

Github Repo link: <https://github.com/Shubhashis-Roy/newsletter>

User Authentication & CRUD Operations:

- Register API
 - Endpoint: api/auth/register
 - Method: POST
 - payload: {

"email": "[user@example.com](#)",

"password": "Password123"

}

- Login API
 - Endpoint: api/auth/login
 - Method: POST
 - payload: {

"email": "[user@example.com](#)",

"password": "Password123"

}

- User Get API:
 - Endpoint: api/user/profile/:id
 - Headers (Required):
 - Authorization: Bearer <your_jwt_token>
 - Method: GET

- User update API:
 - Endpoint: api/user/profile/:id
 - Authorization: Bearer <your_jwt_token>
 - Method: PATCH
 - payload: {

"fullname": "[user@example.com](#)",

}

- User Delete API:
 - Endpoint: api/user/profile/:id
 - Authorization: Bearer <your_jwt_token>
 - Method: DELETE

RSS Campaigns: It should automatically generate campaigns based on new entries in specified RSS feeds, streamlining content distribution:

How it works:

1. User creates a normal campaign.
2. User attaches an RSS feed using the PATCH API.
3. A cron job runs every 5 minutes to:
 - Fetch the RSS feed
 - Detect the newest article
 - Compare with lastFetchedItem
 - Auto-create a new campaign if the article is new
 - Update lastFetchedItem

APIs:

- Attach RSS Feed to Campaign API:
 - Endpoint: /api/campaigns/:id/rss-feed
 - Method: PATCH
 - payload: {
 "rssFeed": "https://techcrunch.com/feed/"
 }

Cron Job Logic Location: src/campaigns/[campaigns.service.ts](#)

// Cron Job code :

```
@Cron(CronExpression.EVERY_5_MINUTES)
async autoGenerateFromRSS() { ... }
```

Click Statistics Tracking: Tracks clicks and opens for every campaign link to measure subscriber engagement.

Features

1. Stores link clicks in Postgres using the ClickStat entity
2. Tracks:
 - Click count

- Open tracking via a 1×1 pixel GIF
 - Click-through redirects
3. Prevents unauthorized DB updates via service-layer validation
 4. Uses IP + User-Agent + Device Info for analytics

Entities Involved

1. click_stats table (TypeORM)
2. links table
3. campaign_links table (Knex)

APIs:

- Attach RSS Feed to Campaign API:
 - Endpoint: /api/click-stats/track/<campaignId>?link=https%3A%2F%2Fgoogle.com
 - Method: GET

How to Test

1. Create campaign
2. Attach RSS feed
3. Wait for cron (5 mins) or temporarily change to 1 min
4. Observe console logs

Logs:

Checking RSS feeds for new articles...

Auto-created campaign from RSS: <Article Title>