

PROJECT REPORT

NEWS TRACKER APPLICATION

TEAM ID:PNT2022TMID43934

TEAM LEAD: GOBINATH S(723619104010)

TEAM MEMBER 1 : NISHARA N(723619104027)

TEAM MEMBER 2:HARIKESH N(723619104011)

TEAM MEMBER 3:NAGALAKSHMI N(723619104026)

ABSTRACT

This work aims to produce and disseminate information to persons who live busy lives. I'm thinking that users can't tell the difference between true and fake news, thus the app should incorporate all of the reliable sources from around the globe and then state in each article which source has verified this news. The high data storage capacity, processing power, and networking capabilities of this application can all be scaled using cloud computing infrastructure. Scaling is quick and simple to do.

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NEWS TRACKER APPLICATION

1. INTRODUCTION

News is information about current events. This may be provided through many different media: word of mouth, printing, postal systems, broadcasting, electronic communication, or through the testimony of observers and witnesses to events. Throughout history, people have transported new information through oral means. Having developed in China over centuries, newspapers became established in Europe during the early modern period. In the 20th century, radio and television became an important means of transmitting news. Whilst on the 21st, the internet has also begun to play a similar role.

But nowadays people have no time to read news, so we have decided to create a News application which makes it easy for users to read news in ease.

1.1 Project Overview

Over the period of years, people have updated their way of news consumption. Right from the traditional way of morning newspapers till easy updates on their mobile phones, technology has given a new way to the news publishing industry. If you are running a news publisher and wish to expand in the digital world, you have landed at the right place. This article will help you in developing a feature-rich news app and help in boosting your revenue digitally.

As more and more people are shifting from print media to digital news sources, the competition between the online streaming platforms is also increasing.

To stand out from the competition, it is essential to develop a news app that provide the listed major factors:

Comfort: Ease while browsing the news updates of their choice.

Convenience: Accessing the news in poor or bad internet connectivity.

Control: Getting updates from various desired categories rather than unwanted updates.

1.2 Purpose

Know fundamental concepts and can work on IBM Cloud and Db2. Gain a broad understanding of Flask which is used to create a meaningful User Interface and Store the user'

2. LITERATURE SURVEY

A literature survey or a literature review in a project report is that section which shows the various analyses and research made in the field of your interest and the results already published, taking into account the various parameters of the project and the extent of the project.

It is the most important part of your report as it gives you a direction in the area of your research. It helps you set a goal for your analysis - thus giving you your problem statement.

When you write a literature review in respect of your project, you have to write the researches made by various analysts - their methodology (which is basically their abstract) and the conclusions they have arrived at. You should also give an account of how this research has influenced your thesis.

Descriptive papers may or may not contain reviews, but analytical papers will contain reviews. A literature review must contain at least 5 - 7 published researches in your field of interest.

2.1 Existing problem

Ryan Ko et al.(2012).A study of mobile news reading suggests that users read the news once a day for between 10 and 30 minutes, preferably during the mornings and at home. The personalization of news app interaction is achieved through making the interface adaptable. Adaptive news interfaces that 'automatically' adapt to the way the user reads the news in particular contexts are not found, other than in re-ordering menus of headlines to take account of previous reading choices.

Marios constantinides et al,(2015).Mobile app ecosystems are transforming patterns of news help users keep abreast of news by aggregation over The personalization of news app interaction in these Adaptive news interfaces that ‘automatically’ adapt to the way the user reads the news in particular they jump to a particular section whereas when they read Having characterized mobile news readers as one of three types, the question that follows is whether a news app could detect a user as being a particular reader type from their question involving the development of a mobile news app the adaptive variant interface for each news reader type.

Manish Kumar et al,(2016).In late 10 years, the Internet has been growing appallingly rapidly. The expense of capacity, the force devoured by PC and equipment is expanding. Storage room in information focus can't address our needs and hence the framework and repair of unique web can't settle above enquiries, so new arrangements are required. In the meantime, substantial undertakings need to study information supply completely to bolster its business. The gathering and examination ought to be composed on a fresh out of the plastic new stage. So we require a fresh out of the plastic new registering model to use the empty assets of tablet, expand the financial productivity through up usage rate, diminish the hardware vitality utilization. This is an application software for daily user.in which a user gets news update from another user. This application serves best for each individual person.

2.2 References

[1] "Marios constantinides , Exploring mobile news reading interactions for news app personalization", 2015.

