Software Design Document

3-D Newspaper

Ankit Vyas
150101008

S N V S R K Prudhvi
150101055

Supervised by Prof. Samit Bhattacharya

Index

1 Introduction 2

1.1 Purpose of Document 2

1.2 Scope of the Project 2

1.3 Definitions, Acronyms and Abbreviations 2

1.4 References 3

2 Data Flow Diagram and ERD 3

3 Process Decomposition of each level of DFD 16

4 Data Dictionary 17

5 Tools used to create DFD 17

1 Introduction

1.1 Purpose of Document

The purpose of the Software Design Document is to make developers understand what is to be built and how. It gives all the necessary descriptions of the app to be built. It is the next step after Software requirement specifications document. The modules in the SRS will be made into a design to be easily understandable. This document comprises of the design for 3D Newspaper

1.2 Scope of the Project

Since many people feel uncomfortable or complexed by digital newspapers, this app aims at making such attempts easy and comfortable to be usable. The users of the project ranges from school children to retired adults. Anyone who wishes to read digitized newspapers, this will be the best, easiest and most comfortable stop. All the newspaper companies will come under the channel providers and will publish their articles in this app. Famous bloggers can also provide their articles here. Any user with basic experience with Android/iOs can use this app easily.

1.3 Definitions, Acronyms and Abbreviations

1. DFD → Data Flow Diagram
2. SRS → Software Requirement Specifications
3. PDF → Portable Document Format
4. ERD → Entity Relationship Diagram
5. DOCX → Document Extended

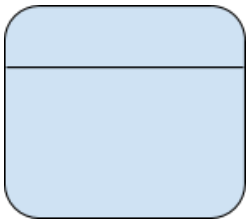
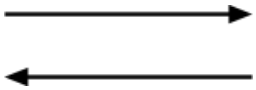
1.4 References

1. NPTEL Course for Software Engineering Course

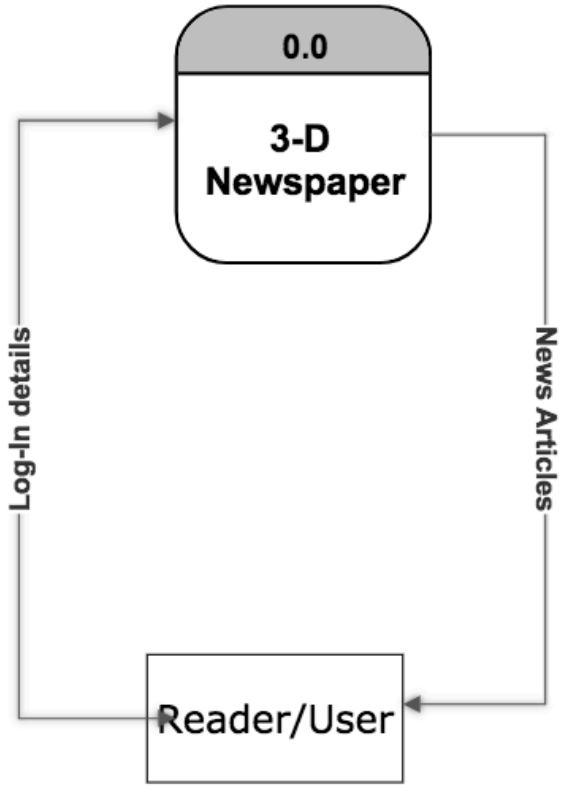
2. Software Engineering: A Practitioner's Approach by Roger S Pressman

