SVELTE

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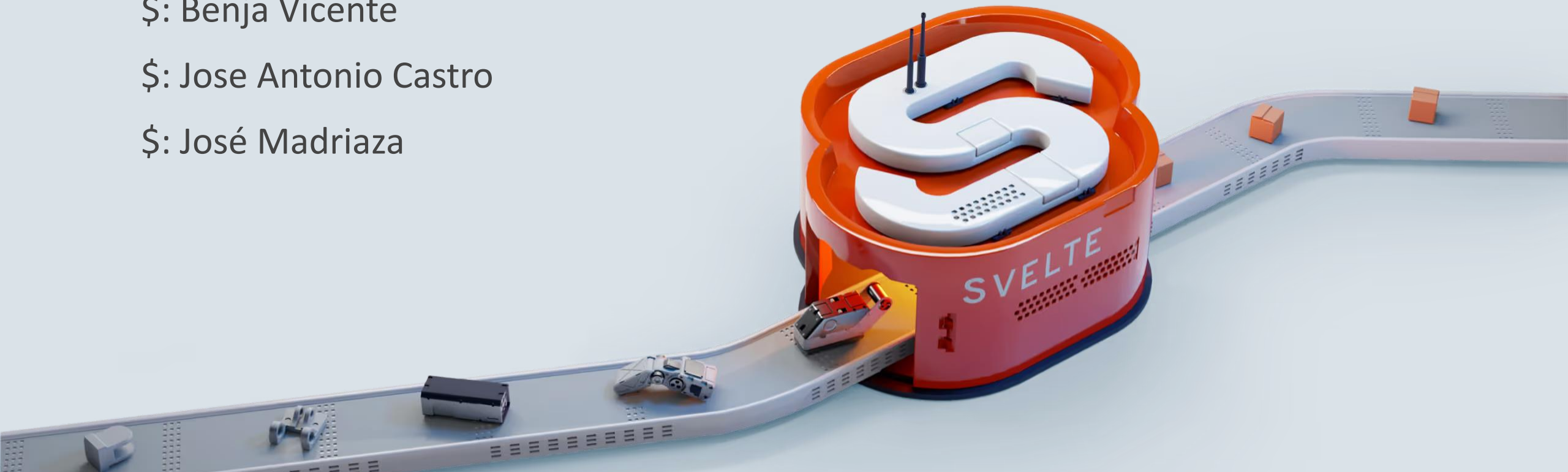
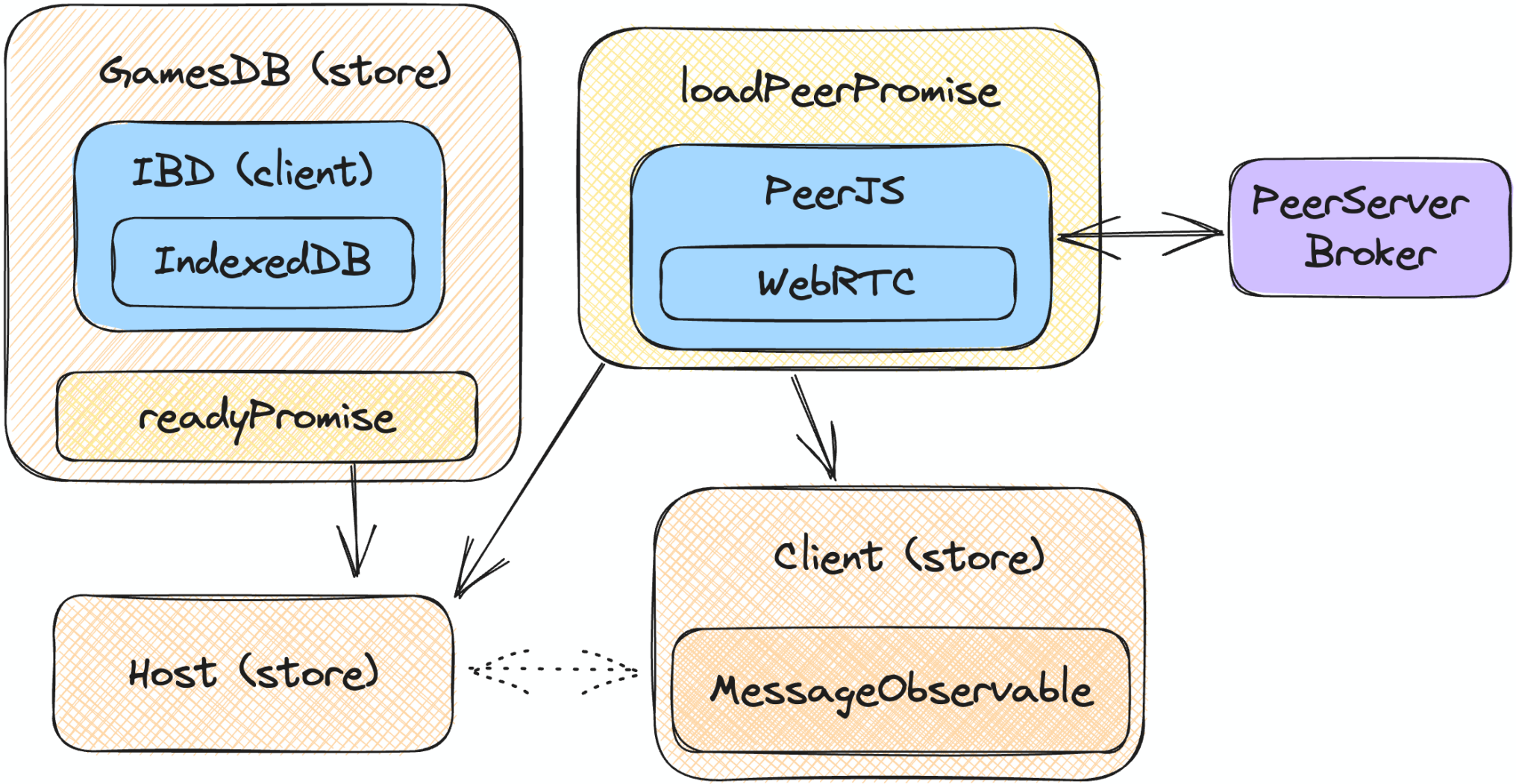


