

Test Project

Mobile Applications Development

2024 Invitational Online Friendly Challenge

Module 2

Introduction

News app is an Internet-based news and information application. With the arrival of the mobile Internet era, people increasingly prefer to get the latest news through their mobile phones. News app provides users with a convenient and real-time access to news by providing worldwide breaking news, politics, economy, science and technology, culture, sports, entertainment and other kinds of information. As an information application, News app aims to provide users with high-quality, reliable and timely information services, so that users can grasp the latest information and understand the world's dynamics at anytime and anywhere, thus better adapting to the development of the society and changes in life.

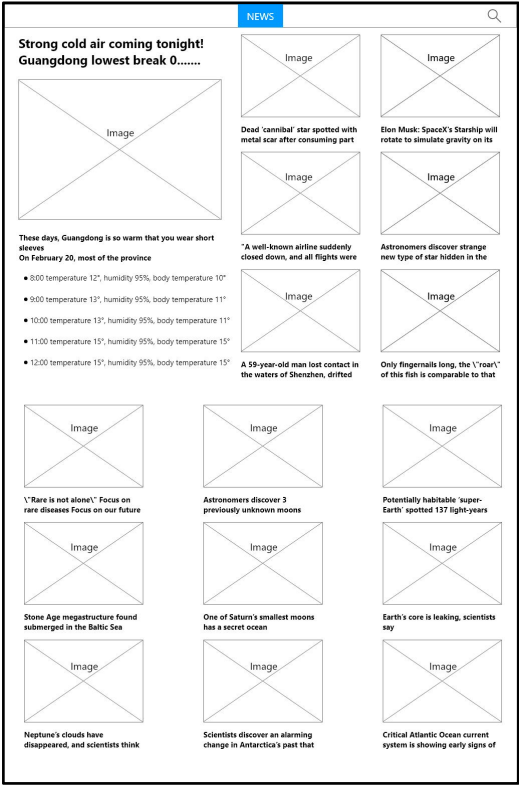
The product manager has provided you with product wireframes for both phone and tablet versions. As a developer of mobile applications, your task is to develop corresponding apps based on the given wireframes according to specific development needs.

Description of project and tasks

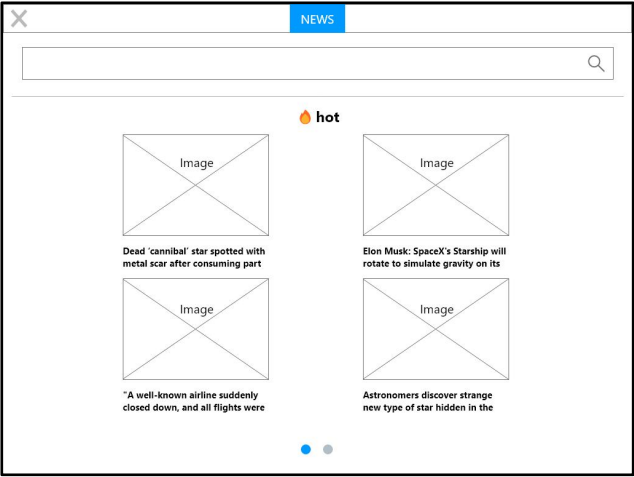
The developer does not need to consider the aesthetics of the program interface and the position of the elements. The work can be inconsistent with the given wireframes, but the developer needs to properly consider the ease of use. The work can be inconsistent with the given wireframes, but the developer needs to properly consider the ease of use. The development task is divided into two parts depending on the devices.

