1.1 System Overview Use Case
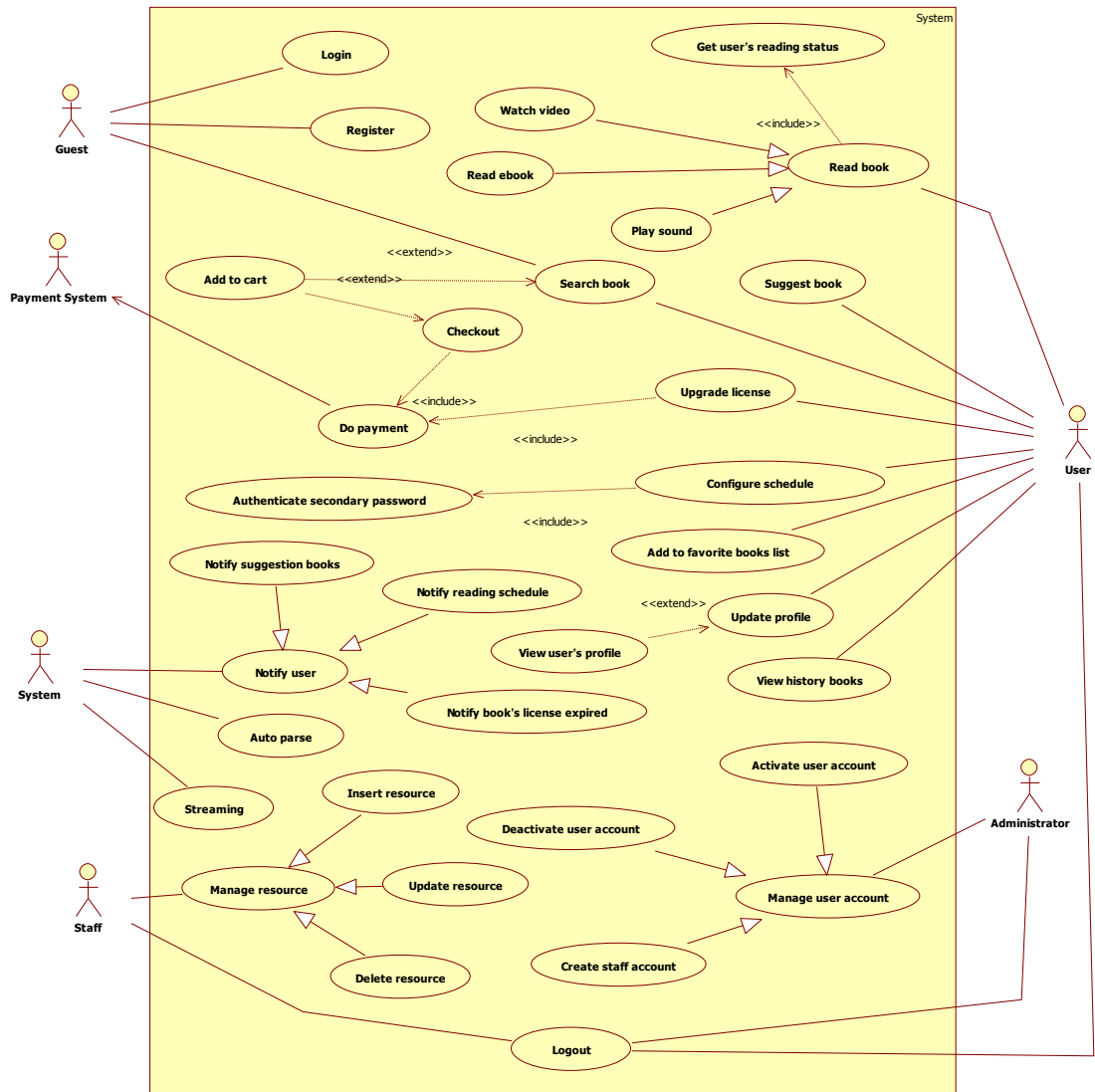

Figure 1: System Overview Use Case

1.2 List of Use Case
1.2.1 < Administrator >Overview Use Case

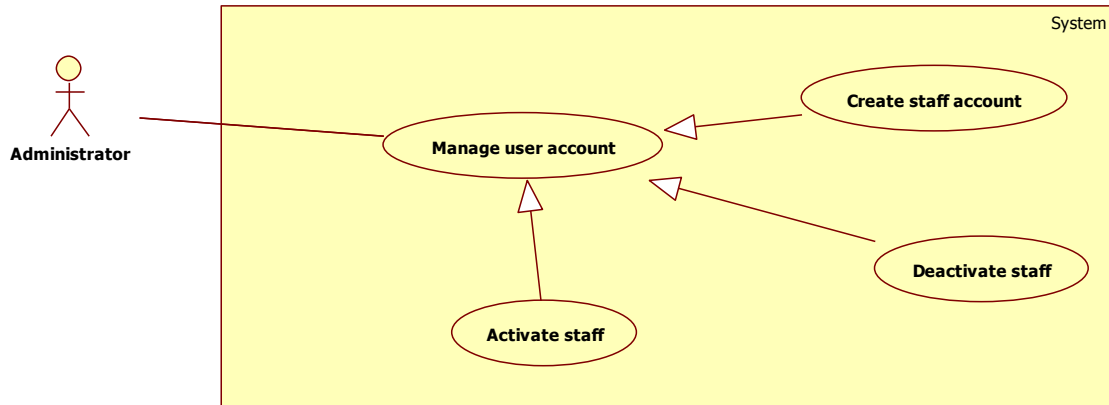**Figure 2: < Administrator > Overview Use Case**

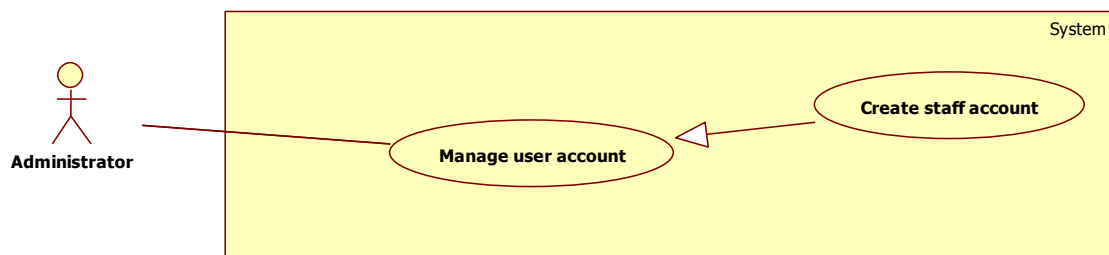#### 1.2.1.1   <Administrator > Manage user account – Create staff account
Use Case Diagram

Figure 3: < Administrator > Manage user account – Create staff account use case diagram

Use Case Specification

USE CASE – ARB01			
Use Case No.	ARB01	**Use Case Version**	1.0
Use Case Name	Create staff account		
Author	Pham Nguyen Bich Hien		
Date	31/05/2014	**Priority**	High

Actor:
-   Administrator.

Summary:
-   This use case allows Administrator to create new staff.

Goal:
-   Add new staff to system.

Triggers:

- Administrator want to add more staffs to manage books.

Preconditions:
- Login to system with role Administrator.

Post Conditions:
- **Success**: New staff will be created in database.
- **Fail:** No staffs will be created. Show error message.

Main Success Scenario:

Step	Actor Action	System Response
1	User choose "Tạo nhân viên" function	Navigate to administrator page which contains: - Tên đăng nhập: textbox, min length: 6, max length: 30, required. - Vai trò: drop-down list, raw source: "Người quản trị", "Nhân viên" và "Người dùng", default value: "Nhân viên", required. - Tên đầy đủ: textbox, min length: 6, max length: 50, required - Email: textbox, min length: 6, max length: 50, regular expression: "^[_A-Za-z0-9-\\+]+(\\.[_A-Za-z0-9-]+)*@[A-Za-z0-9-]+(\\.[A-Za-z0-9]+)*(\\.[A-Za-z]{2,})$", required - Tạo tài khoản: button. - Xóa trắng: button.
2	Admistrator fills data to the form.	
3	Administrator clicks "Tạo nhân viên" button. [Alternative 1], [Exception 1, 2, 3, 4, 6, 7]	Insert new user account to the database and redirect to administrator page.

