What I learnt building a web app with Go and HTMX

Introduction

- Haseeb Majid
  - Backend Software Engineer at Nala
  - https://haseebmajid.dev
- Loves cats 🐱
- Avid cricketer 🏏 #BazBall

Who is this for?

- Backend Developers

```
> 2 + 2
<- 4
> "2" + "2"
<- "22"
> 2 + 2 - 2
<- 2
> "2" + "2" - "2"
<- 20
```



Story Time



Banter Bus



Enter a nickname and choose an avatar

GracefulBlushOrangutan

PLAY


English (GB)
Frontend Trace ID: Loading...
Click to copy
Banter Bus
Room Code
5GOKT
HostPlayer
NOT READY
OtherPlayer0
NOT READY
Ready

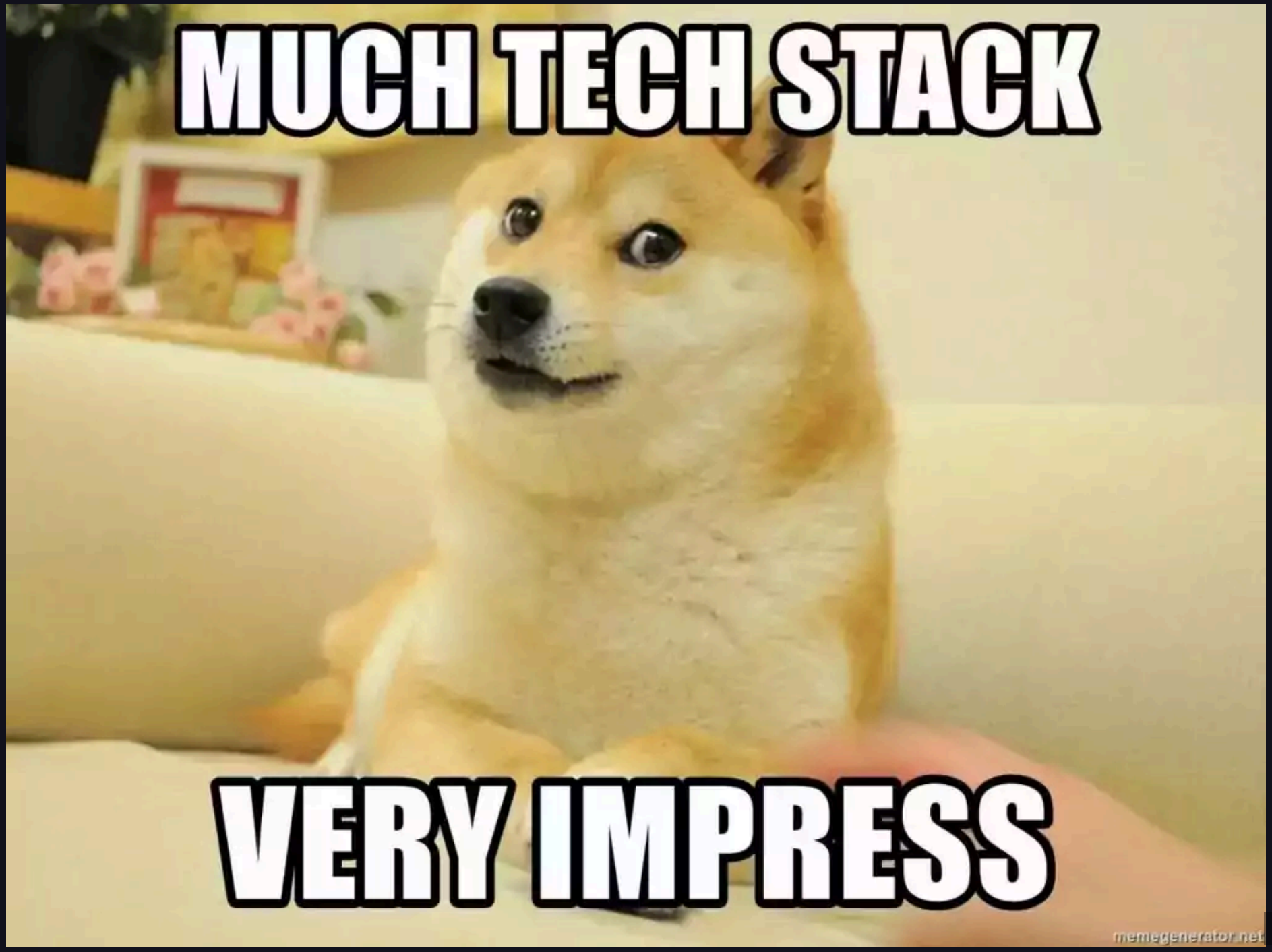


Tech Stack (Backend)

- Go
- Postgres
- Templ

Tech Stack (Frontend)

