



Resource and locatie simulatie

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Idee

- Gamified simulator / digital twin o.b.v. verkregen data
 - Populatie maximaliseren
 - Beste gewassen kiezen per locatie t.b.v.
 - Weer
 - Locatie
 - Nutriënten
 - Groeisnelheid
-

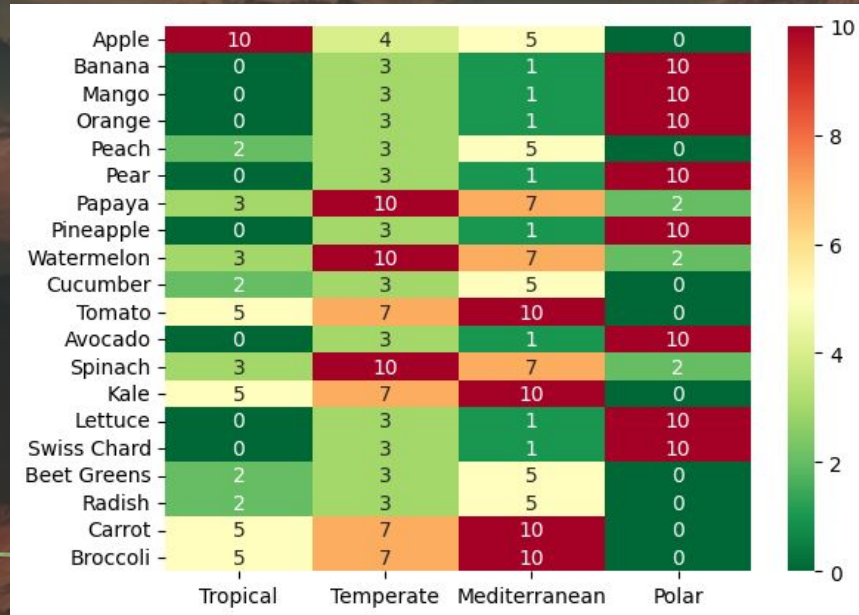
Waarom?

- **Simuleren** van gewassen en locaties zonder risico
 - **Optimalisatie** van gewascombinaties voor betere opbrengst
 - **Kostenefficiëntie** door fouten te voorkomen
 - **Visuele representatie** voor betere besluitvorming
 - Betrokkenheid vergroten door **gamification**
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Data & Analyse

- “Location Köppen Geiger Classification”
- Beste planten per locatie

CLIMATE SCORE	GROWTH SPEED	NUTRITION	WATER EFFICIENCY	TOTAL SCORE
1	0.96	0.52	1	1
1	0.53	0.71	1	0.91
1	0.84	0.24	1	0.91
1	0.31	0.77	1	0.86
1	0.18	0.93	1	0.85
1	0.1	0.96	1	0.83
1	0.27	0.64	1	0.82



```
# Create a scoring dataframe
plant_scores = pd.DataFrame({
    'Name': PLANTS_DF['Name'],
    'Climate_Score': [COMPATIBILITY_MATRIX[climate_type][name] for name in PLANTS_DF['Name']],
    'Growth_Speed': 100 / PLANTS_DF['Time to Consumable (days)'],
    'Nutrition_Score': PLANTS_DF['Kcal per 100g'] * 0.7 + PLANTS_DF['Proteins per 100g (g)'] * 3,
    'Water_Efficiency': 2 - PLANTS_DF['Watering Needs']
})
```


Technologie

- Backend & Analyse:
 - Python
 - FastAPI
- Frontend:
 - Typescript
 - Three.js
 - Tailwind



Demo

⌵ Protein: 318g

⚡ Calories: 32502kcal

👤 Food: 82404

👤 Population: 255

▶ Play

⏪ Slower

⏩ Faster

🕒 1x

🕒 Wed Jun 12 2024



Location Details

Tile data - 7 1

Location: Airstrip One

Plant Information

Marshmallow

Growth Stage: Sprout

Days Planted: 48

Days Until Harvest: 71

Latin Name: Marshmallow minor

Expected Weight: 1 kg

Calories: 385 kcal/100g

Protein: 1g/100g

Growth Progress:

40.3%

Delete Plant