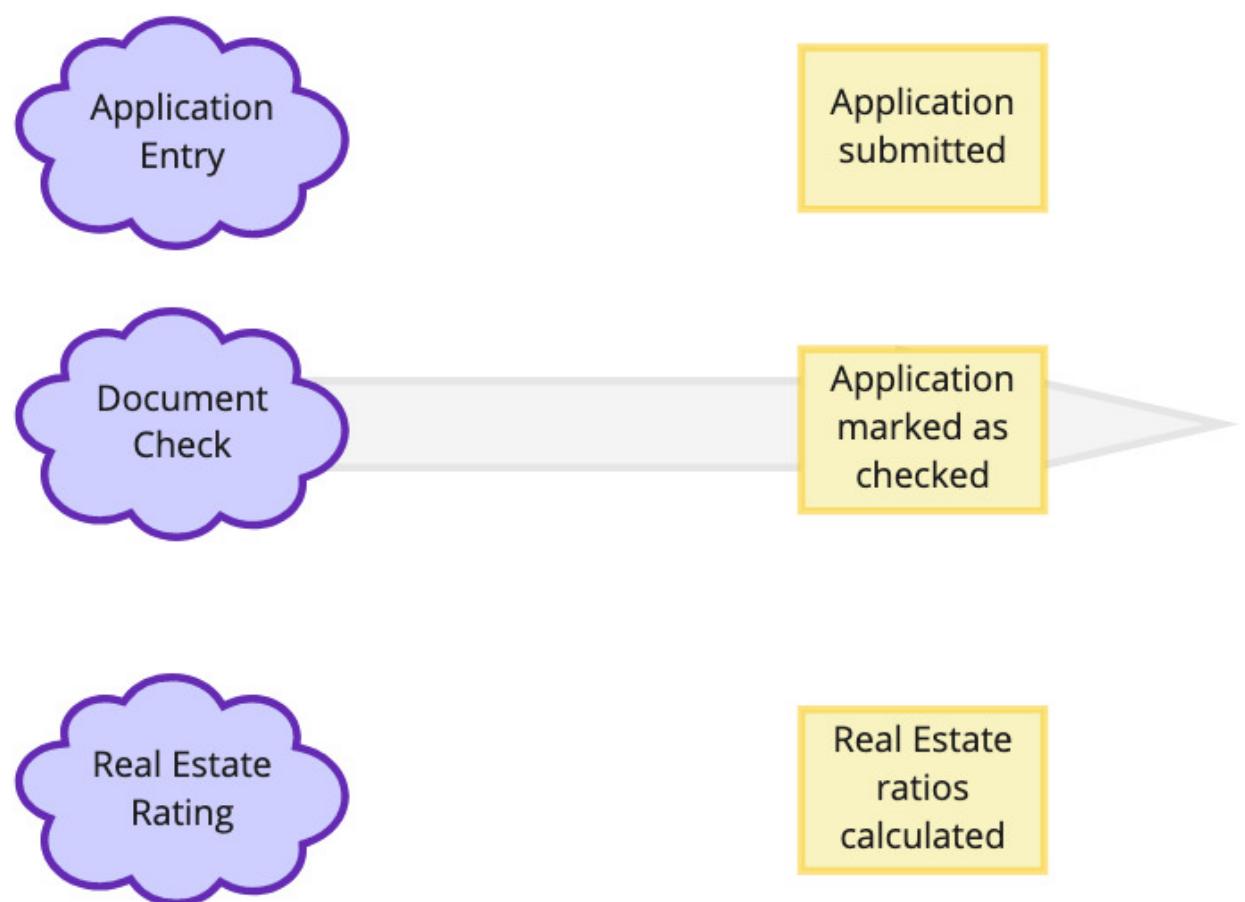
execution context

- other

Inbound Communication

Collaborator

Messages



Ubiquitous Language

Context-specific domain terminology

Rule Cluster
Grouping of scoring rules (ko criteria & point based) into clusters that can be independently scored