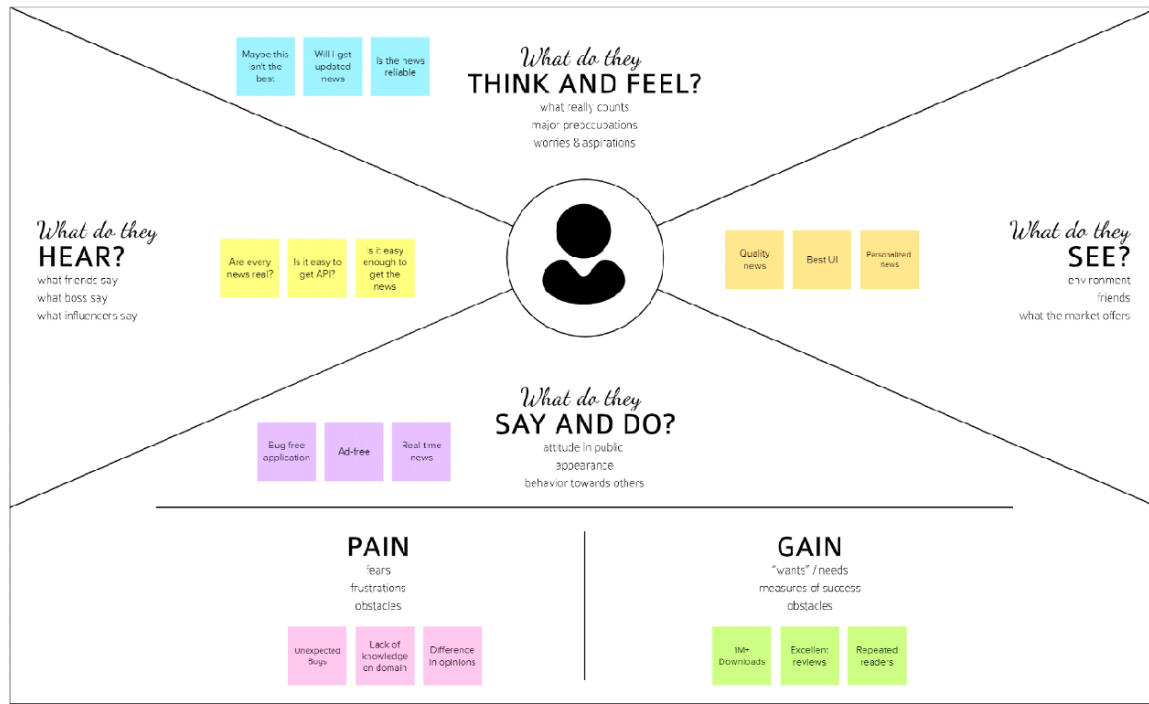
[2]"Ryan Ko, Markus Kirchberg, Bu Sung Lee, Tracking of Data Leaving the Cloud",2012.

2.3 Problem Statement Definition

Cloud Computing is one of the most widely used concepts around the world. It will be essential in storage of data. In this article, we will be dealing with news application which shows news according to user favorites. This produce good quality of news which is gathered from trusted source, Its also time consuming for the users.

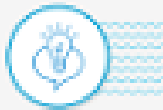
3. IDEATION & PROPOSED SOLUTION

3.1 Empathy_Map_Canvas



3.2 Ideation & Brainstorming

Ideation refers to the whole creative process of coming up with and communicating new ideas. It can take many different forms, from coming up with a totally new idea to combining multiple existing ideas to create a new process or organizational system. Ideation is similar to a practice known as brainstorming.

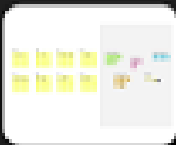


Brainstorm & Idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 10 minutes to prepare
- 1 hour to collaborate
- 2-4 people recommended

Brainstorming feedback



How to create
a timeline
for your project
or meeting
agenda

Open template

1

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

2

Team getting

Define who should participate in the session and whether you'll have a facilitator or not.

3

Set the goal

Think about the problem you're looking to solve and the brainstorming session.

4

Learn from your facilitator

Use the Facilitator's Guide to help you with your session.

Open template

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a clear, specific statement. This will be the focus of your brainstorm.

10 minutes

10 minutes

Take notes on your problem statement

2

Key to best of brainstorming

To get the most out of your session



Key to best



Encourage all ideas



Set the goal



Listen to others



Be the facilitator



Open the session

3

Brainstorm

Write down any ideas that come to mind that address your problem statement.

45 minutes

You can combine sticky notes and use the post-it search to find your ideas.

