## Software System Attribute

### Usability

#### Graphic User Interface

All the texts, labels and alerts will be written in Vietnamese, except some English terms that the school is using.

#### Usability

* The system is easy to use. The school’s staffs will need less than 3 days of training to use the system effectively.
* Students don’t need any training to use the system.

#### Installation

* User can follow installation and manual guide for installation. If there are any problems, users can contact developers for help.

### Reliability

* System notification success rate is less than 2 failed notifications per 1000 sent.
* System email notification deliver success rate is less than 2 failed deliveries per 1000 sent.
* Scheduler task run at 00:00 every day with 100% execution rate.
* Web service API response success rate is less than 2 failed requests per 10,000 requests.

### Availability

* N/A

### Security

* All input data will be validated before saving into database.
* All privacy information such as password will be encrypted to ensure security.
* The system automatically authorizes all users when they login to the system.

### Maintainability

* The system is separated into modules.

### Portability

* All users can use application on every OS supported web browser.

### Performance

* Requests from web application are responded in less than 10 seconds at 8 Mbps bandwidth speed.
* Mobile checker application should return card information in less than 1 minute at 8 Mbps bandwidth speed.
* Mobile printer application should write data to NFC card successfully in less than 1 minute at 8 Mbps bandwidth speed.