Literature Survey

NEWS TRACKER APPLICATION

DOMAIN: CLOUD APP DEVELOPMENT S.ADITHYA

BATCH ID: B4-4M6E VEMURU NEERAJ KUMAR

TEAM ID: PNT2022TMID15415 VOORUKONDA UDAY KIRAN

YEAR: IV VIDAVALURU VENAKAT SAI

MENTOR: RAJALAKSHMI

# Abstract:

As news is increasingly accessed on smartphones and tablets, the need for personalising news app interactions is apparent. We report a series of three studies addressing key issues in the development of adaptive news app interfaces. We first surveyed users' news reading preferences and behaviours ; analysis revealed three primary types of reader. We then implemented and deployed an Android news app that logs users' interactions with the app. We used the logs to train a classifier and showed that it is able to reliably recognize a user according to their reader type. Finally we evaluated alternative, adaptive user interfaces for each reader type. The evaluation demonstrates the differential benefit of the adaptation for different users of the news app and the feasibility of adaptive interfaces for news apps

# Introduction:

Mobile app ecosystems are transforming patterns of news consumption. Until quite recently, reading the news was a niche use for smartphones , mostly for when users were ‘on the go’; now however, two in every three users of mobile devices in the US regularly access news and as many as one in five read in-depth news articles daily , a similar picture is found in the UK . This growth in mobile news access continues the migration of news consumers to the Internet.

Mobile news access perfectly complements the continuously updating, 24-hour nature of digital news services. But if users are now never out of range of the news, they need more than ever for that access to be adaptive and personalised. Personalised news services are already able to help people find news that is relevant to them, to recommend the right news to the right users, and to help users keep abreast of news by aggregation over multiple sources.

This adaptivity is achieved through several methods including: news content personalisation

by pushing filtered articles predicted to match the user’s interests; adaptive news browsing by changing the order of news categories; contextual news access by offering users

access to additional information related to the news they are reading; and news aggregation, by automatically identifying main news topics emerging from multiple sources. This previous work on adaptivity in digital news access has focused on recommendation of news content. But, adaptation of the way people interact with news services has not been investigated

Mobile news access perfectly complements the continuously updating, 24-hour nature of digital news services. But if users are now never out of range of the news, they need more than ever for that access to be adaptive and personalised. Personalised news services are already able to help people find news that is relevant to them, to recommend the right news to the right users, and to help users keep abreast of news by aggregation over multiple sources. This adaptivity is achieved through several methods [5] including: news content personalisation by pushing filtered articles predicted to match the user’s interests; adaptive news browsing by changing the order of news categories; contextual news access by offering users access to additional information related to the news they are reading; and news aggregation, by automatically identifying main news topics emerging from multiple sources. This previous work on adaptivity in digital news access has focused on recommendation of news content. But, adaptation of the way people interact with news services has not been investigated.

# Realtime Software:

FLASK: There is a recent transformation into the development of multi-platform languages and frameworks. Flask is a small framework by most standards, small enough to be called a

“microframework.” It is small enough that once you become familiar with it, you will likely be able to read and understand all of its source code. But being small does not mean that it does less than other frameworks. Flask was designed as an extensible framework from the ground up; it provides a solid core with the basic services, while extensions provide the rest. Because you can pick and choose the extension packages that you want, you end up with a lean stack that has no bloat and does exactly what you need. Flask has two main dependencies. The routing, debugging, and Web Server Gateway Interface (WSGI) subsystems come from Werkzeug, while template support is provided by Jinja2. Werkzeug and Jinja2 are authored by the core developer of Flask. There is no native support in Flask for accessing databases, validating web forms, authenticating users, or other high-level tasks. These and many other key services most web applications need are available through extensions that integrate with the core packages. As a developer, you have the power to cherry-pick the extensions that work best for your project or even write your own if you feel inclined to. This is in contrast with a larger framework, where most choices have been made for you and are hard or sometimes impossible to change.

DOCKER & KUBERNETES: Docker is an open-source engine that automates the deployment of applications into containers. It was written by the team at Docker, Inc (formerly dot Cloud Inc, an early player in the Platform-as-a-Service (PAAS) market), and released by them under the Apache 2.0 license. Docker adds an application deployment engine on top of a virtualized container execution environment. It is designed to provide a lightweight and fast environment in which to run your code as well as an efficient workflow to get that code from your laptop to your test environment and then into production. Docker is incredibly simple. Indeed, you can get started with Docker on a minimal host running nothing but a compatible Linux kernel and a Docker binary.

Kubernetes, or k8s for short, is an open-source container orchestrator. Originally developed by the engineers at Google, Kubernetes solves many problems involved with running a microservice architecture in production. Kubernetes automatically takes care of scaling, self-healing, load- balancing, rolling updates, and other tasks that used to be done manually by DevOps engineers.

Since Kubernetes was open-sourced and managed by Cloud Native Computing Foundation in 2014, the development community has embraced its benefits to orchestrate container-based systems.

These Software help the application to gain a run-time structure and assist with all internal features of the app.

# Cloud base & Registries:

“Cloud Computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction.” Cloud makes hardware resources readily available and quick to configure, which shortens the time required for developers to show a working version of their products. Also, cloud allows the reuse of the same resources for multiple successive projects, which is more cost-efficient.