Gobinath.S



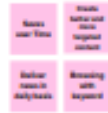
Nishara.N



Nagalakshmi.N



Harikesh.N



Dev.S

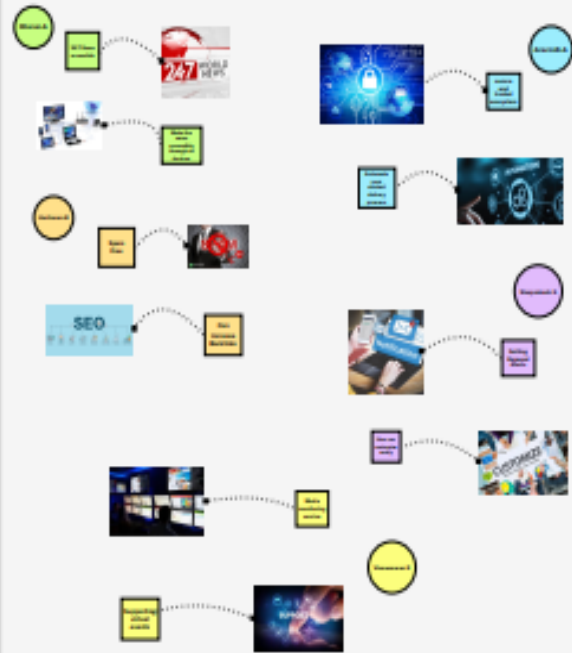


3

Group Ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

45 minutes

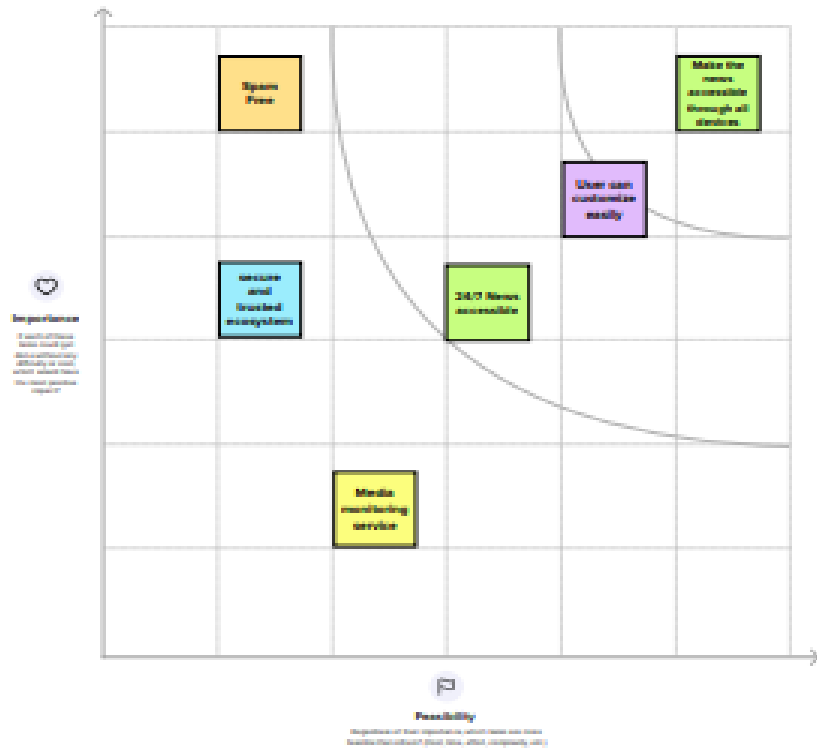




Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes



After you collaborate

You can export the board as an image or pdf to share with members of your company who might find it helpful.

Quick actions

- Share the board**
Share a live link to the board with stakeholders to keep them in the loop about the outcomes of the session.
- Export the board**
Export a copy of the board as a PDF or PPT to share as a slide, include in slides, or save to your drive.

Keep moving forward

- Strategy Blueprint**
Outline the components of a new idea or strategy.
[Open the template >](#)
- Customer experience journey map**
Understand customer needs, motivations, and obstacles for an experience.
[Open the template >](#)
- Strengths, weaknesses, opportunities & threats**
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
[Open the template >](#)

[View template feedback](#)