Marking: tablet visual device

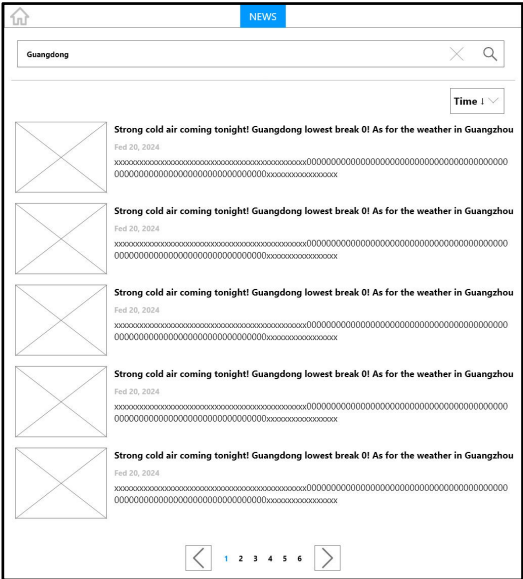
Application wireframes



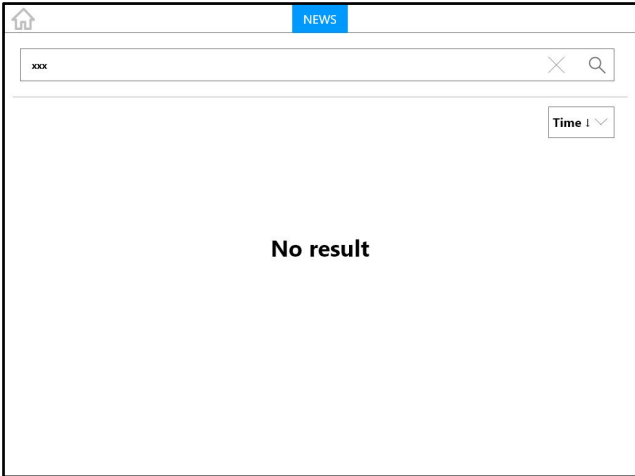
Home Page



Search Page



Search Result Page



Search Result Page

NEWS

Strong cold air coming tonight! Guangdong lowest break 0! As for the weather in Guangzhou

by Yangcheng Evening News

Feb 20, 2024

These days Guangdong warm enough to wear short sleeves

On February 20, most of the province

The maximum temperature has risen by 1 ~ 5°C

But don't put away the heavy clothes yet!

Because next

Guangdong weather will experience again

"All year round"

Today (February 21) night cold air into Guangdong, Guangdong will usher in a "roller coaster" cooling

The temperature drop in some areas can reach more than 10°C

Temperatures will return to the single digits in some areas

It's flash freezing again

Strong cold air moves south, cooling and rain

According to the meteorological observatory, from February 22 to 25, the temperature in Guangdong will drop significantly due to the strong cold air.

Among them, the strong cold air front affected northern Guangdong from the night of 21 to the early morning of 22, affected Guangzhou on the night of 22, and affected the southern coast on the morning of 23.

Strong cold air coming tonight!
Guangdong lowest break 0! As ...

cycle image

Strong cold air coming tonight!
Guangdong lowest break 0! As ...

cycle image

Strong cold air coming tonight!
Guangdong lowest break 0! As ...

Detail Page

General Demands

1. Finish the function of this application according to the demands.
2. All text with quotation marks must be the same as the ***elements include***.
3. The application should show the application icon (media-files/icons) on the system launcher.
4. You need to make this application easy to use.

Pages Demands

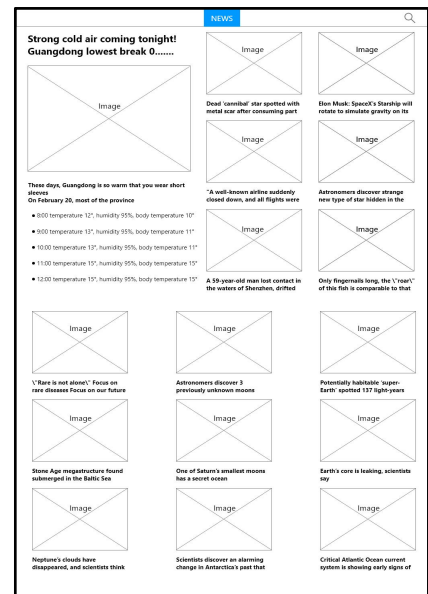
1 Home Page

1.1 Elements include:

- 1) Header bar (News logo, search button);
- 2) Headlines;
- 3) News listings;

1.2 Functional requirements:

- 1) The title bar displays the News logo and [Search Button], and tapping the [Search Button] displays the search Page.
- 2) Headlines: displays at the top left of the screen, with news title (the number of lines of the title is no more than 2. Omit the redundant part by using "....."), news picture, news summary and weather list; the list displays the weather information from 8:00 to 23:00, with a maximum of 5 pieces, and the list scrolls cyclically.
- 3) News list: [Headlines] right side shows 3*2 news list; [Headlines] below shows N*3 news list. The two lists show all the news, each entry has news title, picture (news title is shown in no more than 2 lines).
- 4) Tap any news item to jump to the details page.