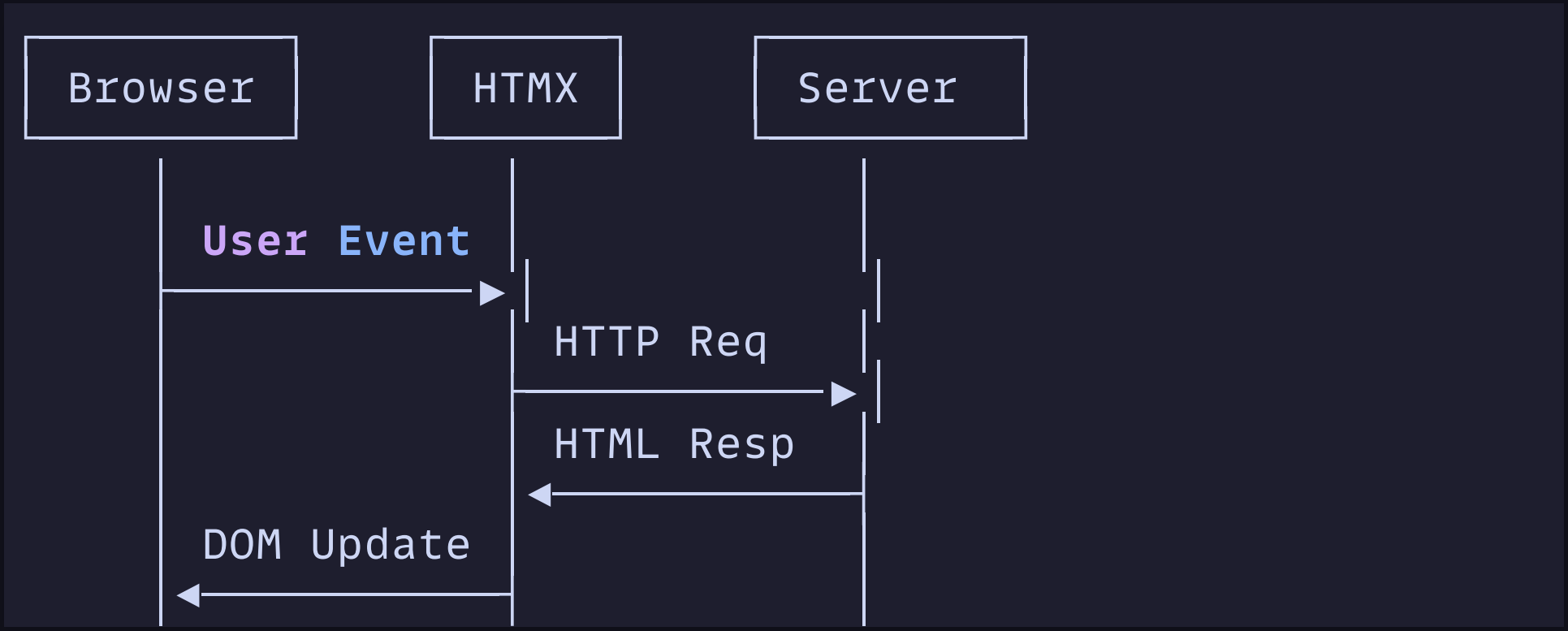
- HTMX
- TailwindCSS
- AlpineJS

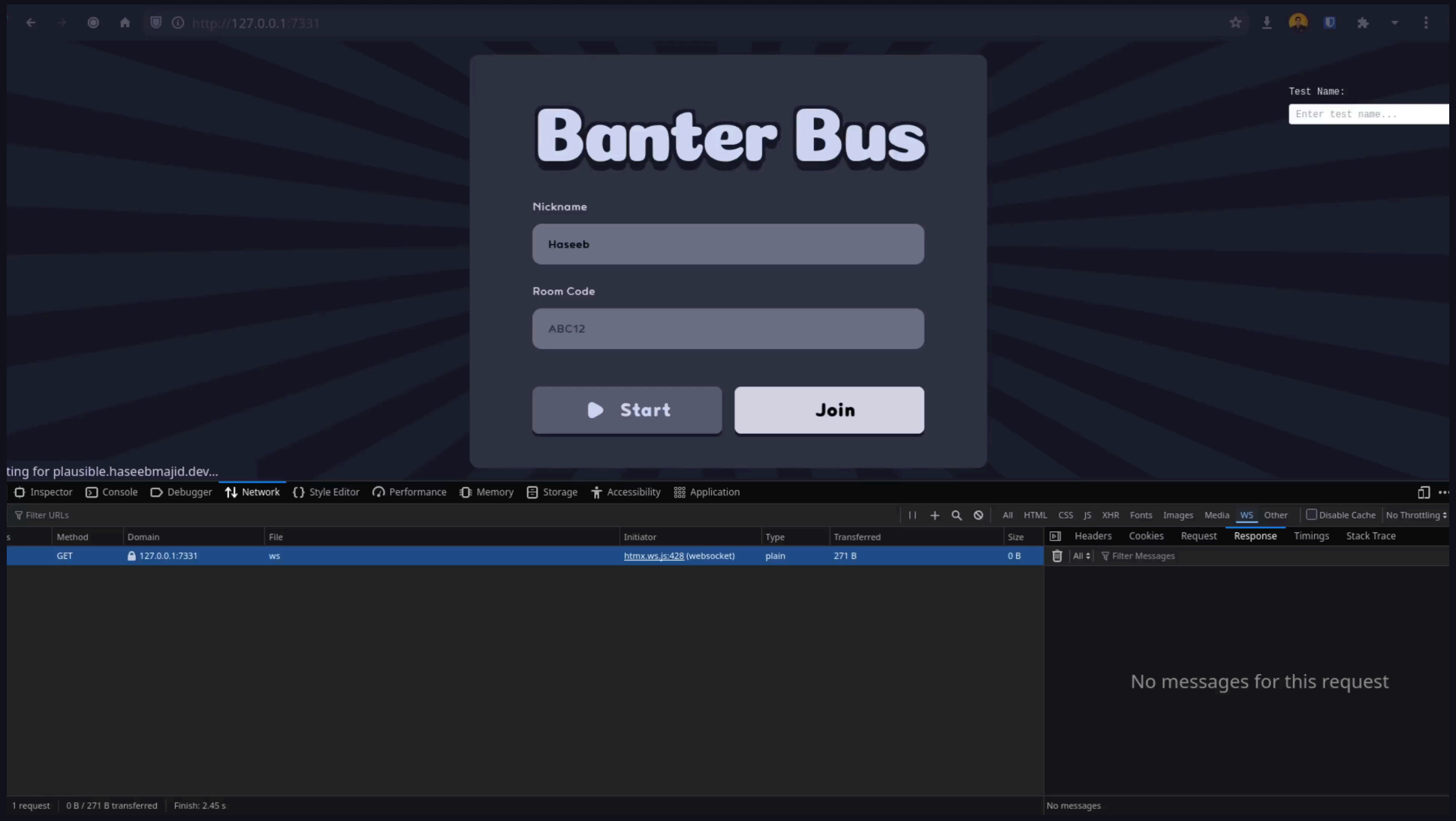

MUCH TECH STACK
VERY IMPRESS
memegenerator.net

HTMX

```
javascript fatigue:
longing for a hypertext
already in hand
```

— htmx.org


Browser
HTMX
Server
User Event
HTTP Req
HTML Resp
DOM Update


http://127.0.0.1:7331
Test Name:
Enter test name...
Banter Bus
Nickname
Haseeb
Room Code
ABC12
Start
Join
ting for plausible.haseebmajid.dev...
Inspector
Console
Debugger
Network
Style Editor
Performance
Memory
Storage
Accessibility
Application
Filter URLs
All HTML CSS JS XHR Fonts Images Media WS Other
Disable Cache
No Throttling
Method
Domain
File
Initiator
Type
Transferred
Size
GET
127.0.0.1:7331
ws
htmx.ws.js:428 (websocket)
plain
271 B
0 B
Headers
Cookies
Request
Response
Timings
Stack Trace
All
Filter Messages
No messages for this request
1 request
0 B / 271 B transferred
Finish: 2.45 s
No messages

Attribute	Purpose	Example
`hx-get`	GET request	`hx-get="/users"`
`hx-post`	POST request	`hx-post="/users"`
`hx-trigger`	Event trigger	`hx-trigger="click"`
`hx-target`	Target element	`hx-target="#result"`
`hx-swap`	Swap strategy	`hx-swap="innerHTML"`

Swap Strategies

```
<!-- Replace inner content -->
<div hx-swap="innerHTML">...</div>

<!-- Replace entire element -->
<div hx-swap="outerHTML">...</div>

<!-- Insert at beginning -->
<div hx-swap="afterbegin">...</div>

<!-- Insert at end -->
<div hx-swap="beforeend">...</div>
```

Advanced Triggers

```
<!-- Trigger on page load -->
<div hx-get="/data" hx-trigger="load">

<!-- Trigger on intersection (lazy loading) -->
<div hx-get="/more" hx-trigger="intersect once">

<!-- Debounced input -->
<input hx-get="/search"
       hx-trigger="keyup changed delay:500ms">

<!-- Multiple triggers -->
<div hx-get="/refresh"
     hx-trigger="click, every 30s">
```

Advanced Triggers

```
<!-- Trigger on page load -->
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<input hx-get="/search"
       hx-trigger="keyup changed delay:500ms">

<!-- Multiple triggers -->
<div hx-get="/refresh"
     hx-trigger="click, every 30s">
```

Loading Indicators

```
<button hx-post="/submit"
        hx-indicator=".loading">
    <span class="htmx-show">Submit</span>
    <span class="loading htmx-indicator">
        Submitting...
    </span>
</button>
```

Loading Indicators

```
<button hx-post="/submit"
        hx-indicator=".loading">
    <span class="htmx-show">Submit</span>
    <span class="loading htmx-indicator">
        Submitting...
    </span>
</button>
```

```
<script src="https://unpkg.com/htmx.org@2.0.2"></script>
<script
   src="https://unpkg.com/htmx.org/dist/ext/json-enc.js">
</script>
```

