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# CHAPTER – 1 INTRODUCTION

# 1.1 PROJECT OVERVIEW

The project Online News System aims at establishing a complete system for providing news. This system is a created online, for providing up-to-date news information on the Internet. It is concerned with the development of a system. User can view latest news category vice like national, international news. This system can save times for users. It can also gives the information about entertainment new, trending topics. The main aim of this project is to develop a newspaper where everyone of a society can read recent news, events, sports etc. It tracks all the information of customization of content instant publishing, linking, articles etc. Shows the informationand description of the entertainment news. It Manage the information of international news. This project has a large scope as it has the following features which help in making it easy ouse.

#### 1.2 PURPOSE

News reports are found in newspapers and their purpose is to inform readers of what is happening in the world around them. News reports have a certain structure that you need to follow. This structure is sometimes called the Inverted Pyramid. When writing a news report, it's important to concentrate on four elements - facts, context, impact, and emotion. How you combine these four elements will determine the success of your news story. Most people agree that the purpose of the news media - newspapers, magazines, radio and television - is to inform, to educate and to entertain. However, the purpose of the news itself is to inform and to educate your readers, listeners or viewers.

# **CHAPTER - 2**

#### LITERATURE SURVEY

# **2.1 EXISTING SYSTEM**

Continuous monitoring of web-based news sources has emerged as a key intelligence task particularly for Homeland Security. We propose a system for web-based news tracking and alerting. Unlike subscription-based alerts, alerting is implemented as a personalized service where the system is trained to recognize potentially important news based on user preferences. Preferences are expressed as combinations of topics and can change dynamically. The system employs Latent Dirichlet Allocation (LDA) for topic discovery and Latent Semantic Indexing (LSI) for alerting.

#### 2.2 REFERENCE

# 1. N. and I., "Development Techniques for Android Platform Mobile Device Application," 2021.

Mobile applications (commonly referred as "apps"), are considered to be one of the fastest growing trends in Information Systems industry (Eddy, 2011). Users enjoy the variety of features that mobile apps can provide quickly and without introducing unnecessary complexity into their designs. As a result, mobile apps present a more popular interface for interaction with business systems than using web applications via Web Browser.

# 2. A. Eldow, M. Shakir, m. Yahya Abdu, S. Iqbal and A. K.H. Muttar, "Exploring the Extent of ICT Role as a teaching Tool in the Public Universities of Khartoum State," Journal of Engineering and Applied Science, vol. 13, no. 15, 2022

Information Communication Technology (ICT) infrastructure is the most important aspect of educational organizations and their management systems. The administration of Sudanese Governmental Universities (SGUs) takes into account (ICT) infrastructures when making plans, policies, visions, and missions for achieving their objectives effectively. This study employed the interview technique to explore and evaluate the reality of the (ICT) infrastructures as well as obtaining useful results to guide SGUs for better application of ICT. The study is based on six elements that are considered as fundamentals of the ICT infrastructures.

# 3. A. Eldow, M. Shakir and m. Yahya Abdu, "Using Information Communication Technology as a Teaching tool in Sudanese Governmental Universities of Khartoum State," International Journal on Informatics Visualization, vol. 1, 2020.

Smartphones and applications are one of the most used things in learning and management systems. They make everyone connected with society, and those who feel sorry for it, especially college students are always looking for things that benefit them at a university. In this research, there is a need to apply a new application for student education service with an easy way of managing data and generate progression on reports feedback in his or her university life. We conducted a survey with the students of Al Buraimi University College and we reached a positive result that helps in the work.

# 4. M. E. H. M. &. S. K. Al-Emran, "Investigating at tit udes towards the use of mobile learning in higher," 2021.

With the rapid development of the Internet, the amount of data has grown exponentially. Topic tracking can help people to explore the process of topic development from the huge and complex network texts information First, the LDA (latent Dirichlet allocation) model is used to extract topics from news texts and the Gibbs Sampling method is used to speculate parameters. The topic mining using the K-means method is compared to highlight the advantages of using LDA for topic discovery.