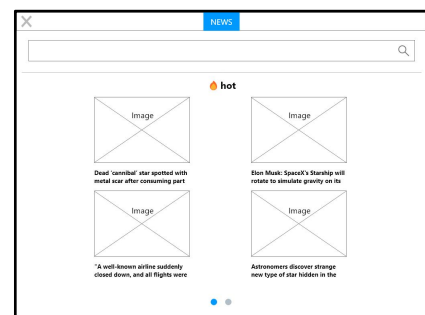
2 Search Page

2.1 Elements include:

- 1) Header bar (News logo, close button);
- 2) Search input box, search button;
- 3) List of hot news;
- 4) Dot Indicator;

2.2 Functional requirements:

- 1) Search Page appears as an animated top-to-bottom swipe covering the entire main screen.
- 2) Tapping [Close Button] in the title bar returns from the search page to the home page in a bottom-up animation.
- 3) The page displays a search input box and a search button, and the search function can also be triggered by hitting Enter on a flat keyboard.
- 4) Hot news list: each page displays 4 hot news items, a total of 2 pages; each news has a news picture and title; every 3 seconds automatically switch the page, or you can manually slide left and right to switch; tap any one of the hot news to jump to the detail page.
- 5) Dot Indicator: show the page where the hot news list is located according to the page where it is located;.
- 6) Tap [Search Button], the search input box needs to do a null check. If there is no input content, it should be prompted with a user-friendly error message; when successfully triggered the search function, it needs to call the data within the json file, and correctly in accordance with the keywords displayed in the search results page.



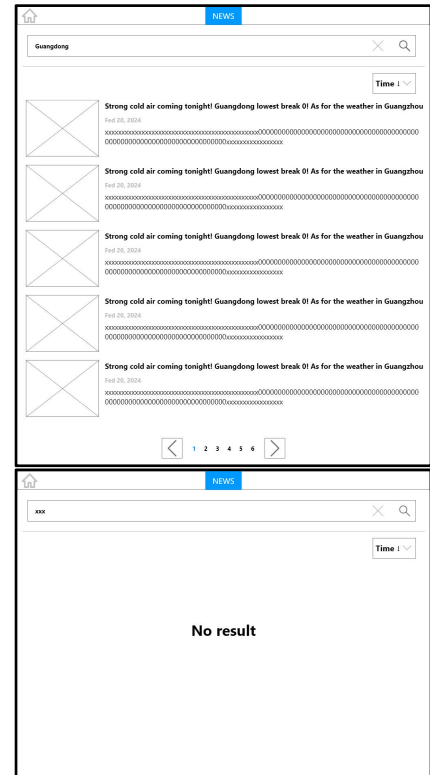
3 Search Result Page

3.1 Elements include:

- 1) Header bar (News logo, Home button);
- 2) Search Input Box, Search Button, Clear Input Box Button;
- 3) Filtering drop-down lists;
- 4) News List.

3.2 Functional requirements:

- 1) Filtering drop-down list: drop-down list with "Time ↓" and "Time ↑" options. Tapping the option needs to change the time order of the display of the news list; "Time ↓" option is displayed by default.
- 2) After a successful search to display a list of news matching the search, each entry has a news picture, title, date, introduction. Each page displays 5 items; display switching page control. Clicking on cut page button needs to switch the display of the list of content; Tap any one of the news to jump to the details of the page.
- 3) Switching page control: if there are no search results then hide this control and prompt [No result].
- 4) Home Button: Click the Home button in the Header bar to return to the home page.



4 Detail Page

4.1 Elements include:

- 1) Header bar (News logo, Search Button, Home Button).
- 2) News headlines.
- 3) News source;
- 4) Press release time;
- 5) Press images;
- 6) News details;
- 7) List of news recommendations (Images, Titles).

4.2 Functional requirements:

- 1) The header bar needs to have a Home Button, a News Icon, and a Search Button;
- 2) News information needs to display graphics according to the json data (e.g., [images/new_1_image_1.png] mentioned in the "text" data represents the insertion of the specified image in the specified location).
- 3) News recommendation list: the list is randomly in the Json data to extract 3 news items, displaying images and titles;
- 4) Click the Home button in the header bar to return to the home page, and click the Search Button to pop up the Search Page.

