



# **FINAL PROJECT**

## **SYSTEM DOCUMENTATION**

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## 1. PRODUCT DESCRIPTION

**Open News** is a desktop application that gathers news articles from 5 Vietnamese news sources (VnExpress, ZingNews, Tuoitre, Thanh Nien, NhanDan). This app provides a wide range of news content for its users to choose from and helps them to keep up-to-date quickly since it classifies news articles into 10 categories (New, Covid, Politics, Business, Technology, Health, Sports, Entertainment, World, Others) and sorts them in the newest order. Open News contains 500 articles in total and has a paging system of 5 pages for each category, which means each category would have 50 articles and 10 article headers will be displayed per 1 page. It is extremely convenient for users who do not have much time to skim through each news website and find the article that they want to read. Open News is suitable for people who want to update news fast with just a few clicks.

## 2. TOOLS

- Development: IntelliJ IDEA + JavaFX
- Module: Jsoup
- Diagrams: Draw.io + Lucid Chart
- Version Control: GitHub
- Communication: Microsoft Teams

## 3. INSTALLATION INSTRUCTIONS

**Video Guide [for Windows]:** <https://youtu.be/NY3wXDKPzLA>

- Step 1: **Download** and **install** IntelliJ IDE for Windows at [Download IntelliJ IDEA: The Capable & Ergonomic Java IDE by JetBrains](#) [1]
- Step 2: **Download** and **install** Liberica 16 Full JDK at [Download OpenJDK builds of Liberica JDK, Java 8, 11, Java 16 Linux, Windows, macOS | BellSoft Java \(bell-sw.com\)](#) [2]
- Step 3: **Download** jsoup at [Download and install jsoup](#) [3]
- Step 4: **Extract** the submission file contains the application source code
- Step 4: Use IntelliJ IDEA and open the **source code** folder of the app
- Step 5: In IntelliJ IDEA, choose File → Project Structure → Libraries → + → choose **the jsoup .jar** file
- Step 6: Check **project structure** has a similar **config** (Jsoup, SDK) with the video
- Step 7: Check/edit **the (run/debug) configuration** (SDK, main location) like the video
- Step 8: Run the program (**if failed: go back step 1 and watch video please**)

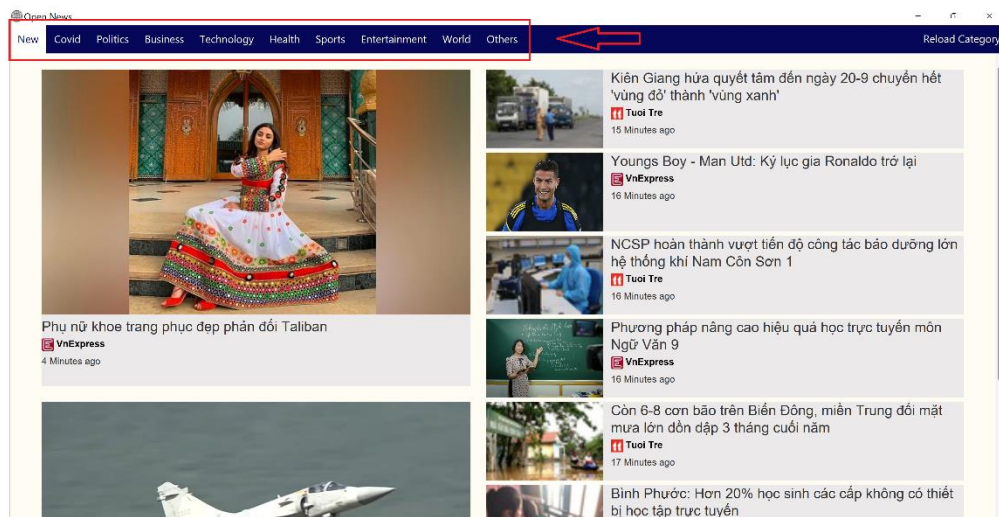
## Video Guide [for Linux + MacOS]: <https://youtu.be/V6ICFIEdr5M>

