FOOTMATCH

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Fundamentos de Ingeniería del Software para Sistemas Cloud

Índice

- Descripción de la aplicación
- Descomposición en microservicios
- Diseño de cada microservicio
- Aspectos relevantes
- Demo de la aplicación
- Conclusiones

Descripción de la aplicación

docker

okteto

django

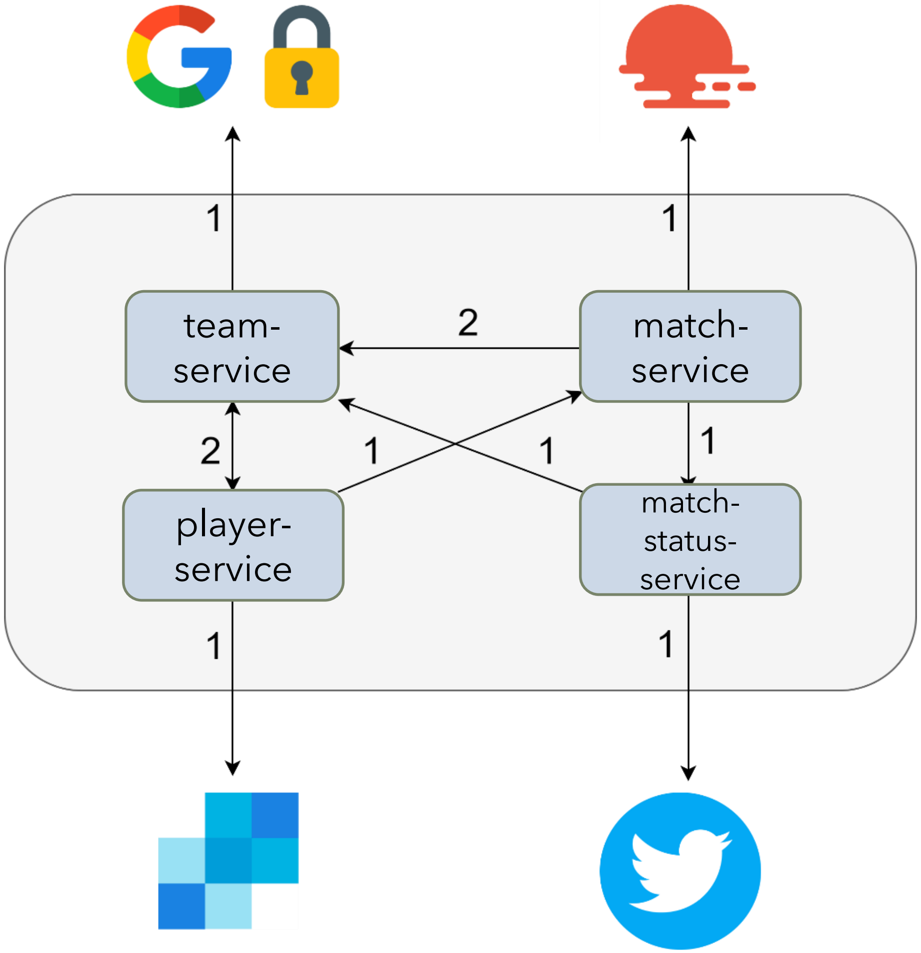
GitHub

Flask

web development,
one drop at a time

Descomposición en microservicios

footmatch -service



Diseño de cada microservicio

team-service

mongoDB®

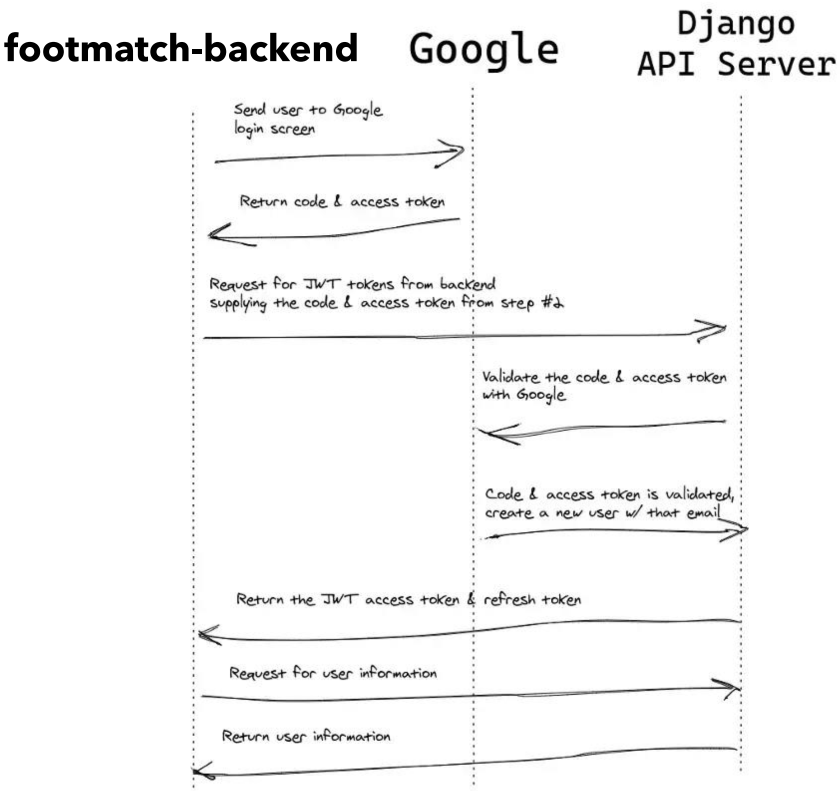