Alternative Scenario:

No	Actor Action	System Response
1	Administrator clicks "Xóa trắng button".	Clear all input data.

Exceptions:

No	Actor Action	System Response
1	Length of username is not in range.	Show error message: "Độ dài username phải từ 6-30 ký tự!"
4	Role is not specified.	Show error message: "Phải phân quyền cho user!"
5	Email is not match regular expression	Show error message: "Email phải có dạng abc@example.com!"

6	Length of fullname is not in range.	Show error message: "Độ dài tên đầy đủ phải từ 6-50 ký tự!"
7	Username's existed already.	Show error message: "Trùng tên đăng nhập! Vui lòng chọn tên khác!"

Relationships: Manage user account.
Business Rules:
- Each created account must be in active state when insert to database.
- Password is generated by system.
- Password is sent to staff email automatically.
- Staff must change password when they login system for the first time.

Table 1: < Administrator > Manage user account – Create staff account use case specification table

1.2.1.2   <Administrator> Manage user account – Deactivate user
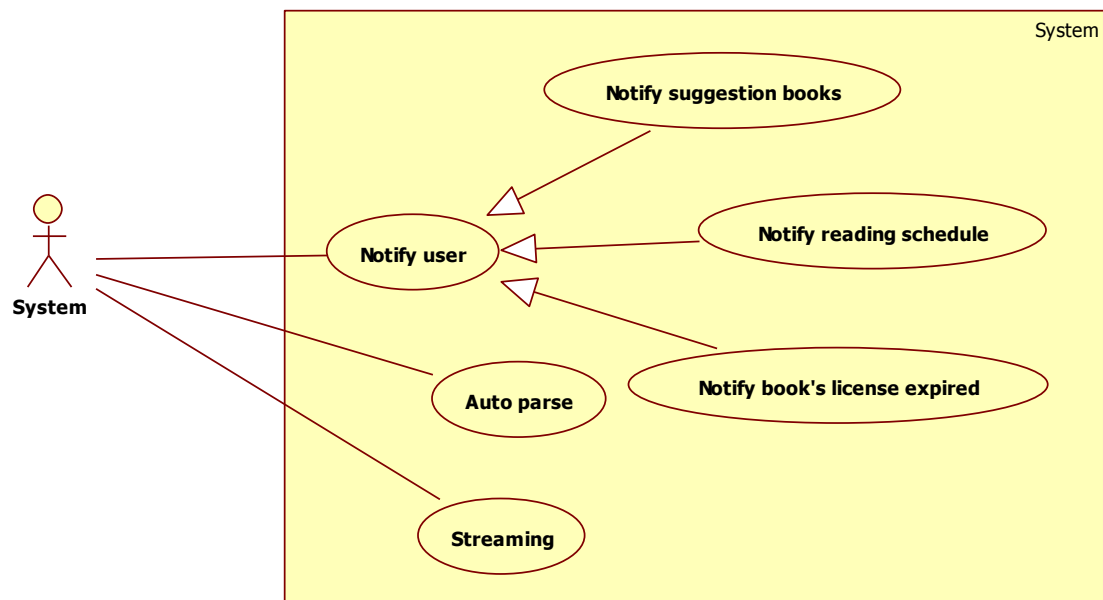## 1.2.2   <System> Overview Use Case

Figure 4: <System> Overview Use Case

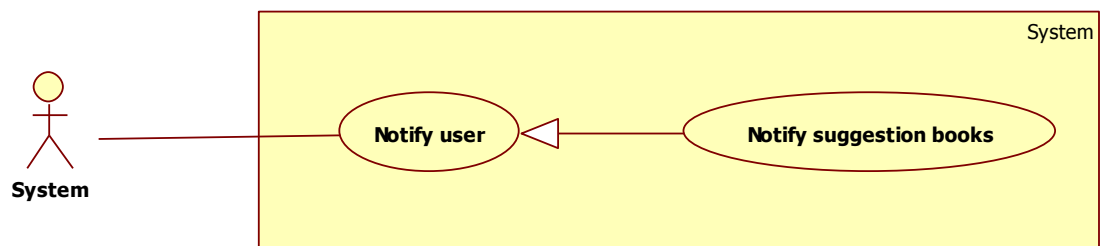### 1.2.2.1   <System> Notify suggestion book
Use Case Diagram

Figure 5: <System>Notify suggestion book use case diagram

USE CASE – ARB05			
Use Case No.	ARB05	**Use Case Version**	2.0
Use Case Name	Notify suggestion book		
Author	Trinh Van Vu		
Date	30/05/2014	**Priority**	High

Actor:
- System

Summary:
- System can notify suggestion book to user at 0:00 daily.

Goal:
- Notify users to suggest new books and most views books to user.

Triggers:
- Run at 0:00 daily.

Preconditions:
- N/A

Post Conditions:
- **Success:** Information of new books and most views books will be notify to user at 0:00 daily.
- **Fail:** Log error to administrator.

Main Success Scenario:

Step	Actor Action	System Response
1	Server checks new books in week, books in top 10 most view	Send response information of books to client [Exception 1]

Alternative Scenario: N/A

Exceptions:

No	Actor Action	System Response
1	Cannot send notification	Log error message

Relationships: N/A

Business Rules:
- At 0:00 daily, system gets information of new books which have create time in week and books in top 10 most recent then response to user
- User can receive notifications at the time when system sends notification.
- System will save content notification

Table 2: <System>Notify suggestion book use case specification table

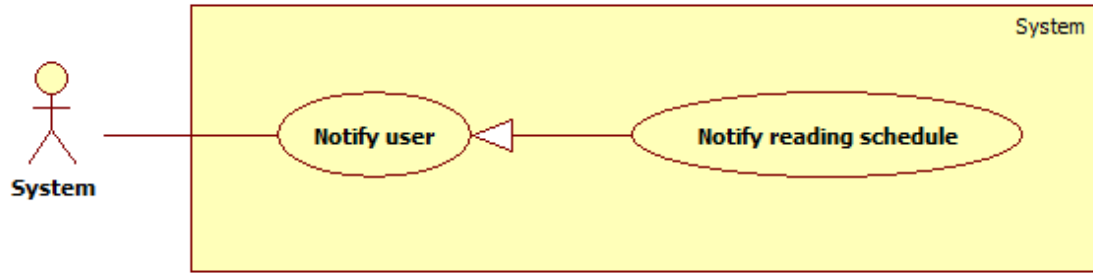### 1.2.2.2   <System> Notify reading schedule
Use Case Diagram

Figure 6: <System> Notify reading schedule use case diagram

Use Case Specification

USE CASE – ARB06			
Use Case No.	ARB06	**Use Case Version**	2.0
Use Case Name	Notify reading schedule		
Author	Trinh Van Vu		
Date	30/05/2014	**Priority**	High

Actor:
- System

Summary:
- System can notify reading schedule to user when user login

Goal:
- Notify user when reading time start and end.

Triggers:
- User log in the system

Preconditions:
- User bought book
- User configured schedule
- User log in the system

Post Conditions:
- **Success:** Notify user reading time at start reading time and end reading time.
- **Fail:** Log error to administrator.

Main Success Scenario:

Step	Actor Action	System Response
1	Server checks user reading schedule.	Send response when the time reach start and end time [Alternative 1][Exception 1]

Alternative Scenario:

No	Actor Action	System Response
1	Time is out of start time and end time.	Show notification "Bạn đã hết giờ đọc sách"

Exceptions:

No	Actor Action	System Response
1	Cannot send notify from server	Log error message to administrator

Relationships: N/A
Business Rules:

-	System compares current time and end time in schedule which is configured by user. (from server) + Current time is more than end time in schedule: Response reading time at start reading time and end reading time which is configured by user. + Current time is less than end time in schedule: Response to user is time's out of start time and end time
-	User can receive notifications at the time when system sends notification.