3. http://ieeexplore.ieee.org/document/4721332/?reload=true IEEE website for DFD

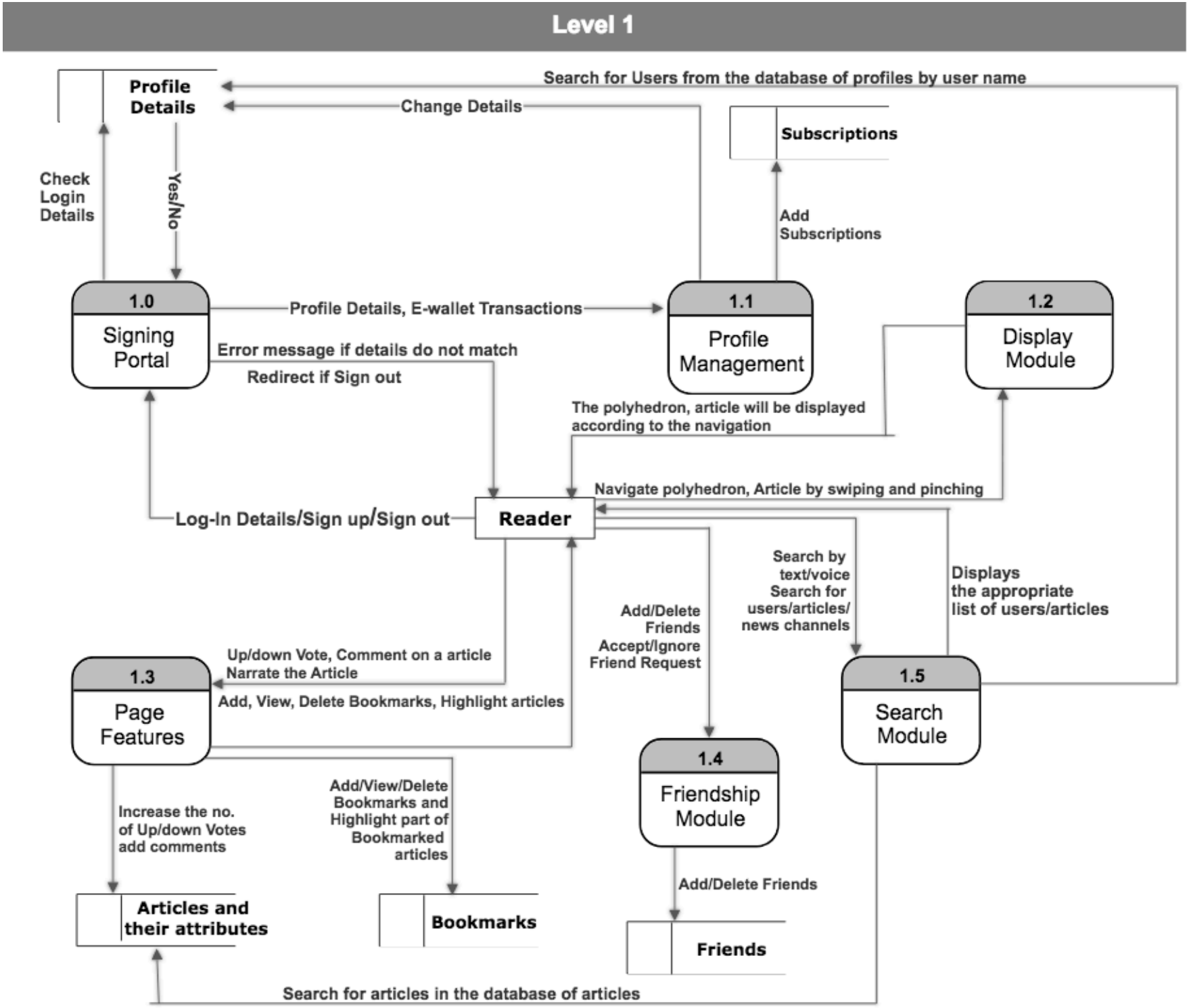
2 Data Flow Diagram and ERD

Name	Notation	Role
Process		This converts and processes input to output.
Data Flow		Data flow from one entity to another Is represented by arrows.
Data Store		These are databases. Data is stored In these.
External Entity		External entities are objects outside system like user or sensors of phone.

