

## ECS639 Group 8: Online Newspaper (Report)

URL: <http://pnweekly-group8.apps.devcloud.eecs.qmul.ac.uk/>

Our extra feature makes use of cron jobs, external web APIs, and emails to not only update the articles on our website, but to inform the user when new articles are posted that they may be interested in. Additionally, our application offers file upload functionality for user profile images, and pagination.

### 1) Custom user model:

Our Django application features a custom user model allowing for additional fields that monitor the users email preferences. For each news category (Business, Music, Technology, Sport), the user can tick a checkbox within the 'Alerts' page that subscribes them to updates whenever new articles of that category type are posted. Users have the ability to edit their article preferences at will.

### 2) Cron job

We utilise a cron job to run a daily shell script which in turn, runs a management command script called 'Getarticles' - this is responsible for the News API consumption, and email alerts.

### 3) News API Consumption

The application updates our database with new articles retrieved from specific news sources. In particular, it uses a News API (<https://newsapi.org/>) and retrieves a combination of articles from Business Insider UK, ESPN, MTV News UK, and TechCrunch.

As a measure to avoid duplicates, we only add articles to the database that do not share URLs as existing database articles.

### 4) Email Alerts

Our management command script also emails users with a list of new articles based on their email alert preferences. In the instance of no new articles in a marked category (*or should the user have no alert preferences set*) - no emails will be sent.

Emails are formatted in html to make use of the Django template system in order to provide personalised emails to users that are sleek in structure. Additionally, this affords us the ability to embed links to articles on our website; allowing users to quickly read more about potential articles of interest.

### 5) Image upload

Our application allows the user to update/set their profile image. This change will be reflected on the user's post comments. User's with no image will be given a default one.

### 6) Pagination

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Lastly, our application leverages the Django pagination system to create a seamless user experience when browsing through our extensive collection of articles.