e Book Shop

Use-Case Diagram

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Our sub-systems:

1. Book Inventory System
2. Order and Delivery System
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5. User and Branch Review System

Actors of Information System:

- • User
- • Main Branch
- • Branch Database Manager
- • Branch Manager
- • Branch Order Manager
- • Branch Delivery Manager
- • Staff
- • Publisher

Actors Glossary

Actor	Short-key	Activity Scope
User	USR	Register in the system, place order, review on book & branch
Main Branch	MB	Control branches, contact with publisher and order for new books, update main book list, appoint staff
Branch Database Manager	DBMGR	Maintain book and employee database
Branch Manager	BMGR	Distribute works among employees, maintain payment & bonus of employees, approve user review, contact with publisher for new books
Branch Order Manager	BOMGR	Take book order from branch manager, search book inventory for ordered book
Branch Delivery Manager	BDMGR	Maintain book delivery process
Staff	STF	Book arrangement and delivery, collect new books from publisher
Publisher	PBS	Provide available books
Book Inventory System	BIS	Holds whole book information

1. Book Inventory System

Use-Case Glossary:

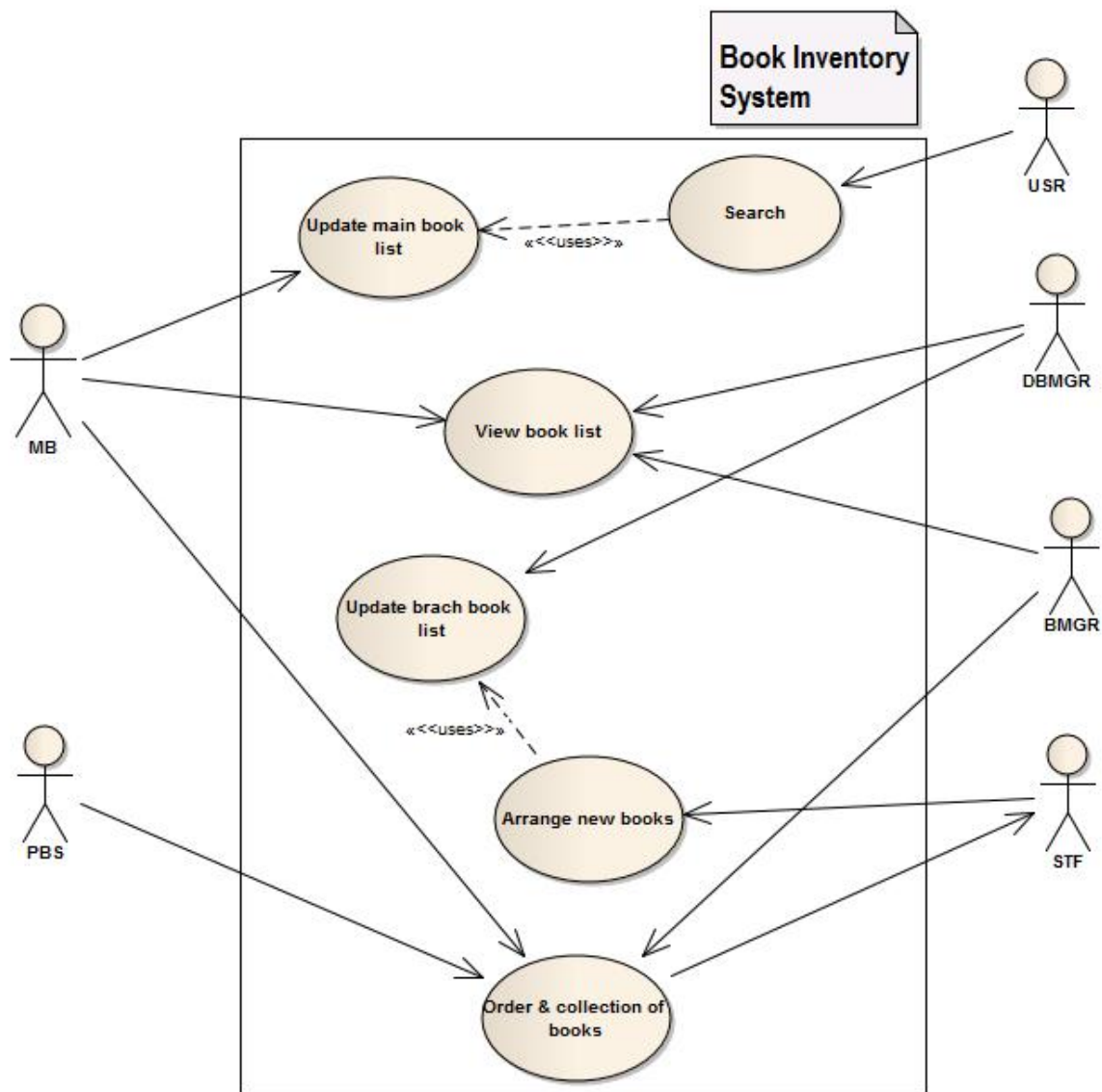| Use-case ID > Name	Description	Participant Actors and roles
1.1>Order and Collection	Contact with publisher, order for new books and collect books from them	BMGR, MB, PBS, STF BMGR contacts with MB, MB orders PBS, PBS will provide book and STF will get book to shop
1.2> Arrange New Books	Book arrangement in branch inventory	STF will arrange book in a systematic way
1.3> Update Branch Book List	Book list is updated according to new arrival of books	BDMGR will update book database
1.4> View Book List	Book list is viewed	BDMGR, MB, BMGR
1.5> Update Main Book List	Main book list is updated according to the update information of several branches	MB
1.6> Search	Search for books	USR

