

Project report  
On  
**Content Aggregator**

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**Graphic Era**  
(Deemed to be University)  
Accredited by NAAC with Grade A

### **CANDIDATE'S DECLARATION**

I hereby certify that the work which is being presented in the dissertation entitled "**Content Aggregator**" in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering, submitted in the Department of Computer Science and Engineering of the Graphic Era Deemed to be University, Dehradun is an authentic record of my own work carried out during the period from **March 2022 to July 2022**, under the supervision of **Ms. Garima Sharma**, Assistant Professor, Department of Computer Science and Engineering of the Graphic Era Deemed to be University, Dehradun (Uttarakhand).

The matter presented in this dissertation has not been submitted by me for the award of any other degree of this or any other Institute/University.

**Animesh Singh**

**2016637**

This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

## ACKNOWLEDGEMENT

I here by submit the project report on “**Content Aggregator**”, as per the scheme of

Graphic Era University, Dehradun.

In this connection, we would like to express our deep sense of gratitude to our beloved institution Graphic Era University and also we like to express our sincere gratitude and indebtedness to **Dr. Kamal Ghansala**, Chairman, GEU, Dehradun

We would like to express our sincere gratitude to **Dr. Devesh Kumar**, Head of Dept. of Computer Science, for providing a congenial environment to work in and carry out our project.

We consider it our cardinal duty to express the deepest sense of gratitude to **Ms. Garima Sharma, Assistant Professor**, Department of Computer Science and Application for the invaluable guidance extended at every stage and in every possible way.

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Animesh Singh  
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# **1 : ABSTRACT :**

## **1.1 : About Project**

I have created this project , Content Aggregator, as a web application, which scraps the top headlines of different news web sites aggregates them and present the most valuable or key information in a easy to comprehend manner

## **1.2 : Motivation**

I decided to develop this project to provide frequent news reader a better experience as they have a look at all the important news at a glance from different sources and access the news they want to read further, easily.

Also, through this project I visioned to promote news reading in the general public by providing them a medium that presents the news in a easy to understand form.

# **2: Requirements of the project**

## **2.1 : Hardware Requirements:**

Any device capable of functioning a web browser, python interpreter, live server and a code editor.

## **2.2 : Software Requirements:**

Web browser (Chrome, Opera, Safari).

Code editor(Visual Studio Code)

Python Interpreter

Django Framework

Html

SqlLite3

# **3: METHODOLOGY:**

## **3.1 : Design**

First, I chalked out the design of the webpage and decided the

approach to the UI and theme of my project, I decided to make the theme simple and basic as it was my target to promote reading and increase the ease of accessing the news at glance.

### **3.2 : HTML(Hyper Text Markup Language)**

Using HTML, I first gave my webpage a skeleton, laid out the basic design and structure of the different buttons and areas, also the header and footer of the webpage.

I planned to make a index a page to showcase all the top headlines from different news channel at a glance and decided to present all the headlines in the form of blocks.

The blocks will contain a reference image, headline and a important statement representing the news.

#### **3.2.1 : Buttons:**

**NEWS CHANNELS:** There are several different buttons available at the top of the website which are given to provide access to different websites specifically and access their top headlines.

### **3.3 : CSS**

The CSS or stylesheets are embedded into the different HTML files.

The style formats used are predefined stylesheets available on the web.

I decided to use a light theme and to use predefined sheets as there were various well built stylesheets available.

### **3.3 : DJANGO Framework**

#### **3.4.1: Why DJANGO:**

Django is a free and open-source, Python- based web framework that follows the model–template–views architectural pattern. I used Django Framework to create my project as web application by using the various features the framework provides in order to link the html and python codes.

Also Django provides various predefined modules through which we can easily integrate our python application to a HTML web page.

#### **3.4 : NEWS Application:**

The NEWS application basically is the source folder of the application. It contains the backend working components of the webpage provided as a UI. The NEWS has various interconnected python modulus working together to fetch, aggregate and display the top headlines.