Google

django

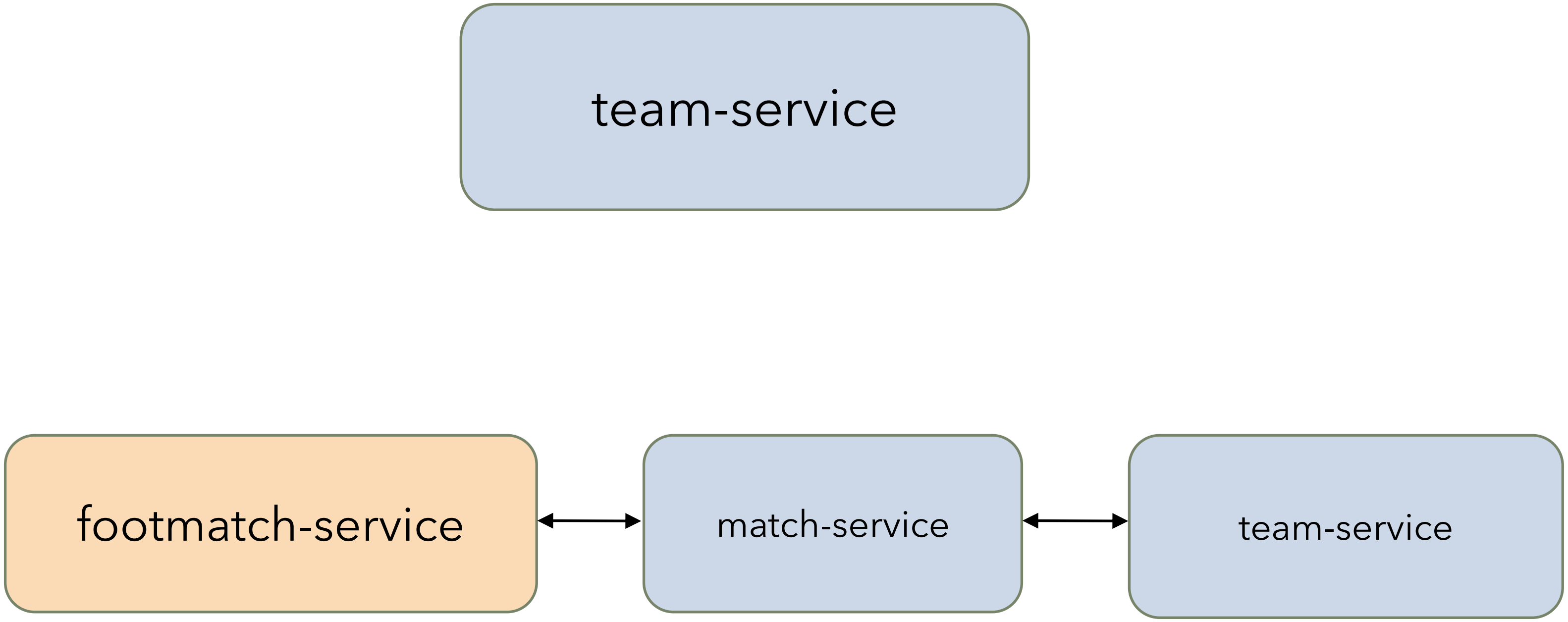
- Auth
- CRUD
- Feature toggles

Diseño de cada microservicio

team-service

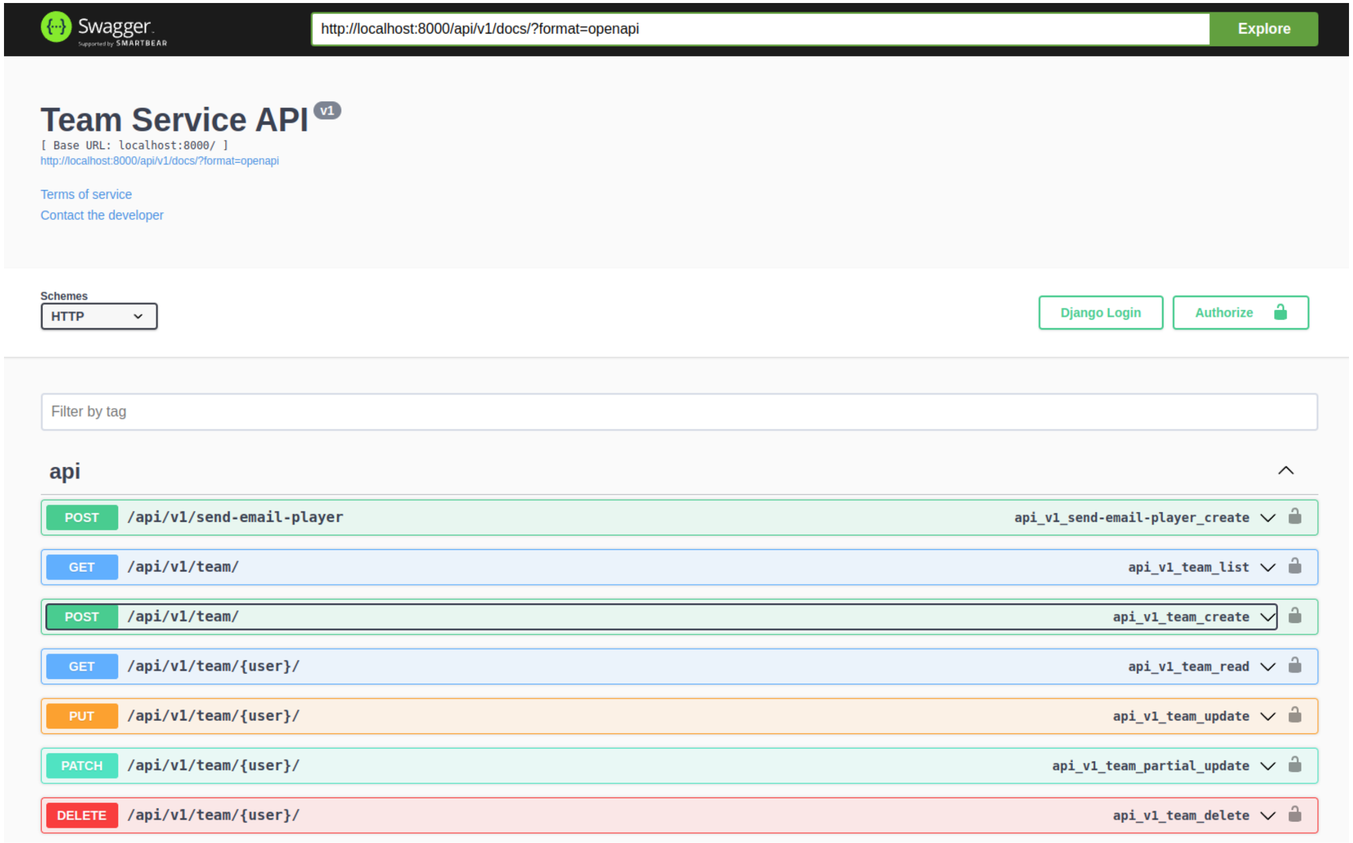

footmatch-backend
Google
Django API Server
Send user to Google login screen
Return code & access token
Request for JWT tokens from backend supplying the code & access token from step #2
Validate the code & access token with Google
Code & access token is validated, create a new user w/ that email
Return the JWT access token & refresh token
Request for user information
Return user information