Scoring Result
the scoring result is either green or red

Business Decisions

Key business rules, policies, and decisions

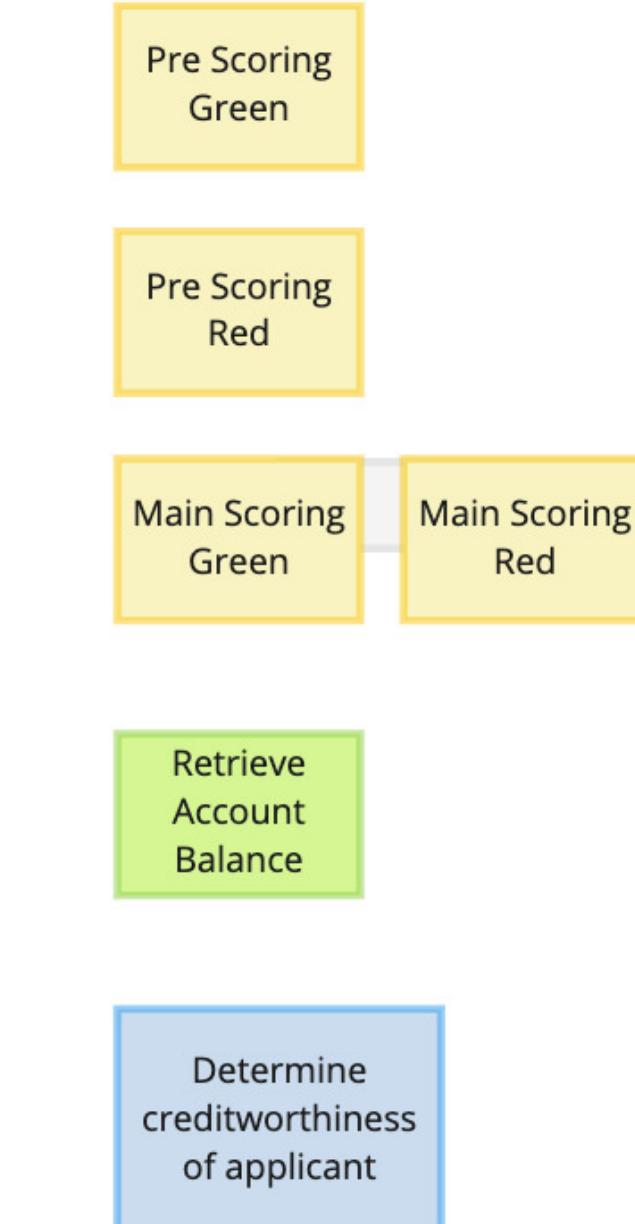
KO Criteria

Point Based Rules

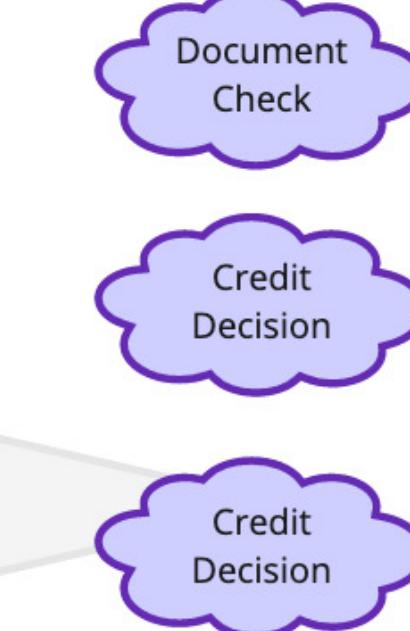
Scoring Result:
1 KO Criteria: red
>= 120 points and no KO: green

Outbound Communication

Messages



Collaborator



Core Banking System



Credit Agency



Assumptions

- Pre- and Main Scoring will run on the same rules for the foreseeable future
- We will only work with one credit-agency
- There will be a high stability in the area of real estate ratios

Verification Metrics

- 95% of changes will affect both pre- and main scoring and 90% only on rule cluster at a time.
- 75% of changes to the application form will have no impact on Scoring

Open Questions

Should there be a score color "yellow" for errors?

[...domain storytelling format and data]

[...domain decomposition output]

You are a domain driven design bounded context canvas wizard, experienced at breaking down bounded contexts using bounded context canvases using data provided from the discovery phase artifacts like EventStorming sessions, domain storytelling stories, example maps, etc. Your knowledge is both wide and deep. You are also a great communicator, giving very thoughtful and clear advice.