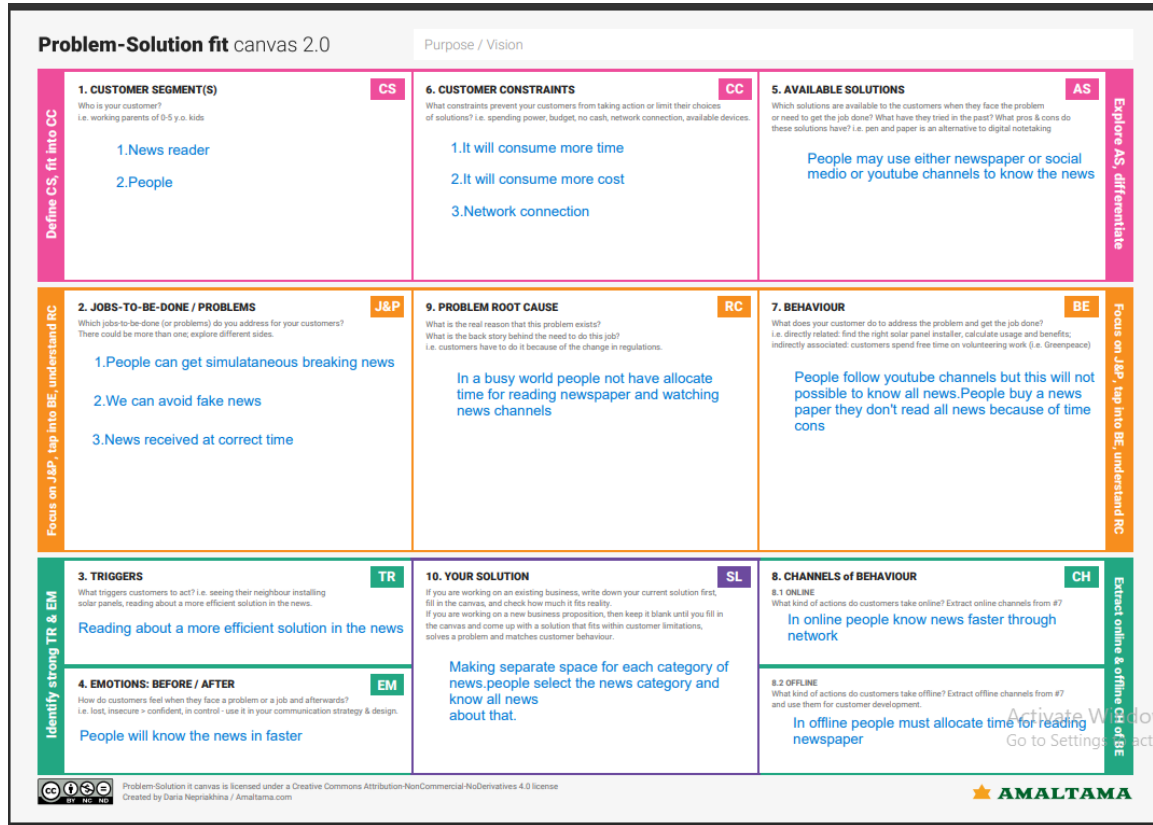


3.3 Proposed Solution

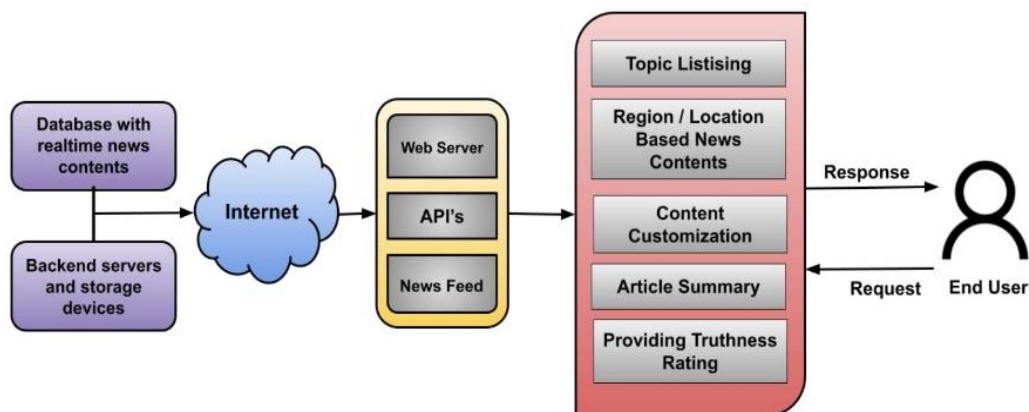
Proposed solution should relate the current situation to a desired result and describe the benefits that will accrue when the desired result is achieved. So, begin your proposed solution by briefly describing this desired result.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Cloud Computing is one of the fast growing and it offers flexible resources, and economies of scale. In this article we are going make an application which tracks the news. It is an News Tracker Application where it gives crisp news from the reputed news sources and it's just gives the simple sentence which saves the readers time and also it is high in knowledge.
2.	Idea / Solution description	We are using html - bootstrap ,python - flask. This is for the continuous display ofnews. As Python has lot of libraries ,it is easier and faster.
3.	Novelty / Uniqueness	Usually people use javascript ,php as a backend for web development. But we are using flask for that purpose.
4.	Social Impact / Customer Satisfaction	Less time and more knowledge consumption.
5.	Business Model (Revenue Model)	Optional(Ad-revenue)
6.	Scalability of the Solution	Design,news and flash news are flexible.

3.4 Problem Solution fit



3.5 Proposed Solution Architecture



4. REQUIREMENT ANALYSIS

4.1 Functional requirement

Functional requirements are product features or functions that developers must implement to enable users to accomplish their tasks. So, it's important to make them clear both for the development team and the stakeholders. Generally functional requirements describe system behavior under specific conditions.

4.2 Non-functional requirement

Nonfunctional requirements, not related to the system functionality, rather define how the system should perform.

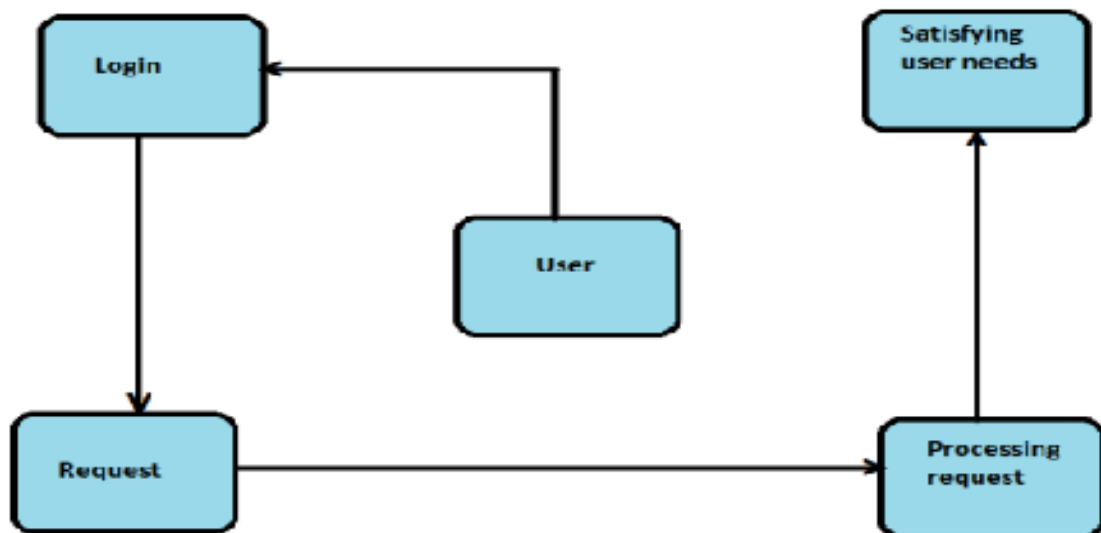
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none">• The news is updated almost every second, it does not affect the user who reads his/her favourite news.
NFR-2	Security	<ul style="list-style-type: none">• Authentication and Password Management.
NFR-3	Reliability	<ul style="list-style-type: none">• Avoid fake news.• Instant news.• Location based news.
NFR-4	Performance	<ul style="list-style-type: none">• Smooth UI makes the user to stay in app.• Showing the current trending news first.
NFR-5	Availability	<ul style="list-style-type: none">• Minimum idle time is 24/7.• Recent news will based on user's previous news visit.
NFR-6	Scalability	<ul style="list-style-type: none">• Get more user's attention by sharing the app in social media

