

# RNS INSTITUTE OF TECHNOLOGY

## BENGALURU - 98

# DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

## Presentation on Internship

### *Flutter News Application*

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**ENMAZ Engineering Services Pvt. Ltd.**

**Internal Guide**  
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**External Guide**  
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Pvt. Ltd., Bangalore

# AGENDA



- ☐ Abstract
- ☐ About the Company
- ☐ Introduction
- ☐ Literature Survey
- ☐ Requirements
- ☐ System Design
- ☐ Detailed Design
- ☐ Implementation
- ☐ Testing
- ☐ Conclusion and Future Enhancements
- ☐ References
- ☐ Q & A

# ABSTRACT

- The purpose of Flutter News Application is to automate the existing manual system with the help of computerized equipment.
- The project describes news data available with ease and have good performance and better services for the users.
- Project work carried out is News application using flutter. Flutter is a hybrid mobile application development framework.
- It consists of flutter for frontend, firebase for backend authentication and news Api for real time json data of world news.

# About the Company

- Enmaz Engineering Pvt. Ltd is a Service based company founded in the year 2019.
- It specializes in
  - Embedded H/W Development
  - Embedded Firmware Development
  - Cloud support
  - Big Data Analysis and Reporting
  - Dashboard UX/UI design and development
  - Model Analysis.

# INTRODUCTION

- Flutter is an open-source UI software development kit created by Google.
- Dart is a programming language developed by google for client development, such as mobile and web apps.
- The "News Application" has been developed to override the problems prevailing in the practicing manual system.
- The main aim is to have all the world news in a single system and reduce the user's burden of managing multiple such apps.

# LITERATURE SURVEY

## **Location based news app project: Jon Smith PhD(Paper-1):**

- This professional project centered around the construction and design of an app for the iPhone and iOS that would allow users to access news from a variety of sources based on their location as determined by their smartphone.
- In addition, users would be able to post their own content and observations of news as it happens and geolocate their posts so other users would be able to learn about what's taking place in their community.

# LITERATURE SURVEY

## **Exploring mobile news reading interactions for news app personalization: Marios constantindes, John dowell(Paper-2):**

- They implemented and deployed an Android news app that logs users' interactions with the app
- Finally they 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.