# 5. "Mobile News Notifications," 2022.

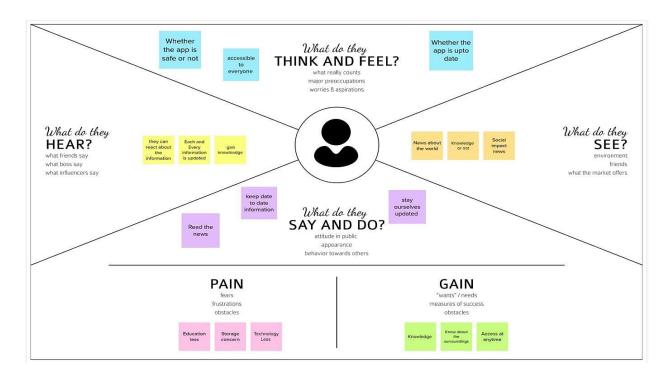
Mobile news notifications alert users when breaking news is happening. The brief headlines that flash on a phone's lock screen provide a snippet of newsworthy world events. They represent an opportunity for news organizations to reach users; rather than requiring people to go to a news app or website, news is pushed to people who want it. Overall, the results show some benefits to notifications: people appreciate the content, half of the respondents reported that they used an app and website because of the notifications that they had received, and, at least in some circumstances, people gain knowledge from the notifications. But the results also show the need for further development: not all of the mobile alerts increase knowledge and some respondents crave the ability to tailor them.

# 2.3 PROBLEM STATEMENT DEFINITION

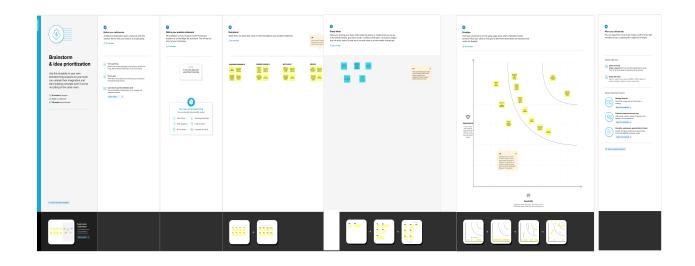
Problem Statement (PS)	lam (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Invester	To know about the sharemarket updates	It shows all kinds of news	The app doesnot filter the news in which customers needs	Frustrated
PS-2	Researcher	Want the old news for research purpose	It only have the latest news	The app doesnot have the information in database.	Frustrated
PS-3	Sportsman	Get more sports news than others	It shows every news in specific order	It is designed in that way	Disappointed
PS-4	Businessman	Get the news what i want	It shows random news	I don't have time to read all the news	Disappointed