5. PROJECT DESIGN

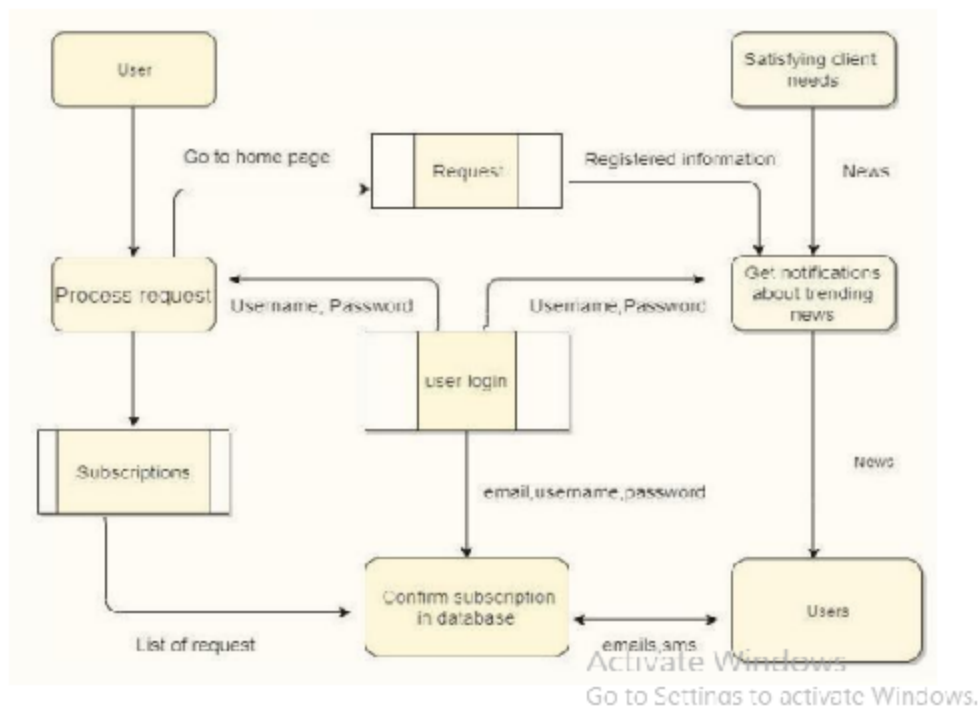
5.1 Data Flow Diagrams

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It can be manual, automated, or a combination of both.

Simplified:



DFD Level 0 (Industry Standard):



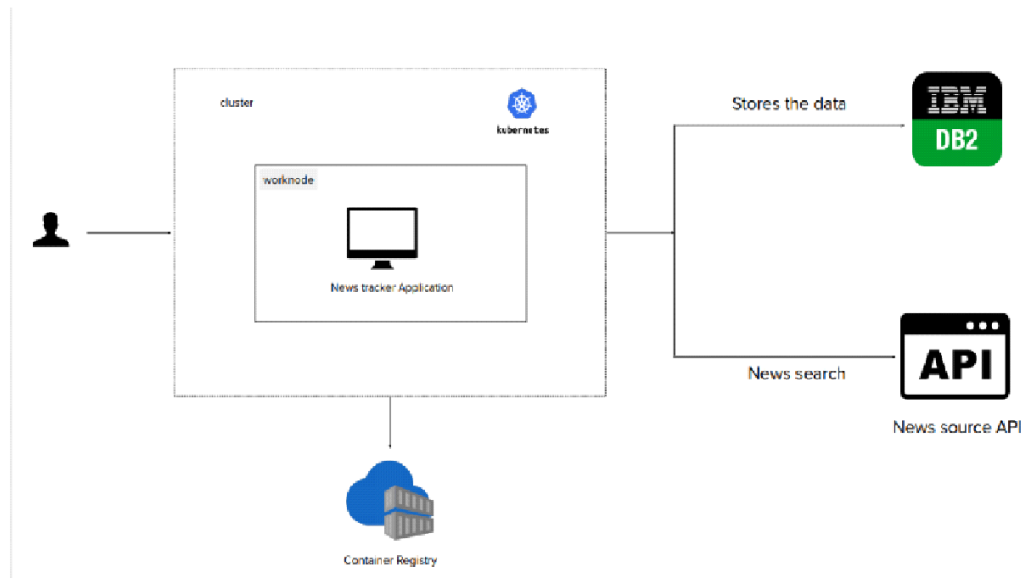
5.2 Solution & Technical Architecture

IBM® Cognos® Analytics with Watson takes BI a step further with AI capabilities that not only bring an accurate, trusted and complete picture of your business, but forecast what's coming in the future, predict outcomes and explain why they may happen.

Why IBM Cognos Analytics with Watson?

- Use built-in AI to accelerate and improve blending data or finding the optimal tables for your model.
- Uncover hidden trends and drivers with the help of AI so you can get the facts behind your data and deliver insights in real time.