HTMX

```
<form
    class="space-y-4"
    hx-post="/waitlist"
    hx-target="#container"
    hx-swap="innerHTML"
    hx-ext="json-enc"
>
    <label class="w-full input validator">
        <i class="h-6 hgi hgi-solid hgi-tick-02"></i>
        <input
            type="email"
            name="email"
            placeholder="hello@example.com"
```

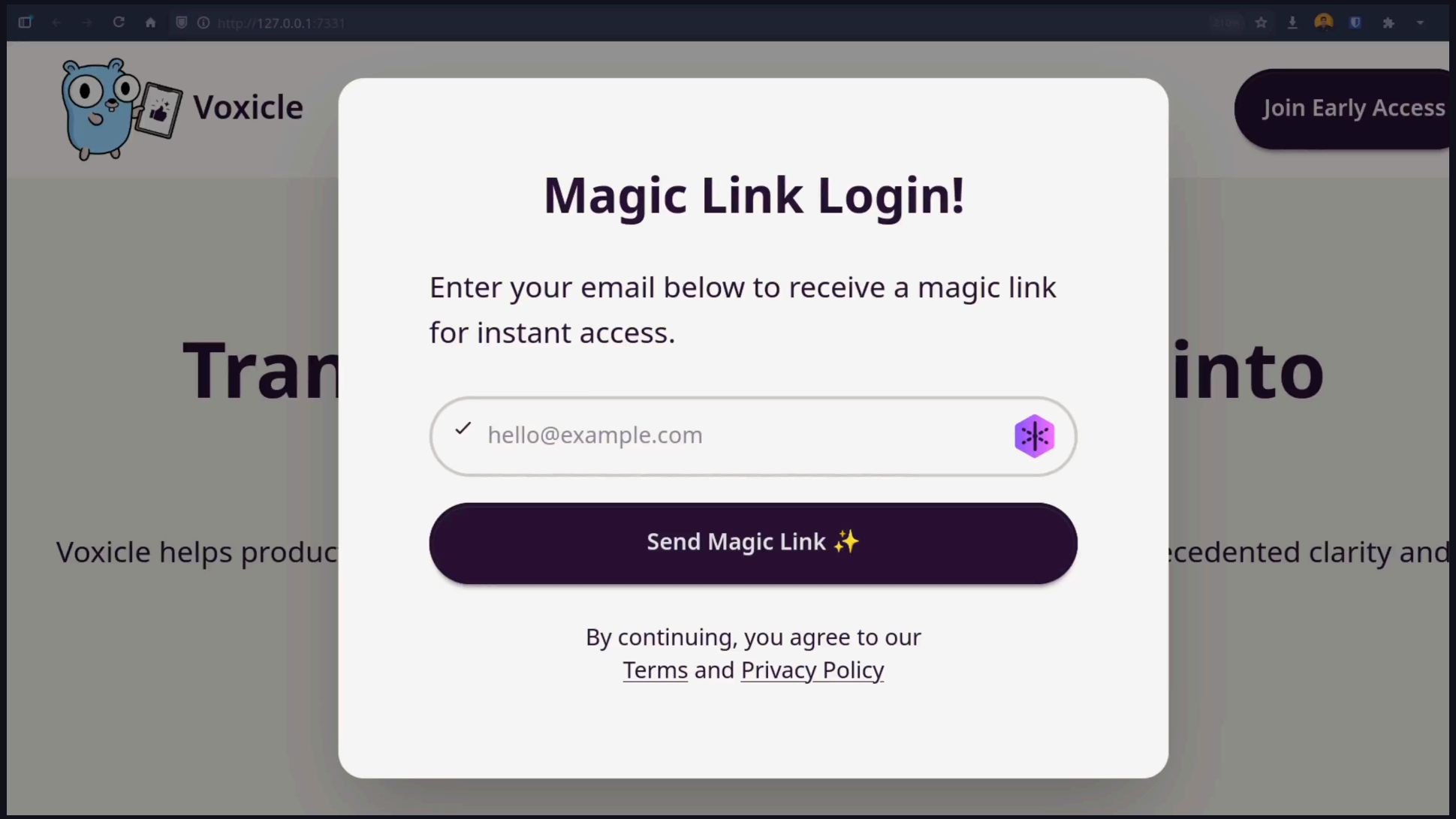
HTMX

```
 6       hx-ext="json-enc"
 7   >
 8       <label class="w-full input validator">
 9           <i class="h-6 hgi hgi-solid hgi-tick-02"></i>
10           <input
11               type="email"
12               name="email"
13               placeholder="hello@example.com"
14               required
15           />
16       </label>
17       <div class="hidden validator-hint">
18           Enter valid email address
19       </div>
```

```
type Waitlist struct {
  Email string `json:"email"`
}
```

```
<div class="p-8 space-y-6 text-center">
    <div class="flex justify-center text-neutral">
        <i class="h-10 text-neutral hgi hgi-solid hgi-
    </div>
    <h3 class="text-2xl font-semibold">
        You're on the Waitlist 🎉
    </h3>
    <div class="space-y-6">
        <p>Thank you for your interest in our applicat
        <p>
            We'll notify you at
            <br/>
            <span class="font-mono text-primary">
```

```
 8      <div class="space-y-6">
 9          <p>Thank you for your interest in our applicat
10          <p>
11              We'll notify you at
12              <br />
13              <span class="font-mono text-primary">
14                  hello@haseebmajid.dev
15              </span>
16              <br />
17              when we're ready to launch.
18          </p>
19      </div>
20  </div>
```


http://127.0.0.1:7331
Voxicle
Join Early Access
Magic Link Login!
Enter your email below to receive a magic link for instant access.
hello@example.com
Send Magic Link ✨
By continuing, you agree to our Terms and Privacy Policy
Tran
into
Voxicle helps produc
ecedented clarity and

Why HTMX?

- State on backend
- Reduced complexity
- Simpler tooling

What about JSON?

- Separate API
- Mobile vs WebApp


React, vue, angular, svelte...
HTMX
20.4
TÜRKİYE

```
w.Header().Set("HX-Retarget", "#error_modal_container")
w.Header().Set("Content-Type", "text/html")
```

WebSockets

```
<div
     hx-ext="ws"
     ws-connect="/ws">

    <form
        hx-vals='{"message_type": "submit_vote" }'
        ws-send
    >
        <input name="voted_player_nickname" />
    </form>
</div>
```

WebSockets

```
<div
     hx-ext="ws"
     ws-connect="/ws">

    <form
        hx-vals='{"message_type": "submit_vote" }'
        ws-send
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```

WebSockets

```
<div
     hx-ext="ws"
     ws-connect="/ws">

    <form
        hx-vals='{"message_type": "submit_vote" }'
        ws-send
    >
        <input name="voted_player_nickname" />
    </form>
</div>
```

```
{
    "message_type": "submit_vote",
    "voted_player_nickname": "majiy"
}
```

Caching Strategies

```
<!-- Cache GET requests -->
<div hx-get="/expensive-data"
     hx-trigger="load"
     hx-cache="true">
</div>

