

# **LIBRA**

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## **1. INTRODUCTION**

The aim of our project is to increase the number of books we read by sharing the books we have in a virtual environment. This will also provide a cultural interaction between people. In addition, our project supports a time tunnel in which the books can share the parts they like.

### **1.1. Purpose**

The objective of this document is introducing a detailed explanation of the designs of Libra Application. This document belongs to the Design Part of our project and guides the project design and then its Development. Since it is an Iterative model, we can easily add requirements by using these designs.

### **1.2. Scope**

This document is the RSD document that contains the software architecture of the Libra application. In this document you can access the assumptions, considerations, architectural system design and class diagrams.

### 1.3. Definitions, Acronyms and Abbreviations

**GUI:** Graphical User Interface

**UI:** User Interface

**PHP:** It is a programming language that run on a server

**NodeJS:** It is a programming language that can create a server and run on it.

**Mysql:** It is a relational database management system

**Socket.io:** It is a web socket library.

**Android:** It is a Linux-based operating system for mobile devices such as smart-phones and tablet computers.

**Wi-Fi:** It is a popular technology that allows an electronic device to exchange data via wireless (using radio waves) over a computer network, including high-speed internet connections.

**IDE** – is a software application that provides comprehensive facilities to computer programmers for software development

### 1.4. References

- <http://mimoza.marmara.edu.tr/~berna.altinel/courses/cse344/>
- Ian Sommerville, Software Engineering, 8th ed. 2007

## 2. DESIGN CONSIDERATIONS

### 2.1. Assumption

We estimate that our user is knowledgeable about Android operating system based smartphones because our application is compatible with devices which have Android operating system. The application also requires Wi-fi or 3G and over internet connections.

### 2.2. Considerations

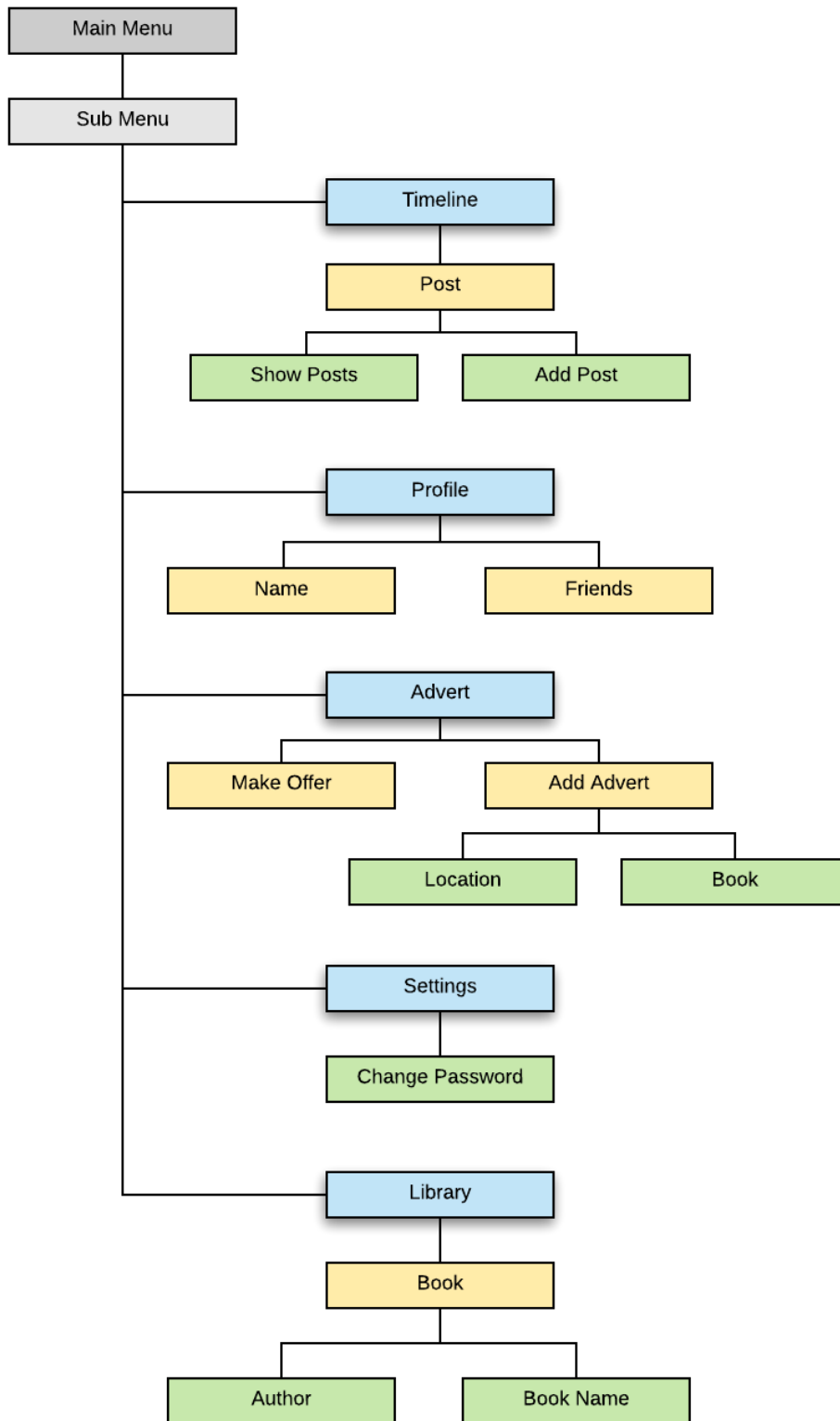
The system is implemented using the technologies such as PHP, NodeJS. We will use Mysql for database and also need a web socket library Socket.io.