Table 3: <System> Notify reading schedule use case specification table

1.2.2.3   <System> Notify book's license expired
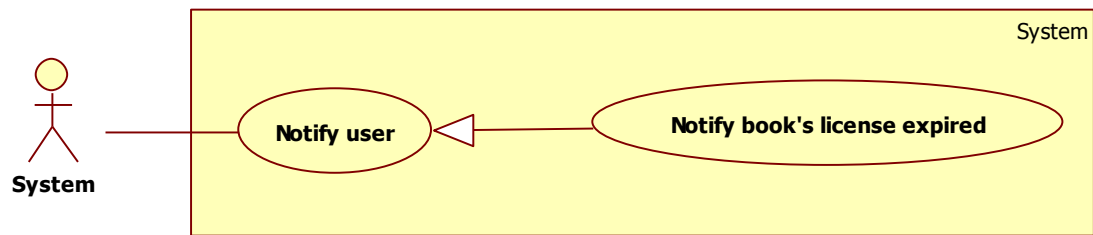### Use Case Diagram

Figure 7: <System> Notify book's license expired use case diagram

Use Case Specification

USE CASE – ARB07			
Use Case No.	ARB07	**Use Case Version**	2.0
Use Case Name	Notify book's license expired		
Author	Trinh Van Vu		
Date	30/05/2014	**Priority**	High

Actor:
- System

Summary:
- System can notify book's license expired to user

Goal:
- Notify user when book's license expired

Triggers:
- User read last chapter

Preconditions:
- User bought book
- User log in the system
- User reading book

Post Conditions:
- **Success:** Notify license is expired and ask user for extending license
- **Fail:** Log error message to administrator

Main Success Scenario:

Step	Actor Action	System Response
1	Server checks license books that is bought by user when user read book.	
		Send response to inform license is expired to

		client [Alternative 1] [Exception 1]

Alternative Scenario:

No	Actor Action	System Response
1	Server checks license books that is bought by user when user read book.	Send response license is uexpired [Exception 1]

Exceptions:

No	Actor Action	System Response
1	Cannot send notify from server	Log error message to administrator

Relationships: Notify user

Business Rules:

- System compares chapter which is reading and number of chapter which is bought by user:
  + Chapter which is reading is equal or is more than the before the last chapter which is bought by user: Response license is expired and ask user for extending license
  + Chapter which is reading is more less than the before the last chapter which is bought by user: Response license is unexpired
- User can receive notifications at the time when system sends notification.
- System will save content notification.

Table 4: <System> Notify book's license expired use case specification table

1.2.2.4 <System> Auto parse
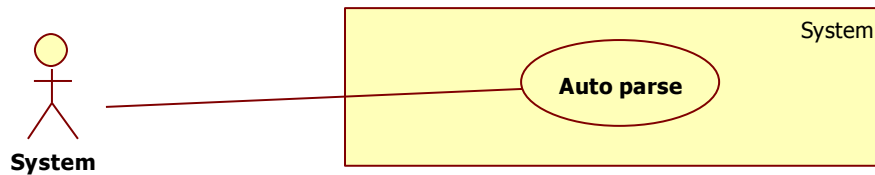#### Use Case Diagram

Figure 8: <System> Auto parse use case diagram

Use Case Specification

USE CASE – ARB08			
Use Case No.	ARB08	**Use Case Version**	2.0
Use Case Name	Auto parse		
Author	Pham Nguyen Bich Hien		
Date	30/05/2014	**Priority**	Normal

Actor:
- System.

Summary:
- System can parse resource automatically from many websites at specified time.

Goal:
- Get resource from many websites.

Triggers:
- The time hits configured time.

Preconditions:
- Parse time has been configured.

Post Conditions:
- **Success:** New data is inserted to database. Log file is generated.
- **Fail:** Nothing is changed in the database. Log file is generated.

Main Success Scenario:

Step	Actor Action	System Response
1	Server checks the current time. If it hits configured time, parse process starts.	- Send request to the parsed link. - Fetch data from the response based on the inputted XPaths. - Validate data [Exception 1]. - If data is valid, insert to database [Alternative 1]. - Generate log file.

Alternative Scenario:

Step	Actor Action	System Response
1	Server checks the current time. If it hits configured time, parse	

		process starts.	− If fetched link resource is already in the database, update its information. − Generate log file.

Exceptions:

No	Actor Action	System Response
1	Data is invalid.	− Don't insert to database. − Generate log file.

Relationships: N/A

Business Rules:

-   If link resource exists in database, do not insert to database.

-   If link resource is not active, do not insert to database.

-   Log file structure:

ARB LOG FILE

Tạo file lúc: {Created date}, {Created time}

STT	Link	Thời gian parse	Dạng dữ liệu	Tổng số sách nhận được	Insert thành công	Insert thất bại

Tổng thời gian parse dạng {Data type}: {Elapsed time}
Tổng thời gian parse: {Total elapsed time}
Tổng sản phẩm parse được: {Total parsed books}

-

Table 5: Auto parse use case specification table
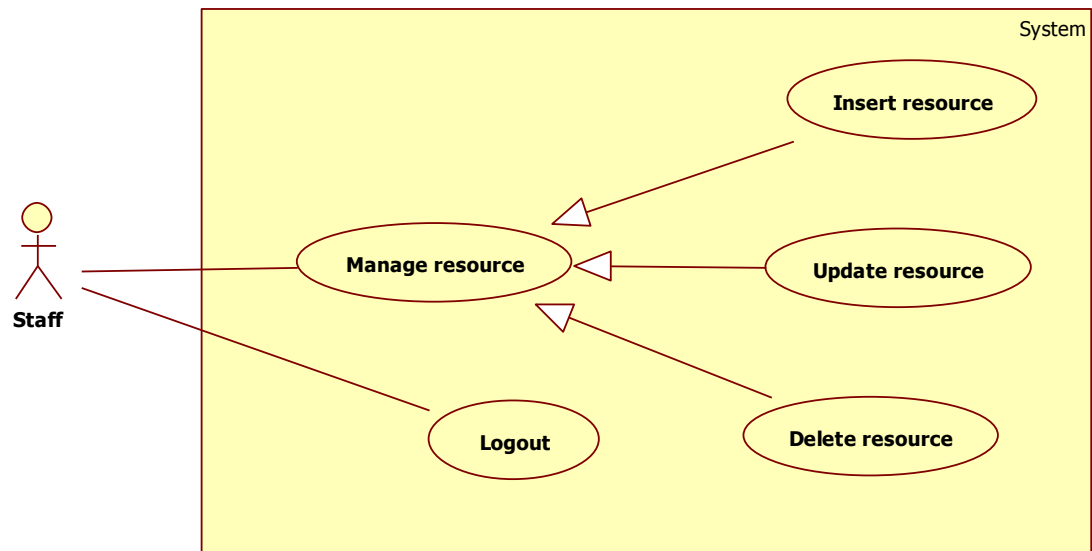
1.2.3 <Staff >Overview Use Case

Figure 9: <Staff> Overview Use Case

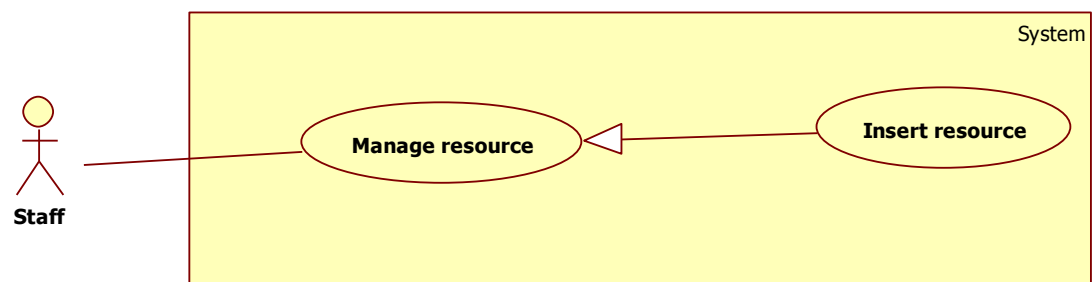### 1.2.3.1   <Staff> Insert resource
Use Case Diagram

Figure 10: <Staff> Insert resource use case diagram

Use Case Specification

USE CASE – ARB10			
Use Case No.	ARB10	**Use Case Version**	1.0
Use Case Name	Insert resource		
Author	Pham Nguyen Bich Hien		
Date	31/05/2014	**Priority**	High
Actor: - Staff. **Summary:** - This use case allows Staff to insert new (video, ebook, audio). **Goal:** - Add a new video, ebook, audio.			

Triggers:
- Staff want to add more resource to database.