# CHAPTER – 3 IDEATION AND PROPOSED SOLUTION

# 3.1 EMPATHY MAP CANVAS



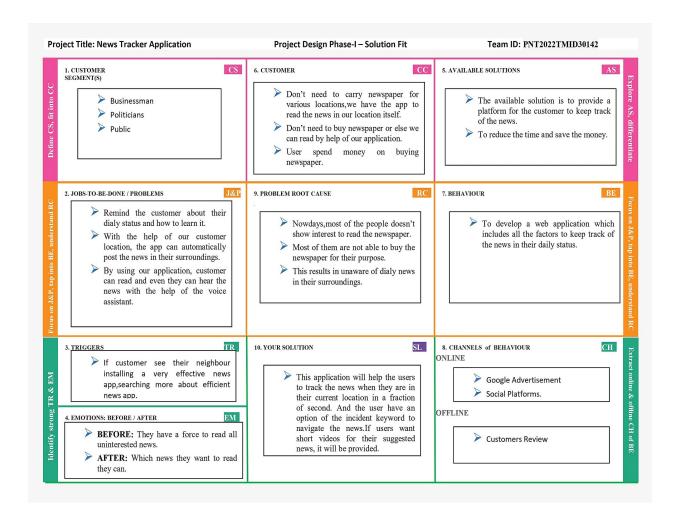
# 3.2 IDEATION AND BRAINSTORMING



# 3.3 PROPOSED SOLUTION

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To keep track of daily news using Cloud Computing.
2.	Idea / Solution description	<ul> <li>Nowadays most of the people do not have the time read a newspaper in their daily life.</li> <li>But they have to keep update about the incidents occurs in their surroundings.</li> <li>So our app is very much useful to know daily news in mobile phones or PC.</li> </ul>
3.	Novelty / Uniqueness	<ul> <li>It is not like any apps, it shows relevant information and shows only what we need.</li> <li>With the help of our customer location, the app can automatically post the news in their surroundings.</li> </ul>
4.	Social Impact / Customer Satisfaction	By using our application, customer can read and even they can hear the news with the help of the voice assistant.
5.	Business Model (Revenue Model)	Money for buying newspaper can be saved and we can update the same information in our mobile phones or PC.
6.	Scalability of the Solution	<ul> <li>Whatever the news we want, we can get the information immediately within a moment.</li> <li>This makes our app more scalable.</li> </ul>

#### 3.4 PROBLEM SOLUTION FIT



# CHAPTER – 4 REQUIREMENT ANALYSIS

# **4.1 FUNCTIONAL REQUIREMENT**

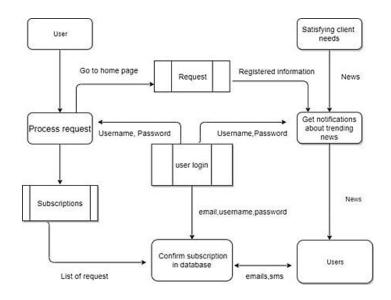
FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Reading News	Application have simple interface with possibility to observe many news with small description in one page. Pressing Link/Button "Read More" to see full information.
FR-4	Searching	Application have text field and button for "Search" and "Filter" to find any news user needed.
FR-5	Sharing	Application have tools to share this news in social networks.

# **4.2 NON - FUNCTIONAL REQUIREMENT**

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Ease of use and user-friendly interface, that allow users to seamlessly interact with the product.
NFR-2	Security	App operation and use of safety requirements related to access control, private data processing, and external attack risk reduction.
NFR-3	Reliability	App behavior in case of alarm status, for example, automatic restart and operation recovery.
NFR-4	Performance	How many simultaneous users or transactions the system is to service and its response time.
NFR-5	Availability	Requirements for app continuous running, for example, 24/7, minimum idle time, etc.
NFR-6	Scalability	Ways to expand the system and avoid adversely affected performance.

# CHAPTER – 5 PROJECT DESIGN

# **5.1 DATA FLOW DIAGRAMS**

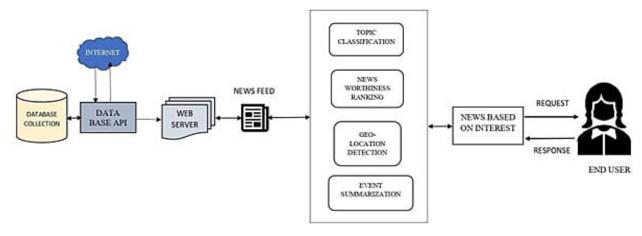


User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Searchig news)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	confirmation	High	Sprint-1
		USN-3	As a user, I can register for the application through their given website	I can register & access the dashboard with Gmail or in Browser Login	Low	Sprint-2

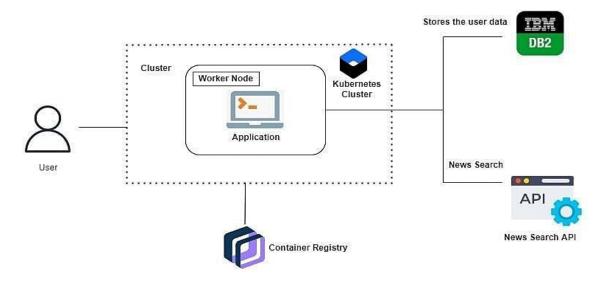
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can view all types of informations through this application	High	Sprint-1
	Dashboard	USN-6	To see their histories about recently viewed, updates for search related news, current progress ,feedback			
Customer (Web user)	Browser	USN-7	Have interactive medium between Client and Server	I have a clarity to use this application and easily resolve my specific issues	High	Sprint-1
Customer Care Executive	Search box	USN-8	Rectify the issues related subscription,ac count ,terms and conditions,priv acy policy			