Demo:

Wordle Competitivo

Estado de la aplicación



Svelte

- Domain Specific Language (DLS) para componentes
- Busca unir performance y agilidad
- Aprovecha fuertemente un proceso de compilación
- Pensado para visualizaciones (facil de añadir animaciones)
- Aprovecha mucho contratos *framework-agnostic*

Componentes

```svelte
<script lang="ts">
  import { page } from '$app/stores';
  import ClientGameScreen from './ClientGameScreen.svelte';
  import { loadPeerPromise } from '$lib/peer';

  const queryParamId = $page.url.searchParams.get('game');
</script>

<main>
  {#await loadPeerPromise}
    <div>Loading</div>
  {:then peer}
    <ClientGameScreen {peer} {queryParamId} />
  {/await}
</main>
```

```svelte
<script lang="ts">
  import type { Peer } from '$lib/peer';
  import GameDisplay from './GameDisplay.svelte';
  import { createGameClientStore } from './client';

  export let peer: Peer;
  export let queryParamId: string | null = null;

  const client = createGameClientStore(peer);
  if (queryParamId) client.connect(queryParamId);

  let connectionInputValue = '';
</script>

{#if $client.status === 'establishing-connection'}
  <div>Establishing connection</div>
{:else if $client.status === 'ready-to-connect'}
  <form on:submit|preventDefault={() => client.connect(connectionInputValue)}>
    <input type="text" name="game" bind:value={connectionInputValue} />
    <button type="submit">Join</button>
  </form>
{:else if $client.status === 'connected'}
  <GameDisplay
    gameState={$client.gameStateObservable}
    on:changeName={(event) => client.changeName(event.detail)}
    on:guess={(event) => client.guessWord(event.detail)}
  />
{:else}
  <h1>Joining game</h1>
{/if}
```

Partes de un componente

```
<script context="module">
  // Código disponible a nivel de módulo
</script>

<script lang="ts">
  // Códiugo especial para el componente
</script>

<!-- Cuerpo del componente -->

<style lang="scss">
  /* Estilos locales */
</style>
```

Props

```
<script lang="ts">
  export let peer: Peer;
</script>

<GameDisplay
  gameState={$client.gameStateObservable}
/>
```

Lógica en los templates

Título : medio / Título

```
{#each $gameState.self.lastGuess.result as result, index}
  ...
{/each}
```

```
{#if $client.status === 'ready-to-connect'}
  ...
{:else if $client.status === 'connected'}
  ...
{/if}
```

```
<main>
  {#await loadPeerPromise}
    <div>Loading</div>
  {:then peer}
    <ClientGameScreen {peer} {queryParamId} />
  {/await}
</main>
```

Bindings

```
<script lang="ts">
  let connectionInputValue = '';
</script>

<input bind:value={connectionInputValue} />
```