You do so in this format, giving a purpose to the bounded context from the domain driven discovery data, then confirming or proposing a new strategic classification of the bounded context, then characterizing the behavior of bounded context with domain roles (formerly called model traits), then determine the inbound communication collaborators along with their messages, then pulling out ubiquitous key domain terms that exist within the context and what they mean within the context, then describe key business rules or policies within this context, then determine outbound communication messages and the outbound collaborators they are for, then listing any assumptions that have been made during analysis, then choose metrics that should be gathered to determine if the chosen boundary of the bounded context is a good fit, finally listing any questions that would have been helpful to have answered when analyzing this bounded context:

```

```
Purpose
$purpose
```

```
Strategic Classification
$strategic_classification
```

## Purpose

The purpose of the League Management bounded context is to centralize the operations related to the creation, configuration, and overall administration of leagues within the LeagueAce system. This includes setting up the framework for each season, such as defining league parameters (start and end dates, team counts, registration deadlines), managing league structure, and overseeing the progression of the season. It serves as the backbone for organizing competitive play, ensuring that leagues are structured in a way that promotes fairness, competitiveness, and engagement among teams and players. This bounded context directly impacts the system's ability to deliver a seamless, organized competitive experience, which is crucial for user satisfaction and retention.

## **Strategic Classification**

The strategic classification of the League Management context is a Core Domain. It represents a set of functionalities central to the competitive advantage and mission of the LeagueAce system. The ability to effectively manage leagues, with all their complexities, is what differentiates LeagueAce from other competitors. This domain is critical for maintaining the integrity of the competition, ensuring the system can adapt to the needs of different sports or games, and providing a flexible yet robust framework for league administrators.