<!-- Conditional requests -->
<div hx-get="/data"
     hx-headers='{"If-None-Match": "etag123"}'>
</div>
```

HTMX Response Codes

• 204 - No Content • 304 - Not Modified • 4xx - Client errors • 5xx - Server errors

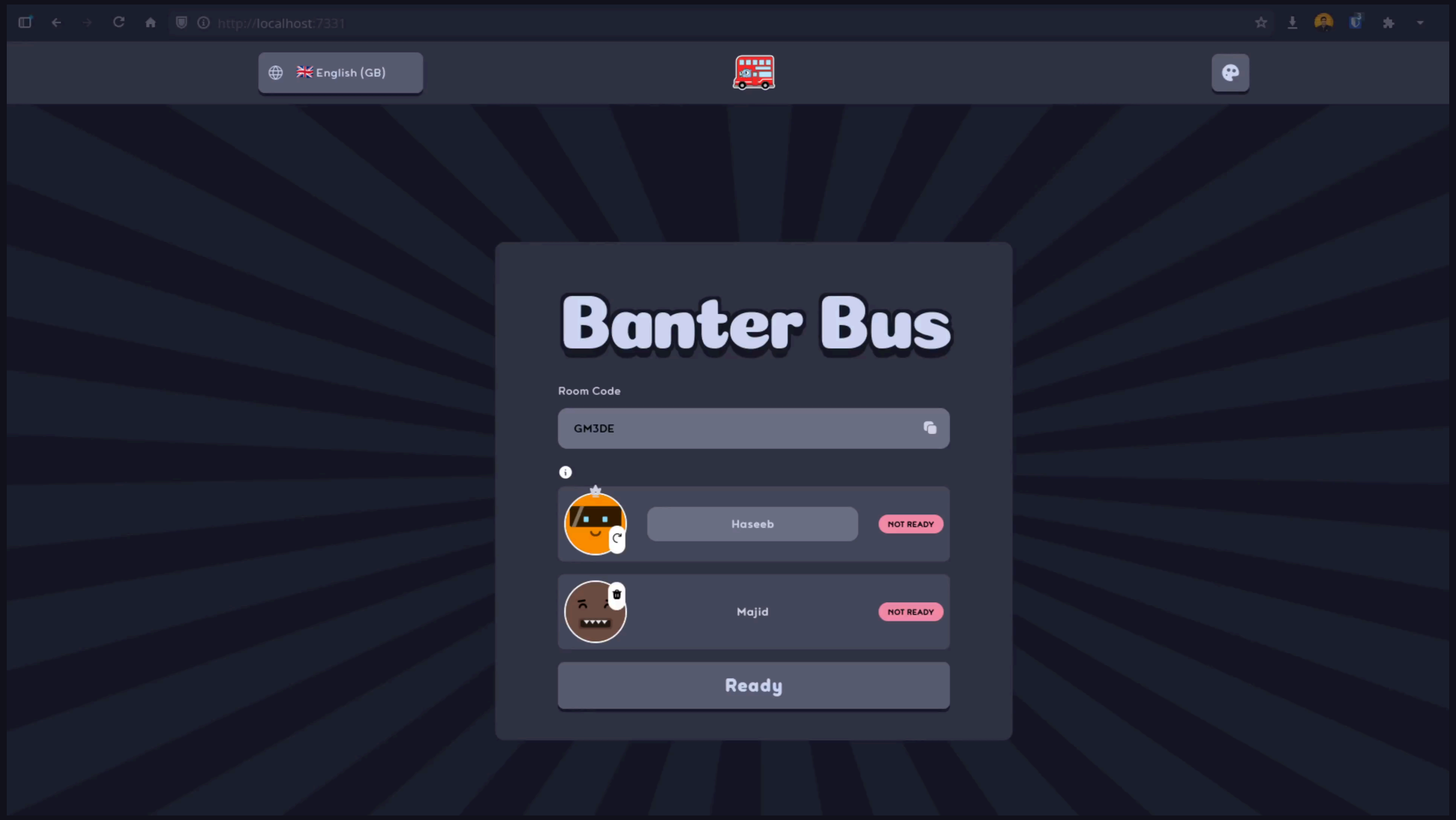
AlpineJS

```
<script
src="https://cdn./.../alpinejs@3.14.3/dist/cdn.min.js">
</script>
```

```
<div
    x-data={ "showModal": false }
    @keydown.escape="showModal = false"
>
    <button type="button" @click="showModal = true">
        <i class="hgi-information-circle"></i>
    </button>
    <div x-show="showModal">modal</div>
</div>
```

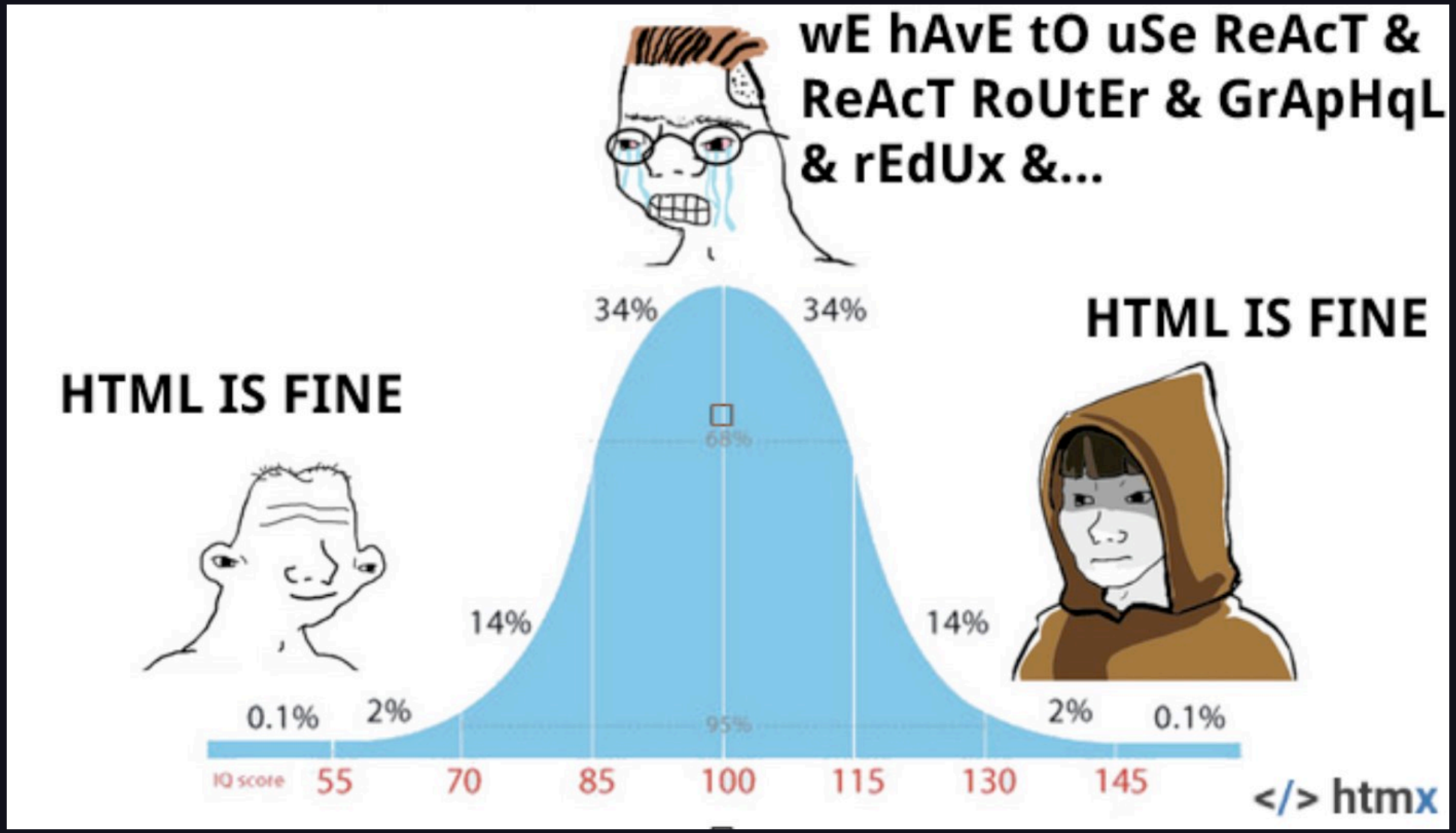
```
<div
    x-data={ "showModal": false }
    @keydown.escape="showModal = false"
>
    <button type="button" @click="showModal = true">
        <i class="hgi-information-circle"></i>
    </button>
    <div x-show="showModal">modal</div>
</div>
```

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<div
    x-data={ "showModal": false }
    @keydown.escape="showModal = false"
>
    <button type="button" @click="showModal = true">
        <i class="hgi-information-circle"></i>
    </button>
    <div x-show="showModal">modal</div>
</div>
```


http://localhost:7331
English (GB)
Banter Bus
Room Code
GM3DE
Haseeb
NOT READY
Majid
NOT READY
Ready