# 5.2 SOLUTION AND TECHNICAL ARCHITECTURE

# **Solution Architecture**



# **Technical Architecture**



**Table-1: Components & Technologies:** 

S.No	Component	Description	Technology
1.	User Interface	How user interacts with	HTML, CSS,
		application e.g. Web UI, Mobile	JavaScript
		App, Chatbot etc.	
2.	Application Logic-1	Logic for a process in the application	Java
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT
			service
4.	Application Logic-3	Logic for a process in the application	IBM Watson
			Assistant
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM
			Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage
			or Other Storage
			Service or Local
			Filesystem
8.	External API-1	Purpose of External API used in the	IBM Weather API,
		application	etc.

9.	External API-2	Purpose of External API used in the	Aadhar API, etc.
		application	
10.	Machine Learning	Purpose of Machine Learning Model	Object Recognition
	Model		Model, etc.
11.	Infrastructure (Server	Application Deployment on Local	Local, Cloud
	/ Cloud)	System / Cloud Local Server	Foundry, Kubernetes,
		Configuration:	etc.
		Cloud Server Configuration :	

# **Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source	List the open-source frameworks	Technology of
	Frameworks	used	Opensource
			framework
2.	Security	List all the security / access	e.g. SHA-256,
	Implementations	controls implemented, use of	Encryptions, IAM
		firewalls etc.	Controls, OWASP etc.
3.	Scalable	Justify the scalability of	.Net
	Architecture	architecture (3 – tier, Micro-	
		services)	
4.	Availability	Justify the availability of application	IBM cloud
		(e.g. use of load balancers,	
		distributed servers etc.)	
5.	Performance	Design consideration for the	Java
		performance of the application	
		(number of requests per sec,	
		use of Cache, use of CDN's)	
		etc.	

# CHAPTER – 6

# PROJECT PANNING AND SCHEDULING

# **6.1 SPRINT PLANNING AND ESTIMTION**

Sprint	Functional	User	User Story / Task	Story	Priority	Team Members
	Requirement	Story		<b>Points</b>		
	(Epic)	Number				
Sprint-1	Registration	USN-1	As a user, I can register	2	High	Seran K
			for the application by			Muthuvel T
			entering my email,			
			password, and			
			confirming my password.			
Sprint-1		USN-2	As a user, I will receive	2	High	Vignesh Kumar S
			confirmation email once I			Kanagasundaram S
			have registered for the			
			application			
Sprint-1		USN-3	As a user, I can register	2	Low	Seran K
			for the application			Muthuvel T
			through Face book.			
Sprint-1		USN-4	As a user, I can register	2	Medium	Vignesh Kumar S
			for the application			Kanagasundaram S
			through Gmail			
Sprint-1	Login	USN-5	As a user, I can log into	2	High	Seran K
			the application by			Muthuvel T
			entering email &			
			password			
Sprint-2	Dashboard	USN-6	As a user, To see their	15	High	Vignesh Kumar S
			data about the			Kanagasundaram S
			Entertainment, Business			Seran K
Consider 0		110117	and Sports.	47	la i aula	Seran K
Sprint-3	Browser	USN-7	Have interactive medium	17	high	
			between Client and			Muthuvel T
Covint 4	Complete Days	LICALO	Server Rectify the	5	Medium	Vignesh Kumar S
Sprint-4	Search Box	USN-8	Rectify the search related	5	Medium	Vignesh Kumar S Kanagasundaram S
			news in the news data.			Kanayasunuaram 5
Sprint-4		LICNLO	As an user, I will be able	15	High	Vignesh Kumar S
Spriiit-4		USN-9	to see the relevant	13	High	Kanagasundaram S
			information			Muthuvel T
			IIIIOIIIIauoii			wulliuvei I

# **6.2 SPRINT DELIVERY SCHEDULE**

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	10	6 Days	24Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	15	4 Days	30 Oct 2022	02 Nov 2022		
Sprint-3	17	4 Days	03 Nov 2022	06 Nov 2022		
Sprint-4	20	6 Days	07 Nov 2022	12 Nov 2022		

# **Velocity:**

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

Example 
$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$
 :
$$AV = 35 / 24 = 1.4$$

# **6.3 REPORT FROM JIRA**

It shows time taken to completed status of all the issues in the sprint.