- Step 1: **Download** and **install** IntelliJ IDE compatible with your OS at [Download IntelliJ IDEA: The Capable & Ergonomic Java IDE by JetBrains](#) [1]
- Step 2: **Choose** and **install** Oracle OpenJDK 17 in IntelliJ Built-in Downloader SDK (File → Project Structure → Project → Project SDK → Add SDK → Download JDK)
- Step 3: **Download** and **extract** JavaFX–Gluon 17 compatible with your OS at [JavaFX - Gluon](#) [4]
- Step 4: **Download** jsoup at [Download and install jsoup](#) [3]
- Step 5: Extract the submission file contains the application source code
- Step 6: Use IntelliJ IDEA and open the source code folder of the app
- Step 7: In IntelliJ IDEA, choose File → Project Structure → Libraries → + → choose the jsoup .jar file and javaFX gluon 17 .jar files
- Step 8: **IMPORTANT**: Load the lib of javaFX gluon 17 and jsoup like in the video (choose all .jar files from folder lib you have extracted in step 3 and the folder contains jsoup in step 4)
- Step 9: Check project structure has the similar config (Jsoup, SDK, javaFX gluon17) with the video
- Step 10: Check/edit the (run/debug) configuration (SDK, main location) the same with the video
- Step 11: Run the program (If failed: go back step 1 and watch video please)

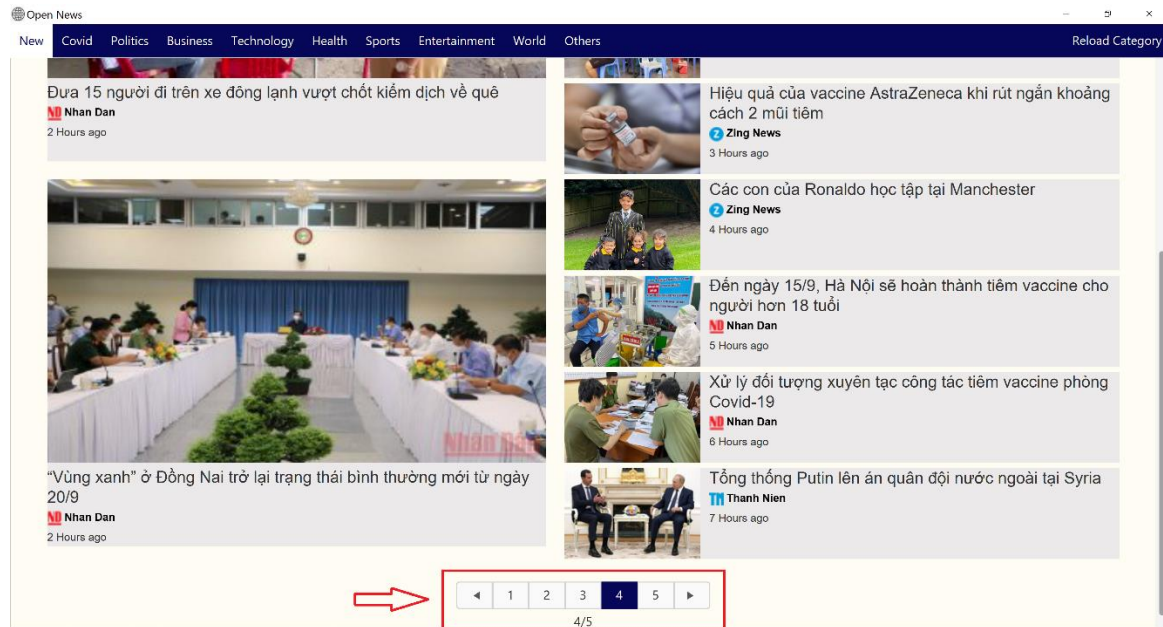
## 4. COMPLETED FEATURES

The app can run precisely as required:

- It has **10 categories** tabs to select. By default, the “New” Category is chosen.



