

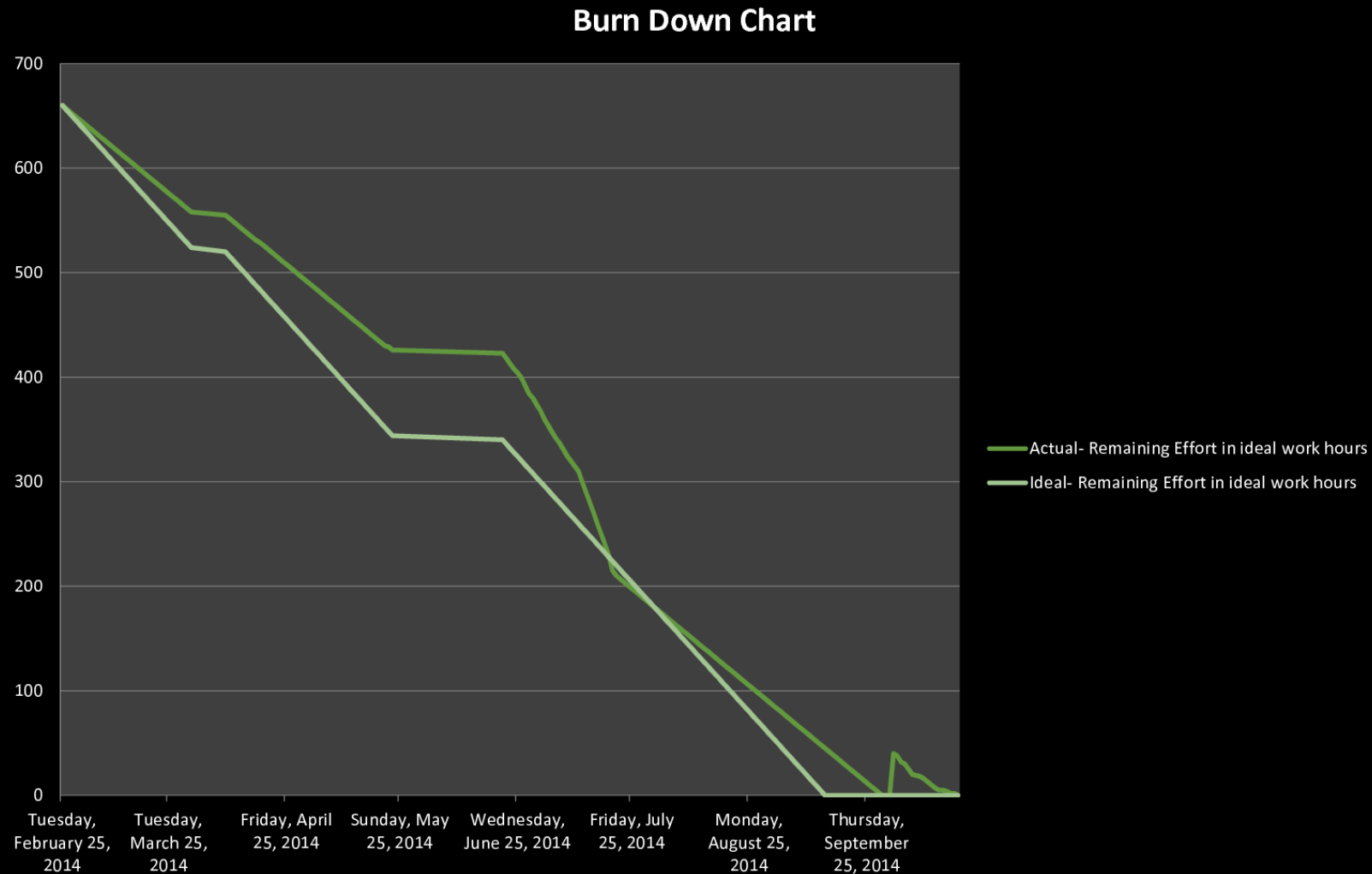
# UP Post-Doctoral Management Application

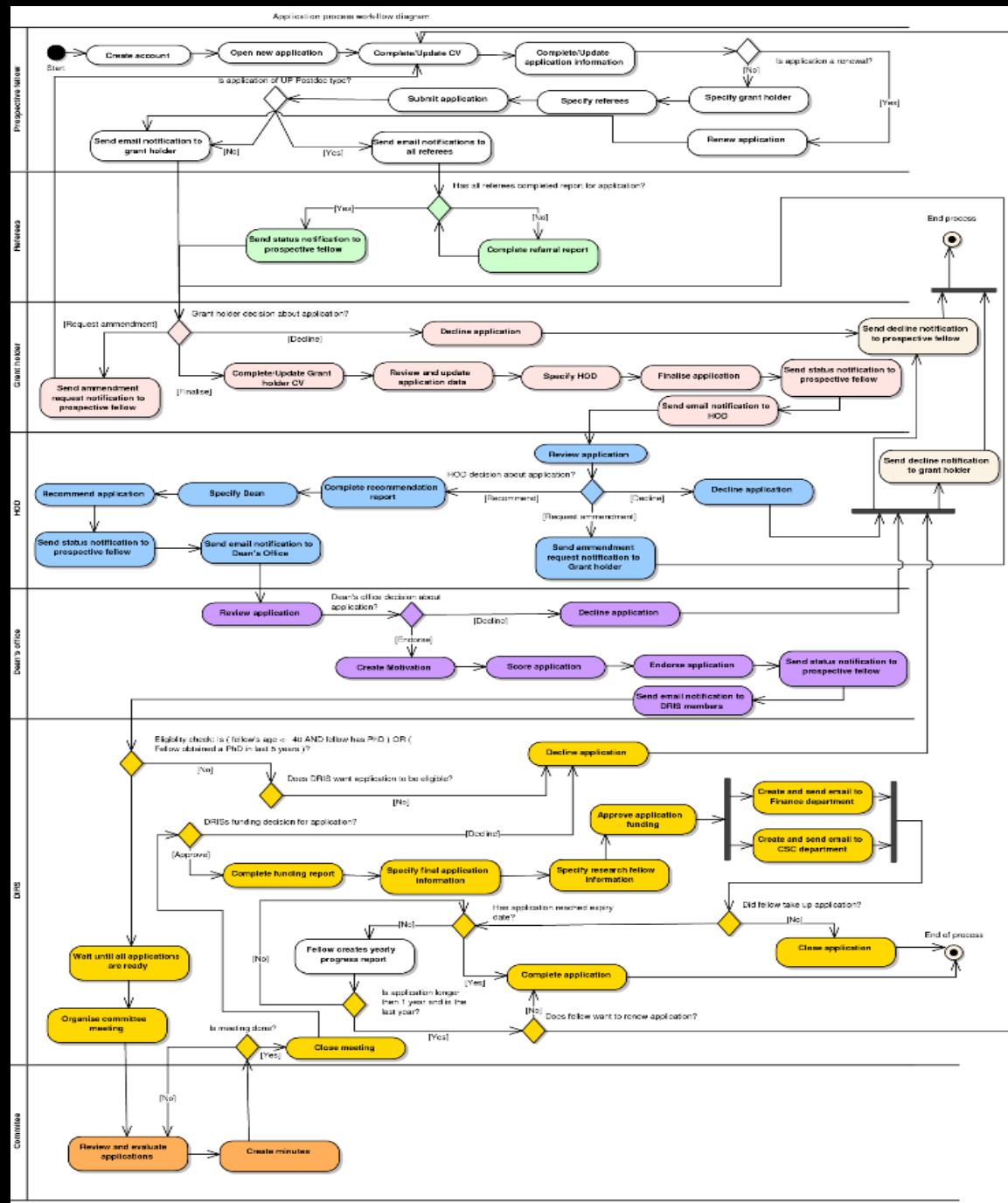
SoftServe Group

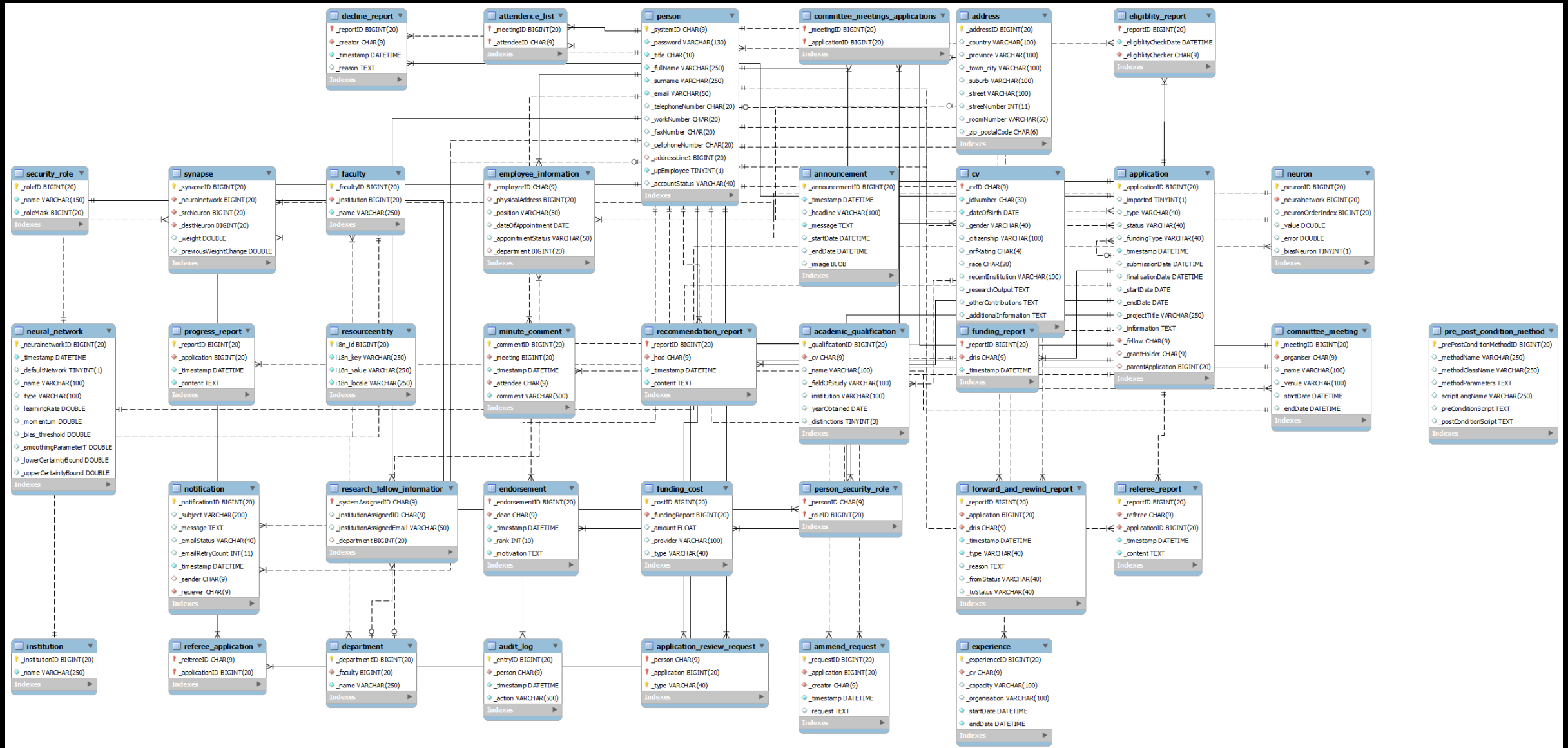
# WHAT IS A POST DOCTORAL FELLOW?

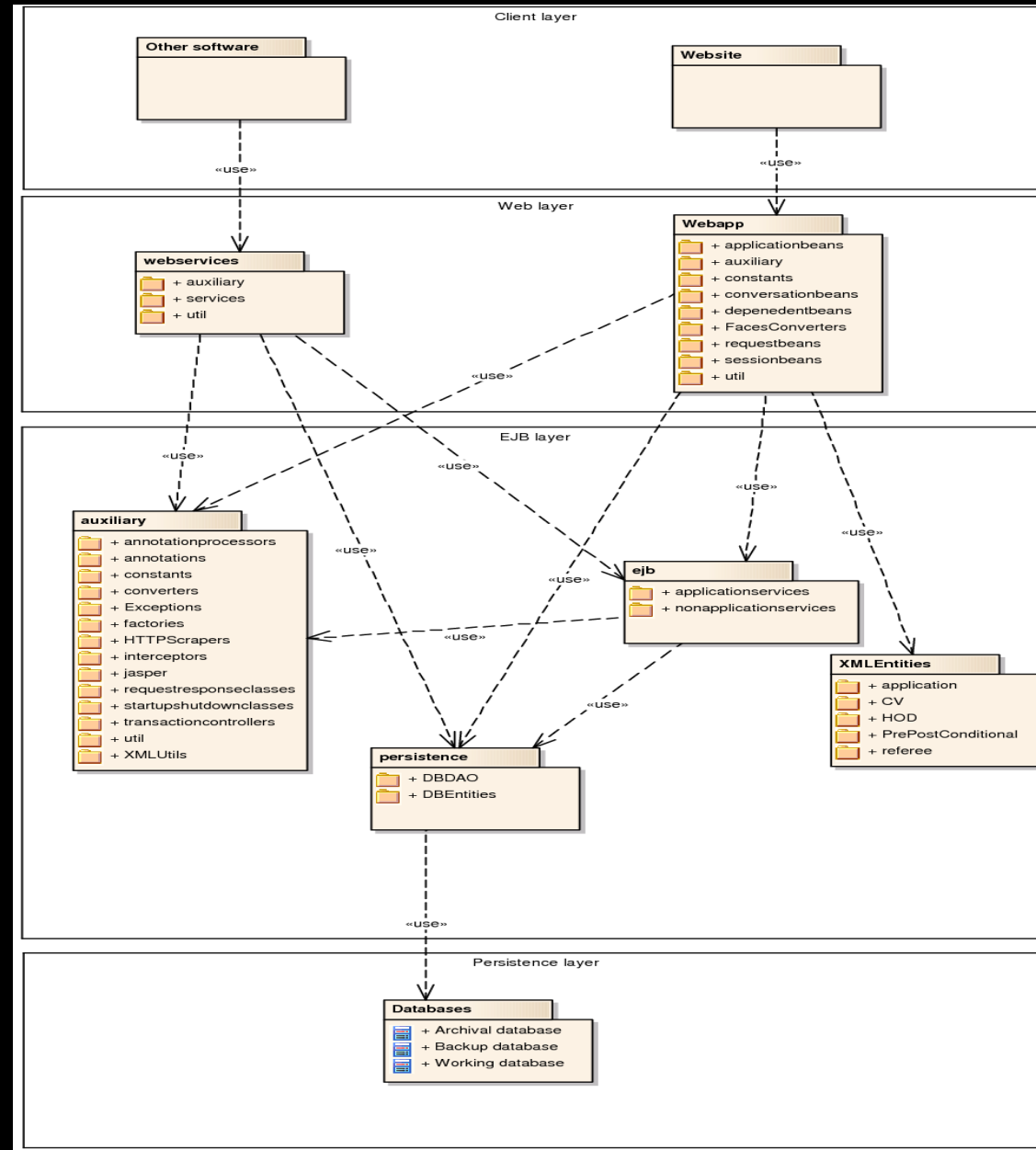
- A Post-Doctoral fellow is a person who conducts research after they have completed their PhD, with the aim of deepening their knowledge in a specific field.
- This is a growing field in Universities around South Africa.
- The University of Pretoria,
- UP, supports such research opportunities in order to increase the research output of UP itself. Post-Doctoral fellows who conduct their research at UP do so under the supervision of an appropriate academic staff member at the University and their research may be externally or internally funded.