#### **3.5: Utils.py:**

This module performs the key function of getting the data(top headlines) using the NEWSAPI and places the content according to the current page active using the html files provided in the TEMPLATE folder

### **3.6: NEWSAPI:**

This API is key feature used in my project NEWS Aggregator. This API is a powerful and easy to use API provided in python and is bases on REST and JSON.

This API fetches the top headlines from the sources given as website. A KEY generated by the newsapi is used to fetch news from different websites defined or some specific news within the websites.

### **3.7: Processing and Storing the ARTICLES:**

To store and process the results fetched by the NEWSAPI I first initialized a variable to store the key provided by the NEWSAPI client. Then a variable 'topheadlines' stored the number of articles which are the top headlines of the news website.

Several arrays are used to store the different components of articles (heading, images, content). These are sized are defined by the number of articles fetched.

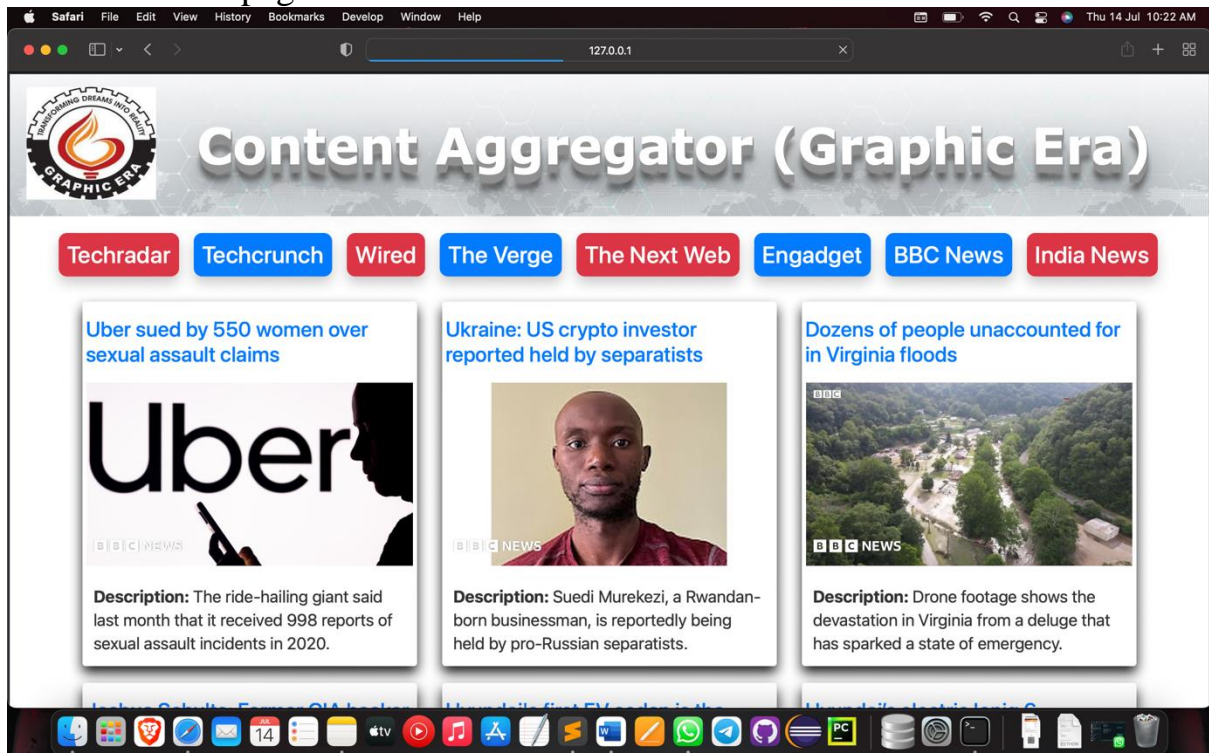
Once all the data is fetched it is displayed using the HTML Templates designed to take the data in the variables and represent in a predefined format.