Diseño de cada microservicio



Diseño de cada microservicio

team-service



http://localhost:8000/api/v1/docs/?format=openapi

Team Service API v1

[Base URL: localhost:8000/]
http://localhost:8000/api/v1/docs/?format=openapi

Terms of service
Contact the developer

api

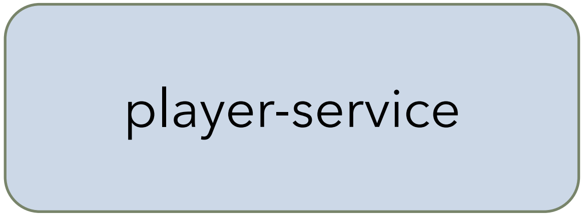
```
POST    /api/v1/send-email-player     api_v1_send-email-player_create
GET     /api/v1/team/                 api_v1_team_list
POST    /api/v1/team/                 api_v1_team_create
GET     /api/v1/team/{user}/          api_v1_team_read
PUT     /api/v1/team/{user}/          api_v1_team_update
PATCH   /api/v1/team/{user}/          api_v1_team_partial_update
DELETE  /api/v1/team/{user}/          api_v1_team_delete
```

Diseño de cada microservicio

team-service

redis

Diseño de cada microservicio



player-service

Diseño de cada microservicio

match-service

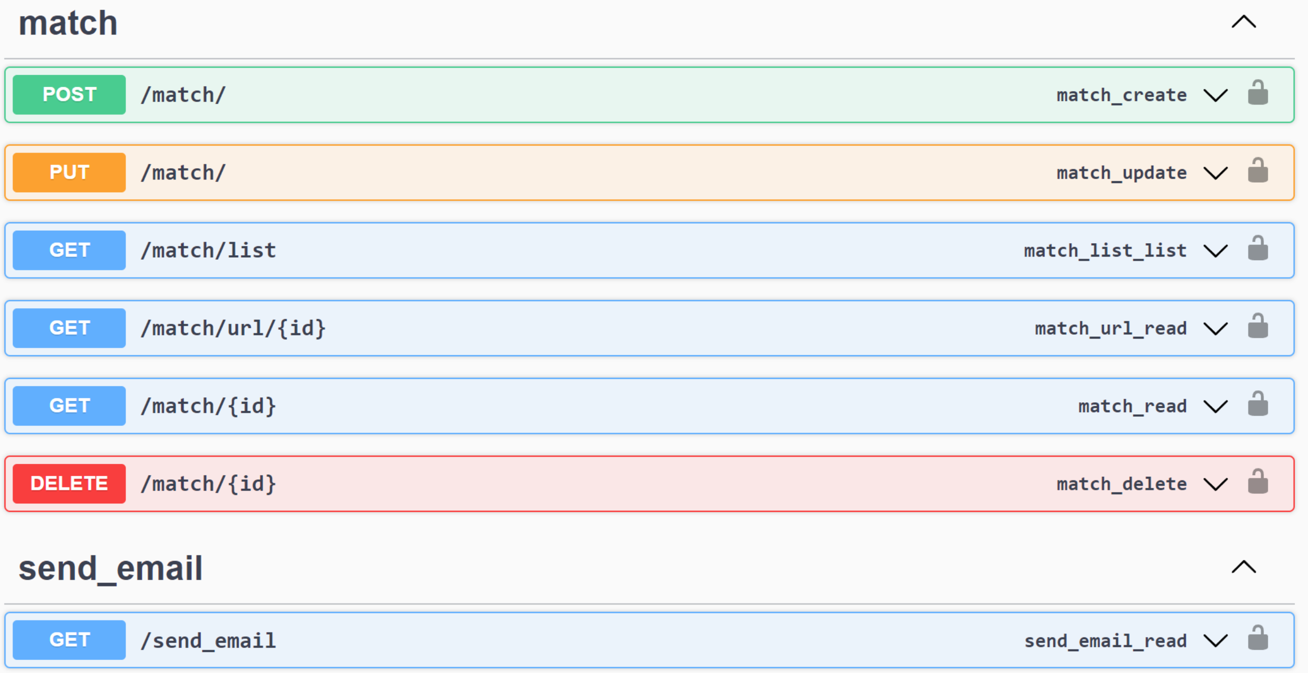
django

mongoDB®

- Caché local frontend
- CRUD
- Envío automatizado
- OpenWeather

Diseño de cada microservicio

match-service



match

POST /match/ match_create

PUT /match/ match_update

GET /match/list match_list_list

GET /match/url/{id} match_url_read

GET /match/{id} match_read

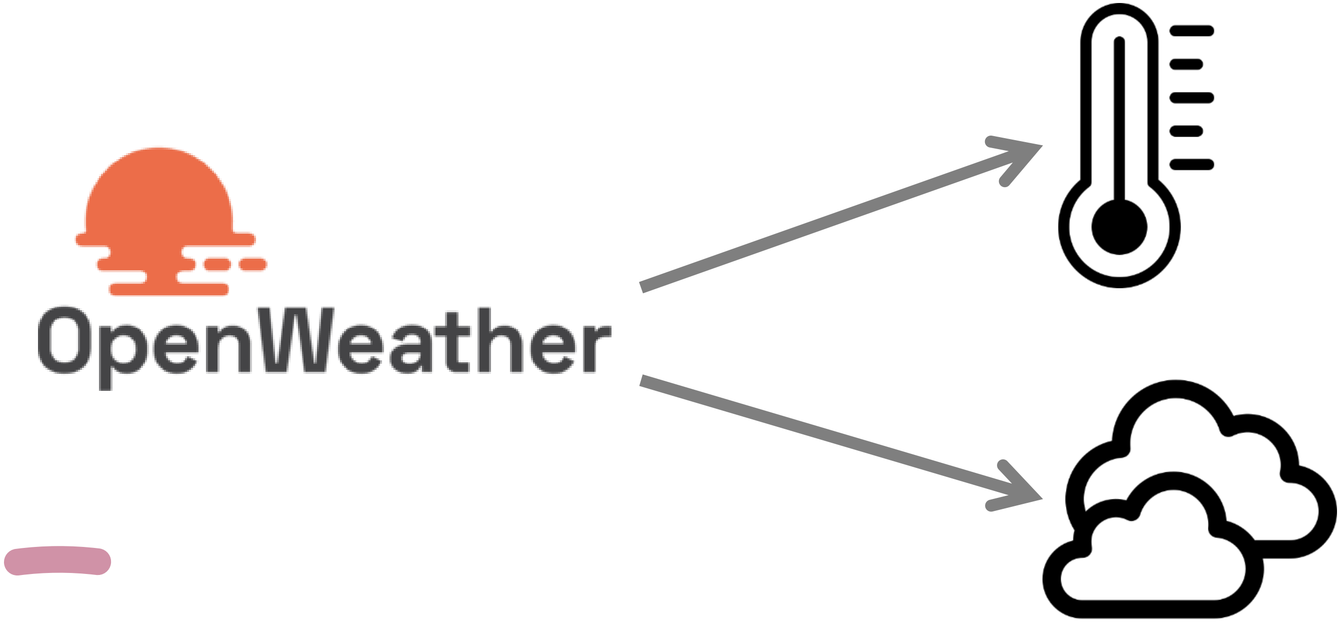
DELETE /match/{id} match_delete

send_email

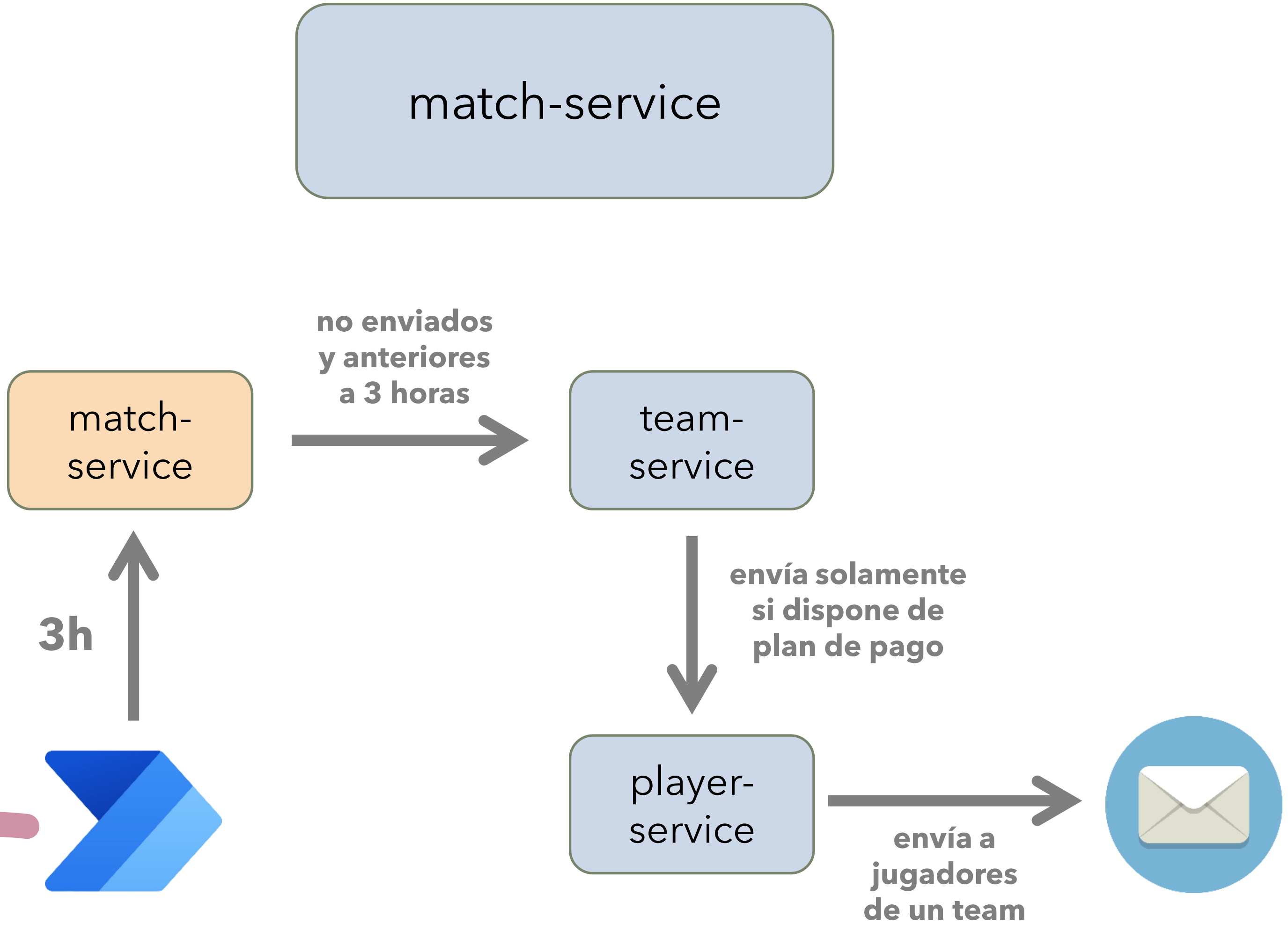
GET /send_email send_email_read

Diseño de cada microservicio

match-service



Diseño de cada microservicio



match-service

match-service

no enviados
y anteriores
a 3 horas

team-service

envía solamente
si dispone de
plan de pago

player-service

envía a
jugadores
de un team

3h

Diseño de cada microservicio

match-status-service

mongoDB®