# BURN DOWN CHART

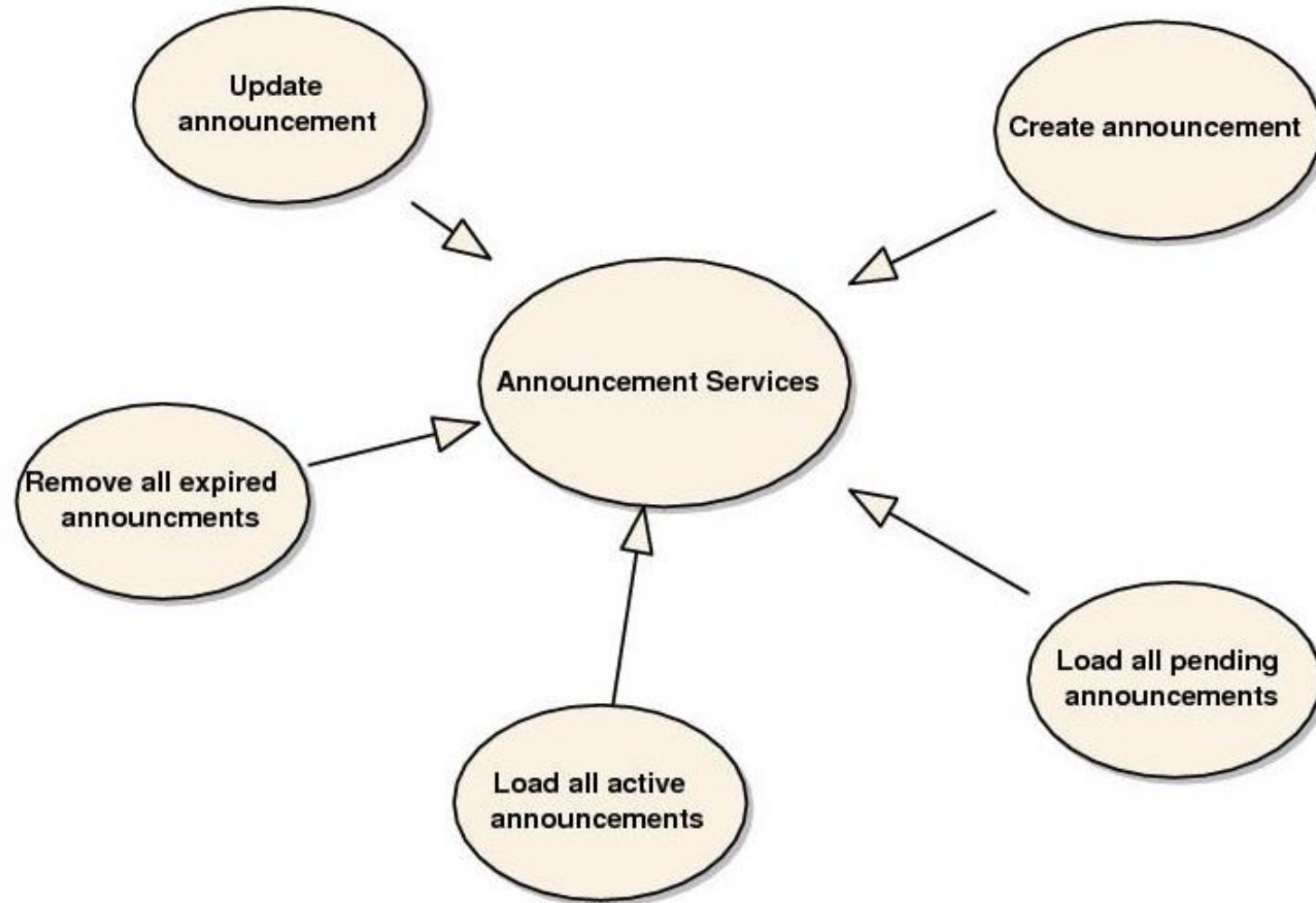


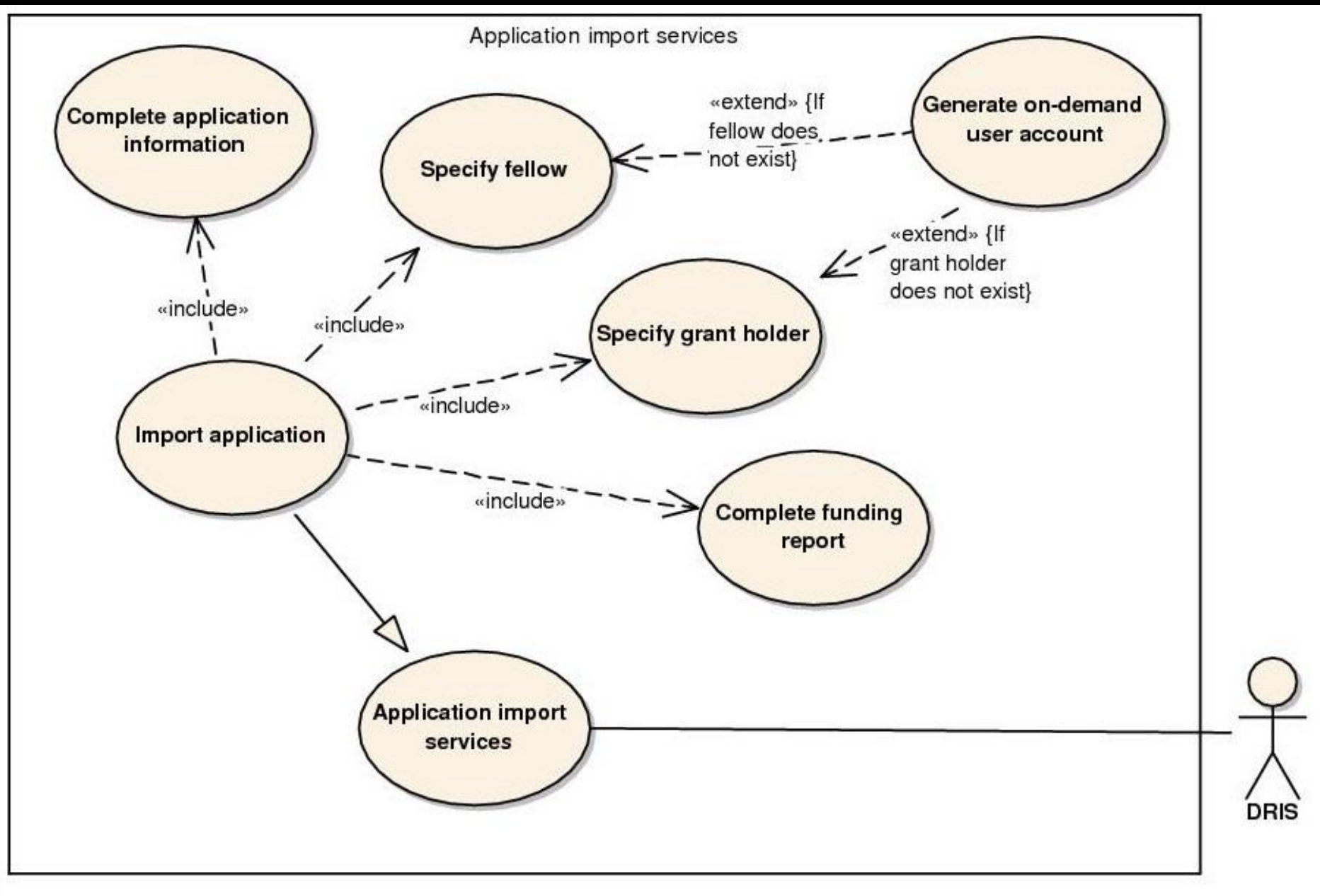




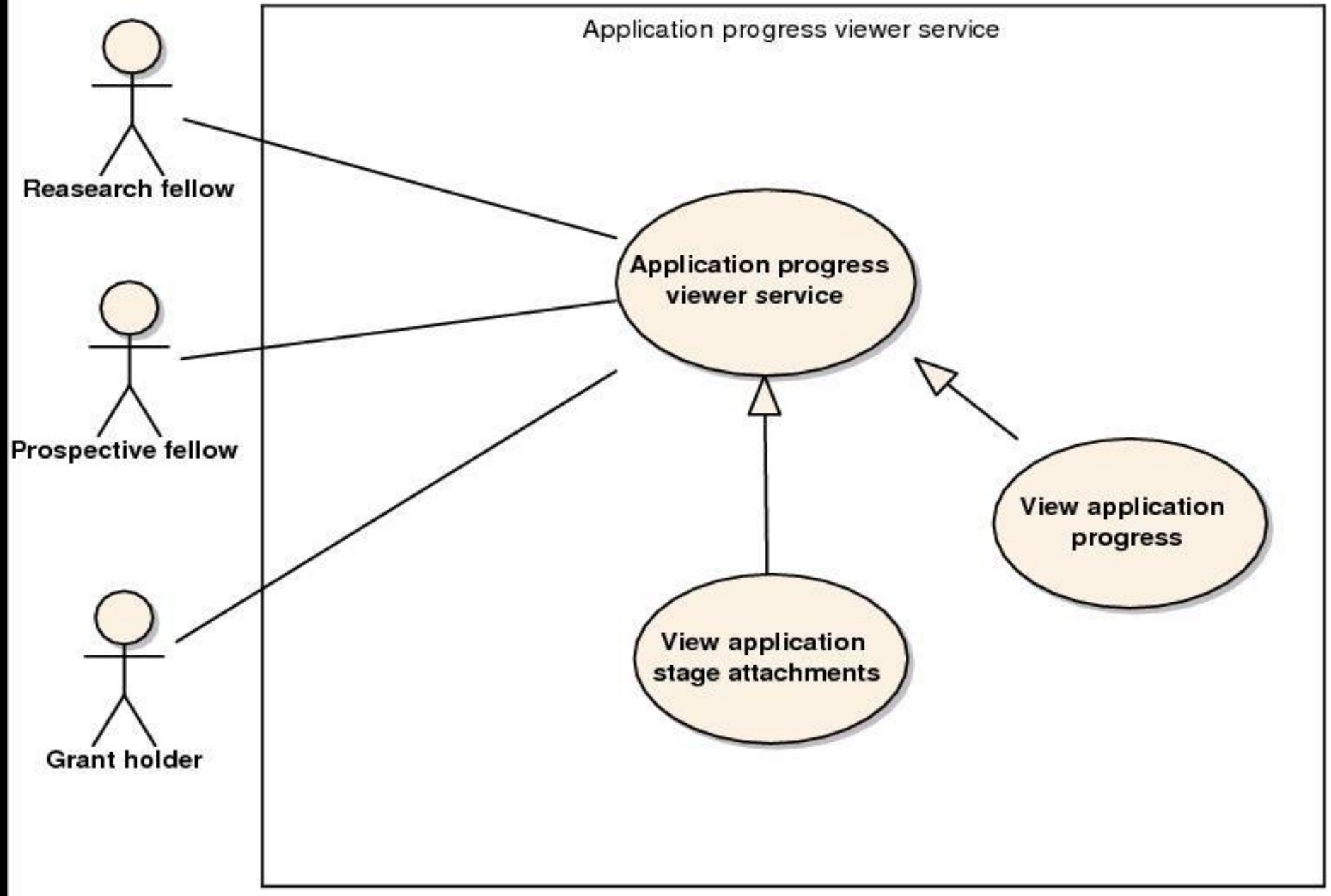


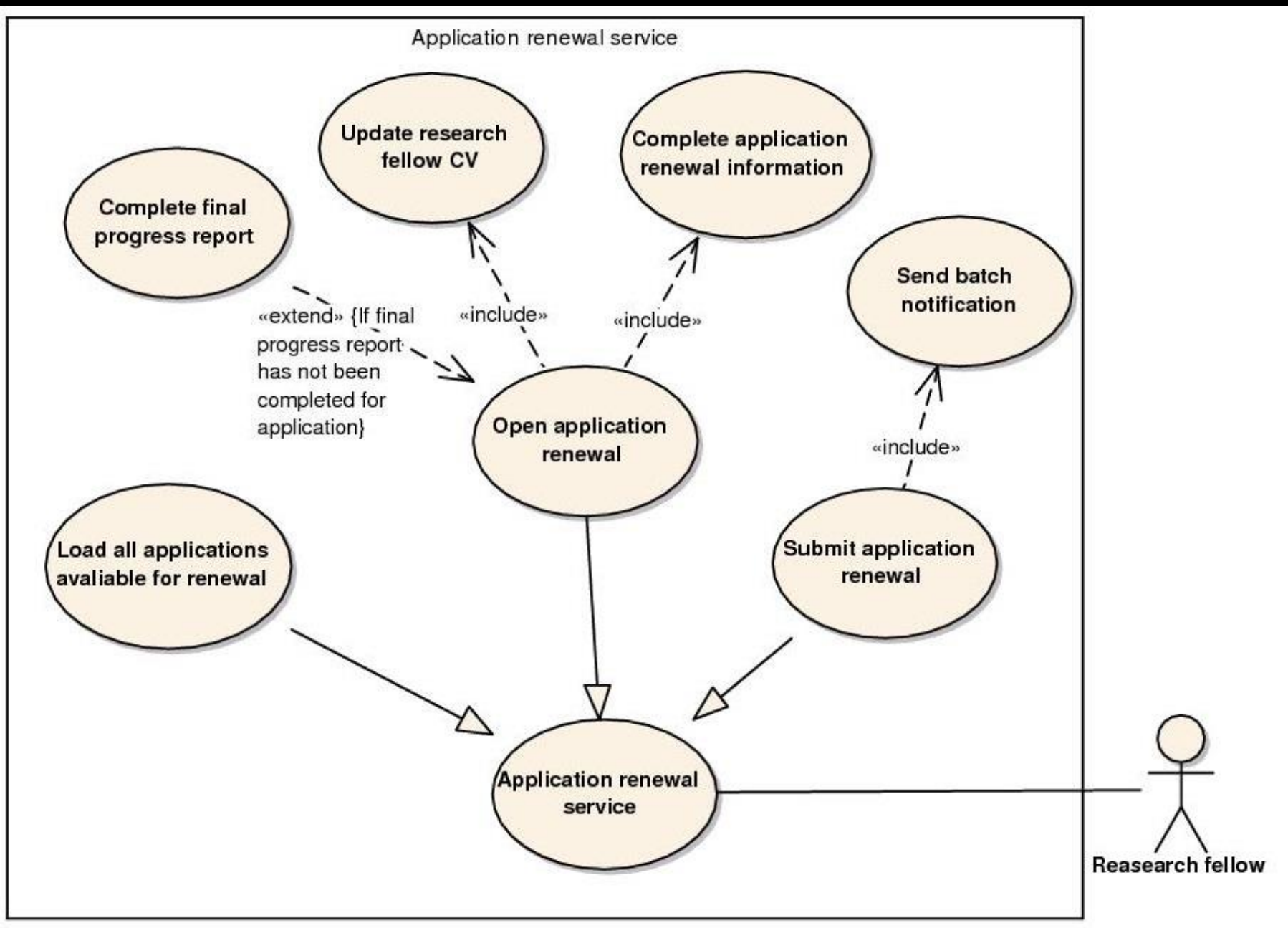
## Announcement Services

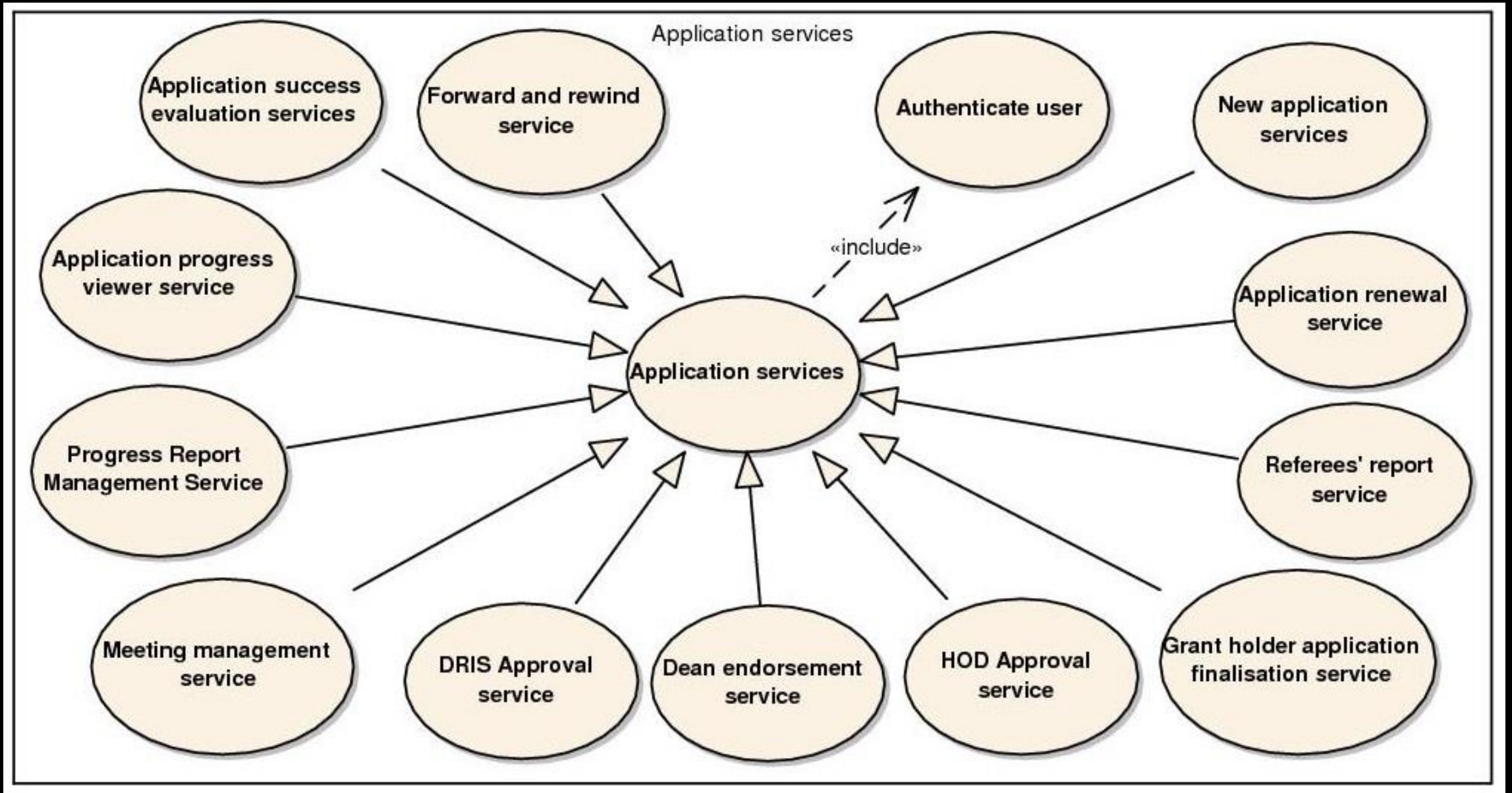