FiG: Use case diagram for book inventory subsystem

1.1 Order and Collection

(Use-Case Narrative**)**

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	1.1
Priority	High
Primary Business Actor	Branch Manager(BMGR)
External Receiver Actor	Main Branch(MB)
Description	Contact with publisher, order for new books and collect books from them
Trigger	Branch Manager(BMGR)

Typical Course of Events

Actor Action	System Response
Step1. BMGR contacts with MB	Step2. Notify MB
Step3. MB orders PBS	Step4. Collect new books

Documentation of the use-case 1.1

- o Conclusion:

    Concludes when staff collect ordered books from publisher to particular branch.

- o Post-condition:

    Branch collects and arranges new books.

- o Implementation Issues:

    Implemented via mail or phone call.

1.2   Arrange New Books

(Use-Case Narrative**)**

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	1.2
Priority	High
Primary Business Actor	Staff(STF)
External Receiver Actor	
Description	Book arrangement in branch inventory
Trigger	Staff(STF)

Typical Course of Events

Actor Action	System Response
Step1. STF arranges books in a systematic way	Step2. Branch book Inventory updated

Documentation of the use-case 1.2

o Conclusion:

  Concludes when publisher gets order by main branch.

o Post-condition:

  Publisher will provide books.

o Implementation Issues:

  Implemented via staff.

1.3 Update Branch Book List

(Use-Case Narrative**)**

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	1.3
Priority	High
Primary Business Actor	Branch Database Manager(BDMGR)
External Receiver Actor	BMGR
Description	Book database is updated according to new arrival of books
Trigger	BDMGR

Typical Course of Events

Actor Action	System Response
Step1. BDMGR updates book database	Step2. Branch book list is updated

Documentation of the use-case 1.3

o   Conclusion:

   Concludes when database updated.

o   Post-condition:

   Updated book list can be viewed.

o   Implementation Issues:

   Database management.

1.4 View Book List

(Use-Case Narrative**)**

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	1.4
Priority	Low
Primary Business Actor	MB, BMGR, DBMGR
External Receiver Actor	Main Branch(MB)
Description	Book list is viewed
Trigger	Branch Manager(BMGR)

Typical Course of Events

Actor Action	System Response
Step1. BDMGR, BMGR, MB want to view book list	Step2. Branch book list is provided

Documentation of the use-case 1.4

- o Conclusion:
  - Concludes when book list is showed.
- o Post-condition:
  - Branch book list is provided to main branch.
- o Implementation Issues:
  - Graphical User Interface will be provided in the system software to be viewed.

1.5 Update Main Book List

(Use-Case Narrative**)**

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	1.5
Priority	High
Primary Business Actor	Main Branch(MB)
External Receiver Actor	USR
Description	Main book list is updated according to the update information of several branches
Trigger	Main Branch(MB)

Typical Course of Events

Actor Action	System Response
Step1. MB updates main book list	Step2. Main book list is updated

Documentation of the use-case 1.5

o Conclusion:

Concludes when main book list is updated.

o Post-condition:

Main book list can be viewed by everyone.

o Implementation Issues:

Graphical User Interface (Website) will be provided in the system software to be viewed.