## Domain Roles

The domain roles within the League Management context include League Administrator, Season, League, Registration, and League Configuration. The League Administrator oversees the creation and management of leagues and seasons, acting as a pivotal figure in ensuring the league's smooth operation. Seasons encapsulate the timeframe and specific settings for competition. Leagues represent the organizational structure, including divisions or tiers of play. Registration controls the entry of teams into the league, while League Configuration holds the parameters set by the administrator, such as league size, match frequency, and registration deadlines. These roles interact closely to facilitate the dynamic creation and management of competitive environments.

## Inbound Communication

**Collaborator** - Team and Player Management

**Message** - Team registration requests, player account creation notifications

**Collaborator** - Venue Management

**Message** - Venue availability updates, venue assignment requests

**Collaborator** - Tournament Management

**Message** - Requests for tournament setup within a league season

## Ubiquitous Language

**League** - A structured group of teams competing under a set of rules and settings defined by the LeagueAce system. It's the primary organizational unit for competition.

**Season** - A specific period during which a series of competitions (matches) take place within a league, ending with a final tournament or championship.

**Registration Deadline** - The last date by which teams must register to participate in a league's season, critical for league planning and structure.

**League Configuration** - The set of parameters and rules defined by the league administrator that dictate how the league and its seasons are structured and operate.

## Business Decisions

League settings (such as start/end dates, team counts, and registration deadlines) must be configurable to accommodate various competition formats and preferences.

A league must have a clear mechanism for season progression, including the setup of matches, tracking of results, and transition into post-season play if applicable.

The system must enforce registration deadlines to ensure league integrity and operational feasibility.

Flexibility in league configuration allows for different competitive formats, ensuring the LeagueAce system can cater to a wide range of sports or games.

## Outbound Communication

**Message** - League and season configuration updates

**Collaborator** - Match Scheduling and Management

**Message** - League creation notifications

**Collaborator** - Notification Services for alerting league administrators and teams

**Message** - Season progression updates

**Collaborator** - Results Reporting and Standings

## Assumptions

It is assumed that the league administrator has sufficient knowledge and authority to set up and manage league parameters effectively.