# Roadmap

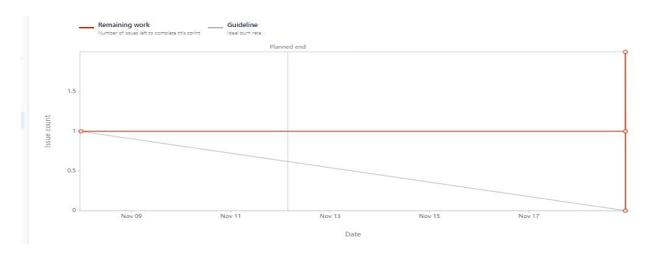


# **Velocity Report**

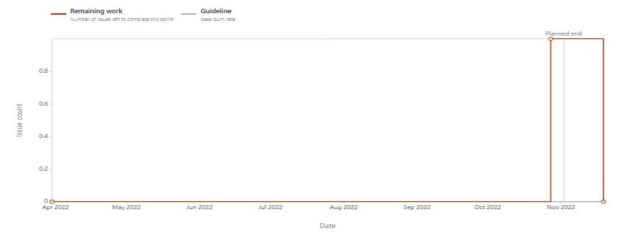


# **Burndown Chart**

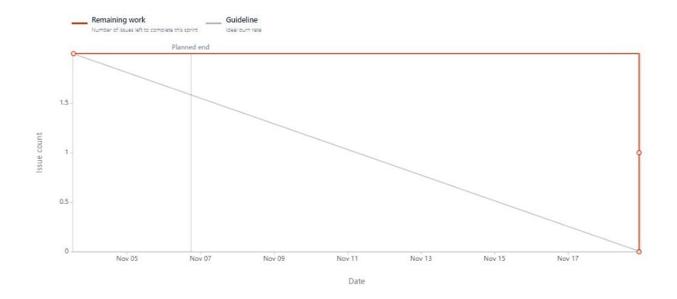
# **Sprint 1**



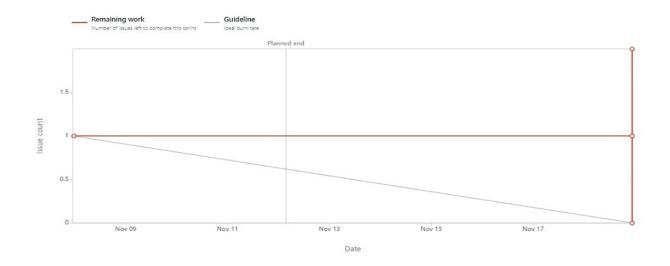
# **Sprint 2**



# **Sprint 3**



# Sprint 4



# CHAPTER – 7

#### **CODING & SOLUTIONING**

#### 7.1 FEATURE 1

One of the factors in successful news app development is visualization of news and its feature with user. For the development of an android app material design is very useful and provides smooth experience with custom layout, views and animations. For this news app user should be able to select from different categories, countries and newspaper. Short News as list view with header, little description and image before showing full article can be helpful to user to determine what type of news they are looking for. View Holder can be used for this list view for better and fast experience. Library like Picasso can be used for better image handling. This User interface will be connected to API and Admin Panel database which will give full article in form of web view of that article. Because of this structure the integrity of writer of that article will not be in harm.

#### **7.2 FEATURE 2**

User was allowed to use this application in his smartphone and screenshots were taken as a result for this study. First User need to Sign Up in order to access the application which provides security for this application. Also predicted user error handling with pop-up messaging was done before this experiment like entering invalid data in fields, not selecting a field before clicking on action button etc. The result will be shown in form of screen shots below.