- Create powerful visualizations, tell the story of your data and share insights via email, Slack, or the mobile app.



5.3 User Stories

A user story is an informal, general explanation of a software feature written from the perspective of the end user. Its purpose is to articulate how a software feature will provide value to the customer.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer	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
	Login	USN-2	As a user, I can log into the application by entering email & password	I can start reading news.	High	Sprint-1
	Dashboard	USN-3	The news portal fetches for the most recent news and shows it as "Breaking News".	I can open and view the "Breaking News"	Medium	Sprint-2
	Search Bar	USN-4	User search data based on their personal interests	I can view the related content for the search data	High	Sprint-2
		USN-5	The news is showed with a sample snapshot and mini description and user can open and read the article.	I can view the news details and can open to see whole article	Medium	Sprint-3
Administrator	Server	USN-6	Provides the exact news from the database	I can see the latest news getting refreshed	Medium	Sprint-4
		USN-7	Provides Personalized News based on the interest	I can see the news based on my interest	Medium	Sprint-4

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

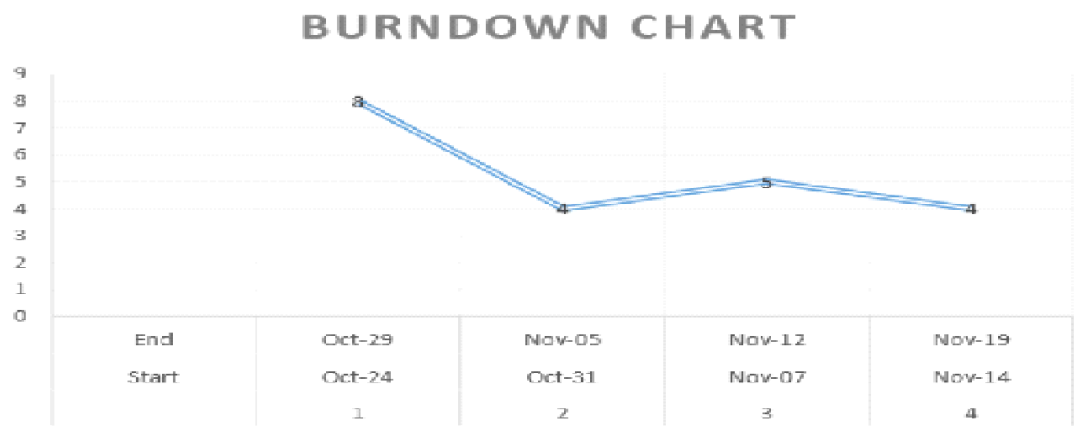
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	User Panel	USN-1	The user will login to the website and go through the services available on the website.	2	High	Gopirath S Nagalakshmi W
Sprint-2	Admin Panel	USN-2	The role of the admin is to assign agent for every tickets raised by the user and check out the database about the availability and have the track of all the things that the user are going to service	2	High	Harkesh N Nishara N Devi N
Sprint-3	Chat Bot	USN-3	The user can directly interact with chatbot regarding the services	2	High	Gopirath S Nagalakshmi W
Sprint-4	Final Delivery	USN-4	Container of application using docker, kubernetes and deployment of application	2	High	Harkesh N Nishara N Devi N

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	20	6 Days	24 Oct 2022	29 Oct 2022	8	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	4	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	5	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	4	19 Nov 2022

6.3 Burn down chart

Sprint no.	Dates		Story Points
	Start	End	
1	Oct-24	Oct-29	8
2	Oct-31	Nov-05	4
3	Nov-07	Nov-12	5
4	Nov-14	Nov-19	4



7. TESTING

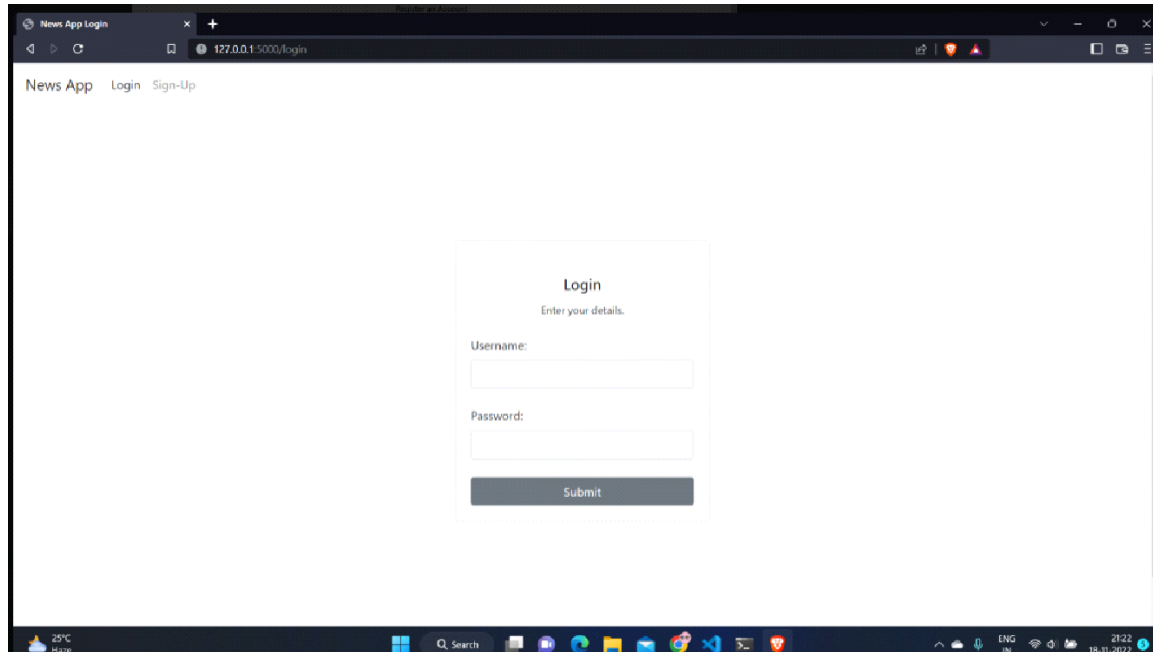
Testing is the process of evaluating and verifying that a software product or application does what it is supposed to do. The benefits of testing include preventing bugs, reducing development costs and improving performance.