# Requirements

## Hardware Requirements

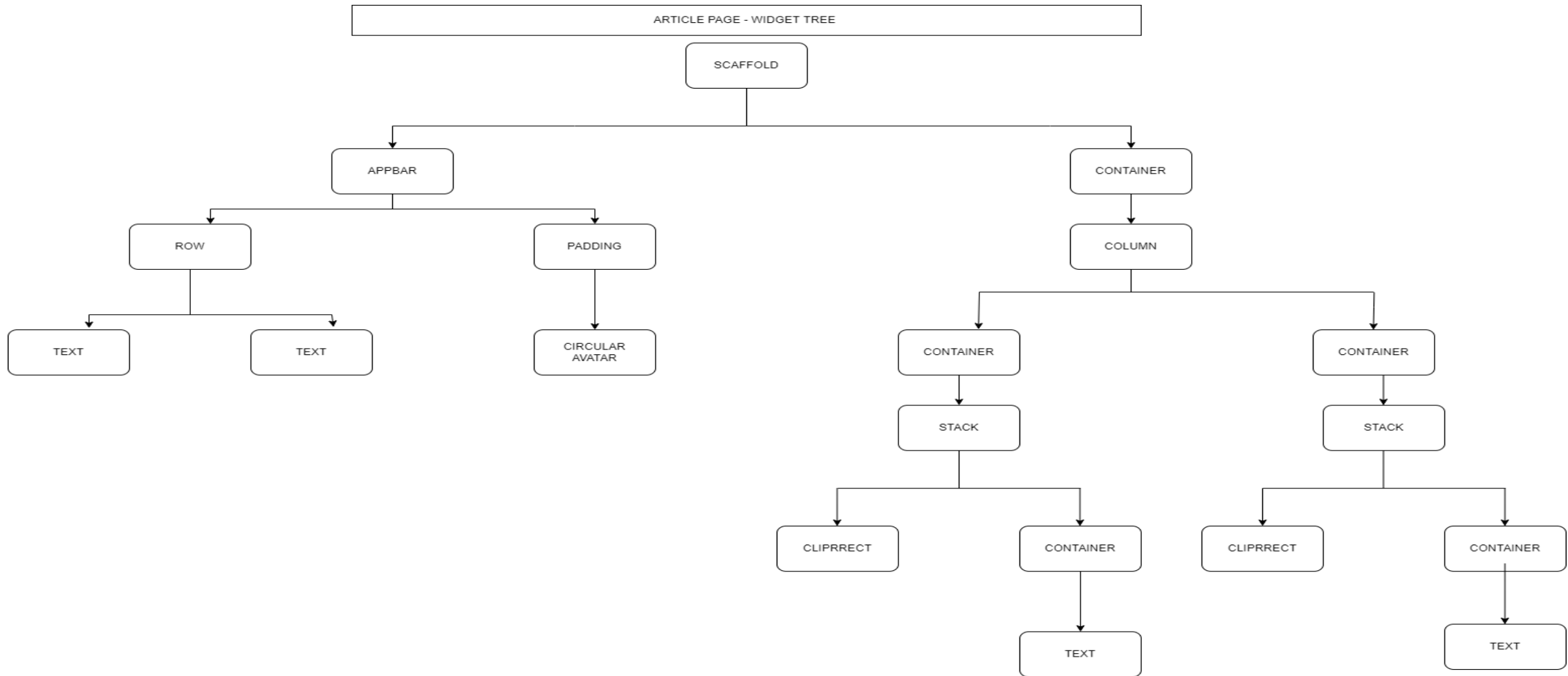
- **CPU:** Core i5, Ryzen 5
- **RAM:** 8 GB
- **HDD:** 100 GB

## Software Requirements

- **Operating System:** Windows 8 and above
- **Editor:** Visual Studio Code
- **IDE:** VS Code
- **Front-end Language:** Dart
- **Minimum Android Version :** Froyo (API Level 8)



## ❖ Widget tree for home page



# Detailed Design

## ❖ Detailed design of database schema

| Uid | isAnonymous | ProviderId | CreationTime | LastSignInTime | IsEmailVerified |
|-----|-------------|------------|--------------|----------------|-----------------|
| 1   | false       | firebase   | 156974482357 | 15928445141358 | True            |
| 2   | false       | firebase   | 156974482389 | 15928445141390 | False           |

| Author              | Title      | Description  | Url   | ImgUrl  | PublishedAt          | SourceId |
|---------------------|------------|--|---|---|----------------------|----------|
| noreply@blogger.com | Bitcoin    | Elon Musk reveals who bitcoin's creator Satoshi Nakamoto might be        | <a href="https://techcruncher.blogspot.com">https://techcruncher.blogspot.com</a> | <a href="https://blogger.googleusercontent.com/img">https://blogger.googleusercontent.com/img</a> | 2021-12-29T20:41:00Z | engadget |
| Shoshana Wodinsky   | Crypto Dev | crypto community have set a high bar for devising the worst ways to hawk | <a href="https://gizmodo.com/">https://gizmodo.com/</a>                           | <a href="https://i.kinja-img.com/">https://i.kinja-img.com/</a>                                   | 2022-01-07T19:30:00Z | reuters  |

# Implementation / Coding

```
void main() {  
  runApp(MyApp());  
}
```

```
class MyApp extends StatelessWidget {  
  const MyApp({ Key? key }) : super(key: key);
```

```
  @override
```

```
  Widget build(BuildContext context) {
```

```
    return MaterialApp(  
      title: "News App",  
      debugShowCheckedModeBanner: false,  
      theme: ThemeData(  
        primaryColor: Colors.black  
      ),  
      home: Home()  
    );  
  }
```

```
}
```

```
-
```

```
-  );
```

```
- }
```

```
- }
```

# Testing

- **Validation testing**: Validation testing in software engineering is in place to determine if the existing system complies with the system requirements and performs the dedicated functions for which it is designed along with meeting the goals and needs of the organisation. Below table shows the validation testing.