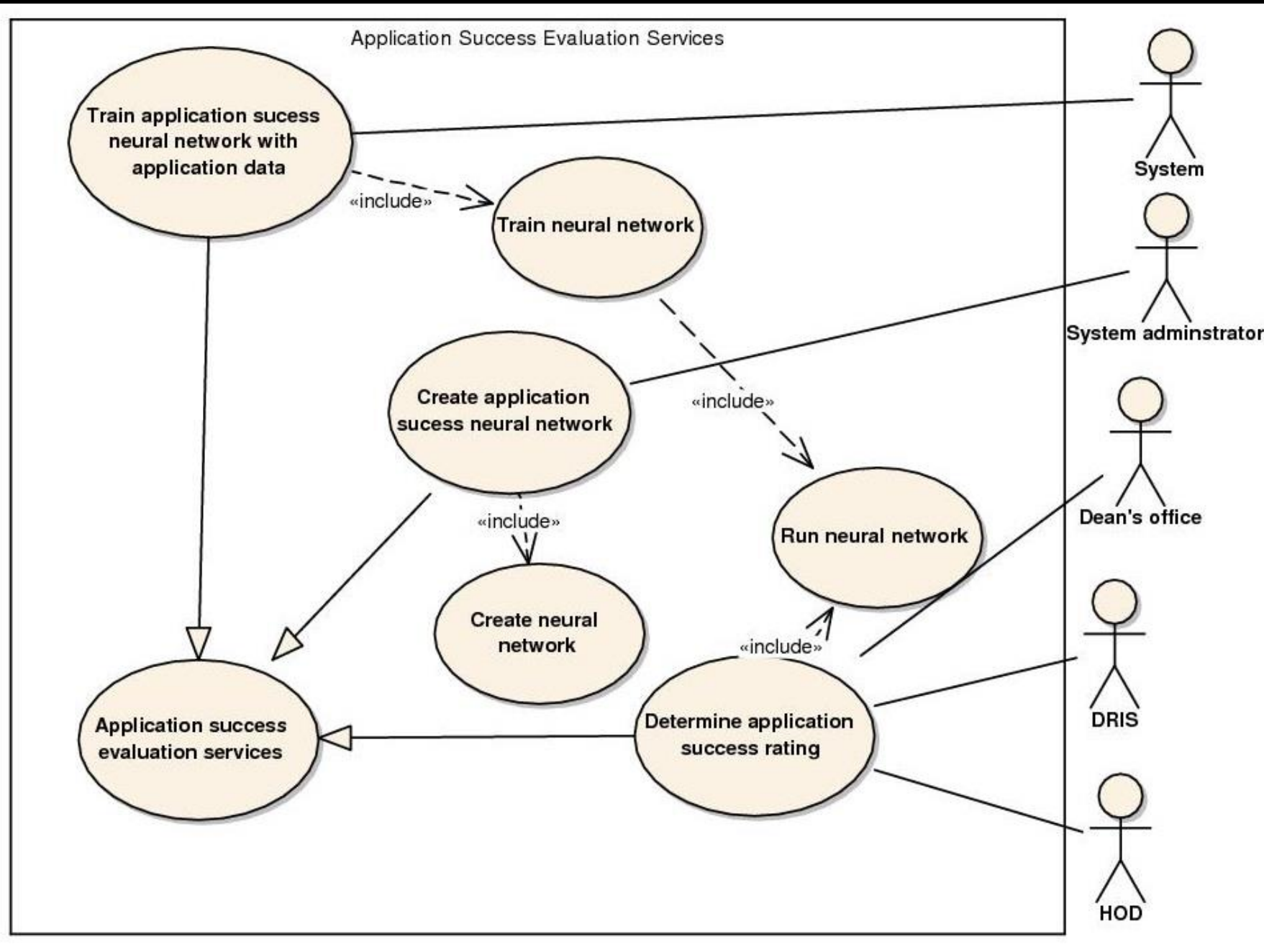




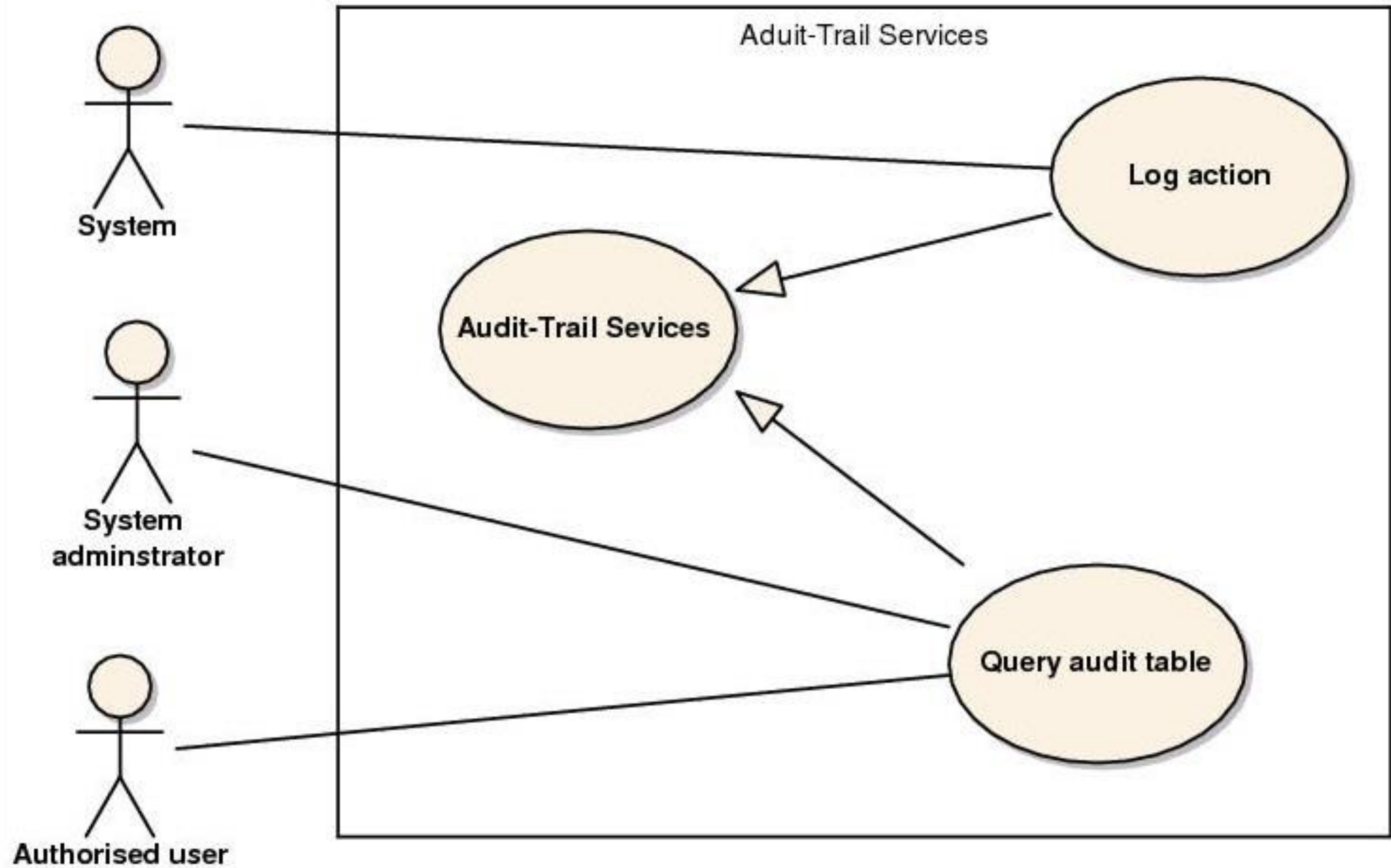


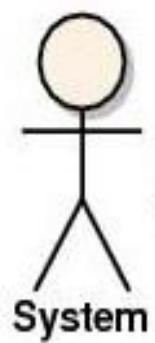




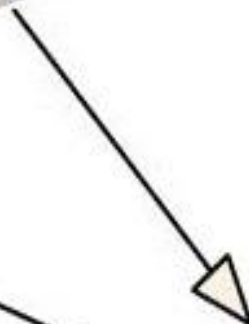
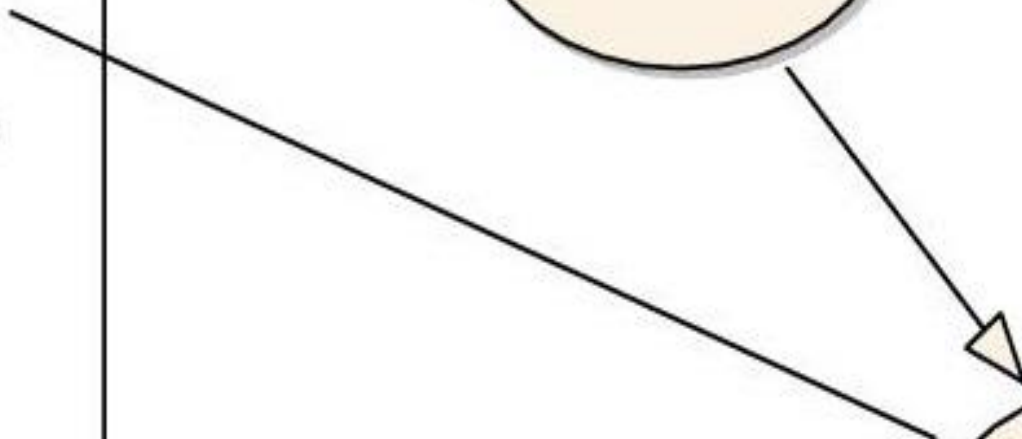
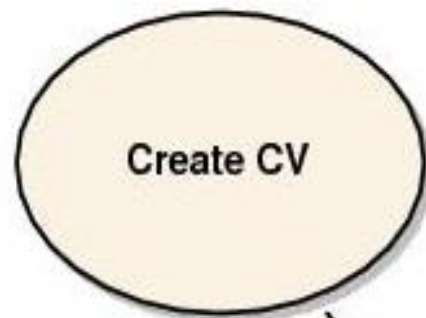


