**Functional Requirements**

## **1. User Authentication**

**How it was identified:** Every system that needs secure access must verify who the user is.

**Why it’s important:** It protects accounts who can access the system.

**Why these elicitation techniques were chosen:**

* **Prototyping:** Mock login and signup screens help us test if the flow is simple and intuitive.

## **2. Personalized News Feed**

**How it was identified:** Providing content essential for user engagement in a news app.

**Why it’s important:** Relevant recommendations keep users active.

**Why these elicitation techniques were chosen:**

* **Ethnography:** Observing how users scroll, click, and engage helps us understand their behaviour patterns.
* **Brainstorming:** Bringing together designers, developers, and data scientists sparks new ideas for better personalization algorithms.
* **Prototyping:** Trying out different ML models allows us to find the one that gives the best recommendations.
* **Questionnaires:** Took survey about whether users wanted personalised news feed.

## **3. Multi-Source News Aggregation**

**How it was identified:** Users want a variety of news from multiple publishers.

**Why it’s important:** It makes the platform more informative and keeps users from switching between multiple apps.

**Why these elicitation techniques were chosen:**

* **Studying Documentation:**

1. <https://news.google.com/foryou?hl=en-IN&gl=IN&ceid=IN%3Aen.>
2. https://inshorts.com/

* **Prototyping:** Lets us test API integration and even experiment with web scraping.

## **4. AI-Generated Summaries**

**How it was identified:** Users often want quick insights rather than reading full articles.

**Why it’s important:** It saves time and makes news more accessible.

**Why these elicitation techniques were chosen:**

* **Interviews:** To learn whether users prefer short summaries, key points, or focused summaries.
* **Prototyping:** Lets users compare extractive vs. abstractive summaries to see which feels better.
* **Questionnaires:** Helps gather summary style preferences at a large scale.

## **5. Save / Share / Bookmark**

**How it was identified:** These features are standard in content apps.

**Why it’s important:** They help users organize and revisit useful content.

**Why these elicitation techniques were chosen:**

* **Prototyping:** UI mock-ups help us test whether saving/sharing feels smooth and easy.

## **6. Push Notifications**

**How it was identified:** Needed for engagement and breaking news updates.

**Why it’s important:** Keeps users informed in real-time.

**Why these elicitation techniques were chosen:**

* **Questionnaires:** Useful for understanding how often users want alerts and what type of news they care about.
* **Prototyping:** Testing the opt-in flow ensures it’s clear and not intrusive.

## **7. Multi-Lingual News & Text-to-Speech**

**How it was identified:** To make the app accessible for global users and those with reading difficulties.

**Why it’s important:** Supports inclusivity and makes the app useful to a wider audience.

**Why these elicitation techniques were chosen:**

* **Interviews:** To understand language preferences and accessibility needs.
* **Questionnaires:** Helpful for identifying which languages users want most.

# **Non-Functional Requirements**

## **1. High Availability & Scalability**

**How it was identified:** The system will serve global users, so it must handle massive traffic.

**Why it’s important:** Ensures the platform stays up and performs well at all times.

**Why these elicitation techniques were chosen:**

* **Interviews:** Talking to architects and developers helps define expected loads and system requirements.
* **Risk Analysis:** Identifies potential issues like server failures or sudden traffic spikes.

## **2. Fast Response Time**

**How it was identified:** Performance is key for smooth browsing and user satisfaction.

**Why it’s important:** Slow loading drives users away — speed is critical.

**Why these elicitation techniques were chosen:**

* **Interviews:** Helps define what “fast” means to different users.
* **Prototyping:** Allows experimenting with different speeds to see user reaction.

## **3. Secure Handling of User Data**

**How it was identified:** User privacy and data protection are essential in modern apps.

**Why it’s important:** Prevents breaches, unauthorized access, and legal issues.

**Why these elicitation techniques were chosen:**

* **Studying Documentation:** https://firebase.google.com/docs/auth

## **4. Accuracy in Multi-Lingual Support**

**How it was identified:** Multilingual content must be accurate to avoid misunderstanding.

**Why it’s important:** Poor translations reduce trust and usability.

**Why these elicitation techniques were chosen:**

* **Interviews:** Helps understand user expectations for tone, dialect, and translation quality.
* **Questionnaires:** Useful for finding out language popularity and acceptable accuracy levels.

# **Domain Requirements**

## **1. Accessibility Standards**

**How it was identified:** Apps must support users with disabilities and follow legal guidelines.

**Why it’s important:** Ensures inclusivity and compliance with accessibility laws.

**Why these elicitation techniques were chosen:**

* **Studying Documentation:** WCAG 2.1 guidelines help define necessary accessibility features like contrast, screen-reader support, etc.
* **Interviews:** Talking to users with disabilities gives firsthand insight into their needs.
* **Prototyping:** Lets users test TTS and other accessibility features for practicality.

## **2. Regulatory & Compliance Requirements**

**How it was identified:** The app must follow GDPR, CCPA, and copyright laws.

**Why it’s important:** Non-compliance can lead to legal penalties and loss of trust.

**Why these elicitation techniques were chosen:**

* **Studying Documentation:** Necessary to understand legal requirements around data storage, consent, and copyright.
* **Prototyping:** Helps verify that system design aligns with regulatory standards.
* **Risk Analysis:** Identifies legal risks and helps define security measures to prevent violations