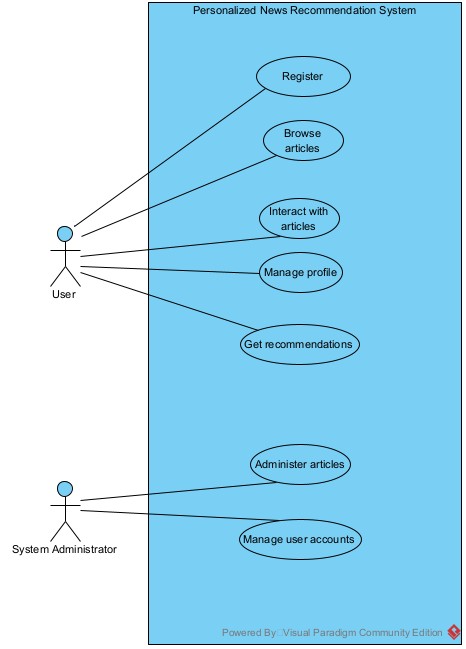
# Introduction

Problem identification and solution with timeline, and brief on the scope of the project.

# Requirement Analysis

Stakeholder identification with requirements and Use case diagram with the descriptions.



**Use Case: Register**

Section: Main

System: Personalized News Recommendation System

Actor(s): User

Purpose: To allow a new user to create an account in the system.

Overview: A new user enters their username, email, password and the data is validated and stored, then the user is given a confirmation about their registration.

Pre conditions: The user is a new user previously unregistered.

**Typical Course of Events**

|  |  |
| --- | --- |
| Actor Action | System Response |
| 1. Chooses to register. |  |
|  | 1. Prompts user for necessary details. |
| 1. Enters new username. |  |
| 1. Enters new password. |  |
|  | 1. Creates new user account and stores the information. |
|  | 1. Confirms successful registration. |
|  | 1. Notify the user that they can login. |

**Alternative Courses**

* If a user enters a username that is already used by another user, the system prompts for a new username.
* If the username or/and password is invalid, the data is re-prompted until valid details are entered.

**Use Case: Browse Articles**

Section: Main

System: Personalized News Recommendation System

Actor(s): User

Purpose: To allow users to browse or search for articles by category.

Overview: A user can view all available articles or use filters to find articles of a specific category.

Pre conditions: The user is already registered and has logged into the system.

**Typical Course of Events**

|  |  |
| --- | --- |
| Actor Action | System Response |
| 1. Chooses to browse articles. |  |
|  | 1. Display all articles. |
| 1. Select filters. |  |
|  | 1. Check the selected filter. |
|  | 1. Display articles based on chosen filter. |

**Alternative Courses**

* If there are issues when displaying articles or when applying filters, the user will be notified of the existing issue.

**Use Case: Interact with Articles**

Section: Main

System: Personalized News Recommendation System

Actor(s): User

Purpose: The user can read articles and then like or skip articles depending on their interest.

Overview: While reading articles the user can like the article or skip the article, this will help the recommendation system learn user preferences.

Pre conditions: The user is already registered and has logged into the system.

**Typical Course of Events**

|  |  |
| --- | --- |
| Actor Action | System Response |
| 1. User selects an article from the article list. |  |
|  | 1. Loads the article content. |
| 1. Reads the article. |  |
|  | 1. Add article to read list. |
| 1. If user likes or skips the article. |  |
|  | 5.1) Records the interaction for recommendations. |
| 5.2) Else, no interaction. |  |
| 1. Repeat steps 1 to 5 for all articles read. |  |

**Alternative Courses**

* If there is an issue in loading the article content, the user will be informed of the issue.

# Activity Diagrams

# A single class Diagram

# Sequence Diagrams

# Testing and evaluation

# References

# Appendix