Alternatives

- Datastar
- Alpine AJAX


wE hAvE tO uSe ReAcT &
ReAcT RoUtEr & GrApHqL
& rEdUx &...
HTML IS FINE
HTML IS FINE
34%
34%
68%
14%
14%
0.1%
2%
95%
2%
0.1%
IQ score
55
70
85
100
115
130
145
</> htmx

Backend

Handler

```
 1 type Waitlist struct {
 2   Email string `json:"email"`
 3 }
 4
 5 func (h *Handler) AddToWaitlist(
 6     w http.ResponseWriter,
 7     r *http.Request,
 8 ) {
 9     var req Waitlist
10     body, _ := io.ReadAll(r.Body)
11     json.Unmarshal(body, &req)
12
13     waitlist, err := h.service.AddToWaitlist(
```

Handler

```
type Waitlist struct {
  Email string `json:"email"`
}

func (h *Handler) AddToWaitlist(
    w http.ResponseWriter,
    r *http.Request,
) {
    var req Waitlist
    body, _ := io.ReadAll(r.Body)
    json.Unmarshal(body, &req)

    waitlist, err := h.service.AddToWaitlist(
```

Handler

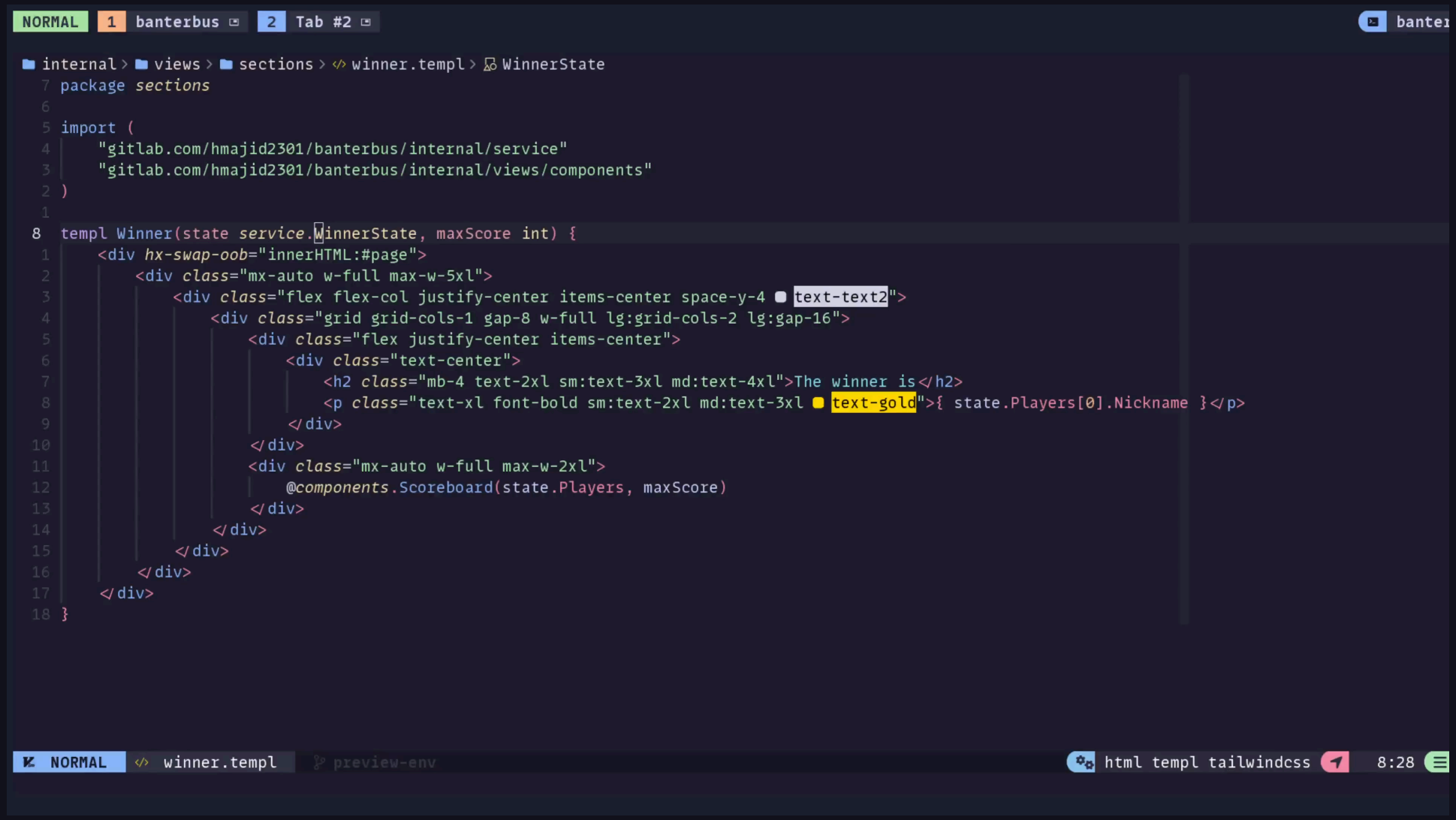
```
 8 ) {
 9     var req Waitlist
10     body, _ := io.ReadAll(r.Body)
11     json.Unmarshal(body, &req)
12
13     waitlist, err := h.service.AddToWaitlist(
14         r.Context(),
15         req.Email,
16     )
17     if err != nil {
18         http.Error(w,
19             err.Error(),
20             http.StatusInternalServerError,
21         )
```

Handler

```
15          req.Email,
16      )
17      if err != nil {
18          http.Error(w,
19              err.Error(),
20              http.StatusInternalServerError,
21          )
22          return
23      }
24
25      components.Waitlist(waitlist.Email).
26          Render(r.Context(), w)
27  }
```

Templ

- HTML Templates
- LSP
- Components


NORMAL 1 banterbus 2 Tab #2
internal > views > sections > winner.templ > WinnerState
package sections
import (
"gitlab.com/hmajid2301/banterbus/internal/service"
"gitlab.com/hmajid2301/banterbus/internal/views/components"
)
templ Winner(state service.WinnerState, maxScore int) {

<h2 class="mb-4 text-2xl sm:text-3xl md:text-4xl">The winner is</h2>
{ state.Players[0].Nickname }

@components.Scoreboard(state.Players, maxScore)