| SL.NO | TESTCASE  | RESULT                              |
|-------|---|-------------------------------------|
| 1     | <a href="https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={correctApiKey}">https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={correctApiKey}</a> | News api key authentication success |
| 2     | <a href="https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={wrongApiKey}">https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={wrongApiKey}</a>     | News api key authentication failed  |

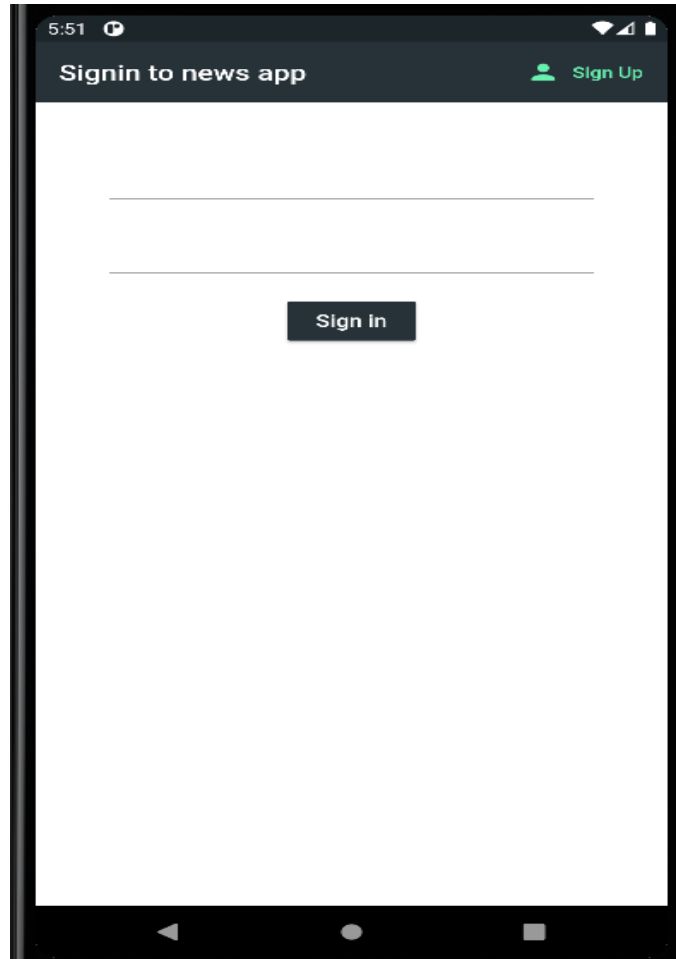
# TESTING

- **Unit testing:** A unit test is a way of testing a unit - the smallest piece of code that can be logically isolated in a system. Below tables indicate unit testing.