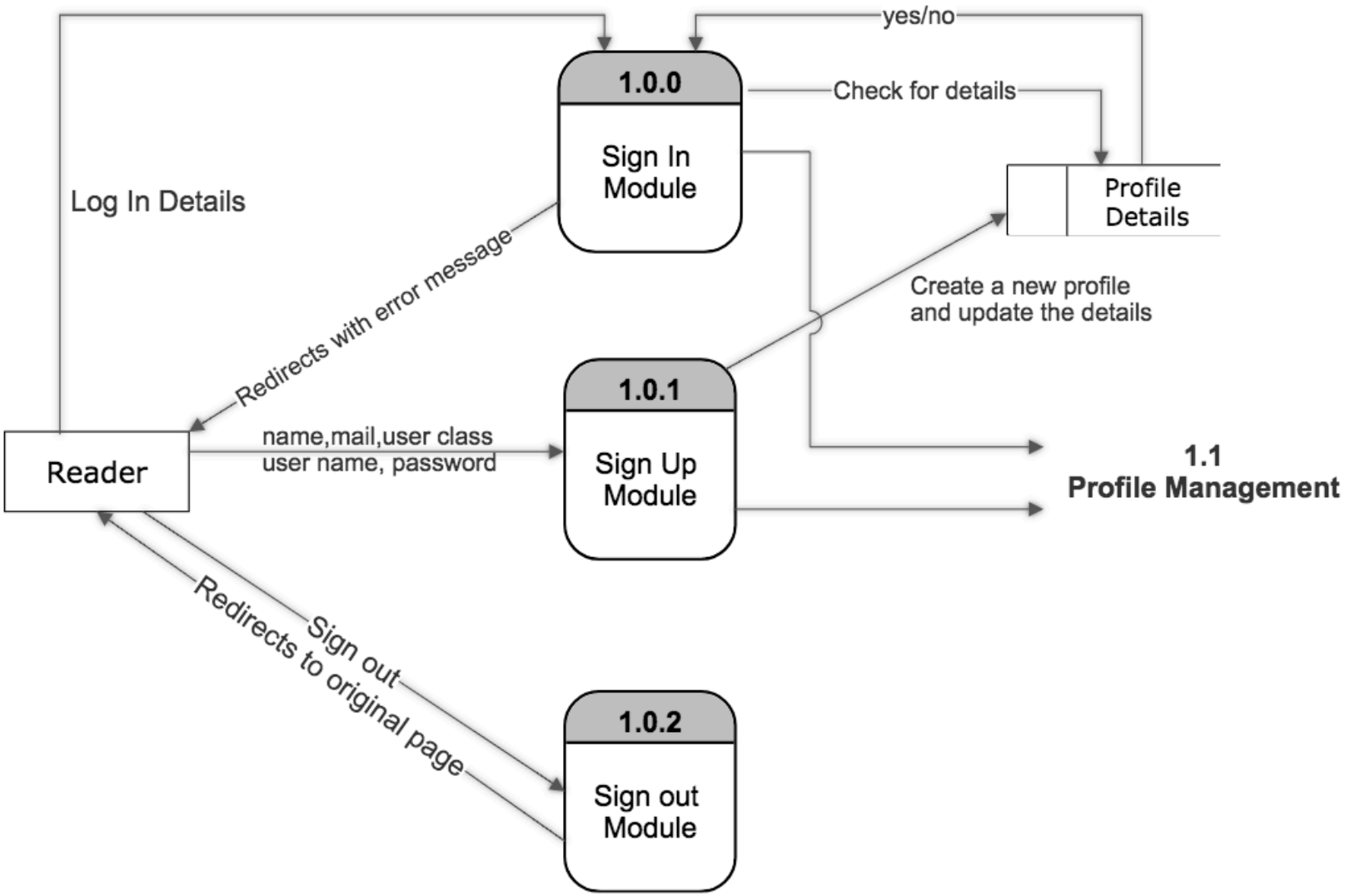
Data Flow Diagram - 3-D Newspaper



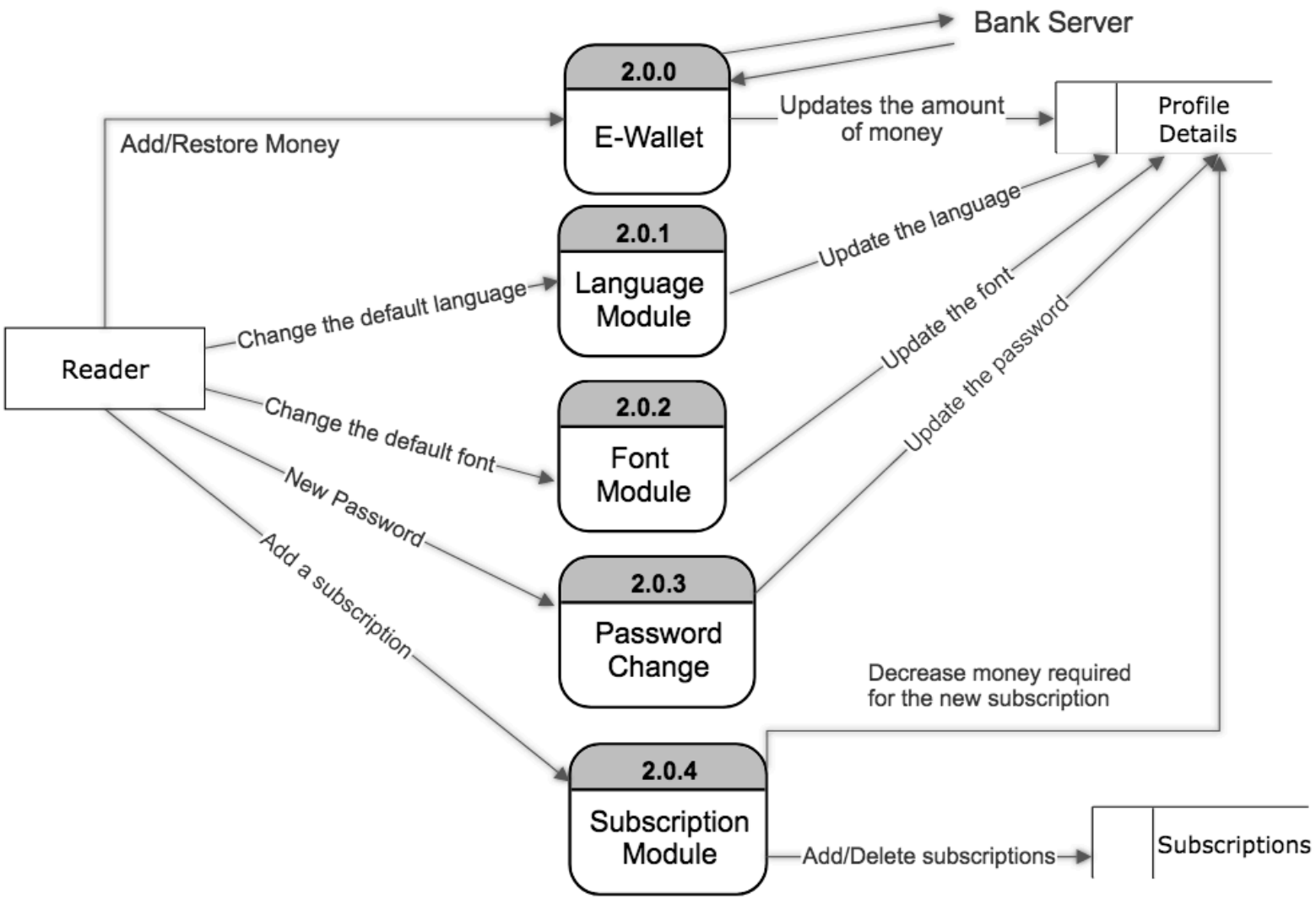
Level 1


Profile Details
Search for Users from the database of profiles by user name
Change Details
Subscriptions
Check Login Details
Yes/No
Add Subscriptions
1.0
Signing Portal
Profile Details, E-wallet Transactions
1.1
Profile Management
1.2
Display Module
Error message if details do not match
Redirect if Sign out
The polyhedron, article will be displayed according to the navigation
Navigate polyhedron, Article by swiping and pinching
Log-In Details/Sign up/Sign out
Reader
Search by text/voice Search for users/articles/ news channels
Displays the appropriate list of users/articles
Add/Delete Friends Accept/Ignore Friend Request
Up/down Vote, Comment on a article
Narrate the Article
1.3
Page Features
Add, View, Delete Bookmarks, Highlight articles
1.5
Search Module
1.4
Friendship Module
Increase the no. of Up/down Votes add comments
Add/View/Delete Bookmarks and Highlight part of Bookmarked articles
Add/Delete Friends
Articles and their attributes
Bookmarks
Friends
Search for articles in the database of articles