}
NORMAL winner.templ preview-env
html templ tailwindcss 8:28

```
package sections

import (
  "gitlab.com/hmajid2301/banterbus/internal/service"
  "gitlab.com/.../internal/views/blocks"
)

templ Winner(state service.WinnerState, maxScore int) {
<div hx-swap-oob="innerHTML:#page">
    <div>
        <div class="flex">
            <div class="grid>
                <div>
```

```
package sections

import (
  "gitlab.com/hmajid2301/banterbus/internal/service"
  "gitlab.com/.../internal/views/blocks"
)

templ Winner(state service.WinnerState, maxScore int) {
<div hx-swap-oob="innerHTML:#page">
    <div>
        <div class="flex">
            <div class="grid>
                <div>
```

```
 2
 3 import (
 4   "gitlab.com/hmajid2301/banterbus/internal/service"
 5   "gitlab.com/.../internal/views/blocks"
 6 )
 7
 8 templ Winner(state service.WinnerState, maxScore int)
 9 <div hx-swap-oob="innerHTML:#page">
10     <div>
11         <div class="flex">
12             <div class="grid>
13                 <div>
14                     The winner is
```

```
 4     "gitlab.com/rmaj1d2501/bantelbus/internal/service"
 5     "gitlab.com/.../internal/views/blocks"
 6 )
 7
 8 templ Winner(state service.WinnerState, maxScore int) {
 9 <div hx-swap-oob="innerHTML:#page">
10     <div>
11         <div class="flex">
12             <div class="grid>
13                 <div>
14                     The winner is
15                     { state.WinnerPlayer.Nickname }
16                 </div>
17                 @blocks.Scoreboard(
```

```
 8 templ winner(state service.WinnerState, maxScore int)
 9 <div hx-swap-oob="innerHTML:#page">
10     <div>
11         <div class="flex">
12             <div class="grid>
13                 <div>
14                     The winner is
15                     { state.WinnerPlayer.Nickname }
16                 </div>
17                 @blocks.Scoreboard(
18                     state.Players,
19                     maxScore,
20                 )
21             </div>
```

```
12              <div class="grid">
13                  <div>
14                      The winner is
15                      { state.WinnerPlayer.Nickname }
16                  </div>
17                  @blocks.Scoreboard(
18                      state.Players,
19                      maxScore,
20                  )
21              </div>
22          </div>
23      </div>
24  </div>
25  }
```

scripts.templ

```
templ Scripts(environment string) {
<script src="https://unpkg.com/htmx.org@2.0.2">
</script>
<script src="../dist/ext/json-enc.js">
</script>
<script src="../alpinejs@3.14.3/dist/cdn.min.js">
</script>
@sentryLoad(environment)
}
```

scripts.templ

```
1 templ Scripts(environment string) {
2 <script src="https://unpkg.com/htmx.org@2.0.2">
3 </script>
4 <script src".../dist/ext/json-enc.js">
5 </script>
6 <script src".../alpinejs@3.14.3/dist/cdn.min.js">
7 </script>
8 @sentryLoad(environment)
9 }
```

```
script sentryLoad(environment string) {
  Sentry.onLoad(function() {
    Sentry.init({
        environment: environment,
    });
  });
}
```

```
script sentryLoad(environment string) {
  Sentry.onLoad(function() {
    Sentry.init({
        environment: environment,
    });
  });
}
```

layout.templ

```
1  package layouts
2
3  import "gitlab.com/.../http/views/components"
4
5  templ Base(title string, environment string) {
6    <!DOCTYPE html>
7    <html lang="en">
8      <head>
9      </head>
10     <body class="bg-base-200 text-neutral">
11       { children... }
12     </body>
13   </html>
```

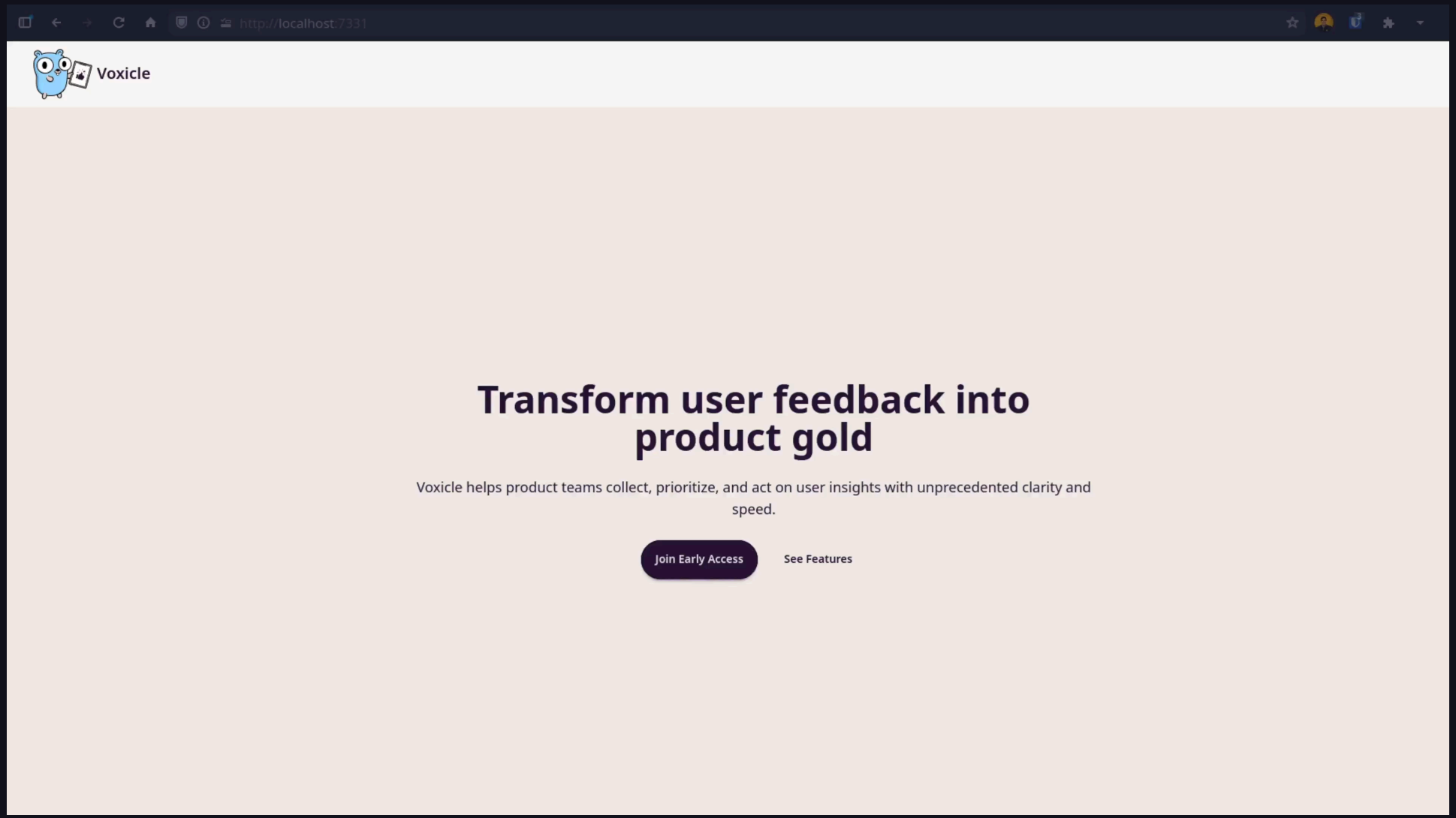
layout.templ

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 3 import "gitlab.com/.../http/views/components"
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12     </body>
13   </html>
14 }
```

layout.templ