1.6 Search

(Use-Case Narrative)

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	1.5
Priority	High
Primary Business Actor	USR
External Receiver Actor	
Description	Search for books according to book title or different categories
Trigger	USR

Typical Course of Events

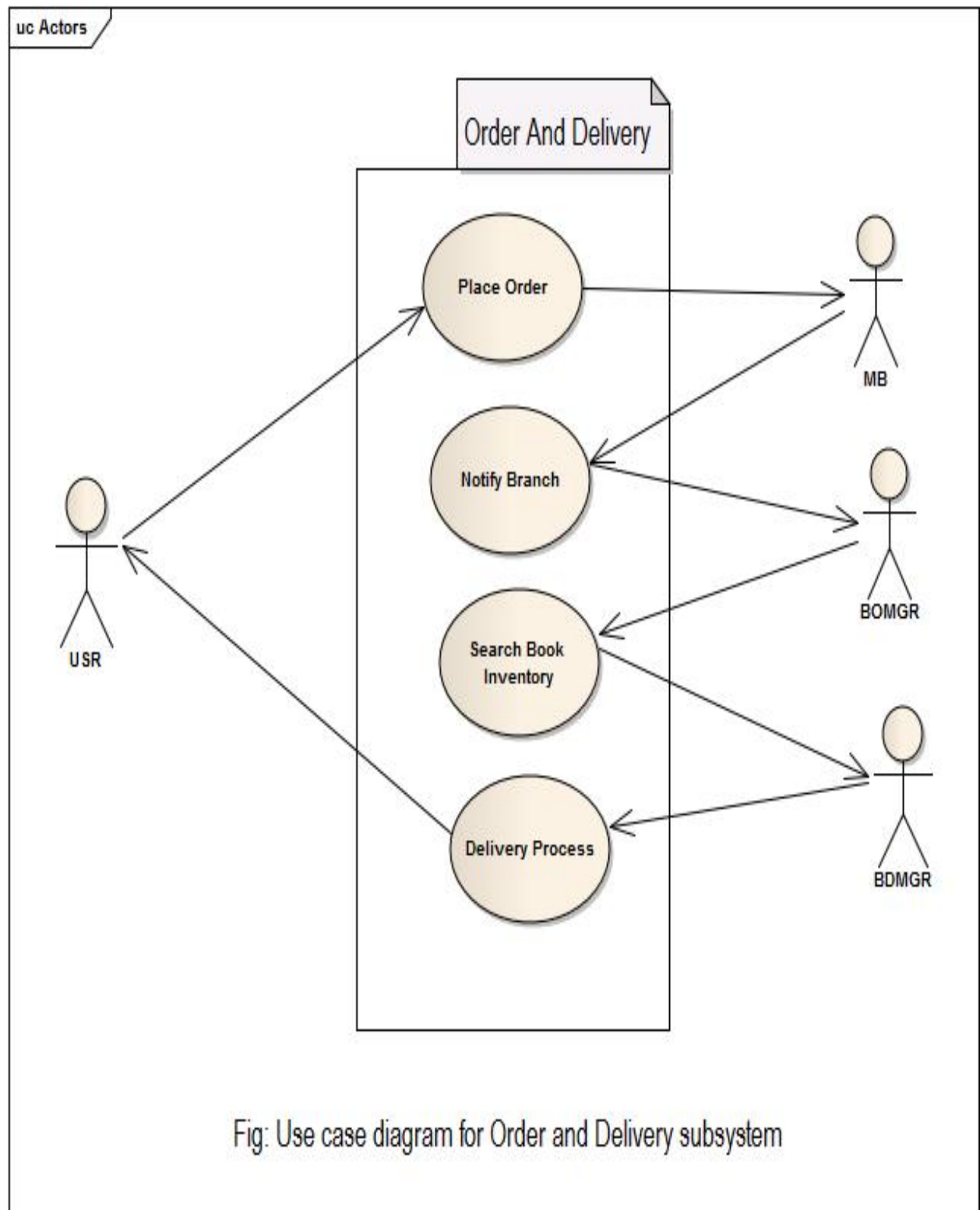| Actor Action	System Response
Step1. USR searches for desired book by title, author or different categories.	Step2. Desired book information is showed according to search option if found.