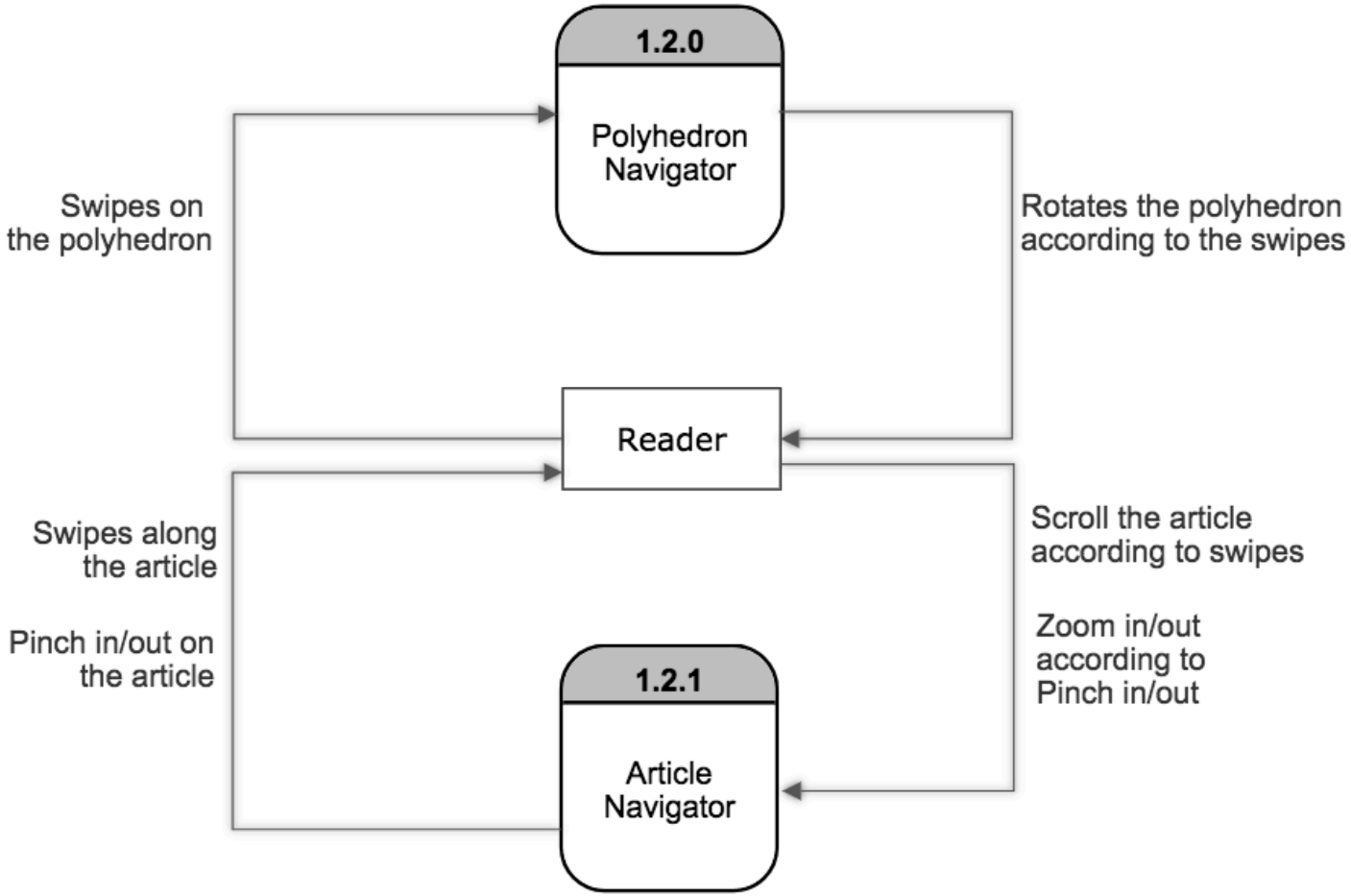
Level 2 for Signing Portal



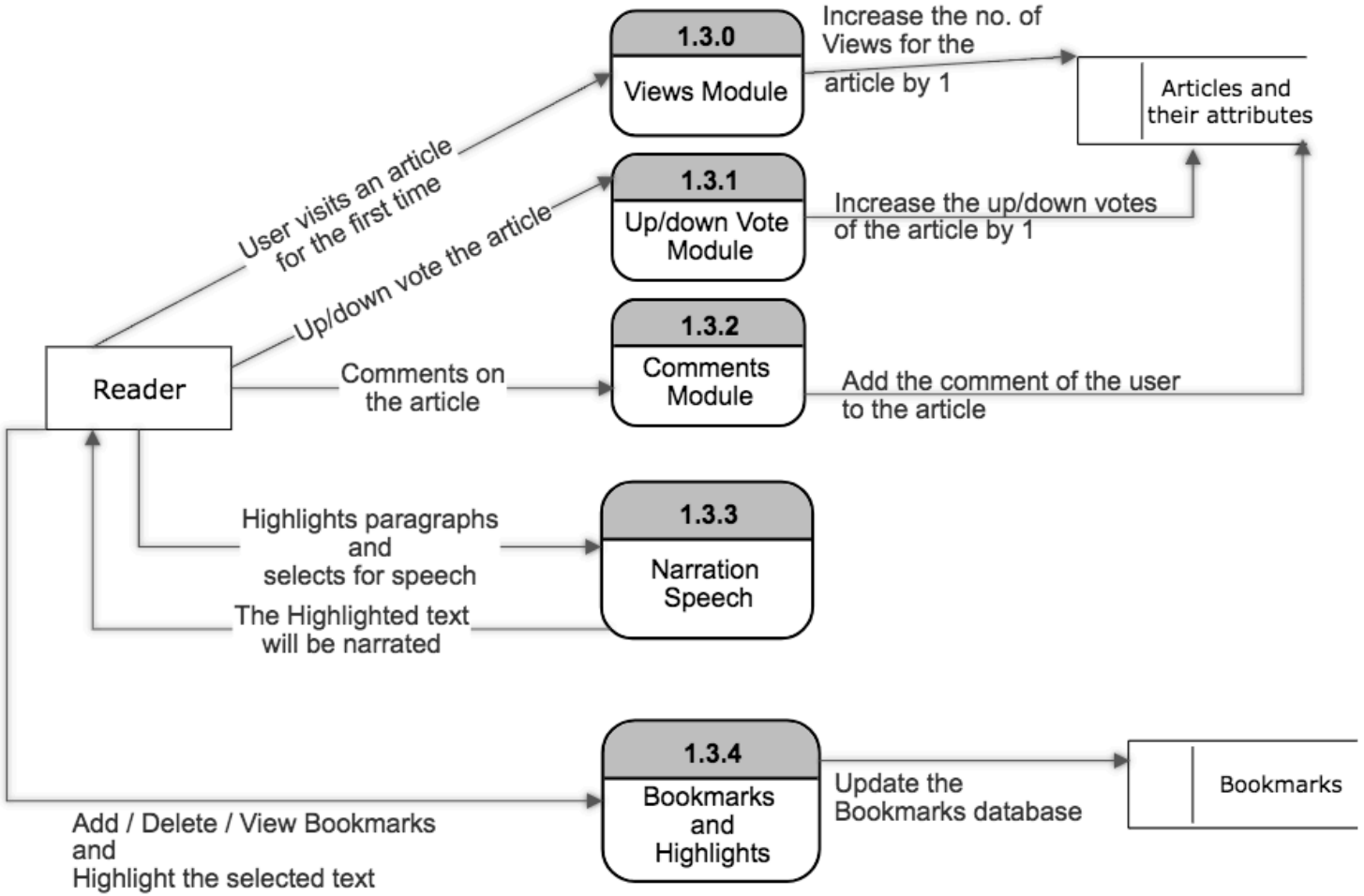
Level 2 for Profile Management



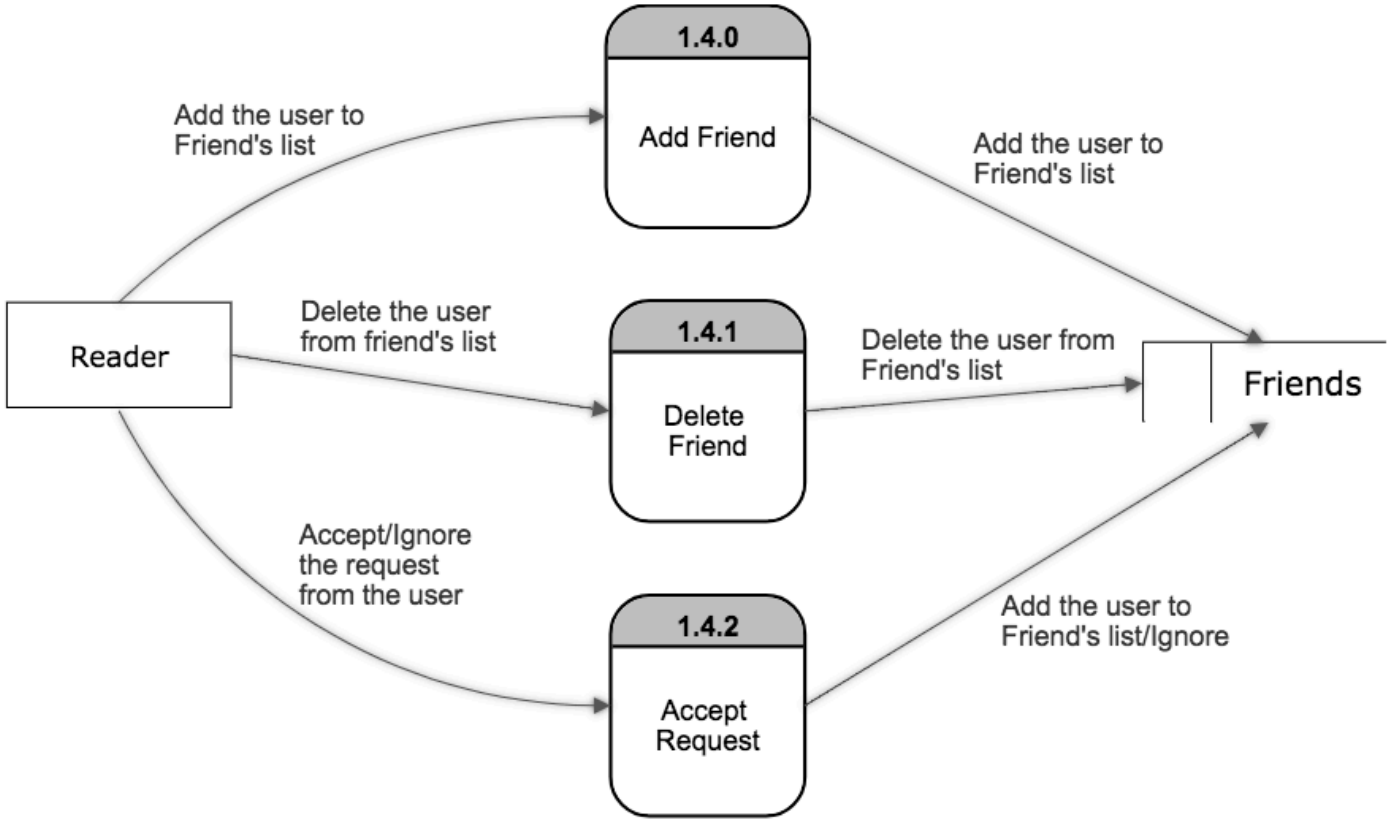
Level 2 for Display Module



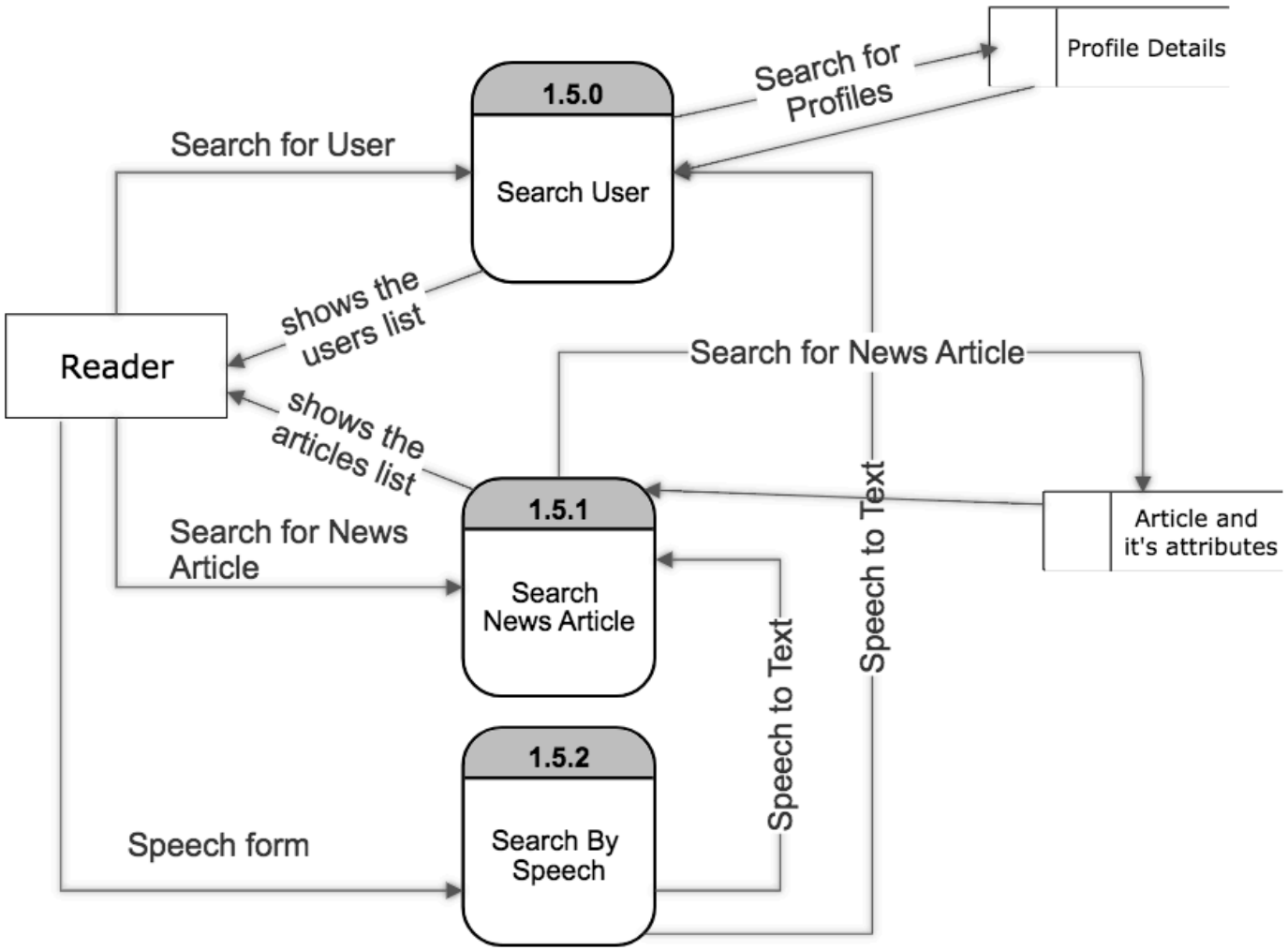
Level 2 for Page Features



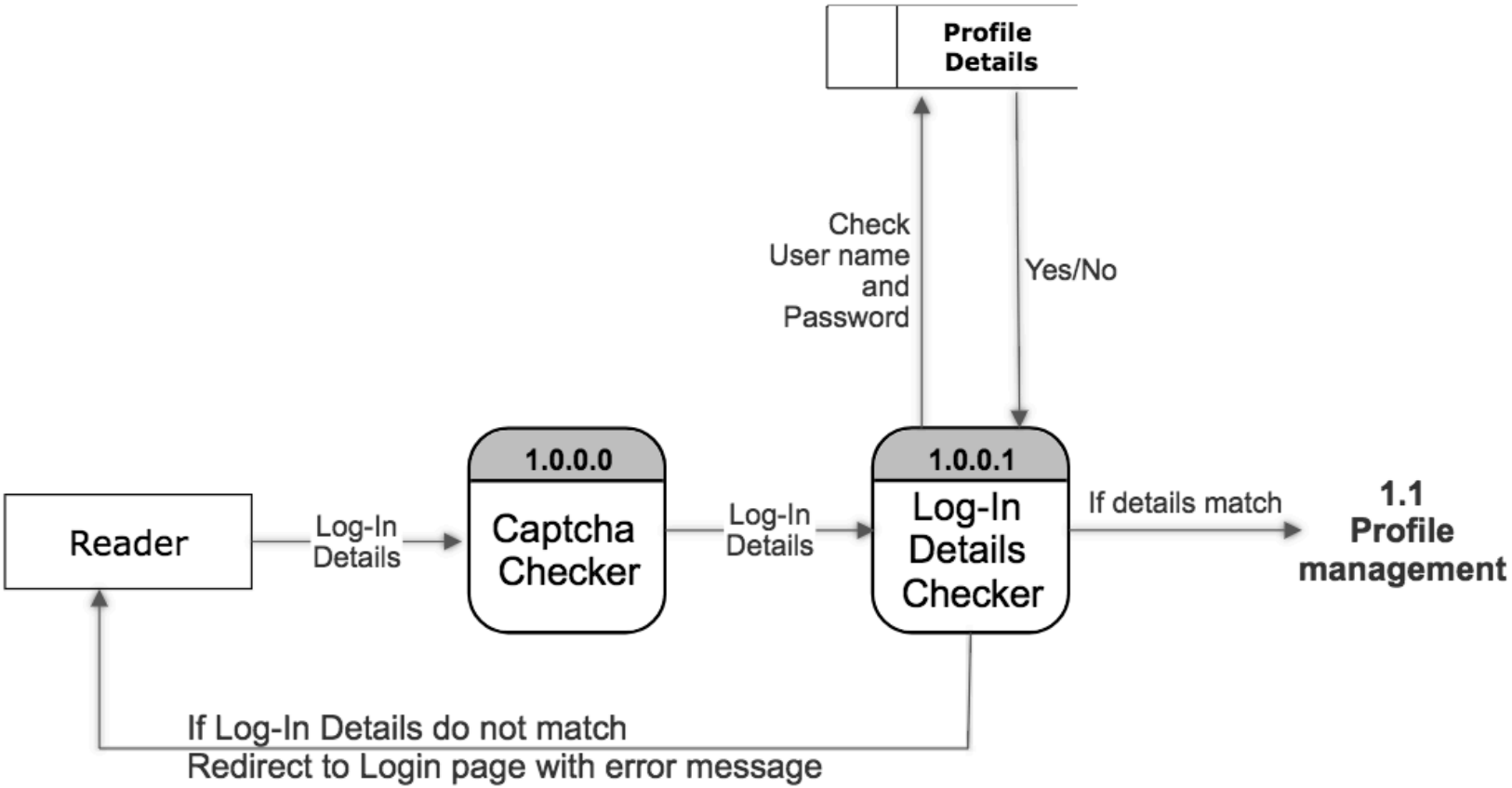