IBM Cloud is an open cloud computing platform that combines platform as a service (PaaS) with infrastructure as a service (IaaS), and includes a catalog of diverse cloud services, which can be used to rapidly build and deploy business applications or infrastructure. As a PaaS, it provides developers access to IBM software for integration, security, transactions, and other key functions, and software from IBM Business Partners. The application types can range from web, mobile, big data, and smart devices to the Internet of Things. As an IaaS, it allows developers fine-grained control over the infrastructure on which their apps are deployed.

Developers can deploy high-performance, bare-metal servers, virtual servers, containers, and cloud storage, in IBM Cloud data center locations around the world.

IBM Cloud Object Storage, with its global presence and flexible resiliency options, supports exponential data growth for our cloud-native workloads with best-in-class cost optimization, robust data security, and data governance with ease of use. Built-in data lifecycle operations also make it easy to observe and manage our critical workloads. IBM COS offers a wide range of services, as well as integrations across the wider IBM portfolio, to help customers with hybrid cloud data migrations and modernization.

IBM Db2 is the trusted database used on here to provide a data-intensive app and services with low- latency, extreme availability, and elastic scalability. Easily deploy, develop and run on the database accessible to everyone, everywhere.

IBM Container Registry enables you to store and distribute Docker images in a managed, private registry. It stores and distributes container images in a fully managed private registry. Push private images to conveniently run them in the IBM Cloud Kubernetes Service and other runtime environments. Images are checked for security issues so it is easy to make informed decisions about the deployments. These Cloud facilities help to store the data readily available in the application.

# Web Design:

A web app is basically a website that is specifically optimized for use on a smartphone. The site content can be anything from a standard small business brochure site to a mortgage calculator to a daily calorie tracker—the content is irrelevant. The defining characteristics of a web app are that the user interface (UI) is built with web standard technologies, it is available at a URL (public, private, or perhaps behind a login), and it is optimized for the characteristics of a mobile device. A web app is not installed on the phone, it is not available in the Android Market, and it is not written with Java.

When we are browsing the web, the pages you are viewing are just text documents sitting on someone else’s computer. The text in a typical web page is wrapped in HTML tags, which tell our browser about the structure of the document. With this information, the browser can decide how to display the information in a way that makes sense.

The browsers render certain HTML elements with distinct styles (for example, headings are large and bold, paragraphs are followed by a blank line, and so forth). These styles are very basic and are primarily intended to help the reader understand the structure and meaning of the document. To go beyond this simple structure-based rendering, we use Cascading Style Sheets (CSS). CSS is a stylesheet language that you use to define the visual presentation of an HTML document. We can use CSS to define simple things like the text color, size, and style (bold, italic, etc.), or complex things like page layout, gradients, opacity, and much more.

JavaScript is a scripting language that we can add to an HTML page to make it more interactive and convenient for the user. For example, we can write some JavaScript that will inspect the values typed in a form to make sure they are valid. Or, we can have JavaScript show or hide elements of a page depending on where the user clicks. JavaScript can even contact the web server to execute database changes without refreshing the current web page. All these scripts and codes are helpful in designing the web view of the Plasma Donor Application.

# Awareness for Plasma Donation:

At times of pandemic , people should come forward to donate their blood plasma voluntarily to arrest the spread of disease and provide the cure that they have experienced. Our app will feature awareness videos and articles and will provide rewards for first time donors and regular donors. All These Humanitarian deeds are to be carried on regularly to maintain social well hood and supportive society. There are many incidents to be pointed out citing plasma donation during the past in Covid- 19 Pandemic.

One such incident where India's first Covid-19 plasma donor shares her story, urges other patients to do the same. Members of an Indian Islamic organisation are volunteering to donate blood for plasma therapy after their congregation sparked dozens of Covid-19 clusters across the country.

All these articles are mentioned to encourage the donation of plasma in our application.

# References:

1. Philip J, Sarkar RS, Pathak A. Adverse events associated with apheresis procedures: Incidence and relative frequency. Asian J Transfus Sci. 2013 Jan;7(1):37-41. doi: 10.4103/0973-6247.106730. PMID: 23559763; PMCID: PMC3613659.
2. Flask Web Development by Miguel Grinberg Copyright © 2014 Miguel Grinberg. All rights reserved. Printed in the United States of America. Published by O’Reilly Media, Inc., 1005 Gravenstein Highway North, Sebastopol, CA 95472.
3. Version v1.2.0 (fba92ef) of The Docker Book by James Turnbul © Copyright 2014 - James Turnbull.
4. An Introduction to Kubernetes by LEVEREGE , First Edition © Leverege LLC.
5. White Paper by IDC Sponsored by: IBM

Andrew Smith, February 2021.

1. Essentials of Application Development on IBM Cloud December 2017 Third Edition (December 2017) by Ahmed Azraq Hala A. Aziz Uzma Siddiqui.
2. From Ahmedabad, Smriti Thakkar is the first recovered Covid-19 patient in India who volunteered to donate her plasma.

India Today Web Desk New Delhi, April 25, 2020

UPDATED: April 25, 2020 19:15 IST

1. Tablighi Jamaat gives blood for plasma therapy By Zubair Ahmed

BBC Hindi, Delhi Published 28 April 2020.