Documentation of the use-case 1.6

o Conclusion:

  Concludes when user finds his desired information.

o Post-condition:

  Order or review may be occurred.

o Implementation Issues:

  Database management.

2. Order and Delivery System

Use-Case Glossary:

Use-case ID > Name	Description	Participant Actors and roles
2.1>Place Order	An order is placed for a book by customer	USR, MB USR orders for book, MB accepts & process order
2.2> Notify Branch	Particular branch is notified when a order is placed	MB, BOMGR MB notifies corresponding branch according to USR info
2.3> Search Book Inventory	Book inventory is searched according to the order	BOMGR
2.4> Delivery Process	Ordered book is delivered to the customer	BDMGR, USR BDMGR delivers the book to USR

Fig: Use case diagram for Order and Delivery subsystem

2.1 Place Order

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	2.1
Priority	High
Primary Business Actor	USR
External Receiver Actor	MB
Description	An order is placed for a book by customer
Trigger	USR

Typical Course of Events

Actor Action	System Response
Step1. USR places an order	Step2. System notifies Main Branch(MB)

Documentation of the use-case 2.1

o Conclusion:

Concludes when main branch receives order from system.

o Post-condition:

According to users address corresponding branch is selected and branch order manager is notified.

o Implementation Issues:

Graphical User Interface (Website) will be provided in the system software to be viewed to user to get order.

2.2   Notify Branch

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	2.2
Priority	High
Primary Business Actor	MB
External Receiver Actor	BOMGR
Description	Particular branch is notified when a order is placed
Trigger	MB

Typical Course of Events

Actor Action	System Response
Step1. MB informs system to notify BOMGR	Step2. Order is sent to BOMGR

Documentation of the use-case 2.2

o   Conclusion:

   Concludes when branch order manager receives the order.

o   Post-condition:

   Searches in branch book inventory for ordered book.

o   Implementation Issues:

   Branch book inventory system.

2.3 Search Book Inventory

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	2.3
Priority	High
Primary Business Actor	BOMGR
External Receiver Actor	BDMGR
Description	Book inventory is searched according to the order
Trigger	BOMGR

Typical Course of Events

Actor Action	System Response
Step1. BOMGR searches for ordered book.	Step2. Gives information of the book from book inventory.
Step3. BOMGR notifies BDMGR for delivery.	Step4. BDMGR is notified to initiate delivery process.

Documentation of the use-case 2.3

- o Conclusion:

    Concludes when branch delivery manager does have the task.
- o Post-condition:

    Branch delivery manager initiates delivery process.
- o Implementation Issues:

    A software application including GUI and database.

2.4 Delivery Process

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	2.4
Priority	High
Primary Business Actor	BDMGR
External Receiver Actor	USR
Description	Ordered book is delivered to the customer
Trigger	BDMGR

Typical Course of Events

Actor Action	System Response
Step1. BOMGR assigns STF to deliver book to USR.	N/A
Step2. STF delivers book to USR.	N/A
Step3. STF confirms the delivery.	Step4. BDMGR gets notified.

Documentation of the use-case 2.4

o Conclusion:

Concludes when user gets his ordered books.

o Post-condition:

Assigned staff confirms transaction information.

o Implementation Issues:

Graphical User Interface (Website) will be provided in the system software to be viewed to user to get order.

3. Post Delivery Management

Use-Case Glossary:

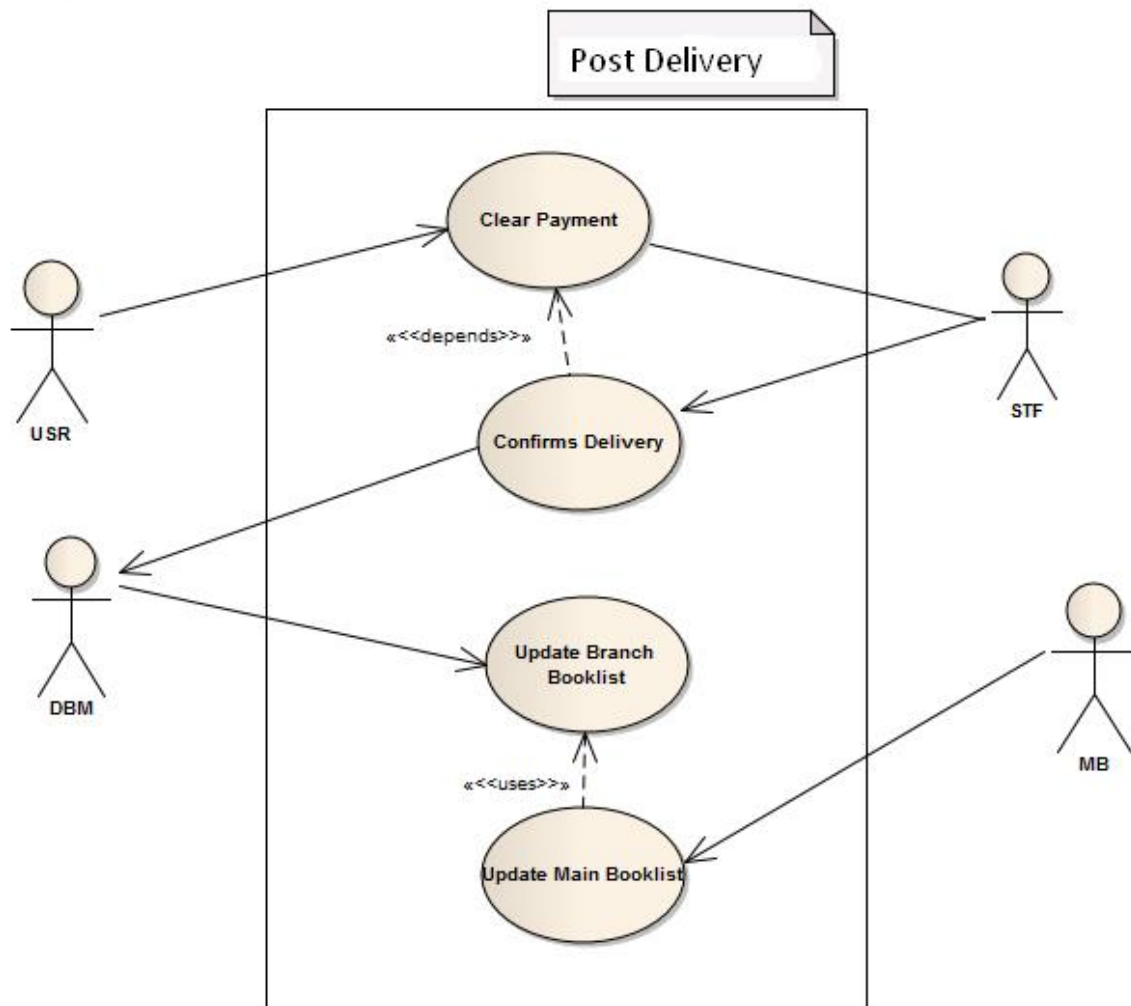| Use-case ID > Name	Description	Participant Actors and roles
3.1>Clear Payment	Book payment is cleared.	USR, STF USR pays for his book to the STF
3.2> Delivery Confirmation	Confirmation of delivery after payment	STF, DBMGR STF confirms the transaction to DBMGR
3.3> Update Branch Book List	Branch book list is updated after delivery confirmation	DBMGR Updates the branch book inventory
3.4> Update Main book List	Main book list is updated according to the particular branch book update	MB Updates main book list

Fig: Use case diagram for Post Delivery Management

3.1 Clear Payment

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	3.1
Priority	High
Primary Business Actor	USR
External Receiver Actor	STF
Description	Book payment is cleared.
Trigger	USR

Typical Course of Events

Actor Action	System Response
Step1. USR clears the payment to STF.	N/A

Documentation of the use-case 3.1

- o Conclusion:

    Concludes when staff gets payment.

- o Post-condition:

    Staff confirms delivery.

- o Implementation Issues:

    Transportation and human effort.

3.2 Delivery Confirmation

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	3.2
Priority	High
Primary Business Actor	STF
External Receiver Actor	DBMGR
Description	Confirmation of delivery after payment
Trigger	STF

Typical Course of Events

Actor Action	System Response
Step1. STF confirms delivery	Step2. Notifies DBMGR

Documentation of the use-case 3.2

o Conclusion:

Concludes when DBMGR gets notification from system.

o Post-condition:

Book inventory system database initiates update.

o Implementation Issues:

Gets confirmation via phone call.

3.3 Update Branch Book List

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	3.3
Priority	High
Primary Business Actor	DBMGR
External Receiver Actor	
Description	Branch book list is updated after delivery confirmation
Trigger	DBMGR

Typical Course of Events

Actor Action	System Response
Step1. DBMGR updates database of branch book list.	Step2. Branch book database updated.