7.1 Test Cases

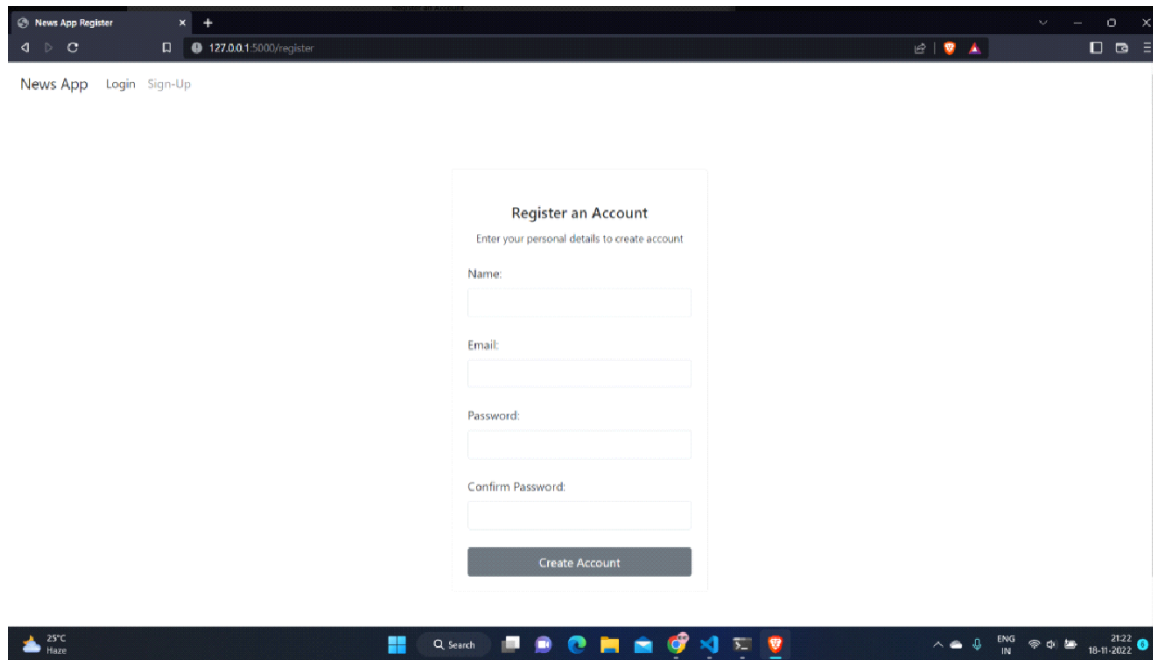
S.NO	TESTCASE	INPUT	EXPECTED OUTPUT	ACTUAL OUTPUT	RESULT
1.	User login	Email & Password	Successful login message	Successful login message	PASS
2.	Storing data	login credentials	Data is stored in Database	Data is stored in Database	PASS
3.	Display news	Login the website	New news displayed	New news displayed	PASS

8. OUTPUT

8.1 Login page



8.2 Register page



8.3 Home page

Daily News


News App Sports Business Technology Science Health Logout

Today's Sports News

Verstappen storms to pole as Red Bull score 1-2 in final qualifying session of the season at Yas Marina - Formula 1


Author: F1
Published At: 2022-11-19T16:36:31Z

Max Verstappen stormed to pole position for the Abu Dhabi Grand Prix, getting the better of Red Bull team mate Sergio Perez and Ferrari rival Charles Leclerc as the sun set and the track action ramped up during qualifying at the Yas Marina Circuit.



ISL 2022-2023, Hyderabad FC vs Kerala Blasters Highlights: HFC 0-1 KBFC - News18

Author: Sports Desk
Published At: 2022-11-19T16:00:22Z



24°C Partly cloudy 22:55 19-11-2022

Daily News


News App Sports Business Technology Science Health Logout

Today's News

Interfaith Couple's Reception Cancelled In Delhi Murder Victim's Hometown In Maharashtra - NDTV


Author: None
Published At: 2022-11-19T15:17:46Z

A reception of a newly married Hindu-Muslim couple was cancelled in Maharashtra's Vasai town following opposition from local organizations in the wake of Shraddha Walkar's murder, police said on Saturday.



