#### PWA

#### La resurrección del chat de Terra 🙊



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#### Hace ~20 años atrás...





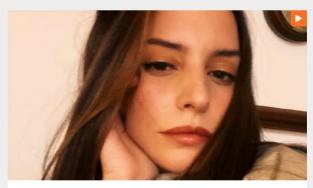
### Hoy





Esta es la mujer que rechazó a Chayanne pero aceptó a Luis Miguel

ENTRETENIMIENTO



INTIMIDADES

La verdad detrás del romance de la hija de José Luis 'el Puma' Rodríguez y Paul Walker

ENTRETENIMIENTO

## Revivamos el Chat de Terra! Ingresen a https://pwa-grupo8.tk/

## Frontend

#### **Manifest**

```
"name": "Chat de Terra",
        "start_url": "/",
        "display": "standalone",
        "id": "grupo-8-pwa",
        "background_color": "#FFFFFF",
        "theme_color": "#ffa200",
        "icons": [
10
                "src": "/favicon.png",
11
                "type": "image/png",
                "purpose": "maskable any",
12
13
                "sizes": "any"
14
15
16 }
```

#### Service Worker: Registro

```
if ('serviceWorker' in navigator) {
            navigator.serviceWorker
27
              .register('/service-worker.js')
28
              .then(function (registration) {
29
30
                console.log(
                  'Registration successful, scope is:',
31
                  registration.scope
32
33
                );
              })
34
35
              .catch(function (error) {
36
                console.log('Service worker registration failed, error:', error);
              });
37
38
```

#### Service Worker: Cache

```
21 self.addEventListener('install', async (event) ⇒ {
22   console.log('installing!');
23   const cache = await self.caches.open(CACHE_NAME);
24   await cache.addAll(urlsToCache);
25   self.skipWaiting();
26 });
```

```
self.addEventListener('activate', async (event) \Rightarrow {
28
       console.log('activating!');
29
       const keys = await caches.keys();
30
31
       keys
32
         .filter((key) \Rightarrow key \not\equiv CACHE_NAME)
         .map((key) \Rightarrow event.waitUntil(caches.delete(key)));
33
   });
34
35
```

```
async function networkFirst(request) {
37
      const cache = await self.caches.open(CACHE_NAME);
38
      try {
39
        const response = await fetch(request);
        cache.put(request, response.clone());
40
41
        console.log('Network: ', request.url);
42
        return response;
43
      } catch {
        console.log('Cache: ', request.url);
44
45
        return cache.match(request);
46
47
48
49
    self.addEventListener('fetch', (event) \Rightarrow {}
      if (event.request.method ≠ 'GET') return;
50
51
      event.respondWith(networkFirst(event.request));
52 });
```

# Token: Identificador de Instancia

```
getToken(messaging, { vapidKey })
65
            .then((currentToken) \Rightarrow {
66
              if (currentToken) {
67
                 console.log(currentToken);
                 sendRequest('/token', 'POST', { token: currentToken }).then(
68
69
                   (response) ⇒ console.log('Send token response:', response)
                );
70
              } else {
71
                 // Show permission request UI
73
                 console.log(
74
                   'No registration token available. Request permission to generate one.'
                );
75
76
            })
77
            .catch((err) \Rightarrow \{
78
79
              console.log('An error occurred while retrieving token. ', err);
            });
80
```

#### Notificaciones Push: Recepción

Firebase Cloud Messaging (FCM)

```
messaging.onBackgroundMessage((payload) \Rightarrow {
20
      console.log('Background: ', payload.data);
21
      console.log('Sending data to notification');
22
23
      try {
        self.clients.matchAll({ includeUncontrolled: true }).then((clients) ⇒ {
24
25
          clients.forEach((client) ⇒ {
26
            console.log('Sending to client ' + client);
            client.postMessage({
27
              data: payload.data,
28
29
            });
         });
30
       });
31
      } catch (e) {
32
33
       console.log(e);
34
35
      // Customize notification here
36
      const notificationTitle = ';Recibiste un nuevo mensaje!';
37
      const notificationOptions = {
38
39
       body: 'Ve al Chat de Terra para revisarlo',
40
       icon: '/favicon.png',
41
     };
42
43
      self.registration.showNotification(notificationTitle, notificationOptions);
44 });
```

## Backend

#### **Notificaciones Push: Envío**

Firebase Cloud Messaging (FCM)

```
30
    func NewService(logger *log.Logger) (service, error) {
31
      opt := option.WithCredentialsJSON(config.FIREBASE)
32
      app, err := firebase.NewApp(context.Background(), nil, opt)
33
     if err ≠ nil {
34
       return service{}, fmt.Errorf("error initializing app: %v", err)
35
36
37
      msqClient, err := app.Messaging(context.Background())
38
      if err ≠ nil {
        return service{}, fmt.Errorf("error initializing app: %v", err)
39
      }
40
41
42
      return service{app, msqClient, logger}, nil
43 }
```

```
func (s service) SubmitToken(ctx context.Context, token string) (*types.Error) {
      resp, err := s.msgClient.SubscribeToTopic(ctx, []string{token}, "chat")
46
47
48
     for _, e := range resp.Errors {
49
        s.logger.Debug("%v", e.Reason)
50
51
52
      s.logger.Info("Subscription: success: %v, failure: %v\n", resp.SuccessCount, resp.FailureCount)
53
     if err ≠ nil {
54
55
        s.logger.Critical(err)
56
        return types.UnexpectedError
57
58
59
      return nil
60 }
```

```
func (s service) SendMessage(ctx context.Context, user string, content string) (*types.Error) {
63
      message := &messaging.Message{
64
        Data: map[string]string{
         "user": user,
65
66
          "content": content,
       },
67
68
        Topic: "chat",
69
70
      // Send a message to the devices subscribed to the provided topic.
71
      response, err := s.msgClient.Send(ctx, message)
72
      s.logger.Debug("SEND: %v\n", response)
73
74
     if err ≠ nil {
75
        s.logger.Critical(err)
76
      return types.UnexpectedError
77
78
     return nil
79 }
```

## Conclusiones

#### Aplicación instalable

- Es muy fácil llegar a una aplicación instalable
- No es necesario usar app stores
- Es fácil de distribuir e instalar
- Funciona en todos los dispositivos

#### Features de aplicaciones nativas

- Push messages
- Notificaciones
- Offline