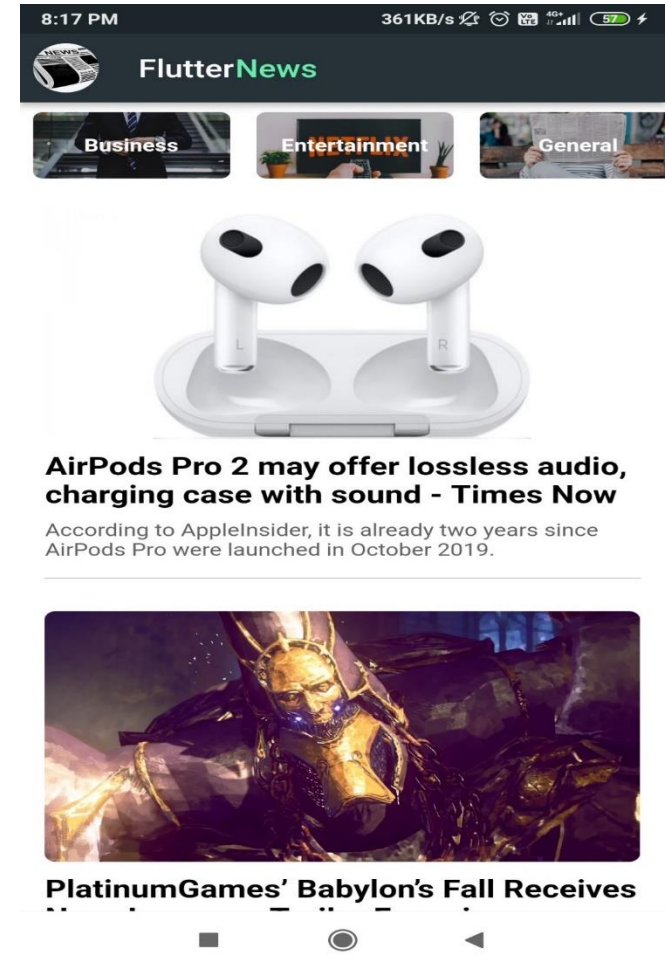
| SL.NO | TESTCASE  |
|-------|---|
| 1     | USERNAME: titangmail.com<br>PASSWORD: titan123  |
| 2     | USERNAME: titan@gmail.com<br>PASSWORD: titan123 |
| 3     | USERNAME: titan@gmail.com<br>PASSWORD: titan    |
| 4     | USERNAME: titan@gmail.com<br>PASSWORD: titan123 |
| 5     | USERNAME:<br>PASSWORD: titan123                 |
| 6     | USERNAME: titan@gmail.com<br>PASSWORD:          |

| SL.NO | TESTCASE  | RESULT                                   |
|-------|---|--|
| 1     | <a href="https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={correctApiKey}">https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={correctApiKey}</a> | News api key authentication success      |
| 2     | <a href="https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={wrongApiKey}">https://newsapi.org/v2/everything?q=apple&amp;from=2022-01-09&amp;to=2022-01-09&amp;sortBy=popularity&amp;apiKey={wrongApiKey}</a>     | News api key authentication failed       |
| 3     | <a href="https://newsapi.org/v2/top-headlines?country=us&amp;category=business&amp;apiKey={apiKey}">https://newsapi.org/v2/top-headlines?country=us&amp;category=business&amp;apiKey={apiKey}</a>   | Successful loading of business data      |
| 4     | <a href="https://newsapi.org/v2/top-headlines?country=us&amp;category=businessss&amp;apiKey={apiKey}">https://newsapi.org/v2/top-headlines?country=us&amp;category=businessss&amp;apiKey={apiKey}</a>   | Failed to load business data             |
| 5     | <a href="https://newsapi.org/v2/topheadlines?country=us&amp;category=entertainment&amp;apiKey={apiKey}">https://newsapi.org/v2/topheadlines?country=us&amp;category=entertainment&amp;apiKey={apiKey}</a>   | Successful loading of entertainment data |
| 6     | <a href="https://newsapi.org/v2/topheadlines?country=us&amp;category=entertainmentttss&amp;apiKey={apiKey}">https://newsapi.org/v2/topheadlines?country=us&amp;category=entertainmentttss&amp;apiKey={apiKey}</a>   | Failed to load entertainment data        |