Preconditions:
- Book didn't contain in system.
- Staff must login to system with role staff.
- Staff choose add book function.

Post Conditions:
- **Success**: A new video, ebook or sound will be added
- **Fail:** No resource will be added. Show error message.

Main Success Scenario:

Step	Actor Action	System Response
1	Staff choose add book function	System will show "Thêm Sách" which includes: - Video - Ebook - Audio
2	Staff choose "Video" [Alternative 1], [Alternative 2], [Alternative 3]	Navigate to add book pages.

Alternative Scenario:
- Alternative 1: "Video"

Step	Actor Action	System Response
1	Click "Video"	System wil show "Thêm video" page - Tên sách: textbox, min length: 1, max length: 100, required - Thể loại: drop down list, raw source from database – Category table, required. - Vuforia texture: Upload controller. - JS Toolkit texture: Upload controller. - Tác giả: textbox, min length: 1, max length: 100, required - Nhà xuất bản: textbox, min length: 1, max length: 100, required - Số tập: spinner, min length: 1, max length: 4, range: [1, 9999], required. - Giá tiền/ tập: textbox, regular expression: "\d*[.]?\d+", min length: 5, max length: 100, required. - Mô tả: text field, required. - Video stream URL: textbox, min length: 6, max length: 500, required.

		- Thêm link: button [Alternative 1.1]
		- Thêm sách: button
2	Input fields. [Exception 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]	
3	Click on "Thêm sách" button	Book will be added to database and show: "Bạn đã thêm sách thành công"

o   Alternative 1.1:

Step	Actor Action	System Response
1	Click "Thêm link"	One more text box show: Video stream URL: textbox, min length: 6, max length: 500.

- Alternative 2: "Ebook"

Step	Actor Action	System Response
1	Click "Ebook"	System wil show "Thêm ebook" page - Tên sách: textbox, min length: 1, max length: 100, required - Thể loại: drop down list, raw source from database – Category table, required. - Vuforia texture: Upload controller. - JS Toolkit texture: Upload controller. - Tác giả: textbox, min length: 1, max length: 100, required - Nhà xuất bản: textbox, min length: 1, max length: 100, required - Số tập: spinner, min length: 1, max length: 4, range: [1, 9999], required. - Giá tiền/ tập: textbox, regular expression: "\d*[.]?\d+", min length: 5, max length: 100, required. - Mô tả: text field, required. - Ebook contain URL: textbox, min length: 6, max length: 500, required.
2	Input fields. [Exception 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]	
3	Click on "Thêm sách" button	Book will be added to database and show: "Bạn đã them sách thành công"

- Alternative 3: "Audio"

Step	Actor Action	System Response
1	Click "Audio"	System wil show "Thêm audio" page - Tên sách: textbox, min length: 1,

		max length: 100, required - Thể loại: drop down list, raw source from database – Category table, required. - Vuforia texture: Upload controller. - JS Toolkit texture: Upload controller. - Tác giả: textbox, min length: 1, max length: 100, required - Nhà xuất bản: textbox, min length: 1, max length: 100, required - Số tập: spinner, min length: 1, max length: 4, range: [1, 9999], required. - Giá tiền/ tập: textbox, regular expression: "\d*[.]?\d+", min length: 5, max length: 100, required. - Mô tả: text field, required. - Audio stream URL: textbox, min length: 6, max length: 500, required. - Thêm link: button [Alternative 3.1]
2	Input fields. [Exception 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]	
3	Click on "Thêm sách" button	Book will be added to database and show: "Bạn đã them sách thành công"

o Alternative 3.1:

Step	Actor Action	System Response
1	Click "Thêm link"	One more text box show: Audio stream URL: textbox, min length: 6, max length: 500.

Exceptions:

No	Actor Action	System Response
1	Length of book name is not in range.	Show error message: "Độ dài tên sách phải từ 6-30 ký tự!"
2	Category is not specified	Show error message: "Hãy chọn thể loại!"
3	Vuforia texture is not specified	Show error message: "Vui lòng chọn ảnh nhận diện mobile!"
4	JSToolkit texture is not specified	Show error message: "Vui lòng chọn ảnh nhận diện cho webcam!"
5	Length of author is not in range.	Show error message: "Độ dài tên tác giả phải từ 6-30 ký tự!"

6	Length of publisher is not in range.	Show error message: "Độ dài tên nhà xuất bản phải từ 6-30 ký tự!"
7	Number of chapter is "0"	Show error message: "Sách phải có ít nhất 1 tập"
8	Price is not in range.	Show error message: "Giá sách phải từ ~1.000 đồng trở lên"
9	Description is blank	Show error message: "Không được để trống mô tả"
10	Video stream/ audio stream/ ebook contain URL is not valid	Show error message: "URL không hợp lệ"

Relationships: Manage resource

Business Rules:
- Book to be added didn't exist in database.
- Image to be added to vuforia target image and jstoolkit target image must be unique.
- In case of video/ audio resource, resource link must be stored as a list of video/ audio stream link. This list is arranged in order of book chapters.
- In case of ebook resource, images are stored as a list in a cloud container. This list is arranged in order of book pages and chapters. Images are downloaded when user start reading book.

Table 6: <Staff> Insert resource use case specification table

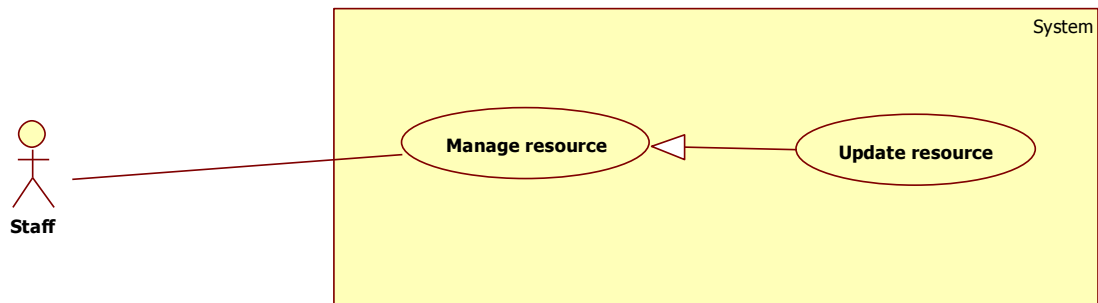**1.2.3.2   \<Staff\> Update resource**
Use Case Diagram

Figure 11: \<Staff\> Update resource use case diagram

Use Case Specification

USE CASE – ARB12			
Use Case No.	ARB12	**Use Case Version**	1.0
Use Case Name	Update resource		
Author	Pham Nguyen Bich Hien		
Date	31/05/2014	**Priority**	Normal

Actor:
- Staff.

Summary:
- This use case allows Staff to update resource (video, ebook, audio).

Goal:
- Update a video, ebook, audio.

Triggers:
- Staff want to update resource from database.

Preconditions:
- Staff must login to system with role staff.

Post Conditions:
- **Success**: A video, ebook or sound will be updated
- **Fail:** No resource will be added. Show error message.

Main Success Scenario:

Step	Actor Action	System Response
1	Choose "Danh mục sách"	Show "Danh mục sách" page with the table of list books.
2	Choose book to edit. Click on "Chỉnh sửa" button.	Navigate to edit book pages [Alternative 1, 2, 3]

Alternative Scenario:
- Alternative 1

Step	Actor Action	System Response
1	Choosed resource is Video	System wil show "Sửa thông tin" page - Tên sách: textbox, min length: 1,

		max length: 100, required, disabled.
		- Thể loại: drop down list, raw source from database – Category table, required.
		- Vuforia texture: Upload controller, disabled.
		- JS Toolkit texture: Upload controller, disabled.
		- Tác giả: textbox, min length: 1, max length: 100, required
		- Nhà xuất bản: textbox, min length: 1, max length: 100, required
		- Số tập: spinner, min length: 1, max length: 4, range: [1, 9999], required.
		- Giá tiền/ tập: textbox, regular expression: "\d*[.]?\d+", min length: 5, max length: 100, required.
		- Mô tả: text field, required.
		- Video stream URL: textbox, min length: 6, max length: 500, required.
		- Thêm link: button [Alternative 1.1]
		- Hoàn thành: button
2	Input fields. [Exception 1, 2, 3, 4, 5, 6]	
3	Click on "Hoàn thành" button	Book will be added to database and show: "Bạn đã sửa sách thành công"

o Alternative 1.1:

Step	Actor Action	System Response
1	Click "Thêm link"	One more text box show: Video stream URL: textbox, min length: 6, max length: 500.