- It contains **paging system**: inside each category, there are 5 pages. Each page displays 10 article headers.



- Each article header displays following **information**: the title, the source, the upload time, and a picture of that article.
- View article** by a simple mouse click on the article



- Article's scene contains the **contents** (text and images are sufficient) of that article.

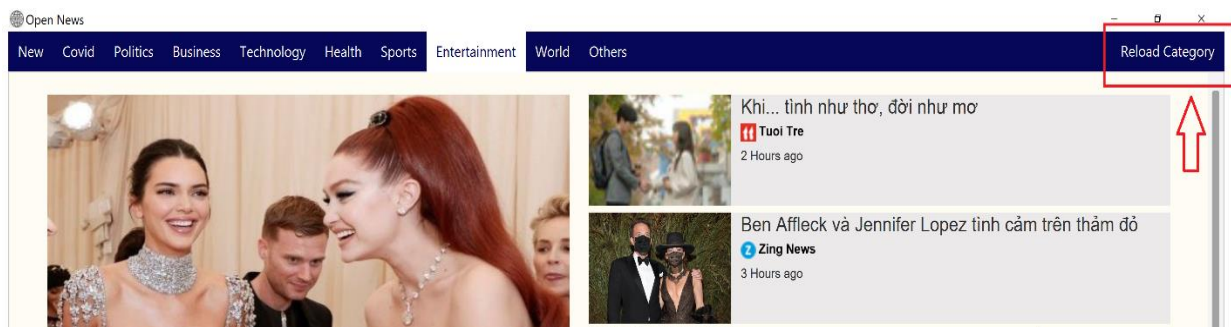




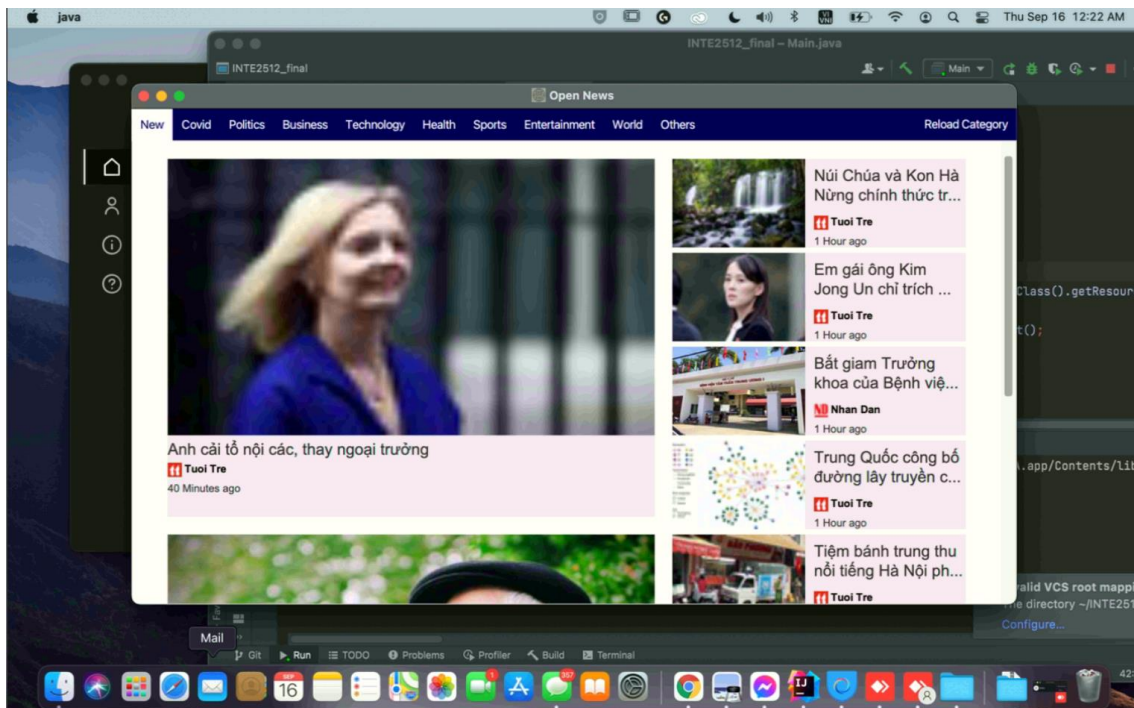
- The app also has the **“Go back”** button inside an article’s content for users to navigate backward easily.