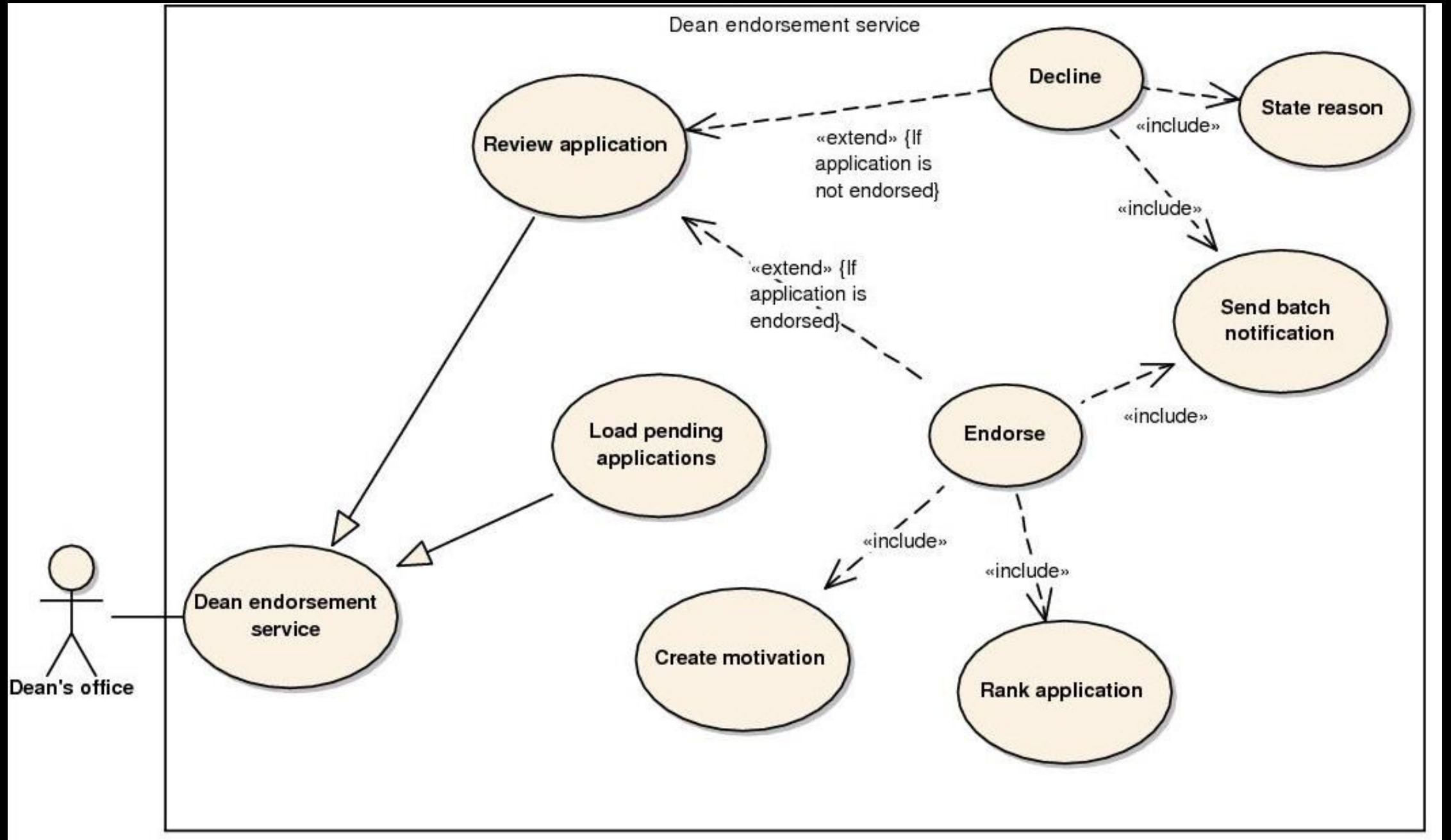






# CV Management Service

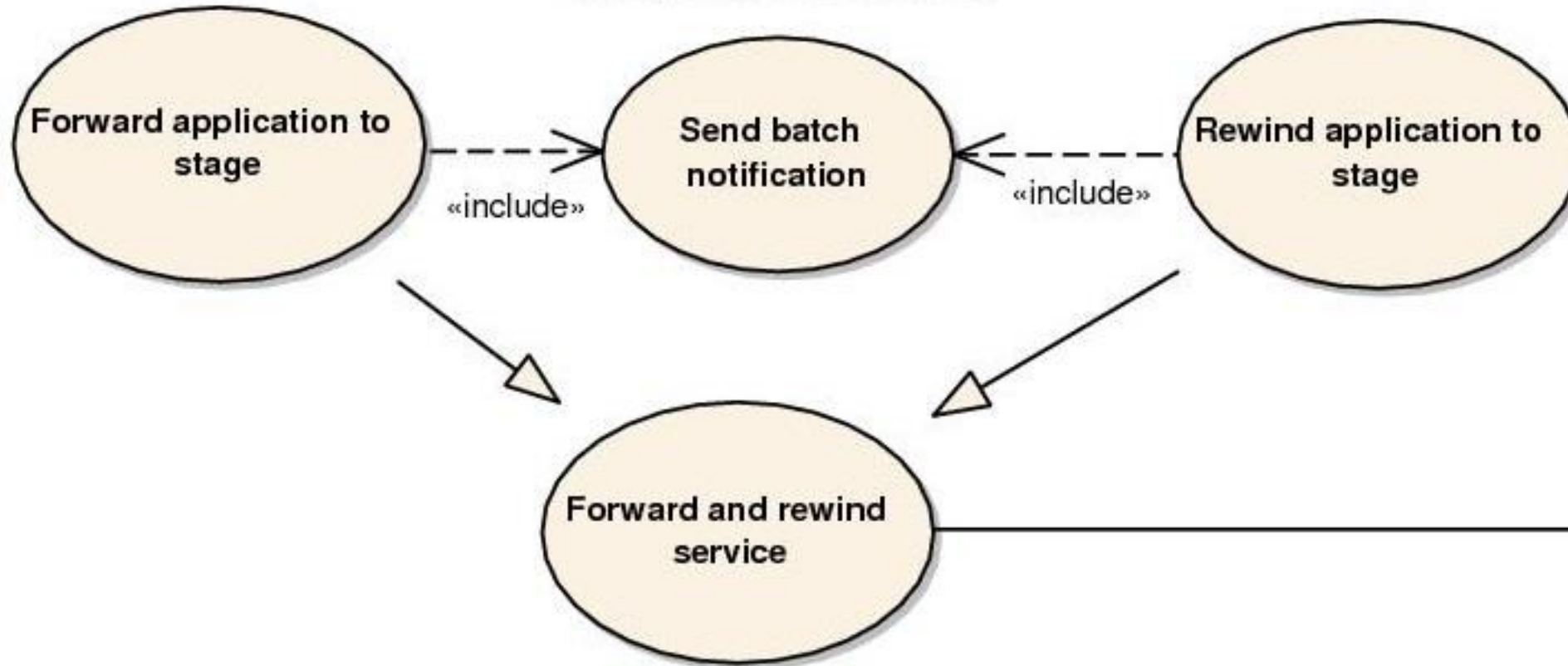


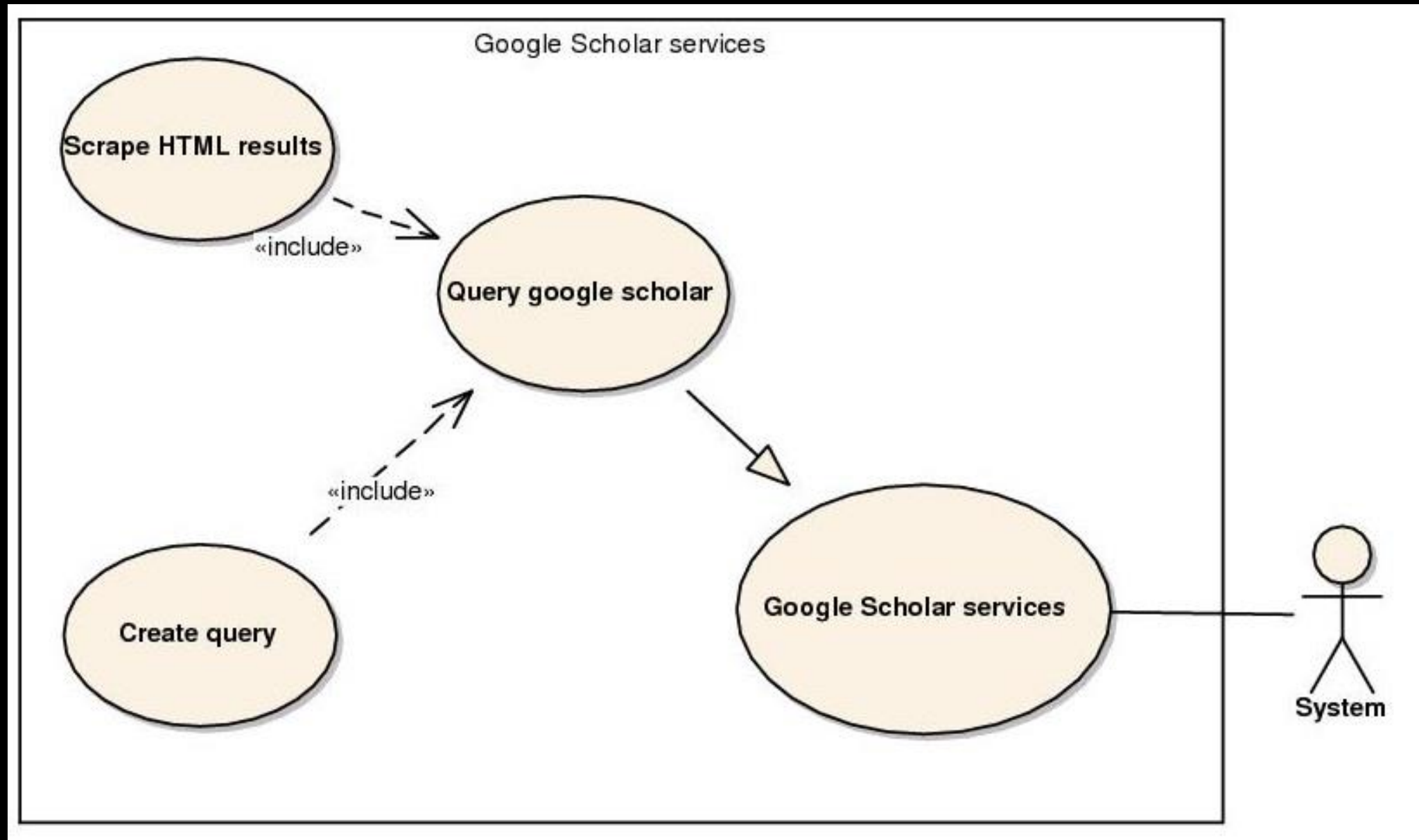


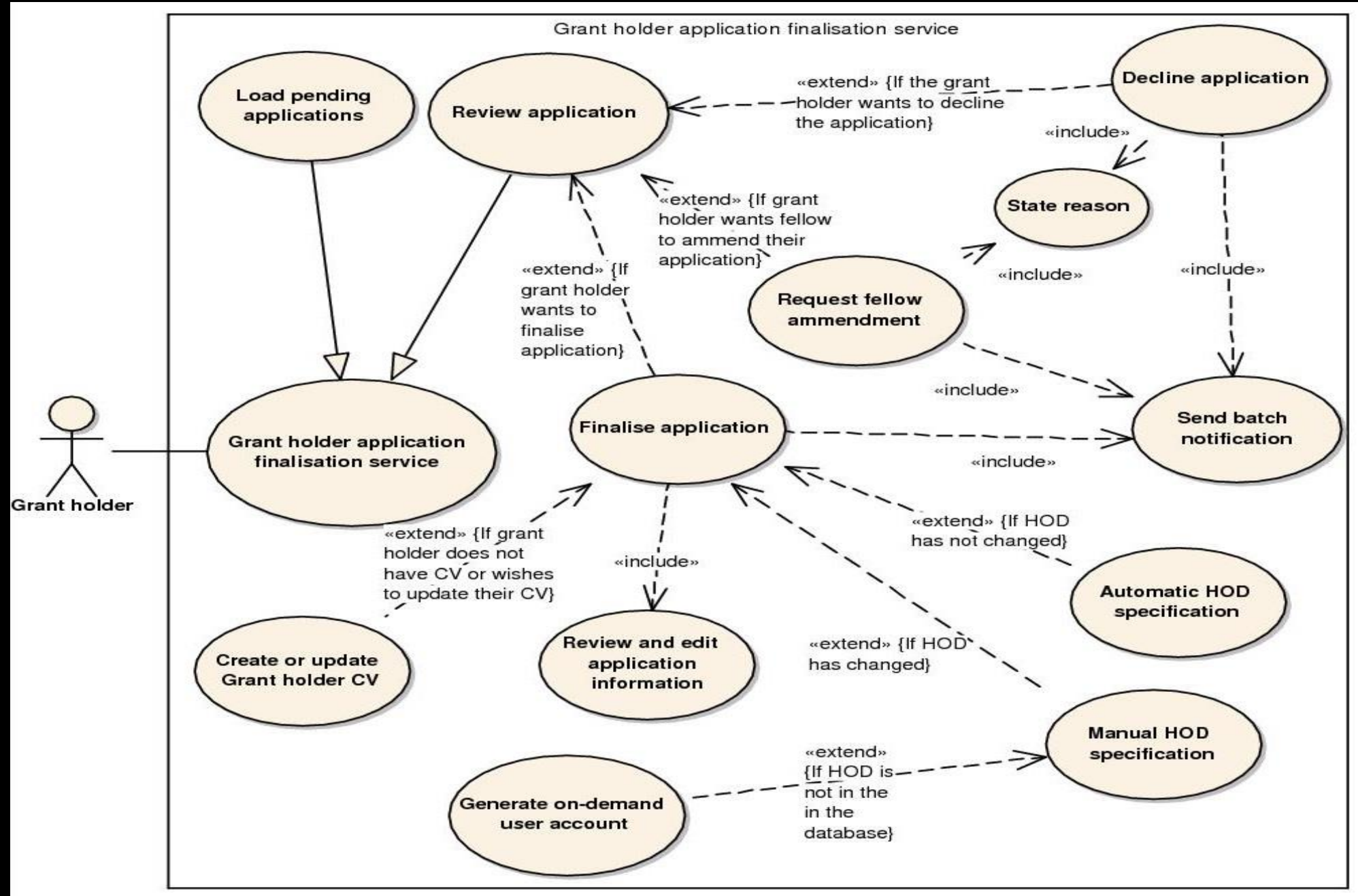


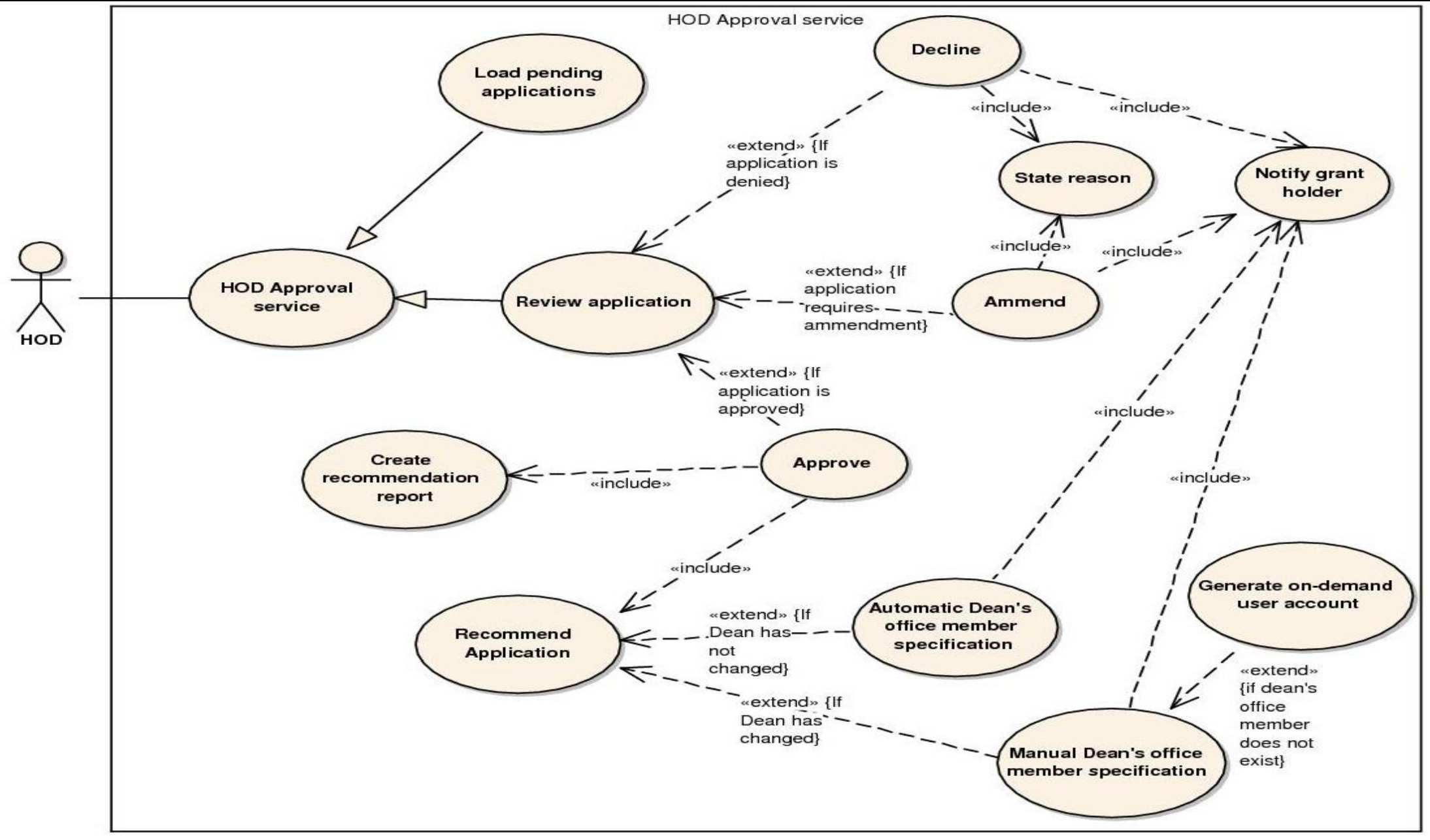


### Forward and rewind service

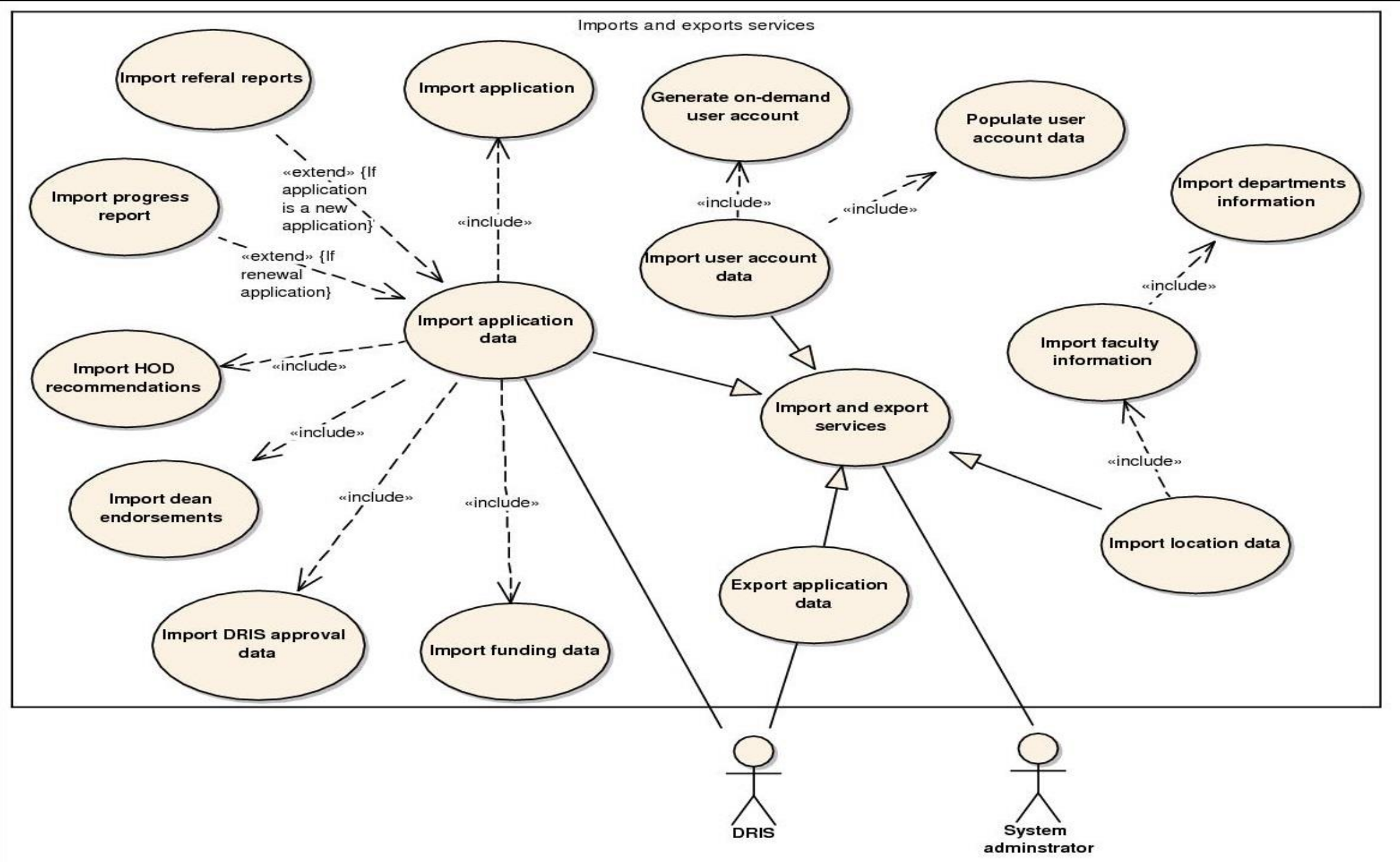




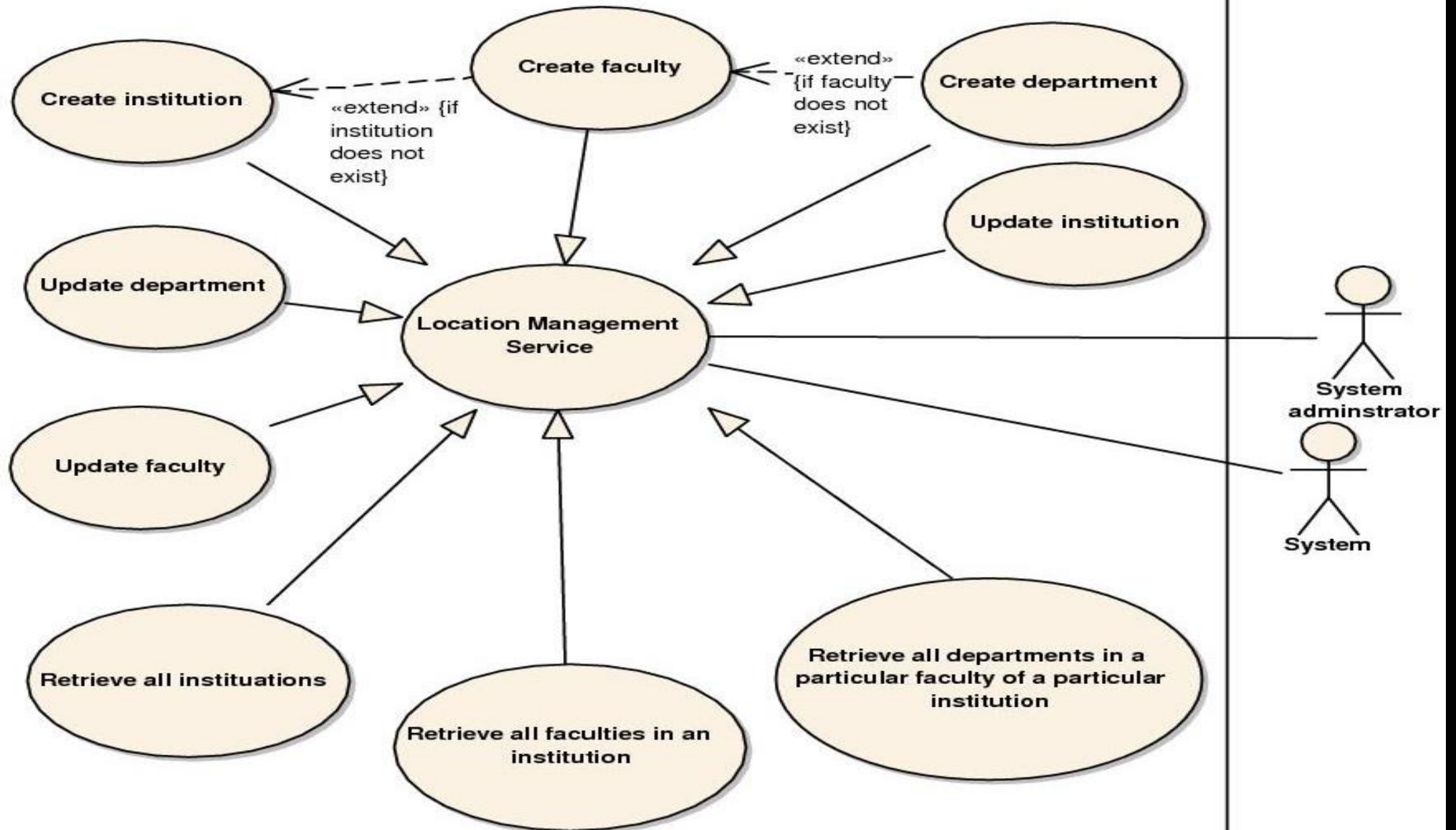


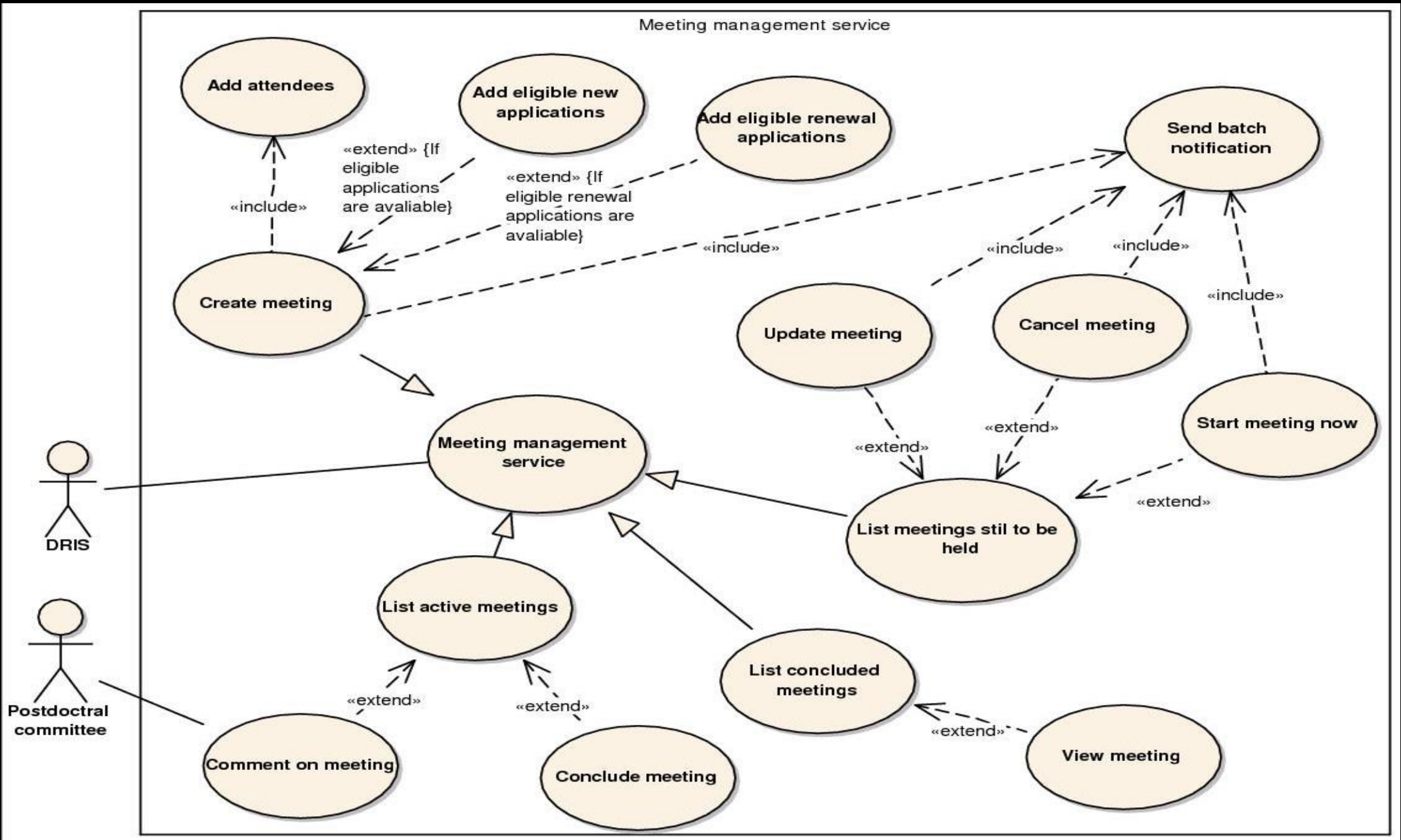




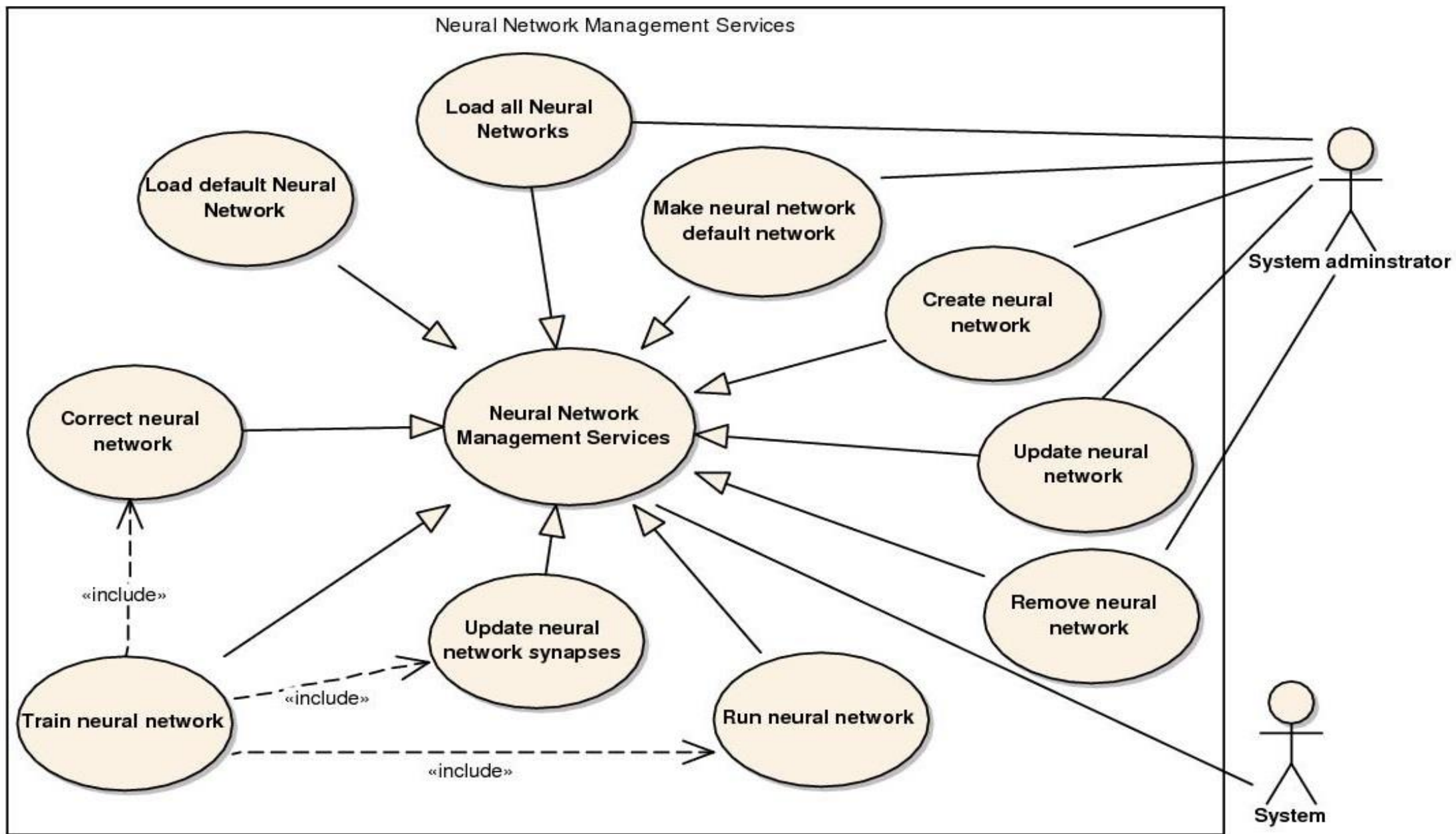


# Location Management Service



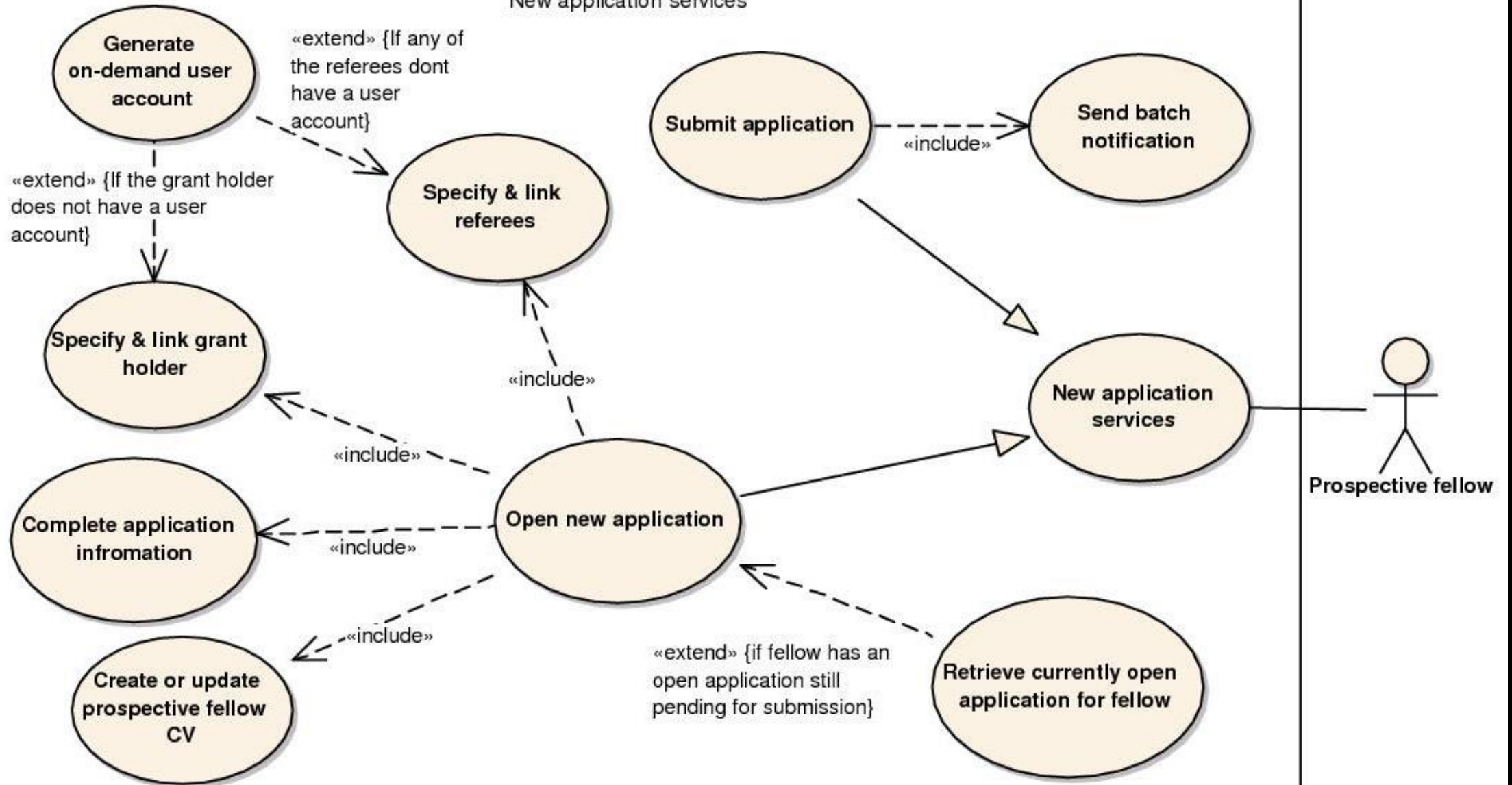




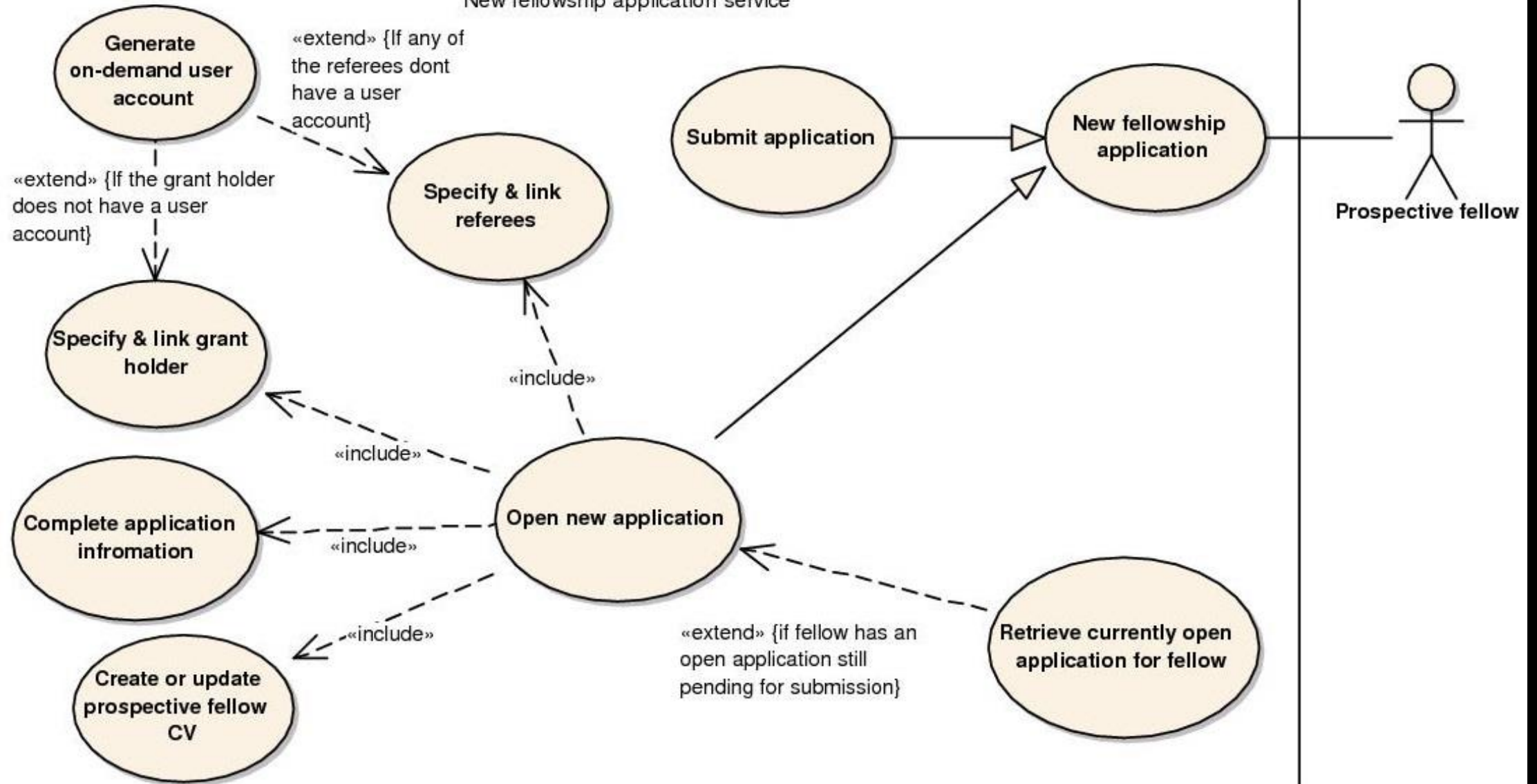


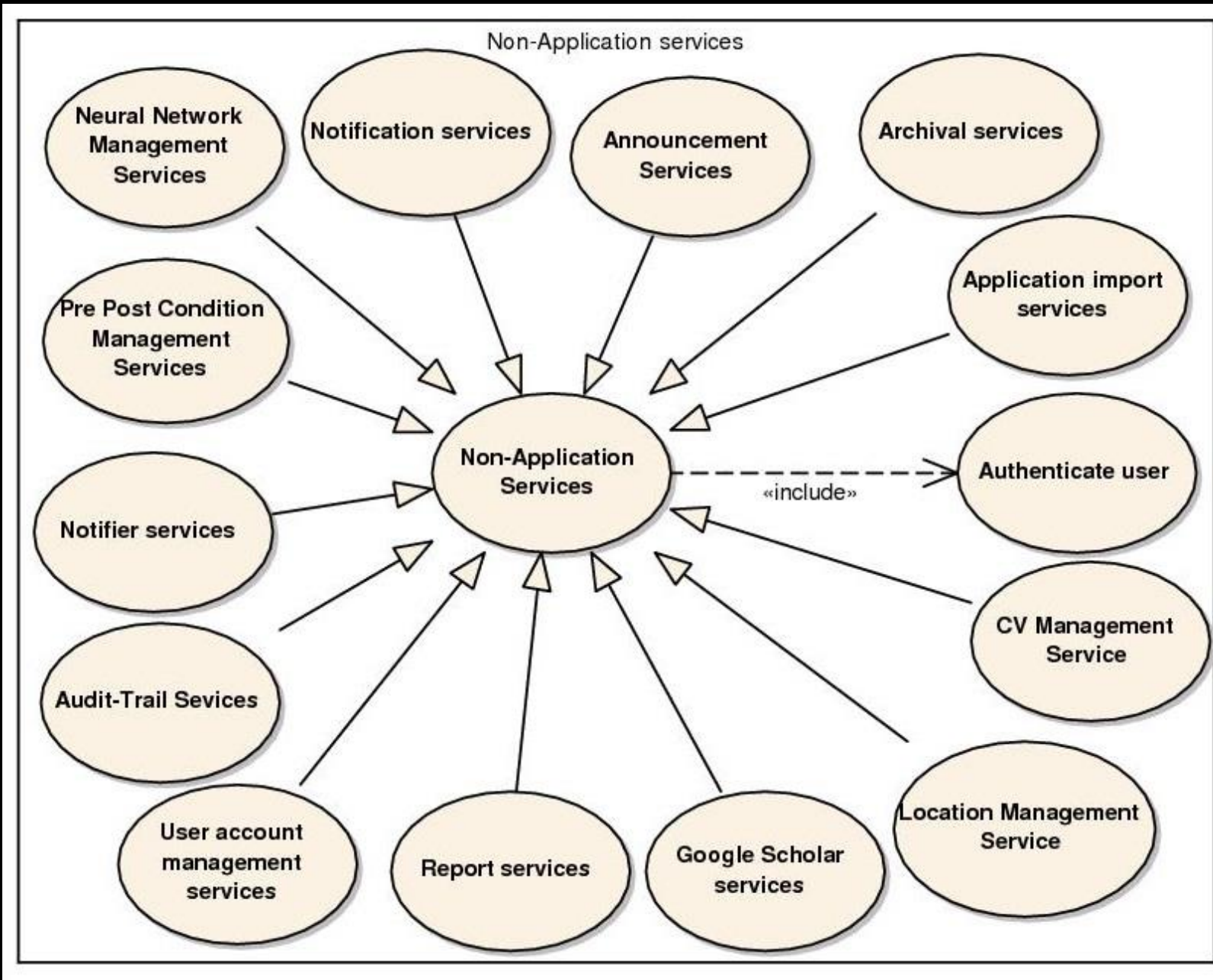


### New application services

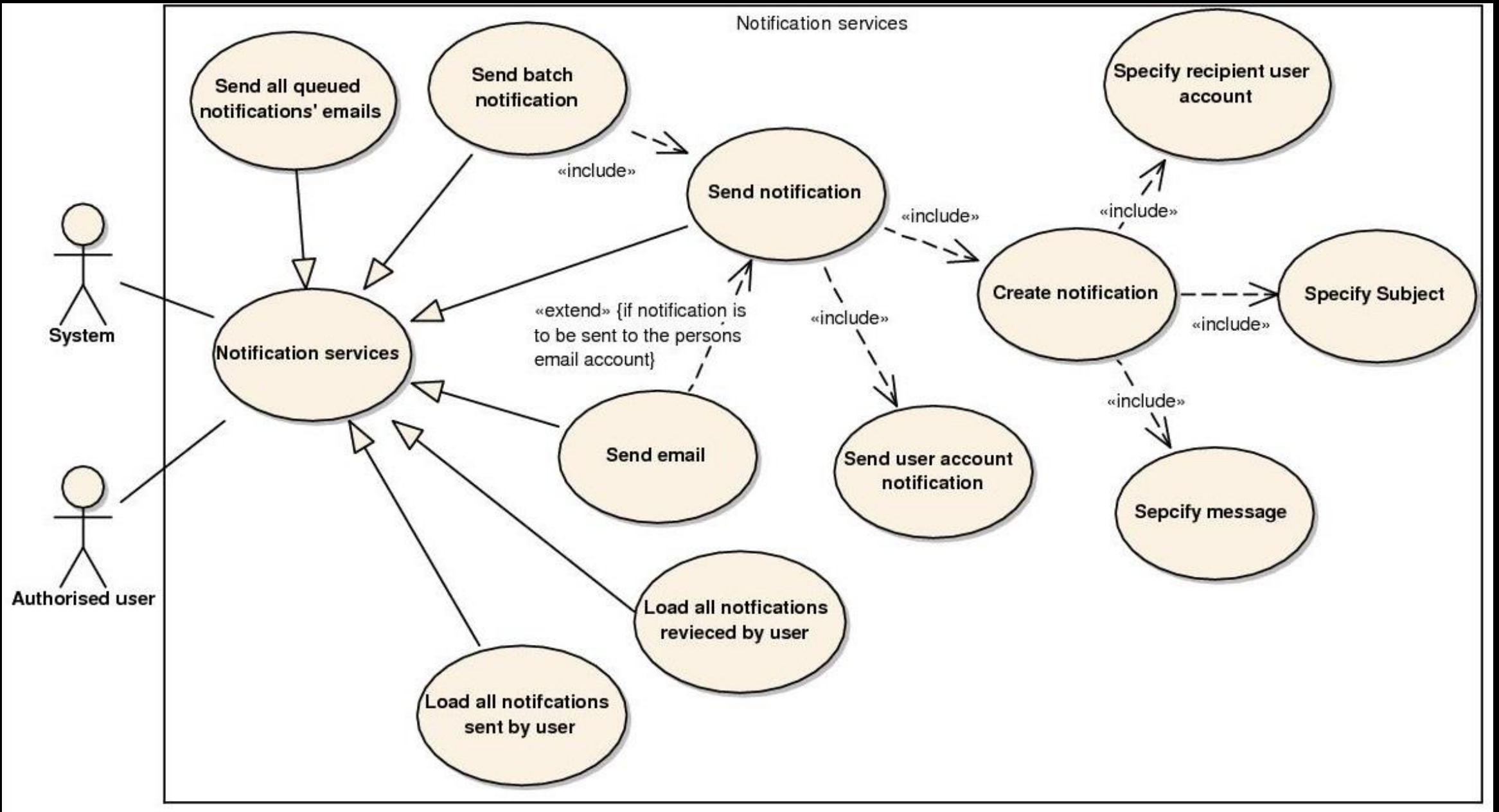


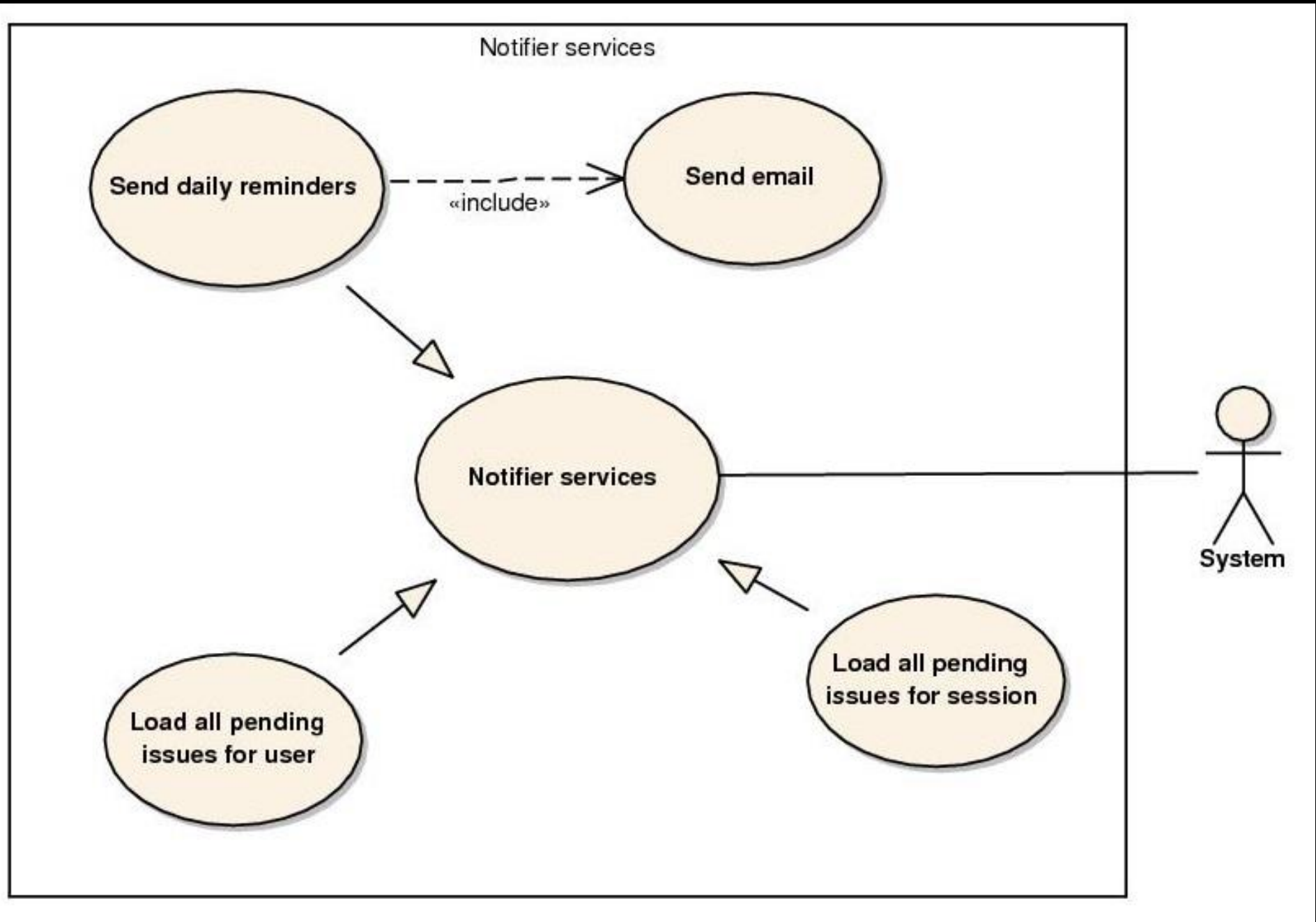
# New fellowship application service



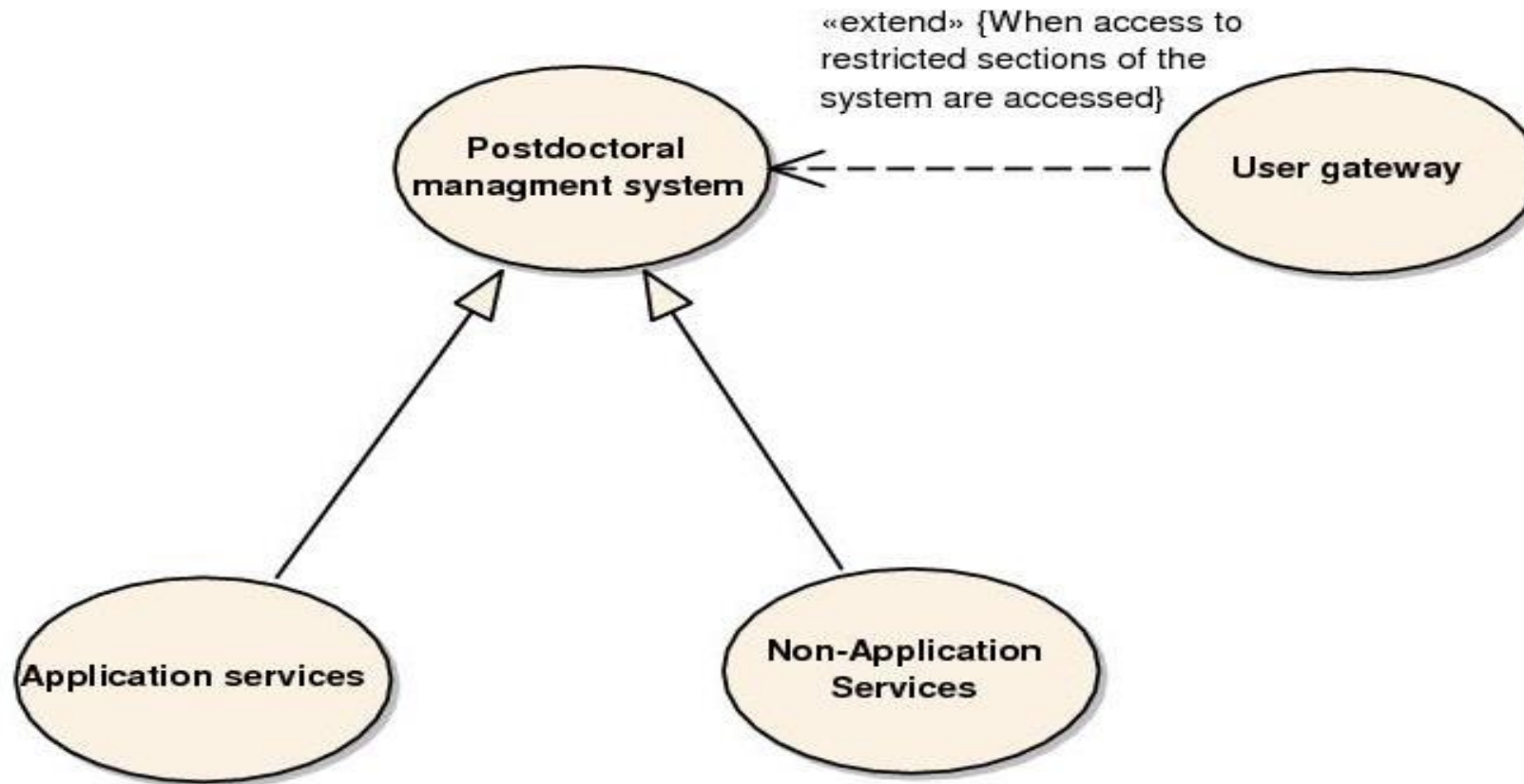




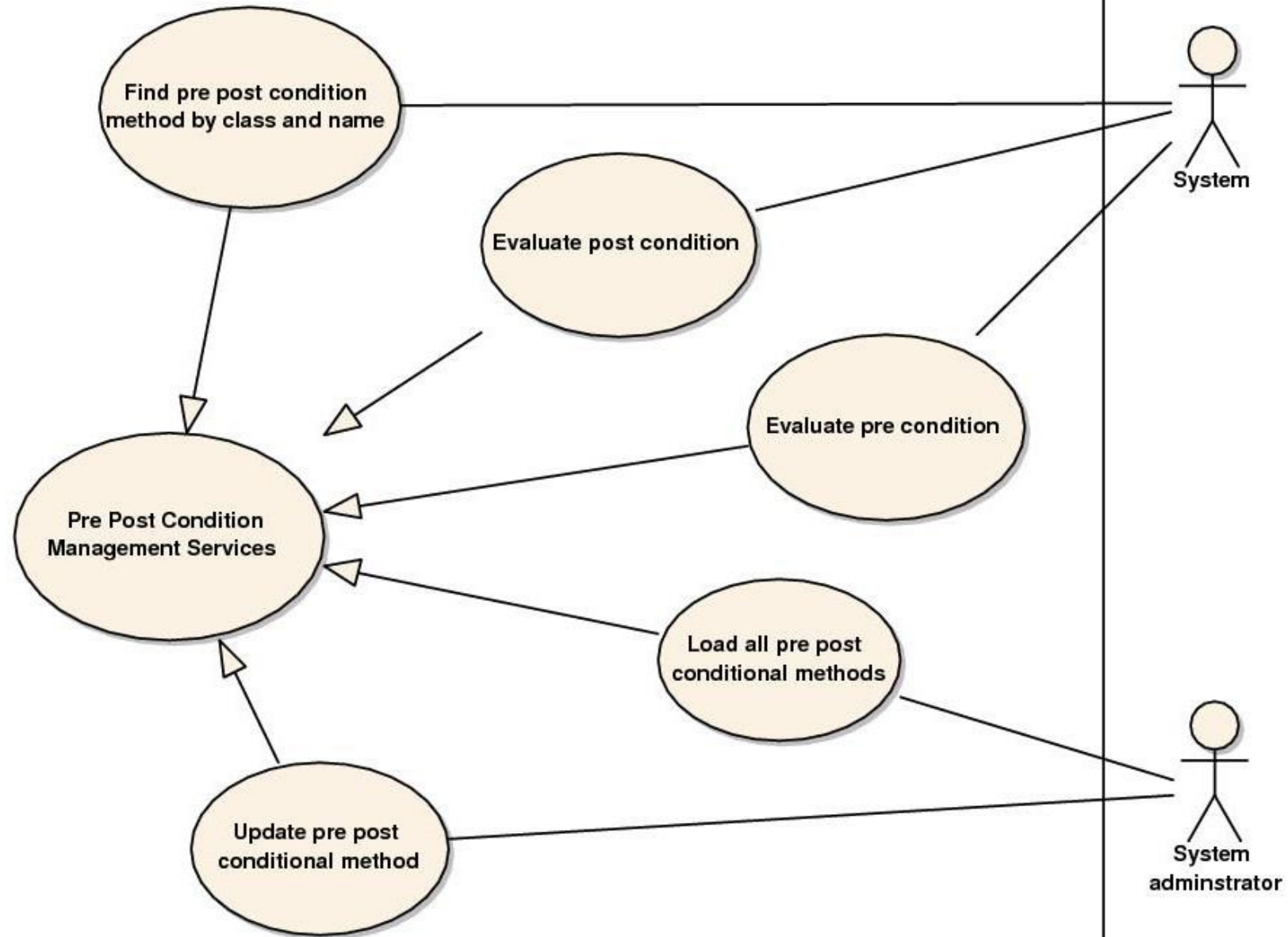


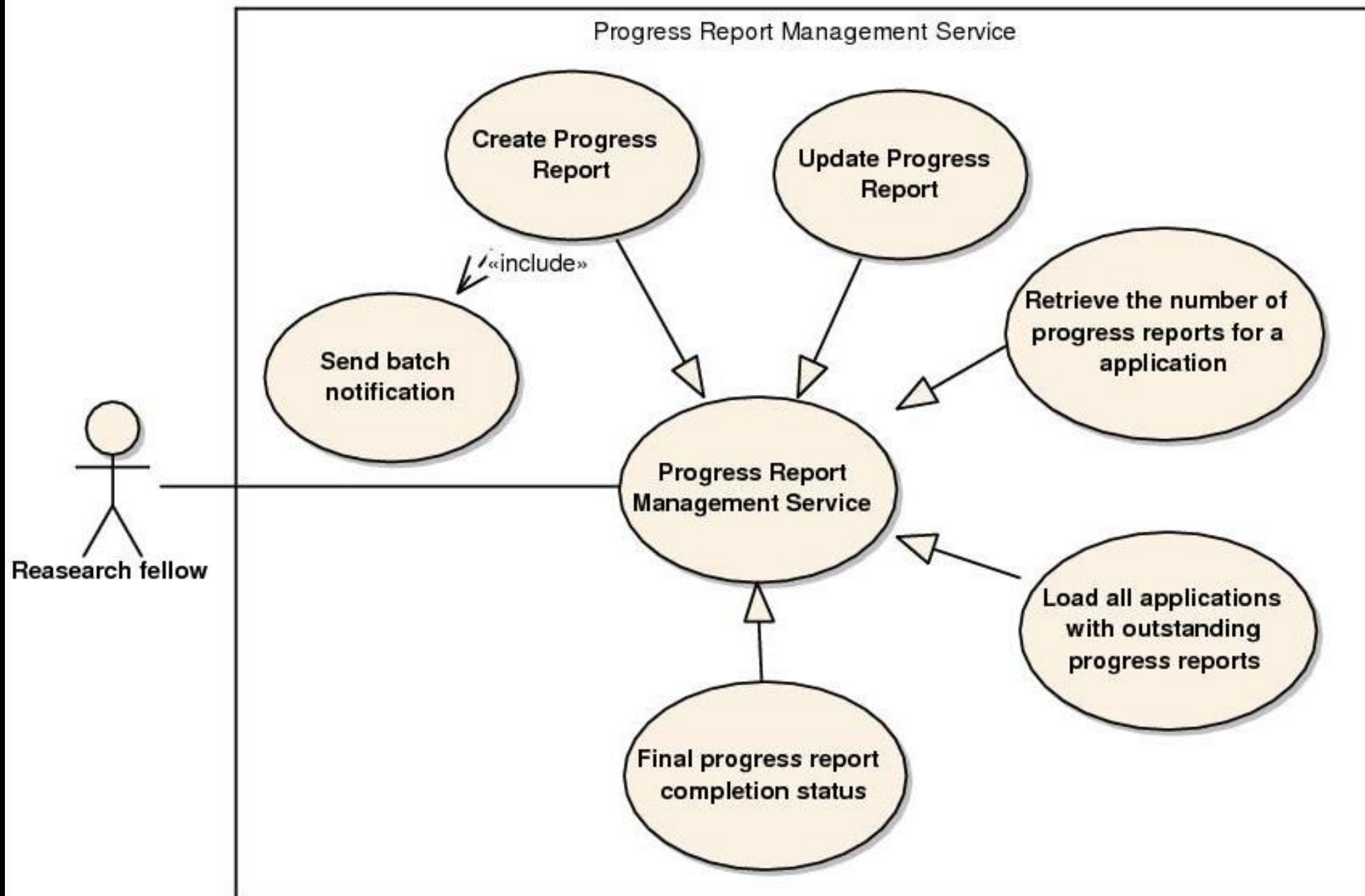


## Post-doctoral management system

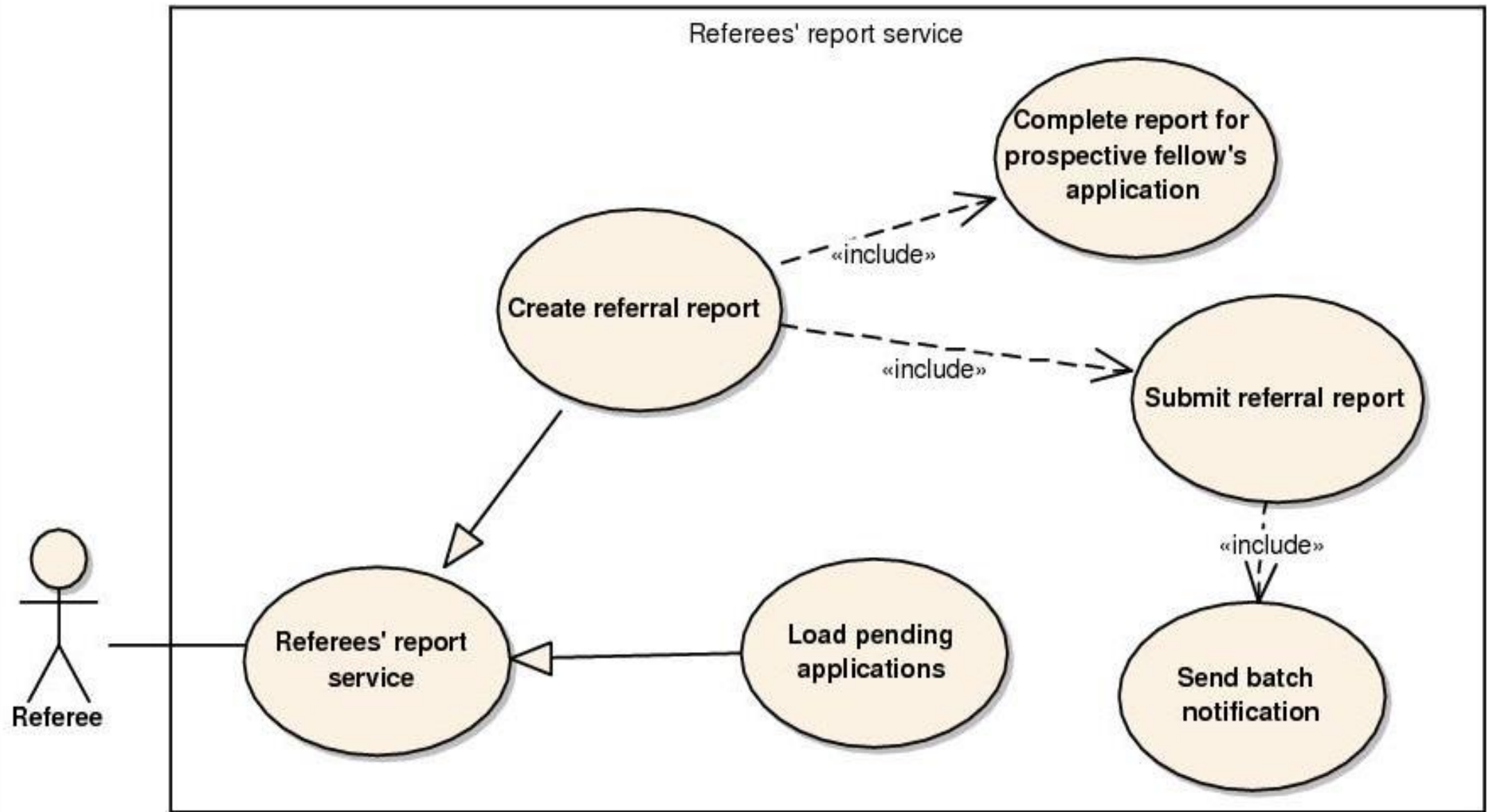