Documentation of the use-case 3.3

- o Conclusion:
  Concludes when branch book inventory is updated.
- o Post-condition:
  Branch is prepared to notify main branch for updating main book inventory.
- o Implementation Issues:
  Through the modification of database.

3.4 Update Main Book List

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	3.4
Priority	High
Primary Business Actor	MB
External Receiver Actor	BIS
Description	Main book list is updated according to the particular branch book update
Trigger	MB

Typical Course of Events

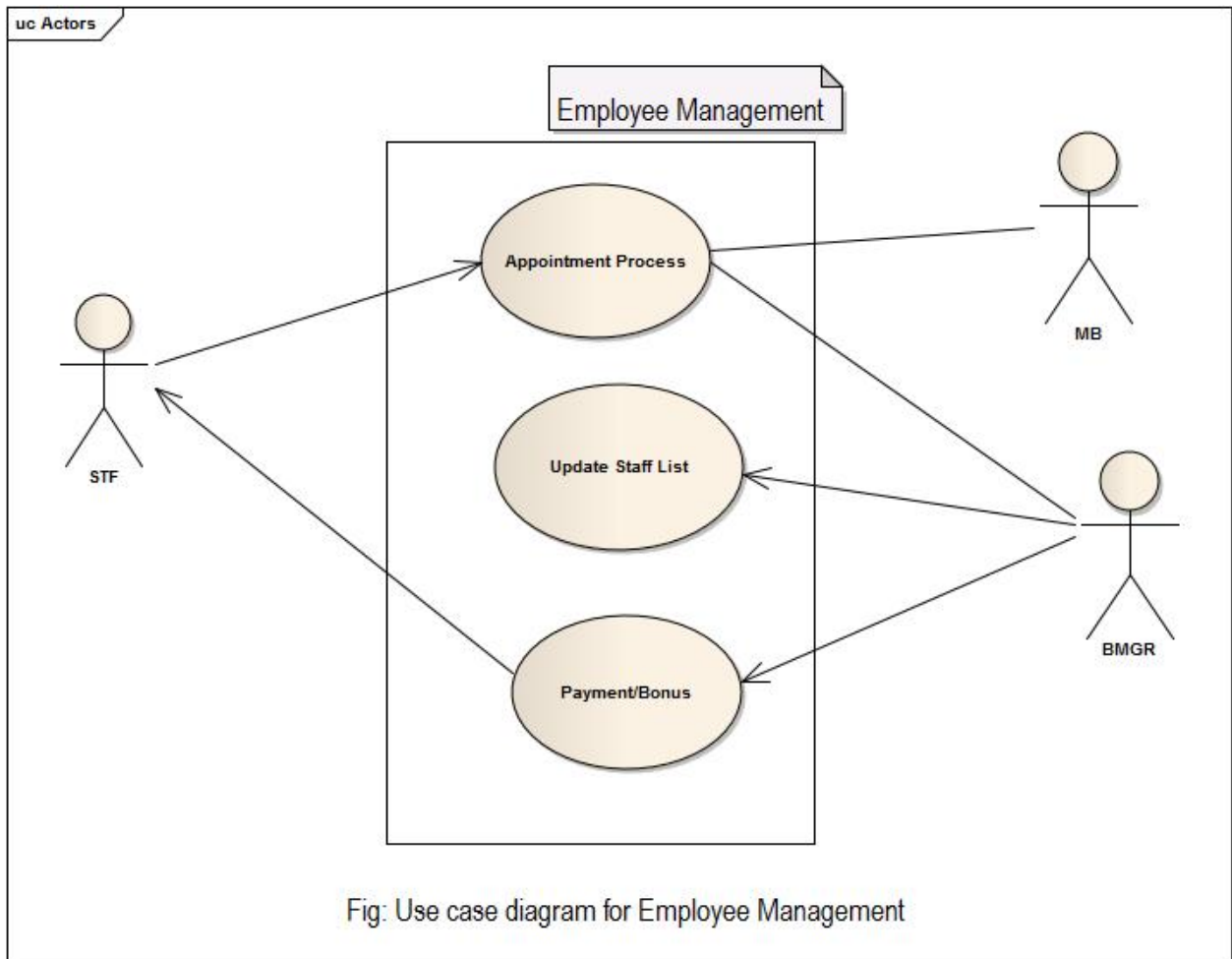| Actor Action	System Response
Step1. MB updates main book database.	Step2. Main book list is modified.