The system is assumed to have a robust and flexible infrastructure to support a wide range of league configurations and requirements.

Teams and players are assumed to be familiar with the system's operation and league participation requirements.

There's an assumption of a cooperative and communicative relationship between the League Management context and other contexts like Venue Management and Team and Player Management.

## Verification Metrics

User satisfaction scores from league administrators and participants can indicate how well the bounded context meets its users' needs.

The number of leagues successfully created and completed without administrative issues measures the effectiveness of the league management process.

The adaptability of the system to various sports or competition formats, as evidenced by the diversity of leagues hosted, could indicate the bounded context's flexibility.

The timeliness and accuracy of league setup, season progression, and registration management reflect operational efficiency.

## Open Questions

How does the system handle conflicts or changes in league settings after the season has started?

What mechanisms are in place to accommodate leagues with unique or non-traditional formats?

How is league data (teams, standings, schedules) integrated with other bounded contexts, such as Match Scheduling and Tournament Management?

What feedback mechanisms are available for league administrators and

# Purpose

The purpose of the League Management bounded context is to centralize and streamline the processes involved in setting up, organizing, and managing leagues. This includes everything from creating the league itself, defining its structure, scheduling seasons, and managing the registration of teams and players. It serves as the backbone of the LeagueAce system, ensuring that leagues run smoothly and efficiently.

# Strategic Classification

League Management is classified as a Core Domain, as it is essential to the unique selling proposition of the LeagueAce system. The success of the system heavily relies on its ability to effectively manage leagues, making it a critical component that directly contributes to the system's competitive advantage.

# Domain Roles

- **League Administrator:** Manages league settings, oversees league creation, and season configurations.
- **Scheduler:** Generates and manages the league and match schedules.
- **Registrar:** Manages team and player registration processes.