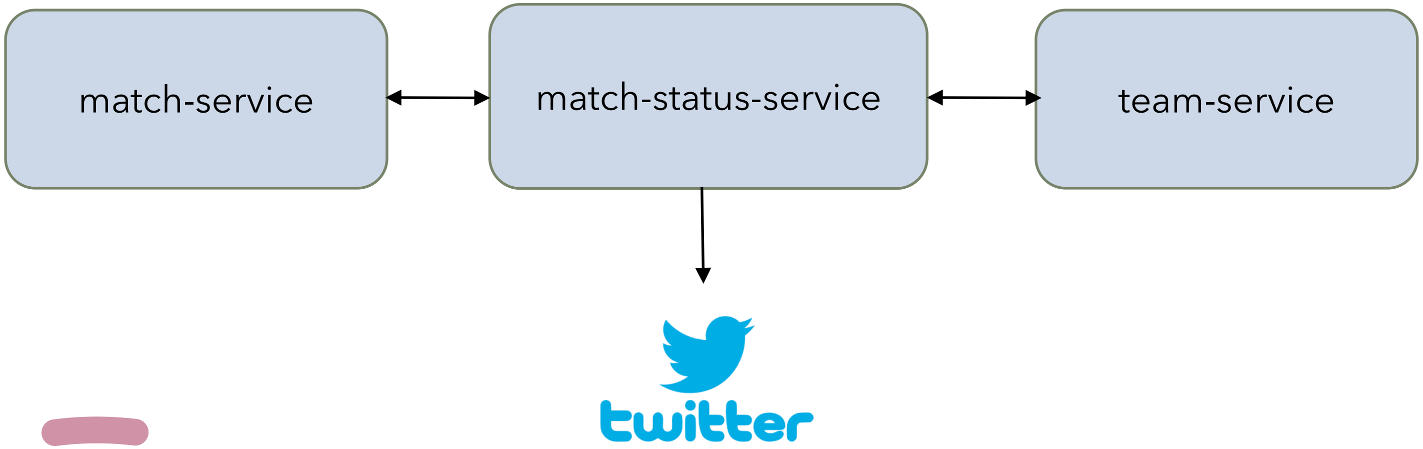
twitter

django

- Tweepy
  Posting tweets
- CRUD
- Feature toggles
- Auth

Diseño de cada microservicio

match-status-service



match-service

match-status-service

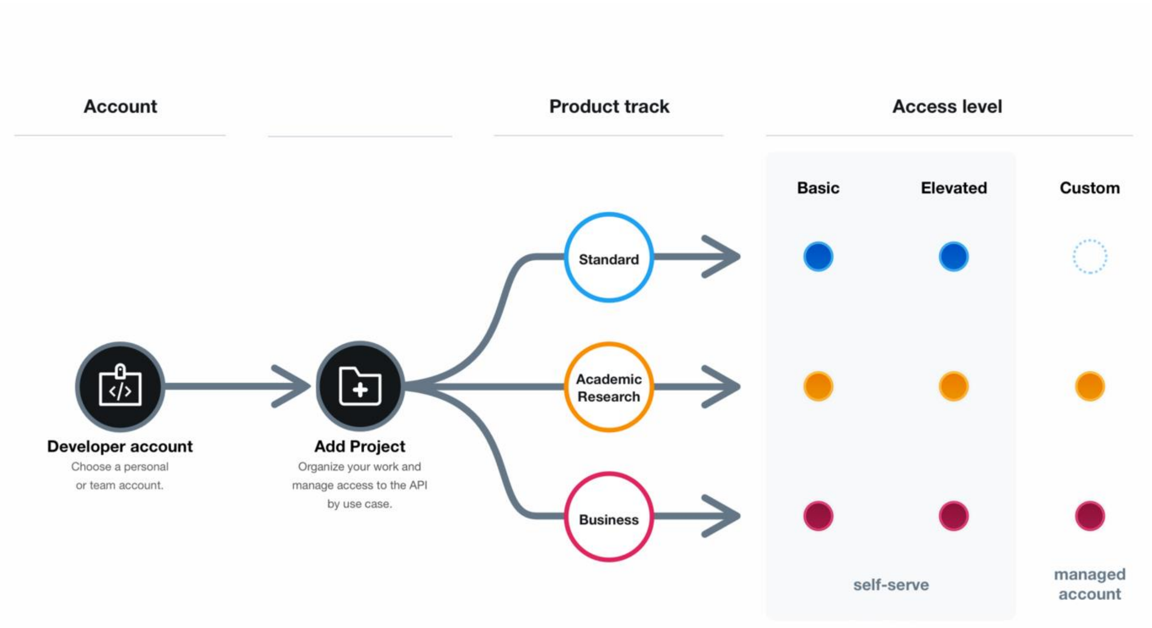
team-service

Diseño de cada microservicio

match-status-service

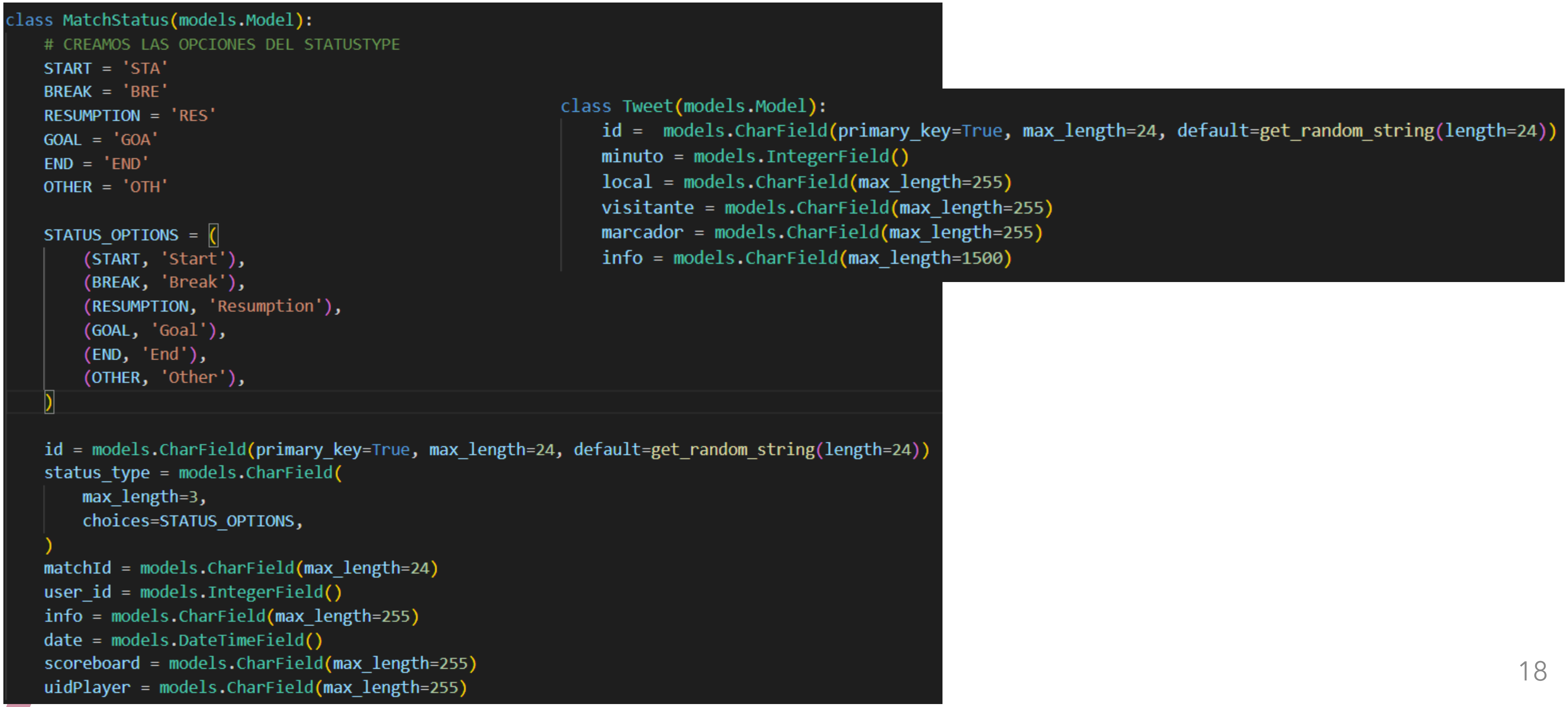
Tweepy

An easy-to-use Python library for accessing the Twitter API.



Diseño de cada microservicio

match-status-service

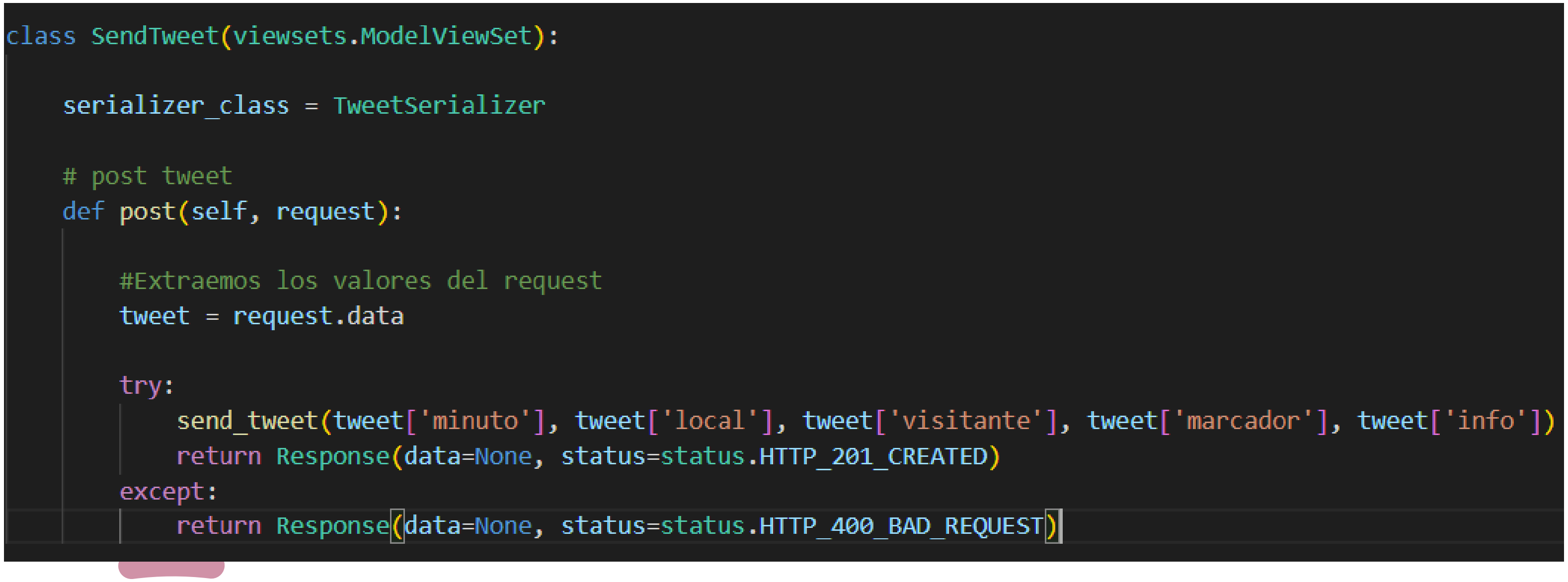


```
class MatchStatus(models.Model):
    # CREAMOS LAS OPCIONES DEL STATUSTYPE
    START = 'STA'
    BREAK = 'BRE'
    RESUMPTION = 'RES'
    GOAL = 'GOA'
    END = 'END'
    OTHER = 'OTH'

    STATUS_OPTIONS = (
        (START, 'Start'),
        (BREAK, 'Break'),
        (RESUMPTION, 'Resumption'),
        (GOAL, 'Goal'),
        (END, 'End'),
        (OTHER, 'Other'),
    )

    id = models.CharField(primary_key=True, max_length=24, default=get_random_string(length=24))
    status_type = models.CharField(
        max_length=3,
        choices=STATUS_OPTIONS,
    )
    matchId = models.CharField(max_length=24)
    user_id = models.IntegerField()
    info = models.CharField(max_length=255)
    date = models.DateTimeField()
    scoreboard = models.CharField(max_length=255)
    uidPlayer = models.CharField(max_length=255)
```

```
class Tweet(models.Model):
    id =  models.CharField(primary_key=True, max_length=24, default=get_random_string(length=24))
    minuto = models.IntegerField()
    local = models.CharField(max_length=255)
    visitante = models.CharField(max_length=255)
    marcador = models.CharField(max_length=255)
    info = models.CharField(max_length=1500)
```