Level 2 for Friendship Module



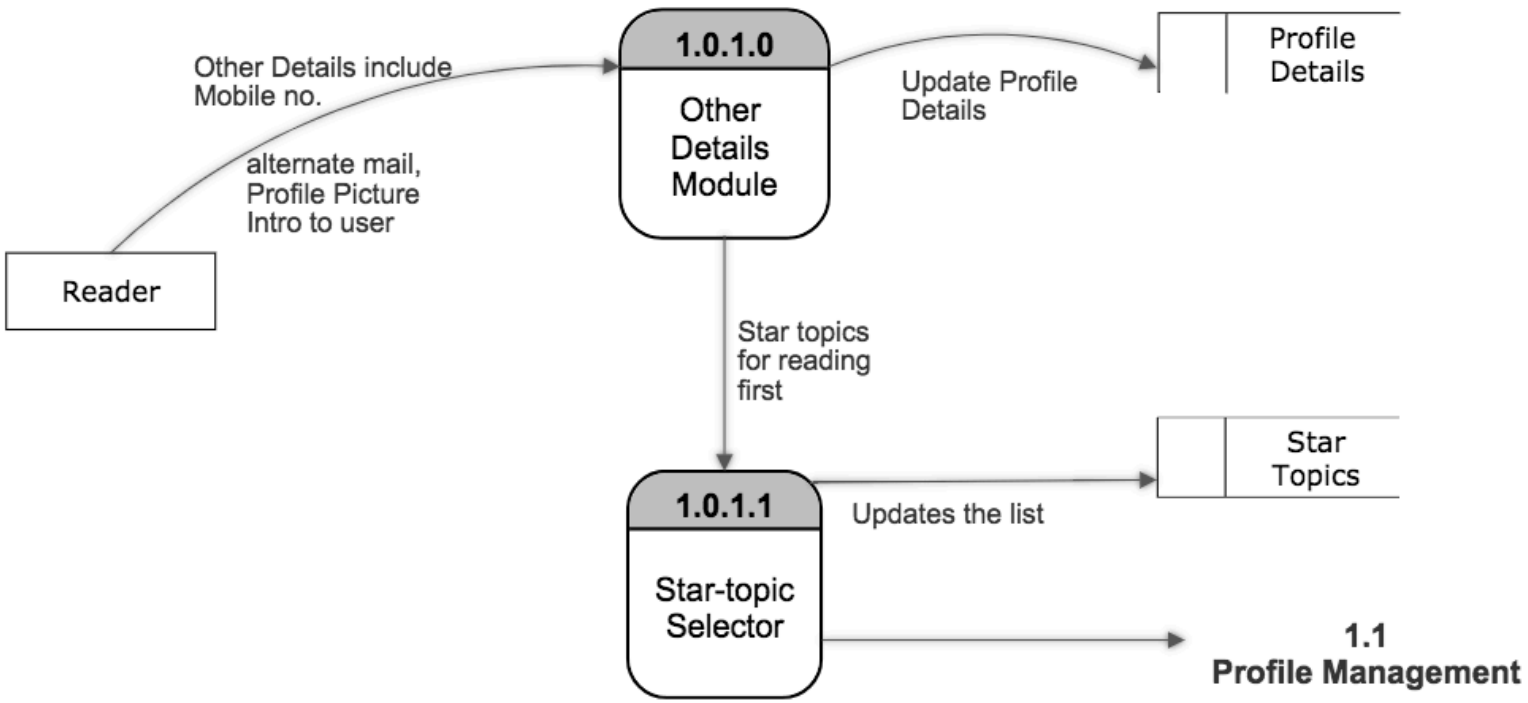
Level 2 for Search Module



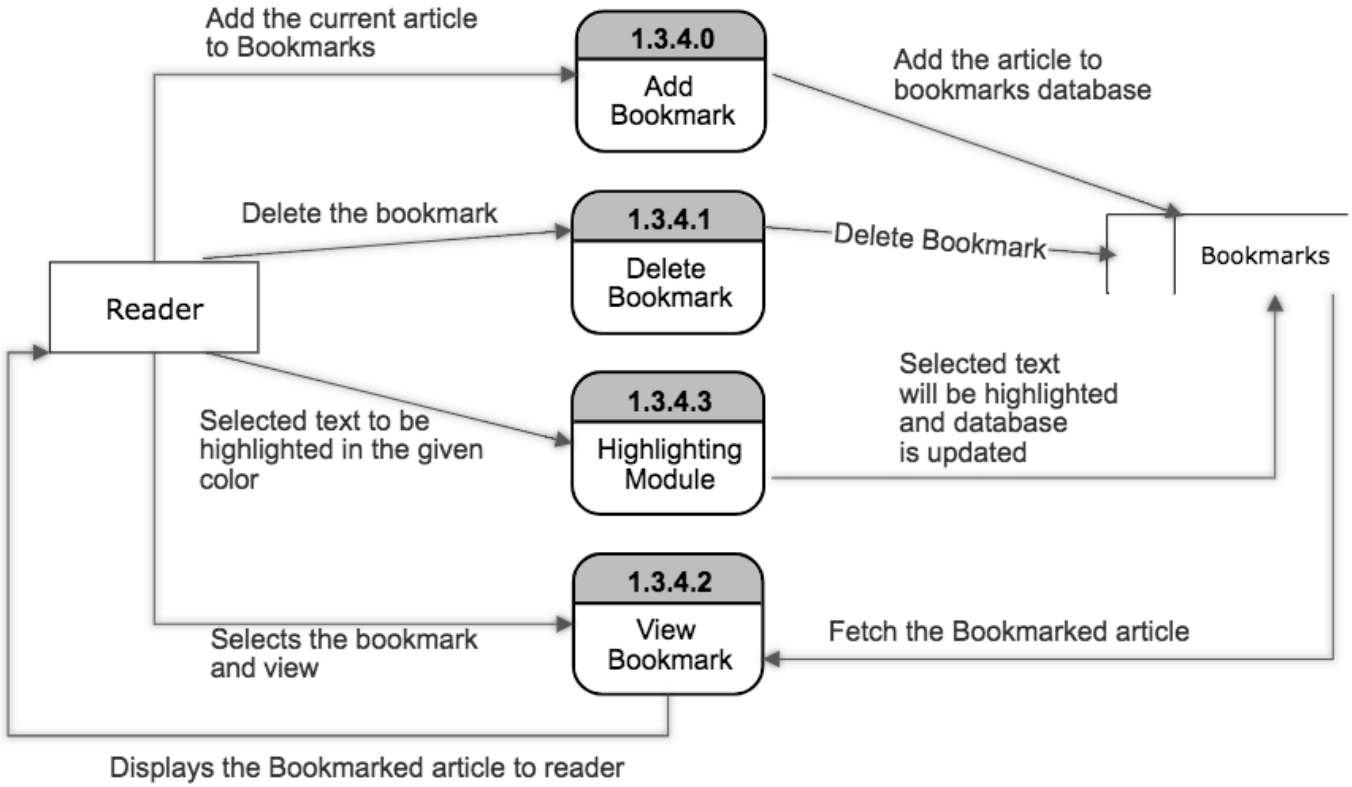
Level 3 for Sign In Module



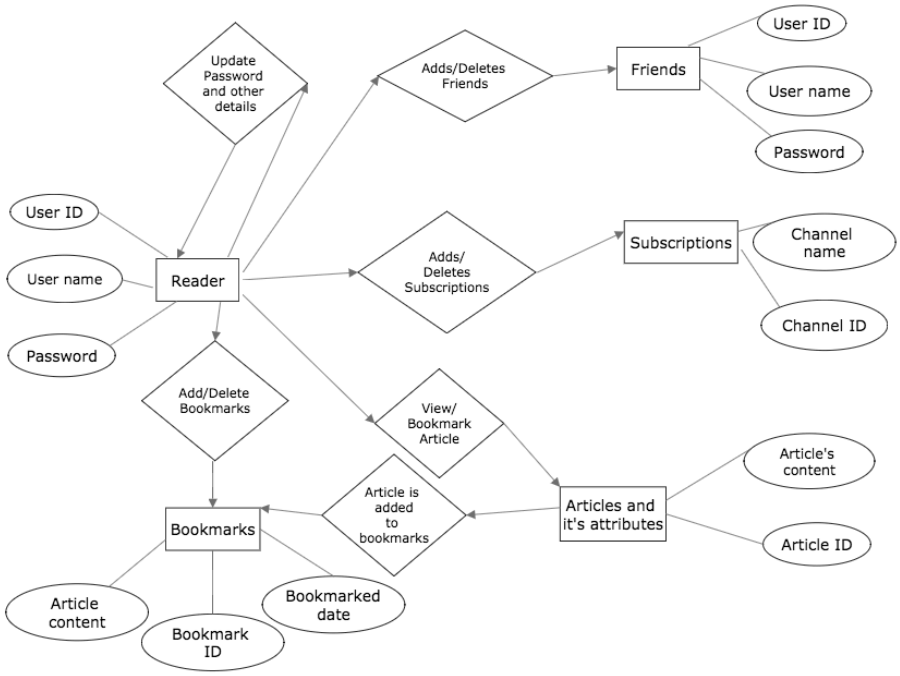
Level 3 for Sign Up Module



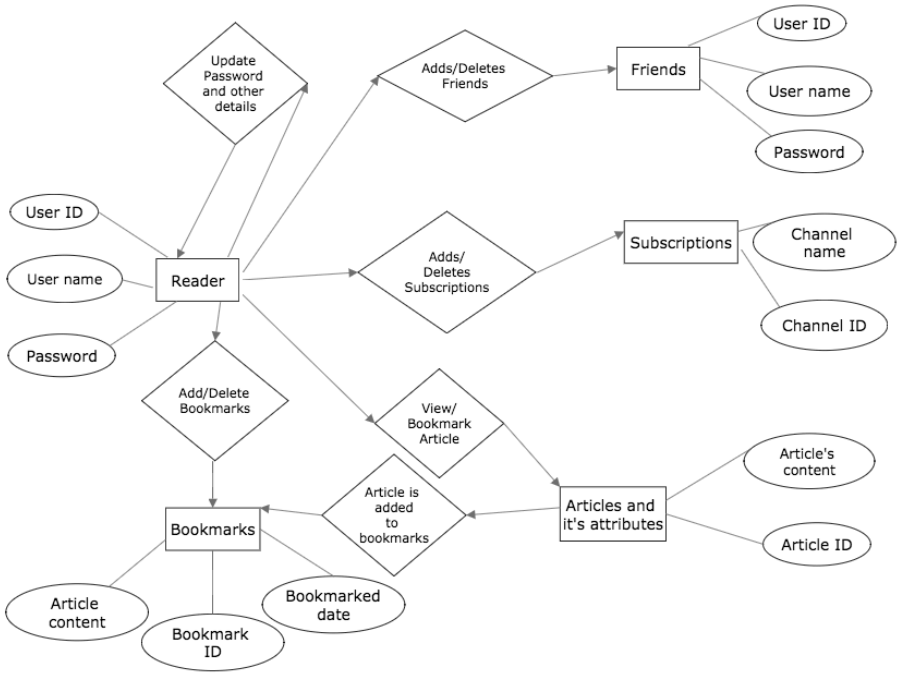
Level 3 for Bookmarks and Highlights