# Results

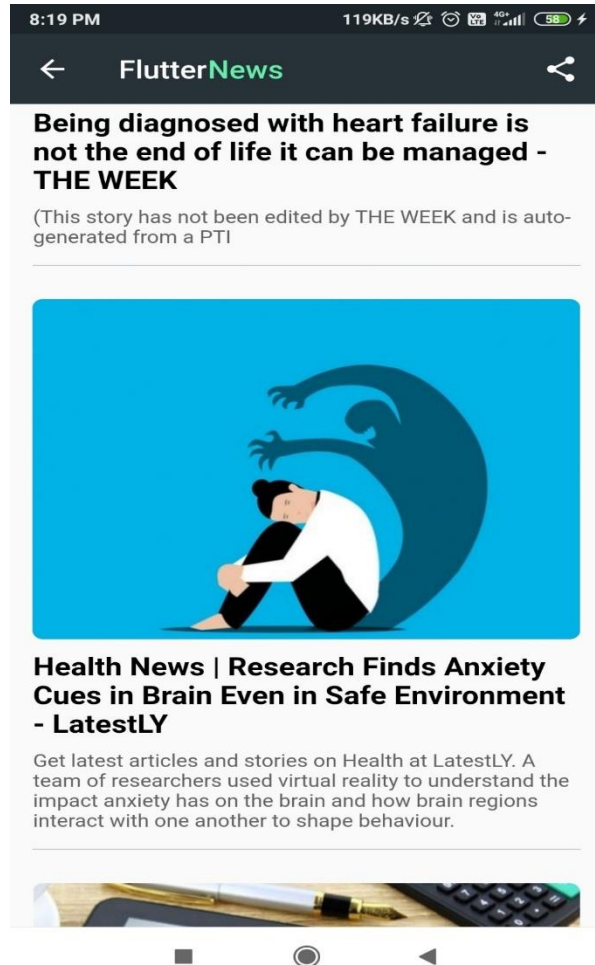


Sign-In Page

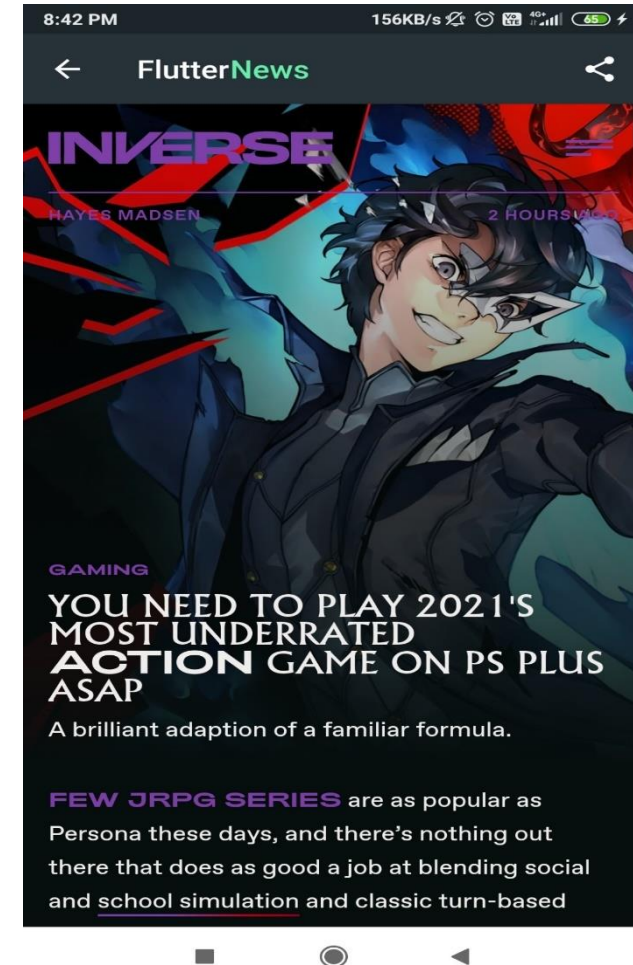


Home page

# Results



Health Page



Entertainment Web View

# CONCLUSIONS

- News Application is real time application which is currently in use by the end-users to view and get the news at moment.
- The application can be used by any one including kids, teachers, etc.
- Since this a basic application it has a greater scope to add more features as required



# Future Enhancements

The application can be enhanced to cover below business scenarios

- Including sorting based on news fame.
- Feature of uploading news.
- Include two factor authorization.
- Ai Ml can used to recommend user's preferred news.

# REFERENCES

- <https://www.studocu.com/in/document/kannur-university/computer-organization/flutter-general-report/11039857>
- Ramez Elmasri and Shamkant B. Navathe, Fundamentals of Database Systems, Pearson, 7<sup>th</sup> Edition.
- [https://www.irjmets.com/uploadedfiles/paper/volume2/issue\\_8\\_august\\_2020/3180/1628083124.pdf](https://www.irjmets.com/uploadedfiles/paper/volume2/issue_8_august_2020/3180/1628083124.pdf)
- <https://docs.flutter.dev/>
- <https://www.tutorialspoint.com/flutter>



# Question and Answer



# THANK YOU