- Alternative2

Step	Actor Action	System Response
1	Choosed resource is Ebook	System wil show "Sửa thông tin" page
		- Tên sách: textbox, min length: 1, max length: 100, required, disabled.
		- Thể loại: drop down list, raw source from database – Category table, required.
		- Vuforia texture: Upload controller, disabled.
		- JS Toolkit texture: Upload

Step	Actor Action	System Response
		controller, disabled.
		- Tác giả: textbox, min length: 1, max length: 100, required
		- Nhà xuất bản: textbox, min length: 1, max length: 100, required
		- Số tập: spinner, min length: 1, max length: 4, range: [1, 9999], required.
		- Giá tiền/ tập: textbox, regular expression: "\d*[.]?\d+", min length: 5, max length: 100, required.
		- Mô tả: text field, required.
		- Ebook contain URL: textbox, min length: 6, max length: 500, required.
		- Hoàn thành: button
2	Input fields. [Exception 1, 2, 3, 4, 5, 6]	
3	Click on "Hoàn thành" button	Book will be added to database and show: "Bạn đã sửa sách thành công"

- Alternative 3

Step	Actor Action	System Response
1	Choosed resource is Audio	System wil show "Sửa thông tin" page
		- Tên sách: textbox, min length: 1, max length: 100, required.
		- Thể loại: drop down list, raw source from database – Category table, required.
		- Vuforia texture: Upload controller, disabled.
		- JS Toolkit texture: Upload controller, disabled.
		- Tác giả: textbox, min length: 1, max length: 100, required
		- Nhà xuất bản: textbox, min length: 1, max length: 100, required
		- Số tập: spinner, min length: 1, max length: 4, range: [1, 9999], required.
		- Giá tiền/ tập: textbox, regular expression: "\d*[.]?\d+", min length: 5, max length: 100, required.
		- Mô tả: text field, required.
		- Audio stream URL: textbox, min length: 6, max length: 500,

Step	Actor Action	System Response
		required.
		- Thêm link: button [Alternative 1.1]
		- Hoàn thành: button
2	Input fields. [Exception 1, 2, 3, 4, 5, 6]	
3	Click on "Hoàn thành" button	Book will be added to database and show: "Bạn đã sửa sách thành công"

o Alternative 1.1:

Step	Actor Action	System Response
1	Click "Thêm link"	One more text box show: Audio stream URL: textbox, min length: 6, max length: 500.

Exceptions:

No	Actor Action	System Response
1	Length of author is not in range.	Show error message: "Độ dài tên tác giả phải từ 6-30 ký tự!"
2	Length of publisher is not in range.	Show error message: "Độ dài tên nhà xuất bản phải từ 6-30 ký tự!"
3	Number of chapter is "0"	Show error message: "Sách phải có ít nhất 1 tập"
4	Price is not in range.	Show error message: "Giá sách phải từ ~1.000 đồng trở lên"
5	Description is blank	Show error message: "Không được để trống mô tả"
6	Video stream/ audio stream/ ebook contain URL is not valid	Show error message: "URL không hợp lệ"

Relationships: Manage resource
Business Rules:
- Cannot edit book used by user.
- Cannot edit vuforia target image and js toolkit target image.
- In case of video resource, resource link must be stored as a list of video stream link. This list is arranged in order of book chapter.
- In case of ebook resource, images are stored as a list in a cloud container. This list is arranged in order of book pages and chapters. Images are downloaded when user start reading book.

Table 7: <Staff> Update resource use case specification table

1.2.3.3 <Staff>Logout
- Reference use case ARB04.

1.2.4   <User>Overview Use Case

Figure 12: <User> Overview Use Case

1.2.4.1 <User> Read book
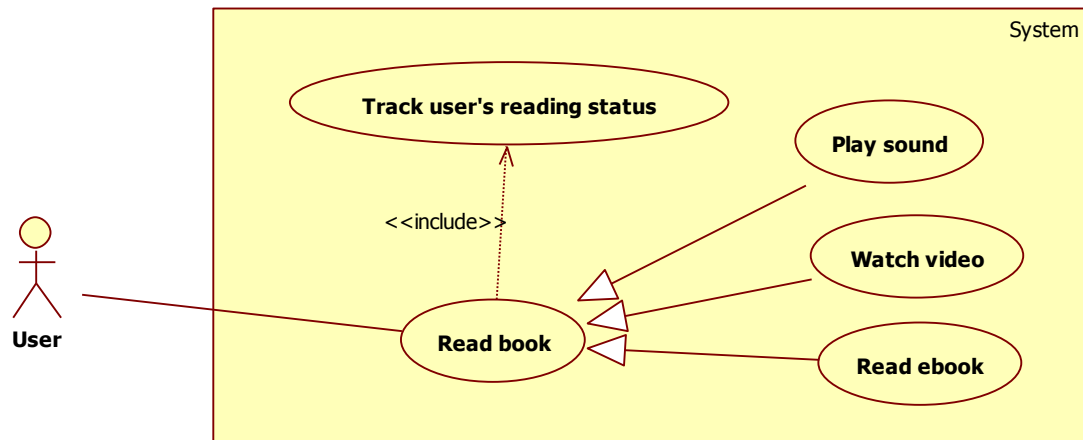**Use Case Diagram**

Figure 13: <User>Read Book Use case diagram
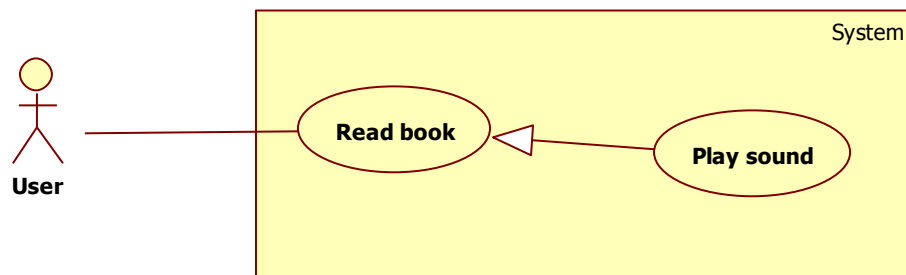
1.2.4.1.1 <User> Read book – Play sound
Use Case Diagram

Figure 14: <User> Read book – Play sound use case diagram

Use Case Specification

USE CASE – ARB13			
Use Case No.	ARB13	**Use Case Version**	1.1
Use Case Name	Read Book – Play sound		
Author	Pham Nguyen Bich Hien, Phan Thanh Trung		
Date	28/05/2014	**Priority**	High

Actor:
-   User.
Summary:
-   This use case allows user to read audio book.
Goal:
-   Book resource will be loaded.
Triggers:
-   User want to read audio book.
Preconditions:
-   User must log in the system with user role.

- User has the license of book.
- The license of book must not be expired.

Post Conditions:
- **Success**: Book Resource will be loaded.
- **Fail:** Nothing is loaded. Show Error Message

Main Success Scenario:

Step	Actor Action	System Response
1	Choose "Đọc sách" function	Open camera to begin recognize image.
2	Show an image in front of webcam mobile device	Navigate to "Nội dung số" page which contains a menu of options: _ "Đọc eBook" _ "Xem Video" _ "Nghe Audio" _ "Thoát"
3	Click "Nghe Audio"	Navigate to "Nghe Audio" which contains Audio content of the book, and a panel of Audio chapters list. The system will continue the last unfinished Audio chapter or play next Audio chapter.

Alternative Scenario: N/A

Exceptions:

No	Actor Action	System Response
1	Cannot get image recognition.	"Chưa nhận diện được hình ảnh"
2	Cannot read the lasted content	"Bạn chưa mua license nội dung này."
3	Cannot access to book webservice.	"Nội dung bạn truy cập không tồn tại. Vui lòng thử lại sau."

Relationships: Read Book

Business Rules:
- Book must be bought.
- Reading chapter must be in license.
- System checks reading schedule not to allow user read book in the time (which) is not in reading schedule. If reading is not in reading schedule, notify user and stop reading book function.
- System will record what chapter user read and current time of chapter.