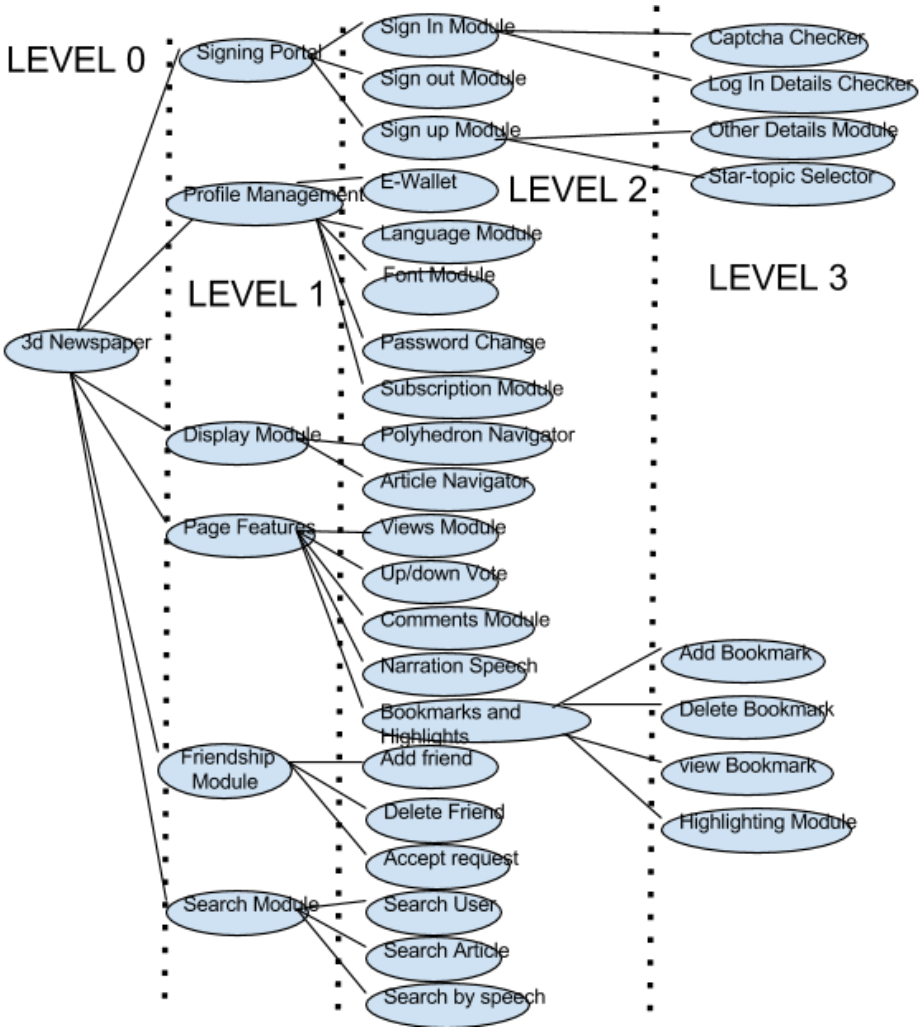
Entity Relationship Diagram (ERD) for 3-D Newspaper



Entity Relationship Diagram (ERD) for 3-D Newspaper



3 Process Decomposition of each level of DFD



4 Data Dictionary

Entity Name	Data Type	Description
Article Content	Text/alpha numeric String	This contains all the content of an article
Bookmarked Date	JSON object	This contains the created data of the bookmark
Channel name	Text/alpha numeric string	This contains the name of the channel
User name	Text/alpha numeric string	This contains the name of the user
Password	Md5 encrypted format	This contains the password in a encrypted format
User ID, Channel ID, Article ID	32-bit Number	This contains the ID of the User/Channel/Article

5 Tools used to create this document

→ Google docs is used to create this document. And this is one of their standard template.
→ The diagrams of DFD are created using smartdraw.
https://cloud.smartdraw.com/
→ The ERD is created using drawing feature in Google Docs.