Documentation of the use-case 3.4

- o Conclusion:
  - Concludes when main book list is updated.
- o Post-condition:
  - Modified book list information is now available to all classes actors.
- o Implementation Issues:
  - Through the modification of database.

4. Employee Management

Use-Case Glossary:

Use-case ID > Name	Description	Participant Actors and roles
4.1>Appointment Process	STF gets appointed	STF, BMGR, MB STF applies for job, BMGR creates list of applicants, MB selects STF
4.2> Update Staff List	STF list gets updated	BMGR Adds new staffs information in database
4.3> Payment/ Bonus	Management of monthly payment and bonus for the staffs of a particular branch	BMGR, STF BMGR provides payment and bonus to STF

uc Actors

Employee Management

Appointment Process

Update Staff List

Payment/Bonus

STF

MB

BMGR

Fig: Use case diagram for Employee Management

4.1 Appointment Process

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	4.1
Priority	High
Primary Business Actor	STF
External Receiver Actor	MB
Description	STF gets appointed
Trigger	STF

Typical Course of Events

Actor Action	System Response
Step1. Applicant applies for job.	Step2. Selects job applicants.
Step3. BMGR selects appointed STF.	Step4. Prepares STF list.

Documentation of the use-case 4.1

- o Conclusion:

    Concludes when appointed staff list finalized.
- o Post-condition:

    New appointed staffs are about to join the field.
- o Implementation Issues

    Through interview.

4.2 Update Staff List

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	4.2
Priority	High
Primary Business Actor	BMGR
External Receiver Actor	
Description	STF list gets updated
Trigger	BMGR

Typical Course of Events

Actor Action	System Response
Step1. BMGR updates STF list.	Step2. Updated STF list is available.

Documentation of the use-case 4.2

o Conclusion:
  Concludes when staff list updated.
o Post-condition:
  Updated staff list is available.
o Implementation Issues
  Through database.

4.3 Payment/ Bonus

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	4.3
Priority	High
Primary Business Actor	BMGR
External Receiver Actor	STF
Description	Management of monthly payment and bonus for the staffs of a particular branch
Trigger	BMGR

Typical Course of Events

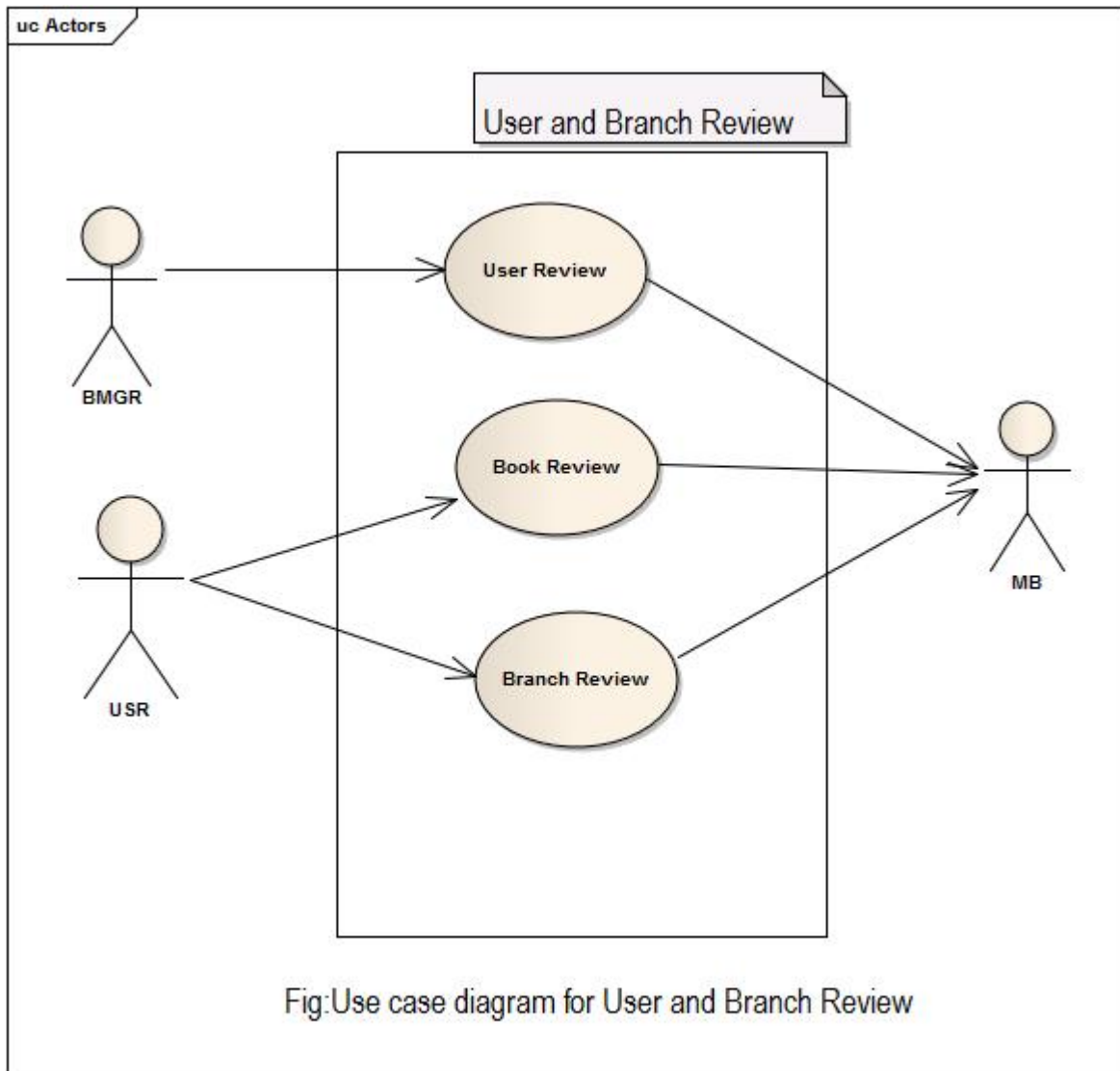| Actor Action	System Response
Step1. BMGR forward payment and bonus information of STF.	Step2. Provides payment and bonus to STF.