Table 8: <User> Read book – Play sound use case specification table

Use Case Diagram

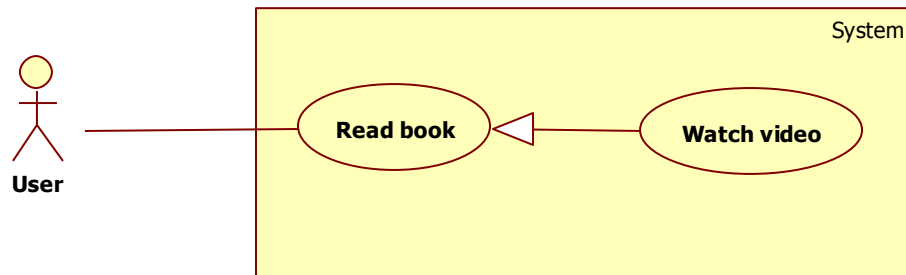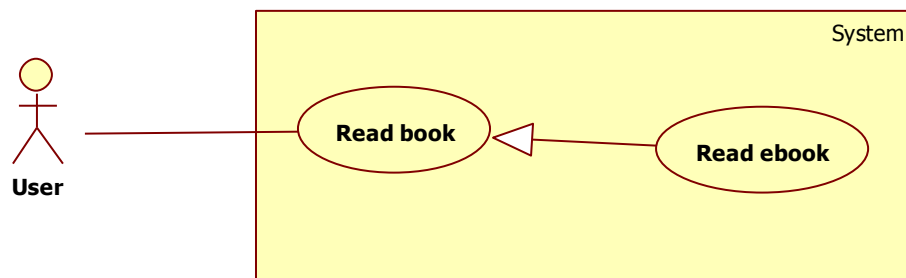**Figure 15: <User> Read book - Watch video**

Use Case Specification

USE CASE – ARB14			
Use Case No.	ARB14	**Use Case Version**	1.1
Use Case Name	Read Book – Watch video		
Author	Pham Nguyen Bich Hien, Phan Thanh Trung		
Date	28/05/2014	**Priority**	High

Actor:
-   User.

Summary:
-   This use case allows user to read video book.

Goal:
-   Book resource will be loaded.

Triggers:
-   User want to read video book.

Preconditions:
-   User must log in the system with user role.
-   User has the license of book.
-   The license of book must not be expired.

Post Conditions:
-   **Success**: Book Resource will be loaded.
-   **Fail:** Nothing is loaded. Show Error Message

Main Success Scenario:

Step	Actor Action	System Response
1	Choose "Đọc sách" function	Open camera to begin recognize image.
2	Show an image in front of webcam mobile device	Navigate to "Nội dung số" page which contains a menu of options: _ "Đọc eBook" _ "Xem Video" _ "Nghe Audio" _ "Thoát"
3	Click "Xem Video"	Navigate to "Xem Video" which contains Video content of the book, and a panel of Video chapters list. The system will continue the last unfinished

		Video chapter or play next Video chapter.

Alternative Scenario: N/A
Exceptions:

No	Actor Action	System Response
1	Cannot get image recognition.	"Chưa nhận diện được hình ảnh"
2	Cannot read the lasted content	"Bạn chưa mua license nội dung này."
3	Cannot access to book webservice.	"Nội dung bạn truy cập không tồn tại. Vui lòng thử lại sau."

Relationships: Read Book
Business Rules:
-   Book must be bought.
-   Reading chapter must be in license.
-   System checks reading schedule not to allow user read book in the time (which) is not in reading schedule. If reading is not in reading schedule, notify user and stop reading book function.
-   System will record what chapter user read and current time of chapter.

Figure 16: <User> Read book - Watch video use case specification table

1.2.4.1.3   <User> Read book – Read ebook
Use Case Diagram

Table 9: <User> Read book - Read ebook

Use Case Specification

USE CASE – ARB15			
Use Case No.	ARB15	**Use Case Version**	1.1
Use Case Name	Read Book – Watch video		
Author	Pham Nguyen Bich Hien, Phan Thanh Trung		
Date	28/05/2014	**Priority**	High

Actor:
-   User.
Summary:
-   This use case allows user to read ebook.
Goal:
-   Book resource will be loaded.
Triggers:
-   User want to read ebook.
Preconditions:

- User must log in the system with user role.
- User has the license of book.
- The license of book must not be expired.

Post Conditions:
- **Success**: Book Resource will be loaded.
- **Fail:** Nothing is loaded. Show Error Message

Main Success Scenario:

Step	Actor Action	System Response
1	Choose "Đọc sách" function	Open camera to begin recognize image.
2	Show an image in front of webcam mobile device	Navigate to "Nội dung số" page which contains a menu of options: _ "Đọc eBook" _ "Xem Video" _ "Nghe Audio" _ "Thoát"
3	Click "Đọc ebook"	Navigate to "Đọc eBook" which contains eBook content of the book, and a panel of eBook chapters list. The system will continue the last unfinished eBook chapter or play next eBook chapter.

Alternative Scenario: N/A

Exceptions:

No	Actor Action	System Response
1	Cannot get image recognition.	"Chưa nhận diện được hình ảnh"
2	Cannot read the lasted content	"Bạn chưa mua license nội dung này."
3	Cannot access to book webservice.	"Nội dung bạn truy cập không tồn tại. Vui lòng thử lại sau."

Relationships: Read Book

Business Rules:
- Book must be bought.
- Reading chapter must be in license.
- System checks reading schedule not to allow user read book in the time (which) is not in reading schedule. If reading is not in reading schedule, notify user and stop reading book function.
- System will record what page user read.

1.2.4.2 <User> Search Book.
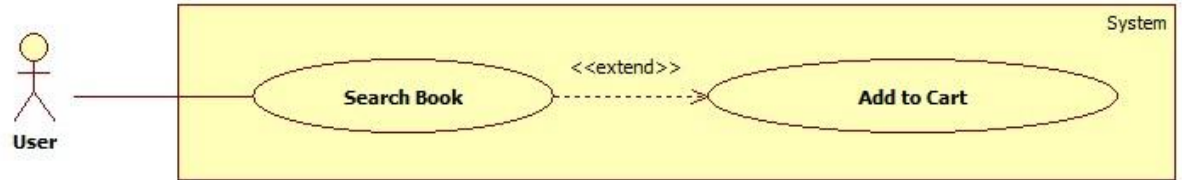**Use Case Diagram**
Search Book

Figure 21: <User> Search Book use case diagram

Use Case Specification

USE CASE – ARB16			
Use Case No.	ARB16	**Use Case Version**	1.0
Use Case Name	Search Book		
Author	Phan Thành Trung		
Date	28/05/2014	**Priority**	Normal

Actor:
-   User.
-   Guest

Summary:
-   This use case allows user to search Book.

Goal:
-   Searched Books will be shown.

Triggers:
-   User want to search Book.

Preconditions:
-   N/A

Post Conditions:
-   **Success**: Searched Books will be shown.
-   **Fail:** Show Error Message.

Main Success Scenario:

Step	Actor Action	System Response
1	Type keyword on Search bar. Click Search.[Alternative 1]	System will show the search result contain a list of book. Each book display "tên sách", "tác giả", "giá", "giảm giá" "Cho vào giỏ hàng". The list of book will by sorted by view, price, added date. [Alternative 2]

Alternative Scenario:
Alternative 1:

Step	Actor Action	System Response
1	User choose "Tìm kiếm nâng cao".	System will show advance search page:

		- Tên sách: textbox, min length: 1, max length: 50, default value: "".
		- Tác giả: textbox, min length: 1, max length: 100, default value: "".
		- Thể loại: textbox, min length: 1, max length: 100, default value: "".
		- Nhà xuất bản: textbox, min length: 1, max length: 100, default value: "".
		- Tìm kiếm nâng cao: button
	Fill fields and click "Tìm kiếm nâng cao"	System will show the search result contain a list of book. Each book display "tên sách", "tác giả", "giá", "giảm giá""Cho vào giỏ hàng". The list of book will by sorted by view, price, added date. [Exception1]

Exceptions:

No	Actor Action	System Response
1	Cannot search Book.	"Chức năng tìm kiếm hiện thời đang bị lỗi. Mong quý khách thông cảm và vui long sử dụng vào dịp khác.