## **4.1 : Screen Shots**

### **4.1: Screen Shot:**

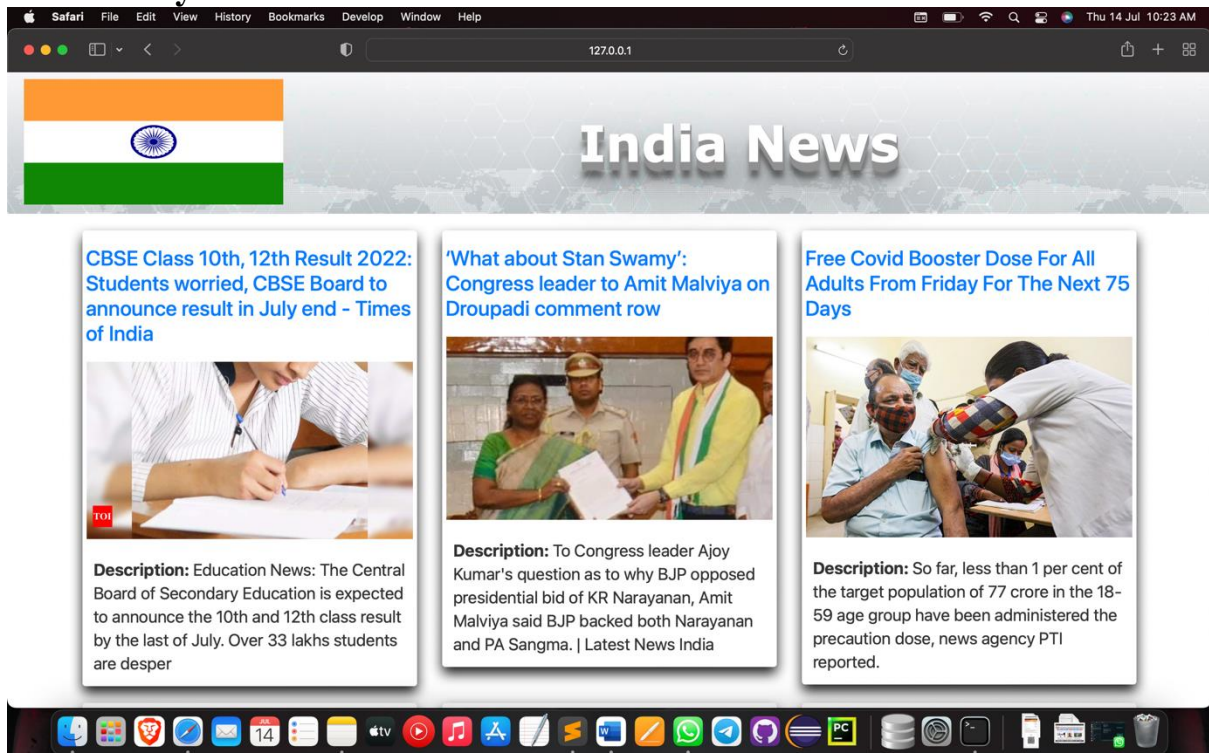
Attached below is the screenshot of the Final project.  
There are several buttons given above to

This is the first page that loads on to the screen.



#### 4.2: Screenshot:

This is the screenshot of the specific webpage that show the NATIONAL NEWS only.





## **5: SUMMARY:**

Through this project I got to know about the powerful modules that python offers.

Django Framework: It provides various features and predefined modules which helps in integrating the python application with html and create a web application on a live server with ease

Newsapi: Key component of the python application. This API fetches the top headlines and the related articles from a certain defined source.

To summarize, developing and implementing the project 'Content Aggregator', I learnt a lot about the powerful framework of DJANGO and different modules of python such as 'request' and 'newspaper'.

Also, I learnt the importance of good UI(user interface). A good UI is important to present the information in an efficient and easy to understand manner so that the user can take the advantage of the application completely.

## **6: REFERENCE:**

- [www.stackoverflow.com](https://www.stackoverflow.com)
- Git Hub
- [www.w3schools.com](https://www.w3schools.com)
- [newsapi.org.in](https://newsapi.org.in)