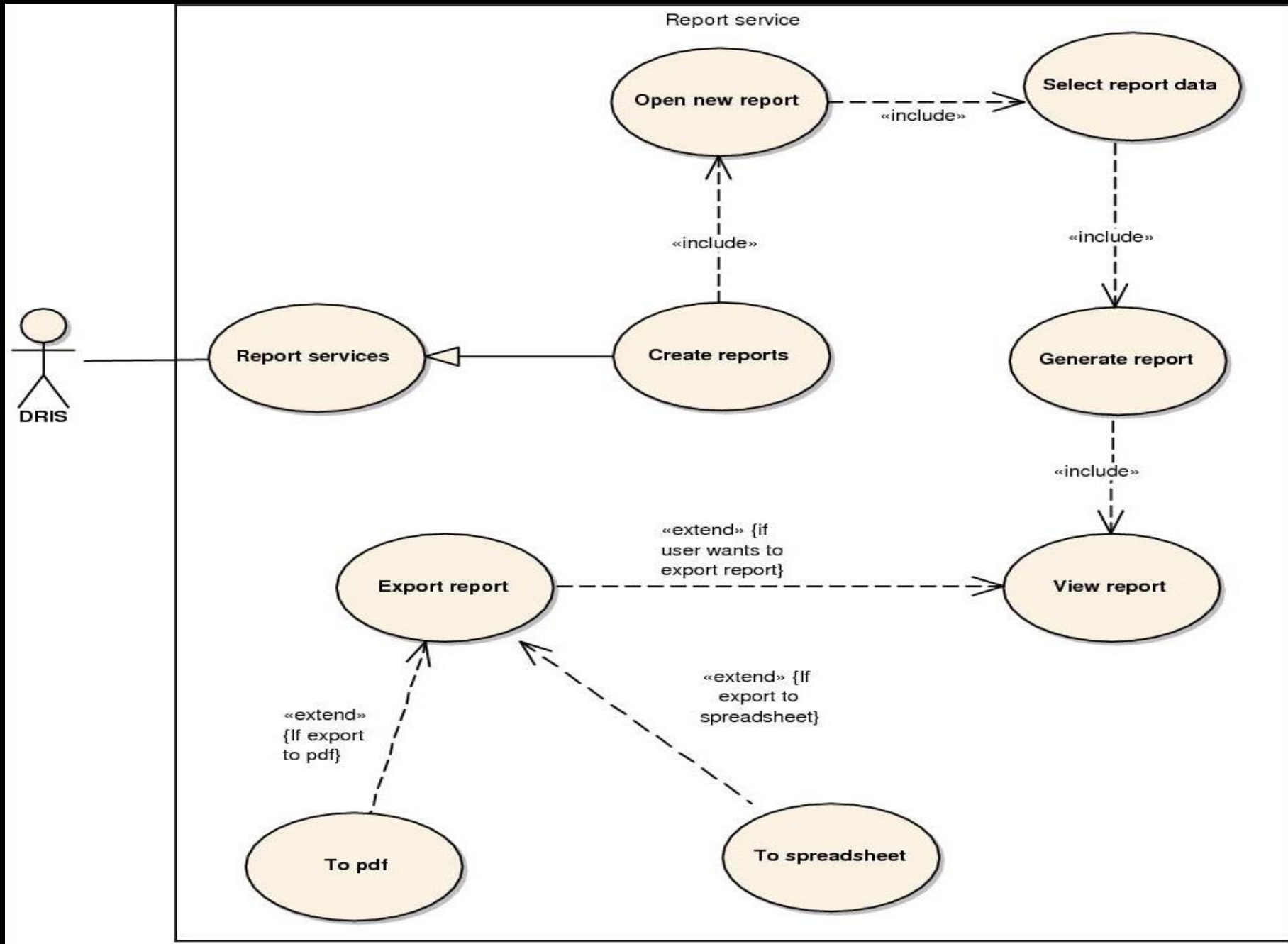
# Pre Post Condition Management Services

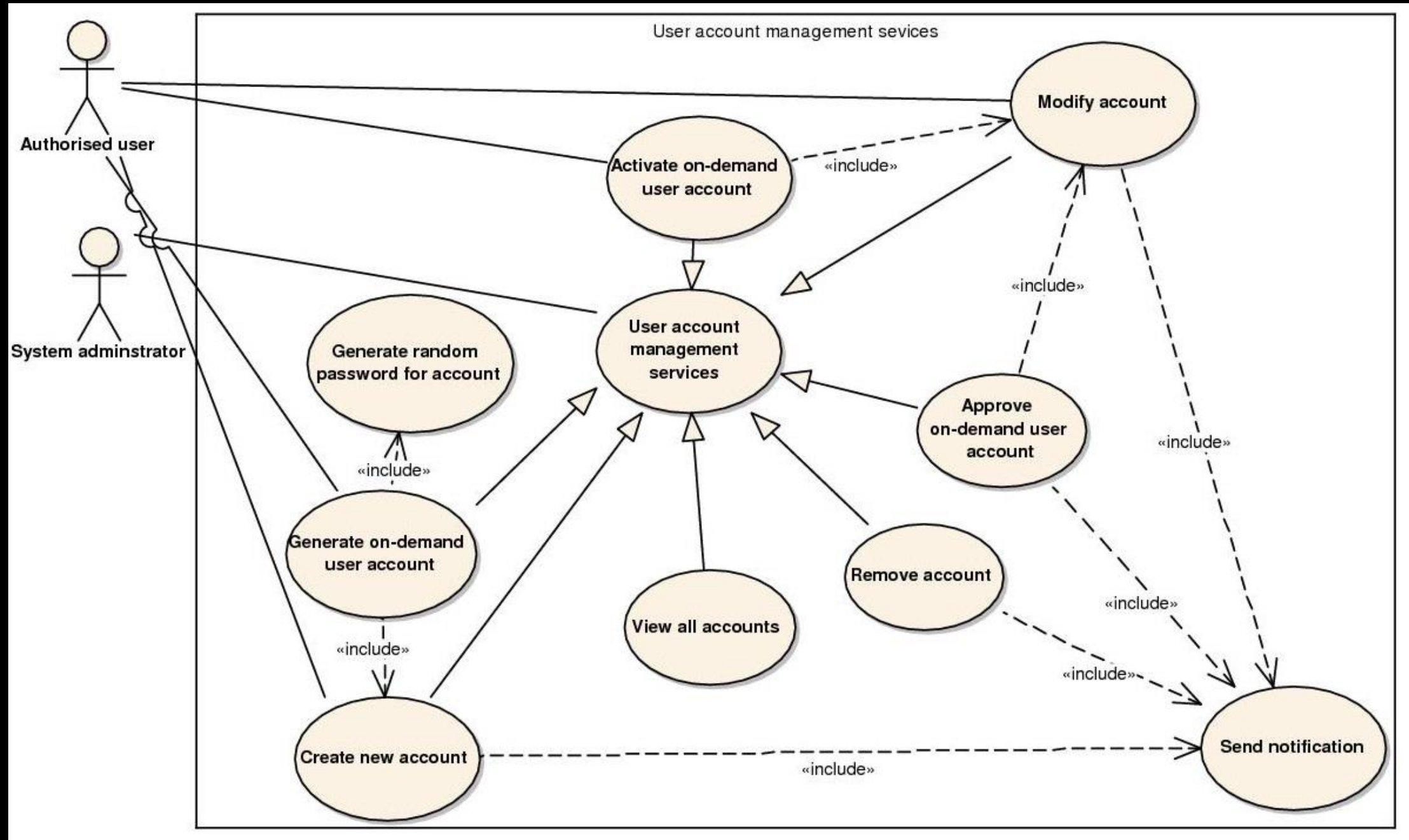


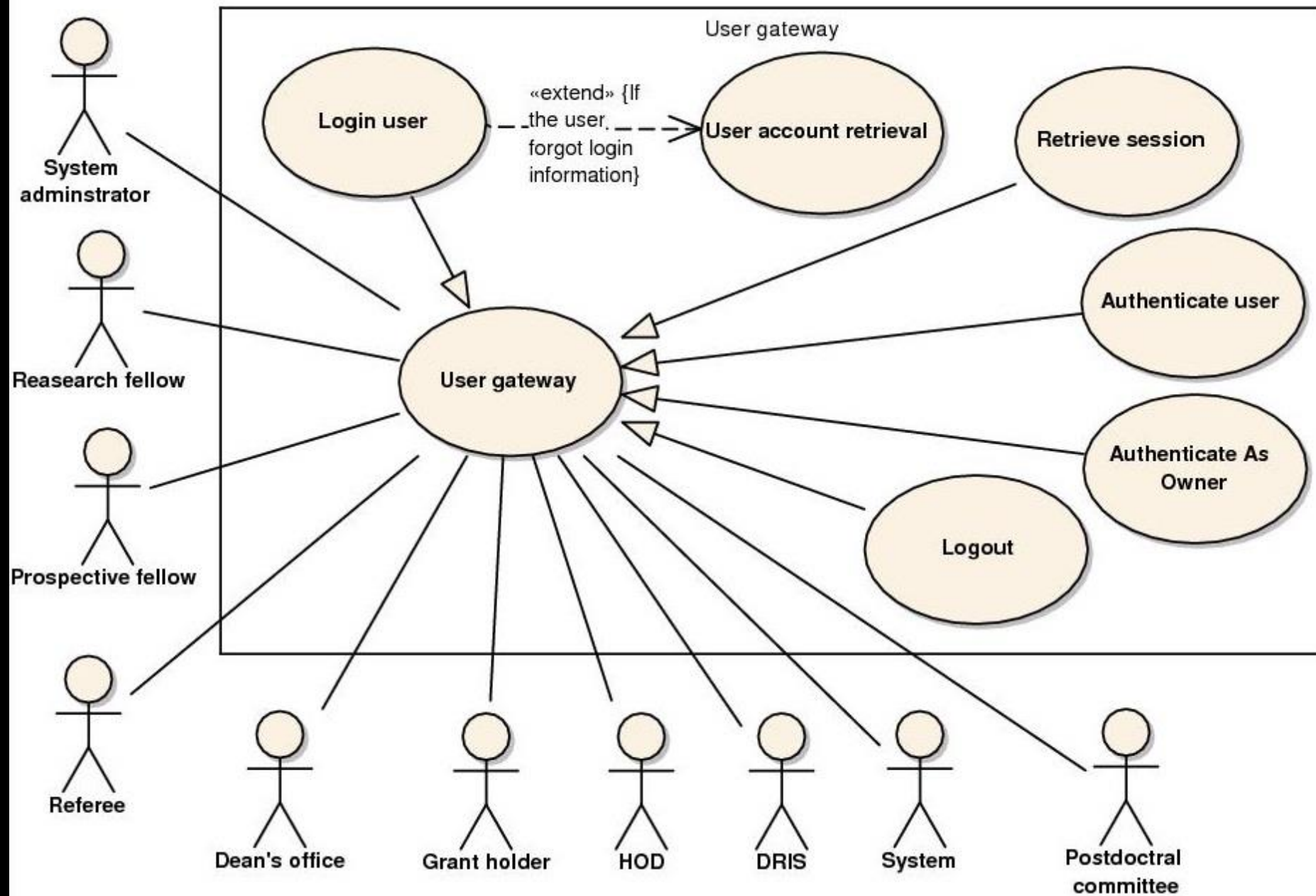












# CODE SAMPLE

```
@SecuredMethod(AllowedSecurityRoles = {com.softserve.auxiliary.constants.PersistenceConstants.SECURITY
@AuditableMethod
@Override
public void createAnnouncement(Session session, Announcement announcement) throws Exception
{
    TransactionController transactionController = getTransactionController();
    transactionController.StartTransaction();
    try
    {
        DAOFactory dAOFactory = transactionController.getDAOFactoryForTransaction();
        announcement.setTimestamp(new Date());
        dAOFactory.createAnnouncementDAO().create(announcement);
        transactionController.CommitTransaction();
    }
    catch (Exception ex)
    {
        transactionController.RollbackTransaction();
        throw ex;
    }
    finally