Diseño de cada microservicio

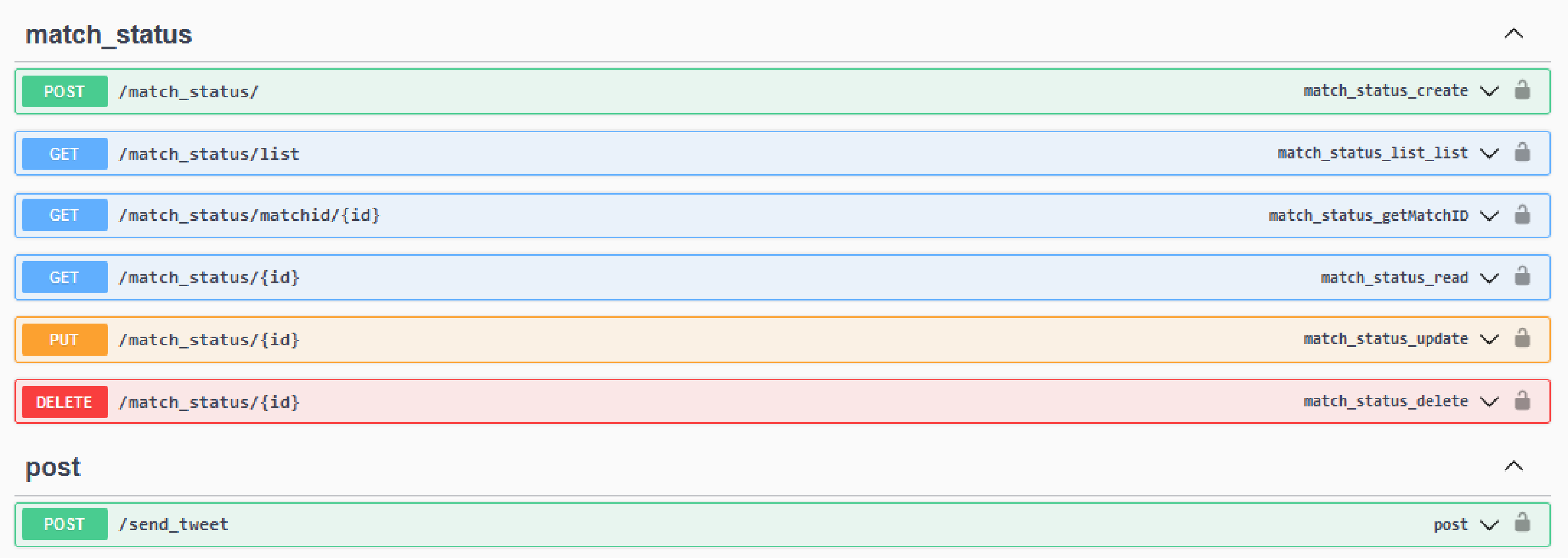
match-status-service



```
class SendTweet(viewsets.ModelViewSet):

    serializer_class = TweetSerializer

    # post tweet
    def post(self, request):

        #Extraemos los valores del request
        tweet = request.data

        try:
            send_tweet(tweet['minuto'], tweet['local'], tweet['visitante'], tweet['marcador'], tweet['info'])
            return Response(data=None, status=status.HTTP_201_CREATED)
        except:
            return Response(data=None, status=status.HTTP_400_BAD_REQUEST)
```

Diseño de cada microservicio

match-status-service



match_status

POST /match_status/ match_status_create

GET /match_status/list match_status_list_list

GET /match_status/matchid/{id} match_status_getMatchID

GET /match_status/{id} match_status_read

PUT /match_status/{id} match_status_update

DELETE /match_status/{id} match_status_delete

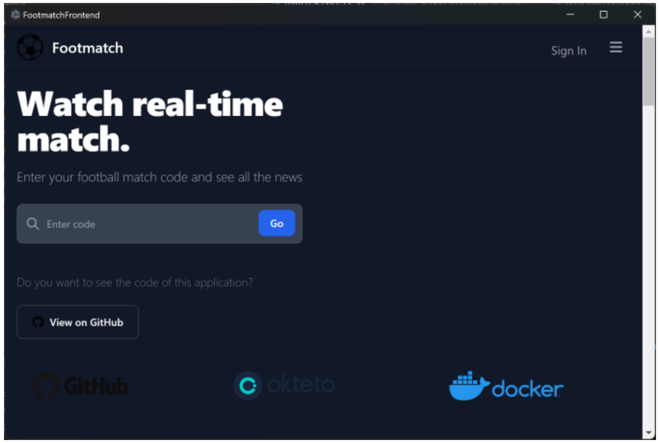
post

POST /send_tweet post

Aspectos relevantes

Aspectos relevantes

ELECTRON

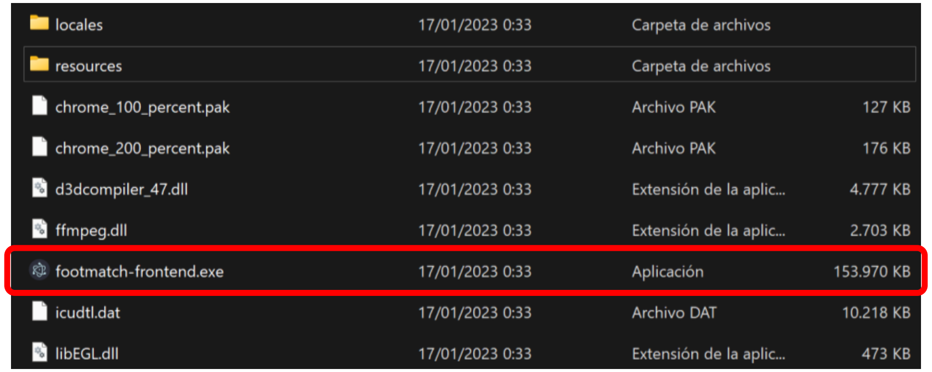


Watch real-time match.