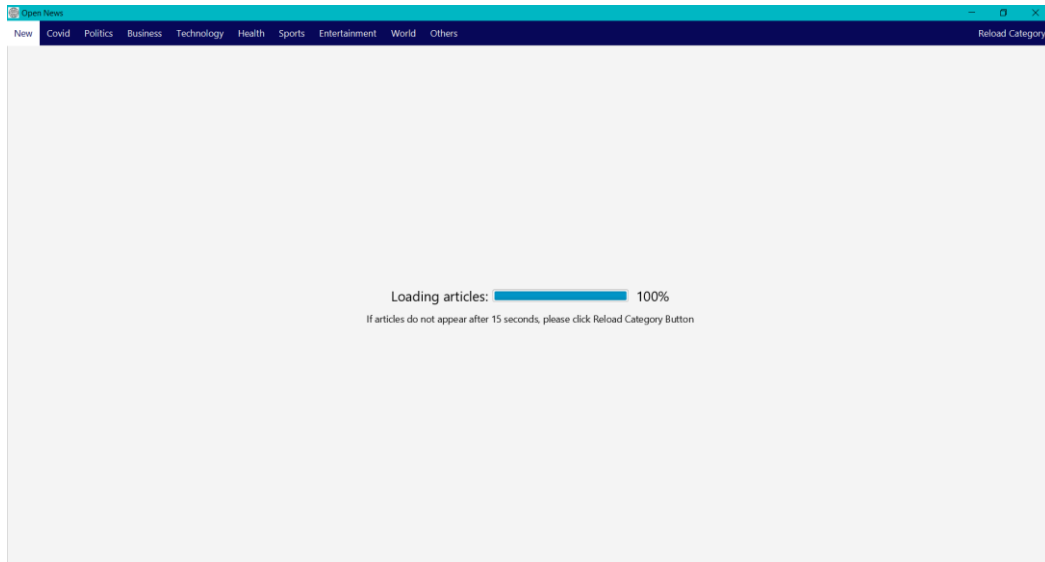
- “Reload Category”** button, which users can use it whenever they want to reload the app to update the newest news.



- Working on **cross-platform** (Windows, Linux, MacOS).



- **Loading bar** and short text notice.



## **5. KNOWN BUGS AND WORK-AROUND**

- Open News used to have some banner and ads displayed inside an article, but we fixed it.
- Sometimes there will be missing articles in a category. Please press the Reload Category Button to refresh the article list in that category.
- The application may sometimes be unable to finish loading. Please press the Reload Category Button if you are waiting for too long (because of slow internet or “broken sea cable”).
- Sometimes the origin news website change or add their new code which might gives our program some bug. To fix this we must update follow them.
- The image of the origin website might be encrypted and cannot open. This is out of the assignment’s scope.

## **6. PROJECT DEMO VIDEO**

Link of the project demo video: <https://youtu.be/d3pwbbKWDkA>

## **7. ACKNOWLEDGEMENT**

Firstly, we extremely appreciate the huge, dedicated supports from our lecturer *Mr. Quang Tran* and our advisor *Mr. Bao Ho*, who have provided help with every question that we asked as well as have given us helpful advice to improve this app. Additionally, we would like to thank *Stack Overflow* [5] for providing us a huge amount of reliable data to which we can refer. We would also never forget the huge support from *YouTube* [6], which provided us with many useful tutorials for our project. And finally, thanks to all the teammates who have always contributed all their ability and effort to support and complete this project.

## **8. REFERENCES**

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