Breaking News LIVE: Bhima Koregaon Case Accused Gautam Navlakha Moved From Taloja Jail To Belapur For House Ar - ABP Live

Author: ABP News Bureau



24°C Partly cloudy 22:57 19-11-2022

Daily News

Daily News

127.0.0.1:5000/business


News App Sports Business Technology Science Health Logout

Today's Business News

Jeep rescuing Tata Safari Storme is an example of how NOT to recover a stuck vehicle [Video] - CarToq.com


Author: Ajeesh Kuttan
Published At: 2022-11-19T12:07:38Z

Off-roading is an adventure activity that lets people explore the off-road capabilities of their 4x4 SUVs. We have mentioned it several times that if not done properly, accidents can happen during off-roading. This is why, it is always recommended to take adv...



Tata's Air India Goes Plane Shopping For "Historic Order" - NDTV

Author: None
Published At: 2022-11-19T11:54:43Z



24°C Partly cloudy

Search

ENG IN

22:58 19-11-2022

Daily News

Daily News

127.0.0.1:5000/technology


News App Sports Business Technology Science Health Logout

Today's Tech News

5 most stylish JDM cars in GTA Online - Sportskeeda

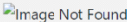
Author: Neeraj Bansal
Published At: 2022-11-19T15:34:23Z

GTA Online has a lot of unique vehicles in its open-world environment, including the famous JDM cars.



OnePlus 11 could feature superfast UFS 4.0 storage - Android Police

Author: None
Published At: 2022-11-19T14:44:00Z
None



24°C Partly cloudy

Search

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22:58 19-11-2022

9. ADVANTAGES & DISADVANTAGES

Advantages:

- Improved availability of data. DB2 data sharing helps you meet your service objective by improving availability during both planned and unplanned outages.
- Faster time to market. You can spin up new instances or retire them in seconds, allowing developers to accelerate development with quick deployments.
- flask is lightweight, open source, and offer minimal coding for developing an application.

Disadvantages:

- More potential for security risks.
- IBM Cloud with a bare metal server is not the best solution for you as the configuration of this server is usually a rather time-consuming process.
- The complete plan must be rebound for any DB2 program modification.
- BIND can be time-consuming for large plans.

10. CONCLUSION

Thus a news tracker application was created using Flask, IBM DB2 and the data's are stored in IBM cloud which displays the current news when logged in with right credentials

11. FUTURE SCOPE

User interest based news and most interested news can be displayed accurately with the help of Machine learning which can be implemented in the future

12. APPENDIX

SOURCE CODE

app.py:

```
from flask import Flask, render_template, request
import requests
app = Flask(__name__)
app.secret_key = 'secret123'
@app.route('/')
def index():
    url =
"https://newsapi.org/v2/top-headlines?country=in&category=general&apiKey=7e1737d3191d4fe894fc579df01b7bde"
    r= requests.get(url).json()
    case = {
        'articles': r['articles']
    }
    return render_template('index.html', cases = case)
```

```
@app.route('/sports')
```

```
def sports():
```

```
    url =
```

```
    "https://newsapi.org/v2/top-headlines?country=in&category=sports&apiKey=7e1737d3191d4fe894fc579df01b7bde"
```

```
    r= requests.get(url).json()
```

```
    case = {
```

```
        'articles': r['articles']
```

```
    }
```

```
    return render_template('sports.html',cases = case)
```

```
@app.route('/business')
```

```
def business():
```

```
    url =
```

```
    "https://newsapi.org/v2/top-headlines?country=in&category=business&apiKey=7e1737d3191d4fe894fc579df01b7bde"
```

```
    r= requests.get(url).json()
```

```
    case = {
```

```
        'articles': r['articles']
```

```
    }
```

```
    return render_template('business.html',cases = case)
```

```
@app.route('/technology')
```

```
def technology():
```

```
    url =
```

```
    "https://newsapi.org/v2/top-headlines?country=in&category=technology&apiKey=7e1737d3191d4fe894fc579df01b7bde"
```

```
    r= requests.get(url).json()
```

```
    case = {
```

```
        'articles': r['articles']
```

```
}  
return render_template('tech.html',cases = case)
```

```
@app.route('/science')  
def science():  
    url =  
    "https://newsapi.org/v2/top-headlines?country=in&category=science&apiKey=7e1737d3191d4fe894fc579df01b7bde"  
    r= requests.get(url).json()  
    case = {  
        'articles': r['articles']  
    }  
    return render_template('science.html',cases = case)
```

```
@app.route('/health')  
def health():  
    url =  
    "https://newsapi.org/v2/top-headlines?country=in&category=health&apiKey=7e1737d3191d4fe894fc579df01b7bde"  
    r= requests.get(url).json()  
    case = {  
        'articles': r['articles']  
    }  
    return render_template('health.html',cases = case)
```

```
@app.route('/')  
def login():  
    return render_template('login.html')
```

```
@app.route('/login',methods=["POST"])
def form():
    title = "Home"
    name = request.form.get("name")
    password = request.form.get("password")

    u_name = "username"
    p_name = "password"
    if u_name != name and p_name != password:
        error_statement = "Please fill the details!!!"
        return render_template("base.html",title = title, name=
name,password=password)

if __name__ == '__main__':
    app.run(debug=True)
```

Project GitHub Link

<https://github.com/IBM-EPBL/IBM-Project-43654-1660718594>