# CHAPTER – 8 TESTING

# **8.1 TEST CASES**

#### Test case

Test case	feature	component	Test scenario	Expected result	Actual result	status	comments	bug
Sign in	Functional	Login page	Verify user can see the sign in option	can visible	Yes visible	pass	successful	-
Sign up	Functional	Login page	Verify user has the option to sign up	Can visible	Yes visible	pass	Successful	-
Forgot password	Functional	Login page	Verify user has the option to forgot password	Yes the option is available	Option is available	pass	Successful	-

# 8.2 USER ACCEPTANCE TESTING

				Project Name Maximum Marks	News Tracker Application 4 marks	1							
Test case ID	Feature Type	Compon	Test Scenario	Pre-Requisite	Steps To Execute	Test Data	Expected Result	Actual Result	Stat	Commets	TC for Automation(Y/N)	BUG	Executed By
.oginPage_TC_0 01	Functional	Home Page	Verify user is able to see the Login/Signup popup when user clicked on My account button		1.Enter URL and click go 2.Click on My Account dropdown button 3. Verify login/Singup popup displayed or not	https://shopenzer.com/	Login/Signup popup should display	Working as expected	Pass				Karuppiah
.oginPage_TC_0 O2	UI	Home Page	Verify the UI elements in Login/Signup popup		LEater UPL and click go 2. Click on My Account dropdown button 3. Verify logial/Singup popup with below UI dements: a.cmail text box b.password text box c.Login button d.New outomer? Create account link e.Last password? Recovery password link password ink	https://shopenzer.com/	Application should show below UI elements:	Working as expected	Fail	Steps are not clear to follow		BUG- 1234	Kousick Srinivas
.oginPage_TC_O O3	Functional	Home page	Verify user is able to log into application with Valid credentials		1.Enter URL(https://chopenzer.com/) and click go 2.Click on My Account dropdown button Email text box 4.Enter valid password in password text box 5.Click on login button	Username: chalam@gmail.com password:Testing123	User should navigate to user account homepage						Navaneeth
.oginPage_TC_O O4	Functional	Login page	Verify user is able to log into application with in Valid credentials		1.Exter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button Santer In/Salid username/email in Email text box 4.Exter valid paseword in password text box 5.Click on login button	Username: chalam@gmail password: Testing123	Application should show 'Incorrect amili or password 'validation message.						Naveen Raja
.oginPage_TC_O O4	Functional	Login page	Verify user is able to log into application with in Valid credentials		1Enter URL[https://chopencer.com/] and click go 2.Click on My Account dropdown button Senter Valid username/email in Email text box 4.Enter Invalid password in password text box 5.Click on login button	Username: chalam@gmail.com password: Testing123678686786876 876	Application should show "incorrect email or password" validation message.						Navaneeth
.oginPage_TC_O OS	Functional	Login page	Verify user is able to log into application with InValid credentials		1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button Santer In/alid username/email in Email text box 4.Enter Invalid password in password text box	Username: chalsm password: Testing 1236 78686 786876 876	Application should show "Incorrect amili or password" validation message.						Naveen Raja

# CHAPTER - 9

#### RESULTS

# 9.1 PERFORMANCE METRICS

Application performance metrics are important for deciphering the extent to which an application actually helps the business it supports and revealing where improvements are needed. The key to success is to track the right metrics for your app. These application performance metrics, commonly known as key performance indicators (KPIs), are a quantitative measure of how effectively the organization achieves the business objectives. Capturing the right metrics will give you a comprehensive report and powerful insights into ways to improve your application. Below are 10 core application performance metrics that developers should track.

They are CPU usage, Memory usage, Requests per minute and bytes per request, Latency and uptime, Security exposure, User satisfaction/Apdex scores, Average response time, Error rates, Garbage collection and Request rates

# CHAPTER – 10

# ADVANTAGES AND DISADVANTAGES

# **ADVANTAGES**

- Much more immediate and up to date
- Always have access ie Mobile Phone
- Free
- Can include wider content
- Archive functions

# **DISADVANTAGES**

- Require data/wifi to get online
- Companies not making as much money due to free reading for audiences
- News spreads quicker online people find out news before they should
- Lose money can't get people to pay for digital
- Older audiences may not access digital platforms
- Costly to maintain
- Errors stay online FOREVER
- Response to pace = errors in reporting
- Fake News!