### 2.3 System Environment

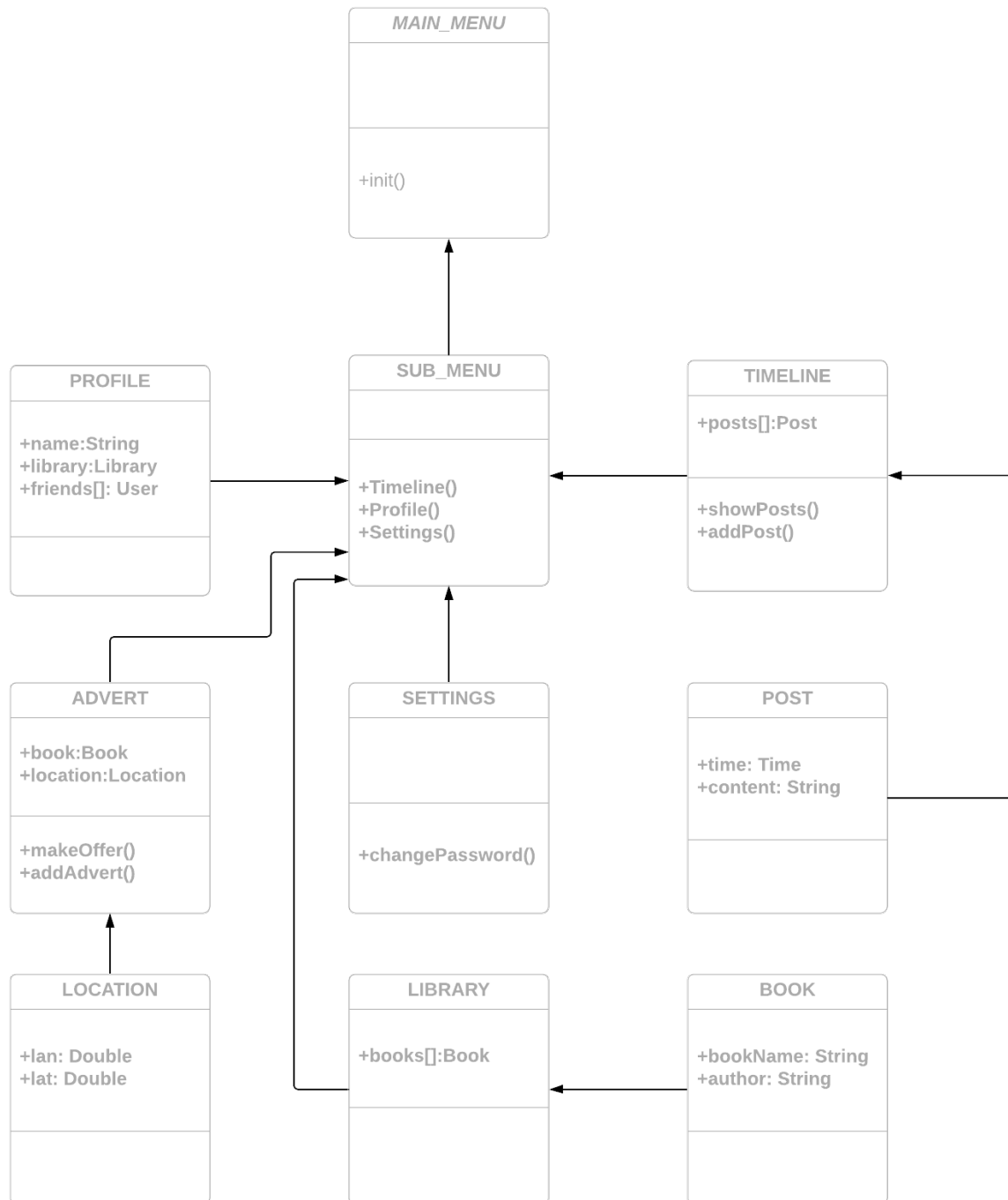
Application will be developed on MacOS and Windows (Operating System) while using Android Studio IDE, PHPstorm IDE, Webstorm IDE. Each user shall need an Android compatible mobile device, smart-phones or tablets.

### 3. SYSTEM DESIGN

#### 3.1. Architectural System Design



## 3.2. Class Diagrams



## 4. CONCLUSION

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Class Diagram	Purpose	Architectural System Design
Assumption	Scope	Considerations
System Environment	Definitions, Acronyms and Abbreviations	Conclusion
	References	