**Report 2 – Software Project Management Plan**

1. **Problem Definition**
   1. **Name of this Capstone Project**

* **Official name:** Just Walk Out Library
* **Vietnamese name:** Thư viện mượn sách tự động
* **Abbreviation:** JWL
  1. **Problem Abstract**

To help librarians reduce of the amount of work for librarians and give borrowers a much more comfortable experience in acquiring books, we provide the JWL system to make the book-borrowing process automatic. However, there exists some problems that need consideration:

* JWL uses NFC and RFID technology, which is quite unfamiliar for software engineering students. Thus, we will need to invest more time and effort in researching and applying those devices.
* Not every user has smart phone, and not every smart phone supports NFC. Therefore, we may need to develop some alternative solutions, like notice users about JWL and its benefit, or use QR code in parallel with NFC.
  1. **Project Overview**
     1. **Current Situation**

Below are the problems that JWL may face:

* **Traditional habit:** Borrowers have been using traditional way to obtain books for a long time, so libraries should provide proper introduction and assistance for their users to get use to JWL.
* **Devices problem:** RFID/NFC devices may be crashed or damaged after long time using, so backup solution should be prepared and periodically maintenance should be carried out.
  + 1. **The Proposed System**

JWL includes two parts:

* + Web Application:
    - Web Admin: for admin/librarian to manage user accounts and books.
    - Web User: for user to manage their own profile through browser, view borrowing books, search for wanted book, and track when a wanted book is available.
  + Mobile Application: for user to borrow book automatically when he/she steps out of the library. Besides, Mobile Application has functions of Web User.
    - 1. **Web Admin**
      2. **Web User**
      3. **Mobile Application**
    1. **Boundaries of the System**
    2. **Future Plans**
    3. **Development Environment**
       1. **Hardware requirements**
       2. **Software requirements**

1. **Project organization**
   1. **Software Process Model**
   2. **Roles and responsibilities**
   3. **Tools and Techniques**
2. **Project Management Plan**
   1. **Software development life cycle**
   2. **Phase Detail**
      1. **Phase 1: Infrastructure**
      2. **Phase 2: System & Web app**
      3. **Phase 3: Web service**
      4. **Phase 4: Mobile app**
   3. **All Meeting Minutes**
3. **Coding Convention**