    {
        transactionController.CloseEntityManagerForTransaction();
    }
}
```



# USABILITY TESTS



# CHALLENGES FACED and OVERCOMING THEM

- Learning **Java EE** and **JSF** for the **first time**
- Research on Java EE from the Internet and Literature available

# CHALLENGES FACED and OVERCOMING THEM

- Getting familiar with various **new technologies** and frameworks. No clear cut online guides.
- Research on Java EE from the Internet and Literature available



# CHALLENGES FACED and OVERCOMING THEM

- Found that some **uses cases** had to be **added**, **modified** and **removed** due to not previously thought scenarios.
- Refining the uses case after consultation with the client

# CHALLENGES FACED and OVERCOMING THEM

- **Holidays**
- **Better time management**

# CHALLENGES FACED and OVERCOMING THEM

- Various **frustrating bugs** created by a misunderstanding of technologies.
- Debugging and research into the technologies

# CHALLENGES FACED and OVERCOMING THEM

- **Lots of research**
- More Research

# CHALLENGES FACED and OVERCOMING THEM

- No API for Google scholar
- Created our own API using HTML Scrapping



# CHALLENGES FACED and OVERCOMING THEM

- Misunderstandings with regards to JPA
- Research into JPA and it's best usage

# CHALLENGES FACED and OVERCOMING THEM

- Health concerns
- Team members visited medical professionals

# CHALLENGES FACED and OVERCOMING THEM

- Looking for possible awe factors
- Added Neural Networks and Google Scholar API

# CHALLENGES FACED and OVERCOMING THEM

- XML validation and maintainability of system
- Research into ways to improving maintainability

# CHALLENGES FACED and OVERCOMING THEM

- Getting the most out of **Jasper** and using its **resource files**.
- Switched to Dynamic Jasper, an extension of Jasper.



# CHALLENGES FACED and OVERCOMING THEM

- Juggling other school work.
- Better time management and a few all nighter's

# CHALLENGES FACED and OVERCOMING THEM

- Implementing client requested changes without breaking code.
- Numerous Code refactoring, as well as changes to the User Interfaces

# CHALLENGES FACED and OVERCOMING THEM

- Using group member's skills to the best of their ability
- Finding out their strengths and allowing them to work on areas related to their strengths

# CHALLENGES FACED and OVERCOMING THEM

- Finding a server for the client to host the system
- Helping the client look at alternatives and making a proposal for it.

# CHALLENGES FACED and OVERCOMING THEM

- Finding funds to pay for all the printing.
- Hopefully by winning a few prizes to help cover the costs



# BENEFITS OF THE SYSTEM

- Provides a centralised location where all the Post Doctoral Information is held
- Removes the need for a paper based system.
- It can operate on any Web Browser (mobile or computer or tablet).
- Designed to be similar to the current UP system.