Documentation of the use-case 4.3

o Conclusion:

> Concludes when staff gets payment and bonus.

o Post-condition:

> Employees have got payment and bonus.

o Implementation Issues

> Through Graphical User Interface and database.

5. User and Branch Review System

Use-Case Glossary:

Use-case ID > Name	Description	Participant Actors and roles
5.1>User Review	Branch gives review about a particular USR	USR, BMGR
5.2> Book Review	Review is given on a particular book	USR, MB
5.3> Branch Review	According to branch services USR gives review about corresponding branch	USR, MB

User and Branch Review

User Review

Book Review

Branch Review

BMGR

USR

MB

Fig:Use case diagram for User and Branch Review

5.1 User Review

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	5.1
Priority	Medium
Primary Business Actor	BMGR
External Receiver Actor	MB
Description	Branch gives review about a particular USR
Trigger	BMGR

Typical Course of Events

Actor Action	System Response
Step1. BMGR comments on a user according to his/ her behavior.	Step2. Review is uploaded to website.

Documentation of the use-case 5.1

- o Conclusion:
    - Concludes when main branch gets information about user.
- o Post-condition:
    - Users profile including branch review is available in website.
- o Implementation Issues
    - Through website.

5.2 Book Review

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	5.2
Priority	Medium
Primary Business Actor	USR
External Receiver Actor	MB
Description	Review is given on a particular book
Trigger	USR

Typical Course of Events

Actor Action	System Response
Step1. USR comments on a particular book according to his/ her interest.	Step2. In book inventory system information about that book is updated.

Documentation of the use-case 5.2

o Conclusion:
  Concludes when user gives review about book.
o Post-condition:
  Reviews of several users on particular book is available through website.
o Implementation Issues
  Through book inventory database and website.

5.3 Book Review

Use-Case Narrative

USE CASE NAME	DEFINE ROUTE AND PRICE
USE CASE ID	5.3
Priority	Medium
Primary Business Actor	USR
External Receiver Actor	MB
Description	According to branch services USR gives review about corresponding branch
Trigger	USR

Typical Course of Events

Actor Action	System Response
Step1. USR comments on a particular branch according to braches service.	Step2. In branch database information given by user is stored.

Documentation of the use-case 5.3

o Conclusion:

    Concludes when user gives review about branch.

o Post-condition:

    Reviews of several users on particular branch is available through website.

o Implementation Issues

    Through book inventory database and website.