

# Software Engineering

## Project Write-up

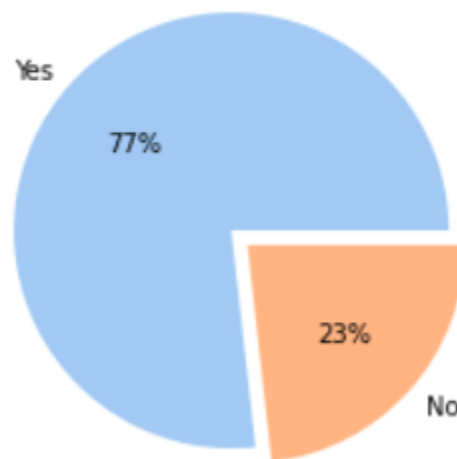


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## Problem Definition:

Many people have experienced the feeling of waking up fresh and vibrant in the morning but then being greeted with negative news on nearly all news websites, papers, and apps. This negative news has a great impact on their mental health, causing stress and anxiety and various other mental illnesses(A survey, attached below, about this issue, suggests that the majority of people are subject to this negativity). Since checking their phones is one of the first things people do in the morning, it should be made sure that they see the things that give them a positive start for the day. There arises a need for such an app where the news articles shown exude positivity and happiness, in general. The app should provide a summary of the news in just a few lines. Moreover, the app should feel like a real newspaper.

**Do you feel annoyed by the influx of negative news in your daily news feed?**



*Source: Anonymous survey conducted amongst a group of 114 individuals in the age group of 19-24.*

## **Our Solution:**

FirstLight is an application that aims to provide people with positive news to make their day better. FirstLight ensures its users always receive news that carries a positive tone. This is an effort to ensure a healthy and productive mind which in turn leads to a person's holistic growth.

The existing websites and apps that provide positive news are the ones that publish their own news and choose topics that are positive. Our app takes an entirely different approach, which is explained below:

FirstLight scrapes news data from popular websites such as BBC, CNN, TechCrunch, and NDTV at regular intervals to provide users with the latest news and happenings around the world.

When a user logs in to Firstlight, they choose the genres of news they are interested in. This is done to provide a personalized experience, for every time a user opens the app, they see only the category of news they are interested in. These genres can also be updated and the news feed changes accordingly. The application also provides a shareable link with every news that a user can send to their friends and family, or can post on their social media accounts.

The application, through its Deep Learning Models, detects news which are negative and filters them out. The application uses a transformer-based model to figure out the context of news to provide a more accurate measure for which news is negative and which is positive.

The application also summarizes the news in order to save time. The summary is created using a Deep Learning model and uses Sequence Modeling underneath to create an accurate summary of the news.

To provide the look and feel of a real newspaper we have also included various other features such as newspaper games and comic strips. Our hope is to make the newspaper reading experience for our users as close to reading a real newspaper as possible.