```
 2
 3 import "gitlab.com/.../http/views/components"
 4
 5 templ Base(title string, environment string) {
 6   <!DOCTYPE html>
 7   <html lang="en">
 8     <head>
 9     </head>
10     <body class="bg-base-200 text-neutral">
11       { children... }
12     </body>
13   </html>
14 }
```

```
templ Dashboard(title string, environment string) {
  @Base(title, environment) {
        <div class="drawer lg:drawer-open">
        </div>
    }
}
```


http://localhost:7331
Voxicle
Transform user feedback into product gold
Voxicle helps product teams collect, prioritize, and act on user insights with unprecedented clarity and speed.
Join Early Access
See Features

i18n

```
 1 func (m Middleware) Locale(next http.Handler)
 2 http.Handler {
 3     return http.HandlerFunc(
 4         func(w http.ResponseWriter, r *http.Request) {
 5             locale := extractLocaleFromURL(r.URL.Path)
 6             ctx, err := ctxi18n.WithLocale(
 7                 r.Context(),
 8                 locale,
 9             )
10             next.ServeHTTP(w, r.WithContext(ctx))
11     })
12 }
```

i18n

```
 1 func (m Middleware) Locale(next http.Handler)
 2 http.Handler {
 3     return http.HandlerFunc(
 4         func(w http.ResponseWriter, r *http.Request) {
 5             locale := extractLocaleFromURL(r.URL.Path)
 6             ctx, err := ctxi18n.WithLocale(
 7                 r.Context(),
 8                 locale,
 9             )
10             next.ServeHTTP(w, r.WithContext(ctx))
11     })
12 }
```

i18n

```
 1 func (m Middleware) Locale(next http.Handler)
 2 http.Handler {
 3     return http.HandlerFunc(
 4         func(w http.ResponseWriter, r *http.Request) {
 5             locale := extractLocaleFromURL(r.URL.Path)
 6             ctx, err := ctxi18n.WithLocale(
 7                 r.Context(),
 8                 locale,
 9             )
10             next.ServeHTTP(w, r.WithContext(ctx))
11     })
12 }
```

i18n

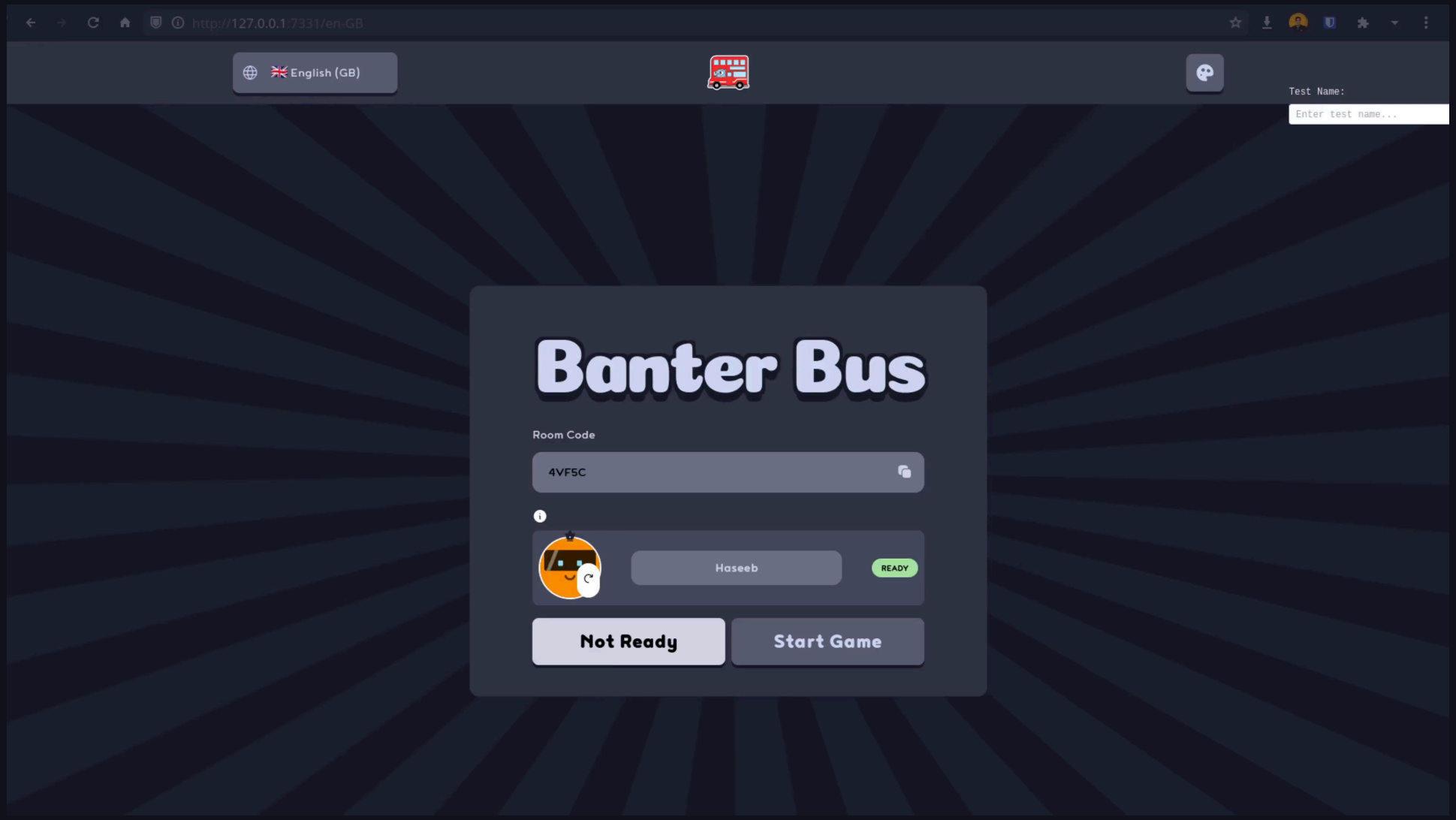
```
 1 func (m Middleware) Locale(next http.Handler)
 2 http.Handler {
 3     return http.HandlerFunc(
 4         func(w http.ResponseWriter, r *http.Request) {
 5             locale := extractLocaleFromURL(r.URL.Path)
 6             ctx, err := ctxi18n.WithLocale(
 7                 r.Context(),
 8                 locale,
 9             )
10             next.ServeHTTP(w, r.WithContext(ctx))
11     })
12 }
```

```
component := sections.Winner(winnerState, maxScore)
err := component.Render(r.Context(), &buf)
if err != nil {
    return err
}
```

```yaml
en-GB:
  common:
    ready_button: "Ready"
    roomcode_label: "Room Code"
  home:
    start_button_label: "Start Game"
```

```
<div>
    { i18n.T(ctx, "common.ready_button") }
</div>
```

```
<div class="...">
    Ready
</div>
```


http://127.0.0.1:7331/en-GB
English (GB)
Test Name:
Enter test name...
Banter Bus
Room Code
4VF5C
Haseeb
READY
Not Ready
Start Game

Postgres

sqlc

```yaml
version: "2"
sql:
  - engine: "postgresql"
    queries: "internal/store/db/sqlc/query.sql"
    schema: "internal/store/db/sqlc/migrations"
    gen:
      go:
        package: "db"
        out: "internal/store/db"
        sql_package: "pgx/v5"
        emit_interface: true
```

sqlc

```yaml
version: "2"
sql:
  - engine: "postgresql"
    queries: "internal/store/db/sqlc/query.sql"
    schema: "internal/store/db/sqlc/migrations"
    gen:
      go:
        package: "db"
        out: "internal/store/db"
        sql_package: "pgx/v5"
        emit_interface: true
```

sqlc