Enter your football match code and see all the news

Do you want to see the code of this application?

npm run electron

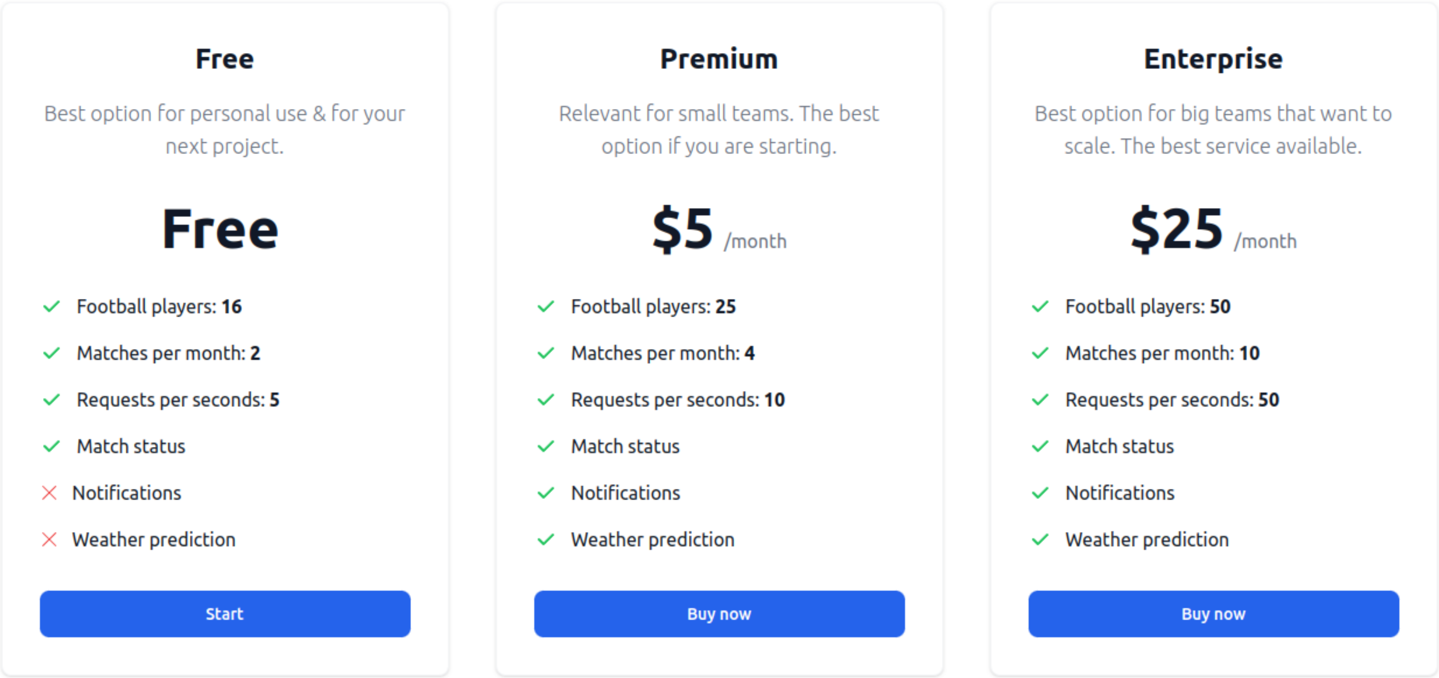


locales	17/01/2023 0:33	Carpeta de archivos	
resources	17/01/2023 0:33	Carpeta de archivos	
chrome_100_percent.pak	17/01/2023 0:33	Archivo PAK	127 KB
chrome_200_percent.pak	17/01/2023 0:33	Archivo PAK	176 KB
d3dcompiler_47.dll	17/01/2023 0:33	Extensión de la aplic...	4.777 KB
ffmpeg.dll	17/01/2023 0:33	Extensión de la aplic...	2.703 KB
footmatch-frontend.exe	17/01/2023 0:33	Aplicación	153.970 KB
icudtl.dat	17/01/2023 0:33	Archivo DAT	10.218 KB
libEGL.dll	17/01/2023 0:33	Extensión de la aplic...	473 KB

npm run electron-compile-win

Demo

Customer agreements



Free

Best option for personal use & for your next project.

Free

- ✓ Football players: **16**
- ✓ Matches per month: **2**
- ✓ Requests per seconds: **5**
- ✓ Match status
- ✗ Notifications
- ✗ Weather prediction

Premium

Relevant for small teams. The best option if you are starting.

$5 /month

- ✓ Football players: **25**
- ✓ Matches per month: **4**
- ✓ Requests per seconds: **10**
- ✓ Match status
- ✓ Notifications
- ✓ Weather prediction

Enterprise

Best option for big teams that want to scale. The best service available.

$25 /month

- ✓ Football players: **50**
- ✓ Matches per month: **10**
- ✓ Requests per seconds: **50**
- ✓ Match status
- ✓ Notifications
- ✓ Weather prediction

Customer agreements

Plan	Req/max	Precio	Nº usuarios
Free	5	0	150
Premium	10	5	60
Enterprise	50	25	20

Balance	355,05€
Ingresos	800€
Gastos	444€

API	Peticiones MS	Plan / €	Peticiones API / s	Riesgo	Peticiones / s
SSO	19	Free	10.000	85%	6697
OW	2	Pro / 410€	761	85%	705
TW	1	Free	1.000.000	0%	2350
SG	1	Essen. / 34€	896	65%	822

Conclusión

Preguntas