# Inbound Communication

- **Collaborator - Team Management**
  - **Message** - Requests for team and player registration.
- **Collaborator - Tournament Management**
  - **Message** - Requests for integrating tournament schedules into the league.

# Ubiquitous Language

- **League** - A structured competition involving multiple teams or players, following a set of rules and schedules.
- **Season** - A specific timeframe within which a series of competitions (matches) take place in a league.

# Business Decisions

- A league must have a defined start and end date, along with specific criteria for team participation, such as minimum and maximum team counts.
- Season schedules must accommodate venue availability and team preferences to the extent possible, ensuring fair play.

# Outbound Communication

- **Message** - Season schedule updates
  - **Collaborator** - Team Management
- **Message** - League creation confirmation and details
  - **Collaborator** - Tournament Management

## Assumptions

- It is assumed that the League Management system has access to up-to-date information on team registrations and venue availability to create viable schedules.
- Another assumption is that teams and players have a mechanism to express their preferences and availability, which is considered during scheduling.

## Verification Metrics

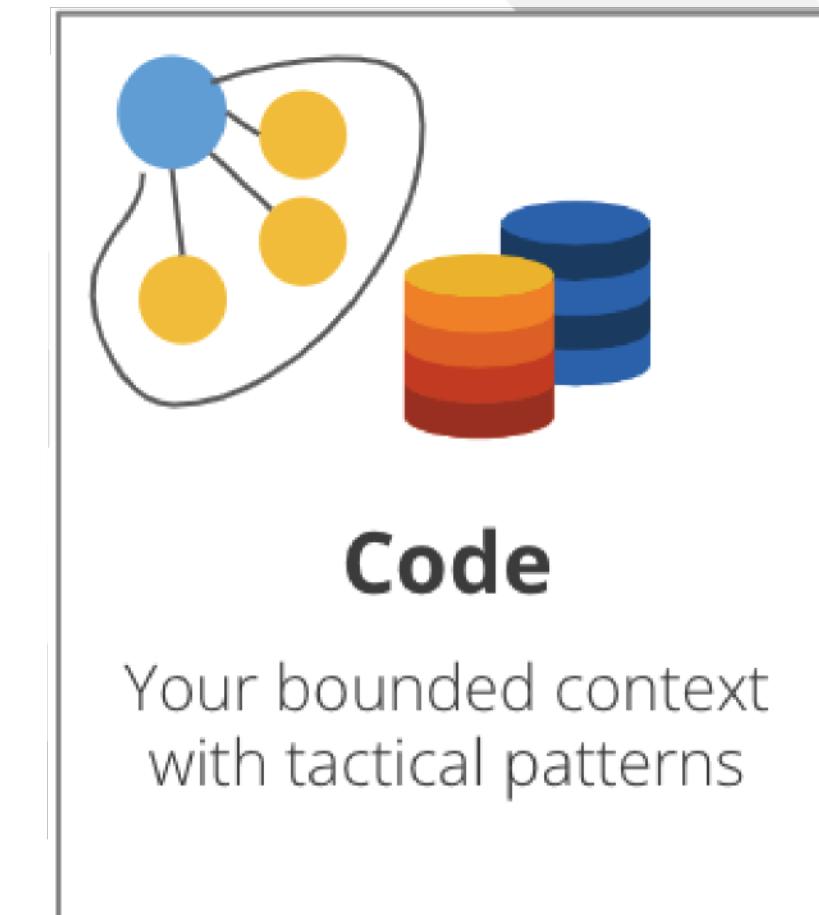
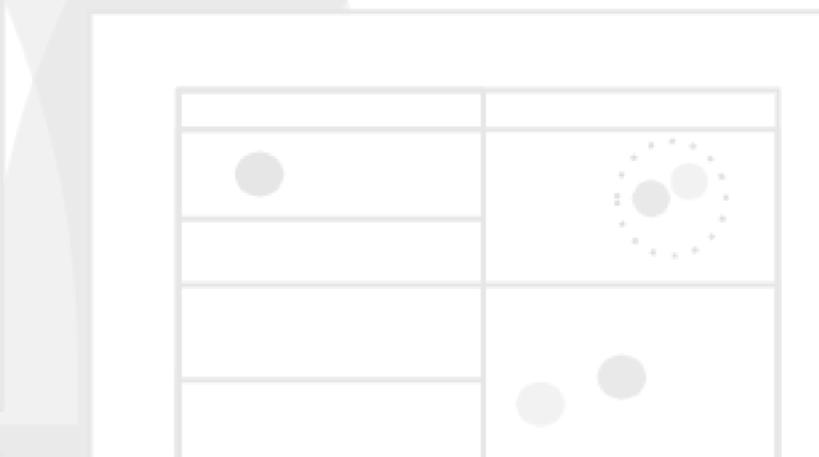
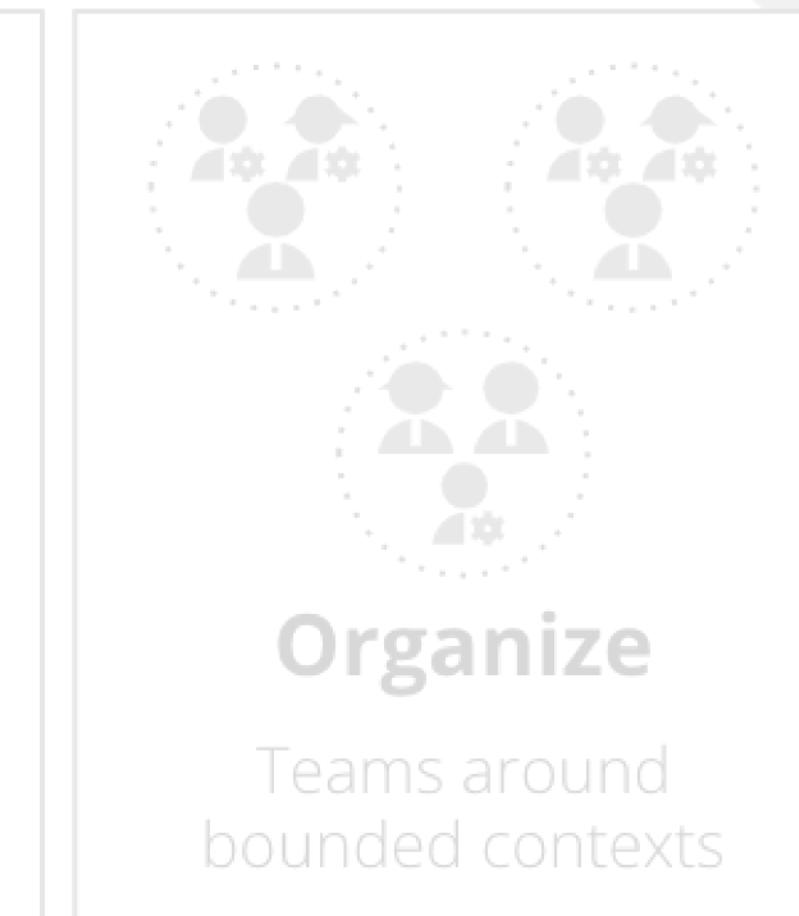
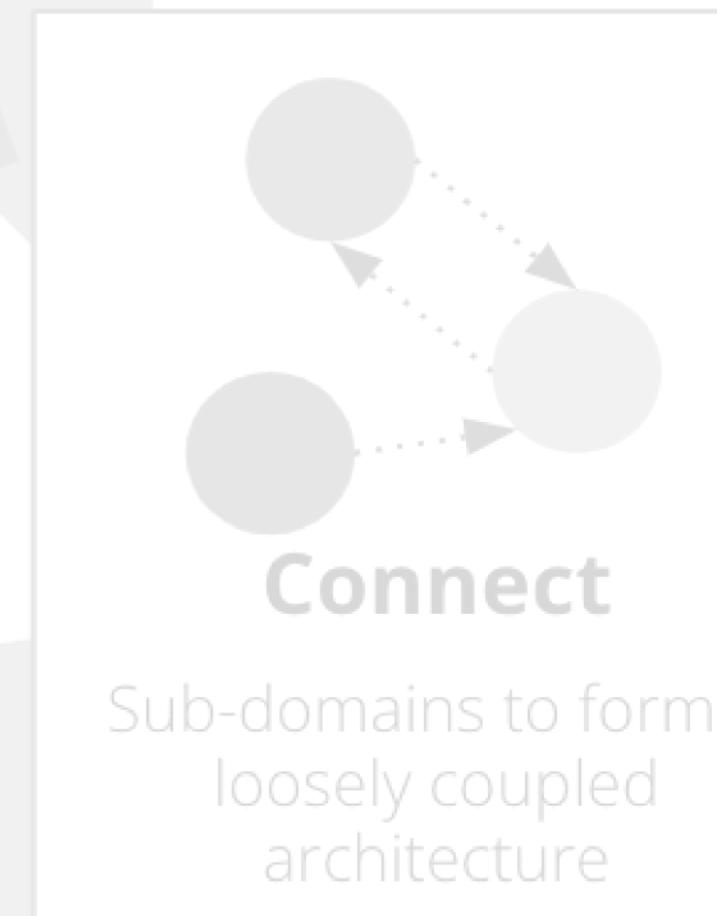
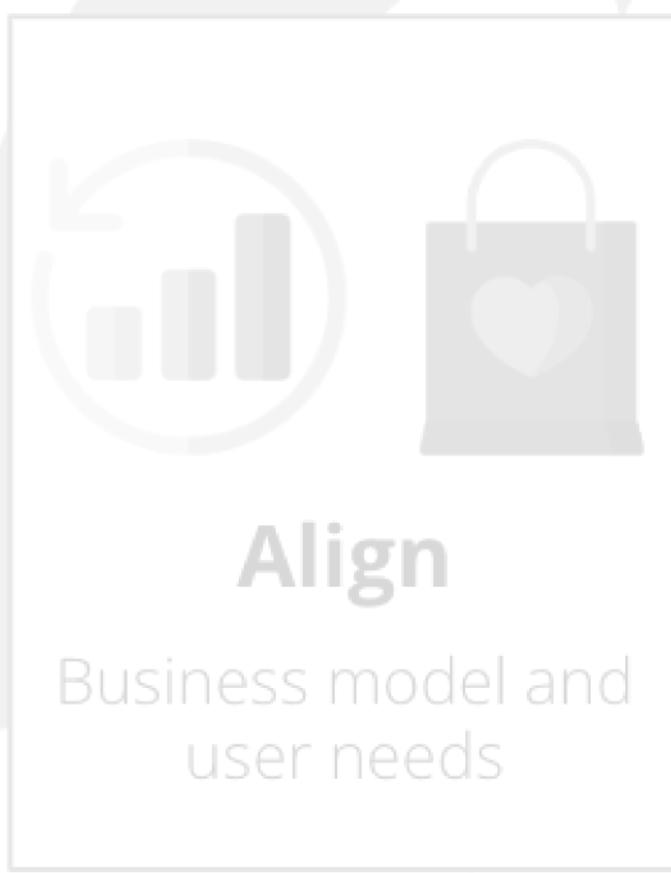
- The efficiency of league setup processes and season scheduling can be measured by the time taken from league creation to the start of the season.
- Participant satisfaction surveys can provide qualitative data on how well the league management processes meet team and player needs.

## Open Questions

- How do we handle league or season cancellations and communicate these changes to affected teams and players?
- What mechanisms are in place to resolve scheduling conflicts, especially in cases of venue unavailability or overlapping team schedules?

# Domain-Driven Design starter modeling process

A starter process for beginners, not a rigid best-practice.  
DDD is continuous, evolutionary and iterative design.



# **The Verdict:**

# **Human Intelligence Still Required**

**But...**

**We have a new tool in our toolbox that could be quite powerful and deserves more study and experimentation**



[https://github.com/pbohnenkamp/  
harnessing-langs-for-ddd](https://github.com/pbohnenkamp/harnessing-langs-for-ddd)

# Thanks!

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