Relationships: N/A
Business Rules:
- Searching book bases on book name, author, publisher, category of books.
- In advance search, user can choose search book with each attribute: book name, author, publisher and category of books.

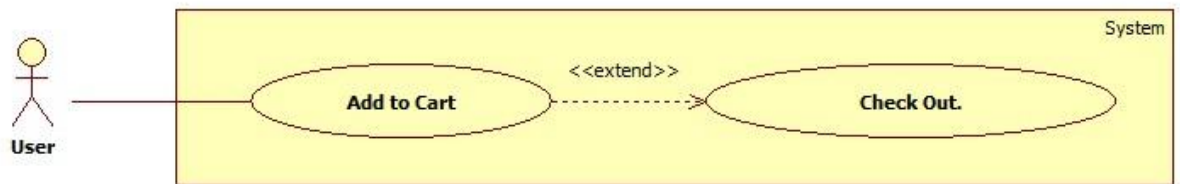**Table 15: <User> Search Book use case specification table**

1.2.4.3 <User> Add to Cart.
Use Case Diagram

Figure 17: <User> Add to Cart Use case diagram

Use Case Specification

USE CASE – ARB17			
Use Case No.	ARB17	**Use Case Version**	1.0
Use Case Name	Add to Cart.		
Author	Phan Thành Trung		
Date	28/05/2014	**Priority**	Normal

Actor:
- User.

Summary:
- This use case allows user to add book to their cart.

Goal:
- Book will be added to user's cart.

Triggers:
- User want to add book to their cart.

Preconditions:
- User must log in the system with user role.
- User must access book list, book recommendation or book search results.

Post Conditions:
- **Success**: Book will be added to user's cart.
- **Fail:** Show Error Message.

Main Success Scenario:

Step	Actor Action	System Response
1	Click on "Cho vào giỏ hàng" button.	System adds this book to the cart.

Alternative Scenario: N/A

Exceptions:

No	Actor Action	System Response
1	Cannot add to cart	"Chức năng cho vào giỏ hàng hiện đang bị lỗi. Mong quý khách thông cảm và vui làm sử dụng vào dịp khác."

Relationships: N/A.

Business Rules:
- Cannot add to card books that user already has.
- Using payment service of third-party payment system.
- Provide promotion base on number of books user purchased.
  - 1-5 books: 5%

	o	5-10 books: 10%
	o	10 ~: 15%

Table 16: <User> Add to Cart Use case specification table

1.2.4.4 <User> Check out.
Use Case Diagram
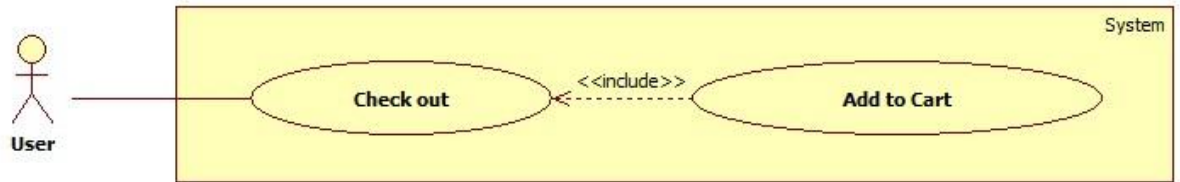
Figure 23: <User> Check out Use case diagram

Use Case Specification

USE CASE – ARB18			
Use Case No.	ARB18	**Use Case Version**	1.0
Use Case Name	Check out.		
Author	Phan Thành Trung		
Date	28/05/2014	**Priority**	Normal

Actor:
- User.

Summary:
- This use case allows user to check out.

Goal:
- User's cart will be checked out.

Triggers:
- User want to check out their cart.

Preconditions:
- User must log in the system with user role.
- User must add some books to their cart.

Post Conditions:
- **Success**: Book will be added to user's cart.
- **Fail:** Show Error Message.

Main Success Scenario:

Step	Actor Action	System Response
1	Click on "Cho vào giỏ hàng" button.	System adds this book to the cart.
2	Click "Thanh toán" button to check out.	System navigates to "Thanh toán" page of payment system using payment service of third-party payment system including textboxs: _ "Tên". _ "Điện thoại". _ "Địa chỉ" _ "Thành phố" _ "Phương thức nhận hàng"
3	Finish payment.[Exception 1]	System show a message "Giao dịch thành công". Return to homepae.

Alternative Scenario: N/A

Exceptions:

No	Actor Action	System Response
1	Cannot check out	"Chức năng thanh toán hiện đang bị lỗi. Mong quý khách thông cảm và vui làm sử dụng vào dịp khác."

Relationships: N/A.
Business Rules:
- Cannot buy the book that user already has. // chi dc upgrade
- Using payment service of third-party payment system.
- Provide promotion base on number of books user purchased.
    o 1-5 books: 5%
    o 5-10 books: 10%
    o 10 ~: 15%
- System suggest book for users base on category of book they bought.

Table 18: <User> Check out Use case specification table

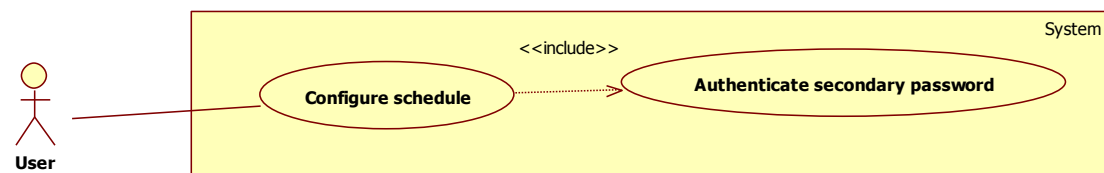### 1.2.4.5   <User>Configure schedule
Use Case Diagram

Figure 18: <User> Configure schedule use case diagram

Use Case Specification

USE CASE – ARB20			
Use Case No.	ARB20	**Use Case Version**	1.0
Use Case Name	Configure schedule for parent		
Author	Pham Nguyen Bich Hien		
Date	28/05/2014	**Priority**	High

Actor:
- User.

Summary:
- This use case allows user set reading schedule for children.

Goal:
- Schedule will be updated

Triggers:
- User want to manage reading schedule of their children

Preconditions:
- User must log in the system with user role.

Post Conditions:
- **Success**: Schedule will be updated.
- **Fail:** Nothing is updated. Show Error Message.

Main Success Scenario:

Step	Actor Action	System Response
1	User touchs on "Cài đặt" menu	System requires password.
2	User inputs password [Exception 1][Alternative 1]	System show setting panel. - Ngày thường:

		- Giờ bắt đầu: time picker, required.
		- Giờ kết thúc: time picker, required.
		- Thời gian đọc: time picker
		- Ngày nghỉ:
		- Giờ bắt đầu: time picker, required.
		- Giờ kết thúc: time picker, required.
		- Thời gian đọc: time picker
		- Lưu: button
3	User changes settings, then choose "Lưu"[Alternative 2]	Save schedule of user. Save schedule to shared preference (mobile device)

Alternative Scenario:
- Alternative 1:

Step	Actor Action	System Response
1	Session is timed-out	Return login page
2	Input login information [References to use case ARB24].	System show setting panel. Countinue main flow.

- Alternative 2:

Step	Actor Action	System Response
1	User choose menu date setting	System shows setting panel:
		- Ngày làm việc:
		- Thứ hai: checkbox, required.
		- Thứ ba: checkbox, required.
		- Thứ tư: checkbox, required.
		- Thứ năm: checkbox, required.
		- Thứ sáu: checkbox, required.
		- Thứ bảy: checkbox, required.
		- Chủ nhật: checkbox, required.
		- Lưu: button
		All checkbox will be checked or not by loading database.
2	User check working day. Click "Lưu" button. [Alternative 2.1]	System save new working days and holidays.

- Alternative 2.1

Step	Actor Action	System Response
1	User click back	Holiday will be saved as the previous settings.