Pasar valores de componente hijo a padre

Eventos

```
< on:eventname|modifiers={handler} />
```

```
<script lang="ts">
  import { createEventDispatcher } from 'svelte';

  const dispatch = createEventDispatcher<{ guess: string }>();
  let guess: string = '';
</script>

<form
  on:submit|preventDefault={() => {
    dispatch('guess', guess);
    guess = '';
  }}
>
  <input bind:value={guess} {disabled} type="text" />
</form>
```

```
<GameDisplay
  gameState={$client.gameStateObservable}
  on:changeName={(event) => client.changeName(event.detail)}
  on:guess={(event) => client.guessWord(event.detail)}
/>
```

Animaciones

```svelte
<script lang="ts">
  import { flip } from 'svelte/animate';
</script>

<ul>
  {#each players as player (id)}
    <li class="flex gap-2" animate:flip>
      ...
    </li>
  {/each}
</ul>
```

Animaciónes faciles con animate:flip

```svelte
{#key $gameState.self.lastGuess?.time}
  <div>
    {#if $gameState.self.lastGuess}
      {#each lastGuess as result, index}
        <span in:receive={{ key: index }} />
      {/each}
    {/if}
  </div>
{/key}

{#key $gameState.self.lastGuess?.time}
  <div>
    {#each guess as _, index}
      <span in:fade out:send={{ key: index }}/>
    {/each}
  </div>
{/key}
```

Estado

Reactividad Compilada

```svelte
<script>
  let counts = new Array(5).fill(0).map(() => new Array(5).fill(0))
</script>

{#each counts as row, rowIndex}
  <div>
    {#each row as count, colIndex}
      <!-- Se actualiza todo lo que depende de counts -->
      <button on:click={() => counts[rowIndex][colIndex] += 1 }>
        {count}
      </button>
    {/each}
  </div>
{/each}
```

Stores

```svelte
<script>
  import { writable } from 'svelte/store';

  function createCount() {
    const { subscribe, set, update } = writable(0);

    return {
      subscribe,
      increment: () => update(n => n + 1),
      decrement: () => update(n => n - 1),
      reset: () => set(0)
    };
  }

  const count = createCount();
</script>

<h1>The count is {$count}</h1>

<button on:click={count.increment}>+</button>
<button on:click={count.decrement}>-</button>
<button on:click={count.reset}>reset</button>
```

Store contract

```
type UnsubscribeFn = (() ⇒ void) | { unsubscribe: () ⇒ void) }

interface Store<T> = {
  // subscribe debe llamar a subscription inicialmente y por cada cambio
  subscribe: (subscription: (value: T) ⇒ void) ⇒ UnsubscribeFn,
  // para habilidar $store = ...
  set?: (value: T) ⇒ void
  // una store también puede tener atributos adicionales (actions)
}
```

Las stores no dependen de un estado global ni de svelte

Store son compatibles con RxJS

```
function createMessageObservable(conn: Connection) {
  return (
    fromEventPattern(
      (handler) ⇒ conn.on('data', handler),
      (handler) ⇒ conn.off('data', handler),
    ) as Observable<MessageToPlayer>
  ).pipe(
    filter(({ type }) ⇒ type === 'game-state'),
    shareReplay(1),
  );
}
```

```
<div style:background-color={$gameState.self.representation.color}>
  {getEmoji($gameState.self.representation.emojiIndex)}
</div>
```

```
// Notificar que está listo en el primer mensaje
gameStateObservable.pipe(first()).subscribe(() ⇒ notifySubscribers());
```

Actions contract

```
interface Action<Params> {
  (node: HTMLElement, parameters: Params) ⇒ {
    update?: (parameters: Params) ⇒ void,
    destroy?: () ⇒ void
  }
}
```

Las actions no dependen de svelte

Actions

```
<ul use:dndzone={{ items: wordsWithIdAttr, flipDurationMs }}>
  ...
</ul>
```

isaacHagoel/**svelte-dnd-action**

An action based drag and drop container for Svelte

15 Contributors | 663 Used by | 1k Stars | 64 Forks

isaacHagoel/**solid-dnd-directive**

A directive based drag and drop container for solid-js

butor | 28 Used by | 59 Stars | 2 Forks

```
{
  "peerDependencies": {
    "solid-js": "^1.0.0"
  },
  "dependencies": {
    "svelte-dnd-action": "0.9.11"
  }
}
```

Conclusiones

- Magia del compilador ayuda a desarrollar muy ágilmente
- Los contratos permiten estar pensando JS y no en frameworks
- Tiene rough edges[1] pero va bien encaminado

[1] Por ejemplo, las stores solo se pueden usar con $ si están definidas en el script del componente