# CHAPTER – 11 CONCLUSION

We were able to successfully design and execute a news tracker application software that is useful for recognizing the news feeds. In this project, we put a information about Indices, Commodities, Currencies, Future Rates, Bonds, etc.... and were able to achieve an accuracy of 99.9% for the task of recognizing news tracker application.

# CHPATER - 12 FUTURE SCOPE

Location feature with automation can be implemented which means as user move from one city to other local news will change as per it. Offline Reading can be improve will more efficient way on full articles. Data quality check needed. If API can't reach to certain article source it gives null value which can cause problem in JSON parsing.

# CHAPTER – 13 APPENDIX

#### 13.1 SOURCE CODE

# App.py

```
from turtle import st
from flask import Flask, render_template, request, redirect, url_for, session
from markupsafe import escape
import ibm db
try:
                   ibm_db.connect("DATABASE=bludb;HOSTNAME=764264db-9824-4b7c-82df-
       conn
40d1b13897c2.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=32536;SECURITY=SSL;S
SLServerCertificate=DigiCertGlobalRootCA.crt;UID=txj24809;PWD=0ND0R7GUAtK2zp6A",",")
 print("Successfully connected with db2")
except:
 print("Sorry.. Unable to connect : ", ibm db.conn errormsg())
app = Flask(__name__)
# Home page open aagum
@app.route('/')
def home():
return render template('home.html')
# register oda submit action
@app.route('/register',methods = ['POST', 'GET'])
def register():
if request.method == 'POST'
  fname = request.form['fname']
  lname = request.form['lname']
  email = request.form['email']
  password = request.form['password']
  sql = "SELECT * FROM user WHERE email =?"
  stmt = ibm_db.prepare(conn, sql)
  ibm db.bind param(stmt,1,email)
```

```
ibm db.execute(stmt)
  account = ibm_db.fetch_assoc(stmt)
  if account:
     return render_template('home.html', msg="You are already a member, please login using your
details")
  else:
   insert_sql = "INSERT INTO user VALUES (?,?,?,?)"
   prep_stmt = ibm_db.prepare(conn, insert_sql)
   ibm_db.bind_param(prep_stmt, 1, fname)
   ibm_db.bind_param(prep_stmt, 2, lname)
   ibm_db.bind_param(prep_stmt, 3, email)
   ibm db.bind param(prep stmt, 4, password)
   ibm_db.execute(prep_stmt)
   return render_template('home.html', msg="Student Data saved successfuly..")
@app.route("/login", methods=["POST"])
def login():
 print("-----")
 print("Inside login entrance")
 email = request.form.get("email")
 password = request.form.get("password")
 sql = "SELECT * FROM user WHERE email = ?"
 stmt = ibm db.prepare(conn, sql)
 ibm db.bind param(stmt, 1, email)
 ibm_db.execute(stmt)
 account = ibm db.fetch assoc(stmt)
if not account:
   return render template('home.html', msg="You are not yet registered, please sign up using your
details")
 else:
  print("+=======+")
  print(account)
  print("+=======+")
  print("Inside login")
```

```
if(password == account['PASSWORD']):
    email = account['EMAIL']
    name = account['FNAME']
    print("Going to redirect to dashboard")
    return redirect(url_for('dashboard'))
    else:
        return render_template('home.html', msg="Please enter the correct password")
@app.route('/dashboard')
def dashboard():
    return render_template('dashboard1.html')
if __name__ == '__main__':
    app.run(host='0.0.0.0', port=5000, ssl_context='adhoc')
```

#### **INDEX.JY**

#### 13.2 GITHUB AND PROJECT DEMO LINK

https://github.com/IBM-EPBL/IBM-Project-38939-1660387165

#### REFERENCES

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