Exceptions:

No	Actor Action	System Response
1	Input wrong password	Show message "Bạn không thể thay đổi cấu hình"

Relationships: Login
Business Rules:
- User must know secondary password
- User must login if session is timed-out
- Reading schedule of user will be stored in data system.
- User can access to reading schedule's history base on the date of setting.
- Schedule can be set start reading time, end reading time and reading duration for working day and holiday.
- Start time cannot be bigger than end time.
- Duration does not exceed end time minus start time.
- Working days and holidays can be chosen by user.

Table 10: <User> Configure schedule use case specification

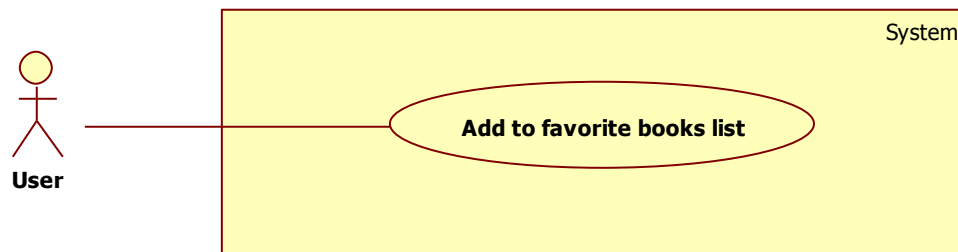### 1.2.4.6 <User>Add to favourite books list
Use Case Diagram

Figure 19: <User> Add to favourite books list use case diagram

Use Case Specification

USE CASE – ARB21			
Use Case No.	ARB21	**Use Case Version**	1.0
Use Case Name	Add to favourite books list		
Author	Pham Nguyen Bich Hien		
Date	28/05/2014	**Priority**	Low

Actor:
- User.

Summary:
- This use case allows user add a book to their favourite list.

Goal:
- Favorite list will be updated.

Triggers:
- User want to save their favourite books.

Preconditions:
- User must log in the system with user role.
- User bought that book.

Post Conditions:
- **Success**: Book will be inserted to favourite list.
- **Fail:** Nothing is inserted. Show Error Message.

Main Success Scenario:

Step	Actor Action	System Response
1	User touchs on "Thêm vào danh sách	Toast show "Đã thêm vào danh sách

	yêu thích" menu [Exception 1]	yêu thích".

Alternative Scenario: N/A
Exceptions:

No	Actor Action	System Response
1	User haven't bought book	Show message "Bạn chưa mua sách này"

Relationships: N/A
Business Rules:
- Users can see the book from home page and shopping page but they cannot add book to favourite list if they haven't bought it yet.
- Cannot add the book which have been in favourite list already.
- Reading chapter must be in license.

Table 11: <User> Add to favourite books list use case specification table
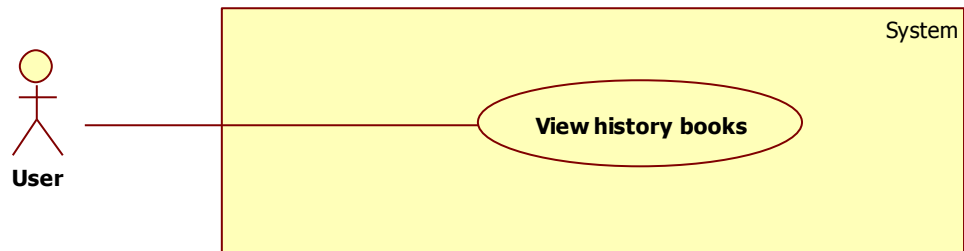
1.2.4.7   **<User>View history books**
Use Case Diagram

Figure 20: <User> View history books use case diagram

Use Case Specification

USE CASE – ARB22			
Use Case No.	ARB22	**Use Case Version**	1.0
Use Case Name	View history books		
Author	Pham Nguyen Bich Hien		
Date	28/05/2014	**Priority**	Low

Actor:
- User.

Summary:
- This use case allows user to read a book again without scaning texture.

Goal:
- Access to the history book with the last access chapter.

Triggers:
- User want to read a book again without scaning texture.

Preconditions:
- User must log in the system with user role.
- User bought that book.

Post Conditions:
- **Success**: Book will be loaded with the right chapter user want.
- **Fail:** Load from the beginning of the book.

Main Success Scenario:

Step	Actor Action	System Response
1	User touchs on "Lịch sử" button	List of history book in alphabet order.
2	User choose a book in list [Alternative 1][Alternative 2][Alternative 3] [Exception 1]	Go to reading page

Alternative Scenario:
- Alternative 1:

Step	Actor Action	System Response
1	Choosed book is video	Navigate to "Xem Video" which contains Video content of the book, and a panel of Video chapters list. The system will continue the last unfinished

		Video chapter or play next Video chapter.

- Alternative2: "Nghe Audio"

Step	Actor Action	System Response
1	Choosed book is audio	Navigate to "Nghe Audio" which contains Audio content of the book, and a panel of Audio chapters list. The system will continue the last unfinished Audio chapter or play next Audio chapter.

- Alternative 3: "Đọc ebook"

Step	Actor Action	System Response
1	Choosed book is ebook	Navigate to "Đọc eBook" which contains eBook content of the book, and a panel of eBook chapters list. The system will continue the last unfinished eBook chapter or play next eBook chapter.

Exceptions:

No	Actor Action	System Response
1	Fail load the right chapter	Load from the beginning of the book.

Relationships: N/A

Business Rules:
- Book must be bought.
- Reading chapter must be in license.
- System check reading schedule not to allow user read book in the time which is not in reading schedule. If reading is not in reading schedule, notify user and stop reading book function.
- In case of ebook resource, system will record what page user read.
- In case of audio and video resource, system will record what chapter user read and current time of chapter.
- List of history book will be loaded in order of last time reading.
- Screen will show 15 books which user have read recently.

Table 12: <User> View history books use case specification table
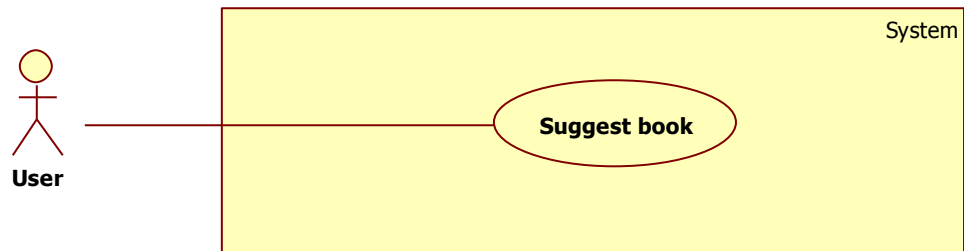
1.2.4.8   <User>Suggest book
Use Case Diagram

Figure 21: <User> Suggest book use case diagram

Use Case Specification

USE CASE – ARB23			
Use Case No.	ARB23	**Use Case Version**	1.0
Use Case Name	View history books		
Author	Pham Nguyen Bich Hien		
Date	28/05/2014	**Priority**	Low

Actor:
- User.

Summary:
- This use case allows user to suggest book.

Goal:
- Save user's suggestion to database.

Triggers:
- User want to suggest new book to system.
- Choose "Đề nghị sách" menu.

Preconditions:
- User must log in the system with user role.

Post Conditions:
- **Success**: User's suggestion is saved in database.
- **Fail:** Nothing updated. Show error.

Main Success Scenario:

Step	Actor Action	System Response
1	Choose "Đề nghị sách" menu	Navigate to "Đề nghị sách" page which contains: - Tên sách: textbox, min length: 6, max length: 30, required. - Mô tả: text area, column:, row:, required. - Hoàn thành: button. - Xóa trắng: button.
2	User fills data to the form.	
3	User clicks "Hoàn thành" button. [Alternative 1], [Exception 1, 2]	Insert new sugestion to the database

		and redirect to "Xem đề nghị" page. Send email to thank user.

Alternative Scenario:

No	Actor Action	System Response
1	User clicks "Xóa trắng button".	Clear all input data.

Exceptions:

No	Actor Action	System Response
1	Length of book name is not in range.	Show error message: "Độ dài tên sách phải từ 6-30 ký tự!"
2	Description is blanked.	Show error message: "Không được để trống mô tả"

Relationships: N/A

Business Rules:
- Suggest book will be recorded to database with status is not approved.
- Book is exists in system will be sent the link to user's email to suggest they buy and will be saved with status is not approved.

Table 13: <User> Suggest book use case specification table