```yaml
version: "2"
sql:
  - engine: "postgresql"
    queries: "internal/store/db/sqlc/query.sql"
    schema: "internal/store/db/sqlc/migrations"
    gen:
      go:
        package: "db"
        out: "internal/store/db"
        sql_package: "pgx/v5"
        emit_interface: true
```

query.sql

```sql
-- name: AddUser :one
insert into users (email) values ($1) returning *;
```

```
sqlc generate
```

generated

```
const addUser = `-- name: AddUser :one
insert into users (email) values ($1) returning id, cr
`

func (q *Queries) AddUser(
    ctx context.Context,
    email string,
) (User, error) {
  row := q.db.QueryRow(ctx, addUser, email)
  var i User
  err := row.Scan(
    &i.ID,
    &i.CreatedAt,
```

generated

```
const addUser = `-- name: AddUser :one
insert into users (email) values ($1) returning id, cr
`

func (q *Queries) AddUser(
    ctx context.Context,
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generated

```
 6      ctx context.Context,
 7      email string,
 8  ) (User, error) {
 9    row := q.db.QueryRow(ctx, addUser, email)
10    var i User
11    err := row.Scan(
12      &i.ID,
13      &i.CreatedAt,
14      &i.UpdatedAt,
15      &i.Email,
16    )
17    return i, err
18  }
```

```
type Querier interface {
  AddFibbingItRole(ctx context.Context, arg AddFibbingItRo
  AddPlayer(ctx context.Context, arg AddPlayerParams) (Pla
  AddQuestion(ctx context.Context, arg AddQuestionParams)
  AddQuestionTranslation(ctx context.Context, arg AddQuest
  AddRoom(ctx context.Context, arg AddRoomParams) (Room, e
  GetAllPlayerByRoomCode(ctx context.Context, roomCode str
    // ...
}
```

Goose

```
-- +goose Up
-- +goose StatementBegin
CREATE TABLE IF NOT EXISTS feedback (
    id UUID PRIMARY KEY DEFAULT generate_uuidv7(),
    created_at TIMESTAMP DEFAULT current_timestamp,
    updated_at TIMESTAMP DEFAULT current_timestamp,
    title TEXT NOT NULL,
    description TEXT NOT NULL,
);
-- +goose StatementEnd

-- +goose Down
-- +goose StatementBegin
```

Goose

```
 3 CREATE TABLE IF NOT EXISTS feedback (
 4     id UUID PRIMARY KEY DEFAULT generate_uuidv7(),
 5     created_at TIMESTAMP DEFAULT current_timestamp,
 6     updated_at TIMESTAMP DEFAULT current_timestamp,
 7     title TEXT NOT NULL,
 8     description TEXT NOT NULL,
 9 );
10 -- +goose StatementEnd
11
12 -- +goose Down
13 -- +goose StatementBegin
14 DROP TABLE IF EXISTS feedback;
15 -- +goose StatementEnd
```

Transactions

```
 1 func (s *DB) StartGame(ctx context.Context, arg StartG
 2 return s.Transaction(ctx, func(q *Queries)
 3 error {
 4 // Update room state
 5 _, err := q.UpdateRoomState(ctx, UpdateParams{
 6     RoomState: Playing.String(),
 7     ID:        arg.RoomID,
 8 })
 9 if err != nil {
10     return err
11 }
12
13 // Add game state
```

Transactions

```
 1 func (s *DB) StartGame(ctx context.Context, arg StartG
 2 return s.Transaction(ctx, func(q *Queries)
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 6     RoomState: Playing.String(),
 7     ID:        arg.RoomID,
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 9 if err != nil {
10     return err
11 }
12
13 // Add game state
```

Transactions

```
 9 if err ≠ nil {
10     return err
11 }
12
13 // Add game state
14 _, err = q.AddGameState(ctx, AddGameStateParams{
15     ID:     arg.GameStateID,
16     RoomID: arg.RoomID,
17     State:  FibbingITQuestion.String(),
18 })
19 if err ≠ nil {
20     return err
21 }
22
```

```
type Storer interface {
  db.Querier
  StartGame(ctx context.Context, arg db.StartGameArgs)
}
```

```
type Storer interface {
  db.Querier
  StartGame(ctx context.Context, arg db.StartGameArgs)
}
```

```go
type Storer interface {
  db.Querier
  StartGame(ctx context.Context, arg db.StartGameArgs) (
}
```

DevEx

docker-compose.yml

```
services:
  postgres:
    image: postgres:17.4
    ports:
      - "5432:5432"
    environment:
      POSTGRES_USER: postgres
      POSTGRES_PASSWORD: postgres
    volumes:
      - postgres-data:/var/lib/postgresql/data
      - ./init.sql:/docker-entrypoint-initdb.d/init.sql
```

Taskfile.yml

```yaml
version: "3"

tasks:
  build:
    desc: Build the binary in a tmp location.
    cmds:
      - go build -o ./tmp/main ./cmd/server/main.go

  dev:
    desc: Start the app in dev mode with live-reloadin
    dotenv:
      - .env.local
    cmds:
```

Taskfile.yml

```
 4   build:
 5     desc: Build the binary in a tmp location.
 6     cmds:
 7       - go build -o ./tmp/main ./cmd/server/main.go
 8
 9   dev:
10     desc: Start the app in dev mode with live-reloadin
11     dotenv:
12       - .env.local
13     cmds:
14       - docker compose up -d
15       - task: watch
16       - air
```

Taskfile.yml

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Taskfile.yml

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12       - .env.local
13     cmds:
14       - docker compose up -d
15       - task: watch
16       - air
```

.air.toml

```toml
[build]
bin = "./tmp/main"
cmd = "task build"
exclude_dir = ["assets", "tmp", "vendor", "testdata"]
include_ext = ["go", "css", "templ"]
exclude_regex = ["_test.go"]
```

.air.toml

```
[build]
bin = "./tmp/main"
cmd = "task build"
exclude_dir = ["assets", "tmp", "vendor", "testdata"]
include_ext = ["go", "css", "templ"]
exclude_regex = ["_test.go"]
```

```
watch:
  desc: Watch for file changes
  cmds:
  - templ generate -watch --open-browser=true &
  - tailwindcss --watch=always -i \
                ./static/css/tailwind.css -o \
                ./static/css/styles.css --minify &
```

Nix

```
example on main via 🐹 v1.22.8
› which golangci-lint

example on main via 🐹 v1.22.8
› nix develop

example on main via 🐹 v1.22.8 ❄️ impure (nix-shell-env)
› which golangci-lint
/nix/store/kcd...golangci-lint-1.56.2/bin/golangci-lint
```


~/projects
❯

When not to use HTMX?

- Lots of frontend reactivity
- Separate frontend/backend teams
- Design System

Other Issues?

- Alpine: Stringified JS
- Templ: Another tool
- SQLC: Dynamic queries

Further

- Observability
  - OTel
- Playwright
  - Go



- https://haseebmajid.dev/slides/go-labs-htmx-go-web-app/
- Banter Bus: https://gitlab.com/hmajid2301/banterbus

Useful Links

- Banter Bus: https://gitlab.com/hmajid2301/ban
- Nix Dev Shell: https://www.youtube.com/watch?
  v=bdGfn_ihHOk
- Playwright: https://www.youtube.com/watch?v
- OTel & Go: https://www.youtube.com/watch?v=
  IrxNwk&list=PLSCmmmcxRB6DilKhSz09JL9F4CVl