

COMP6030: SOFTWARE ENGINEERING

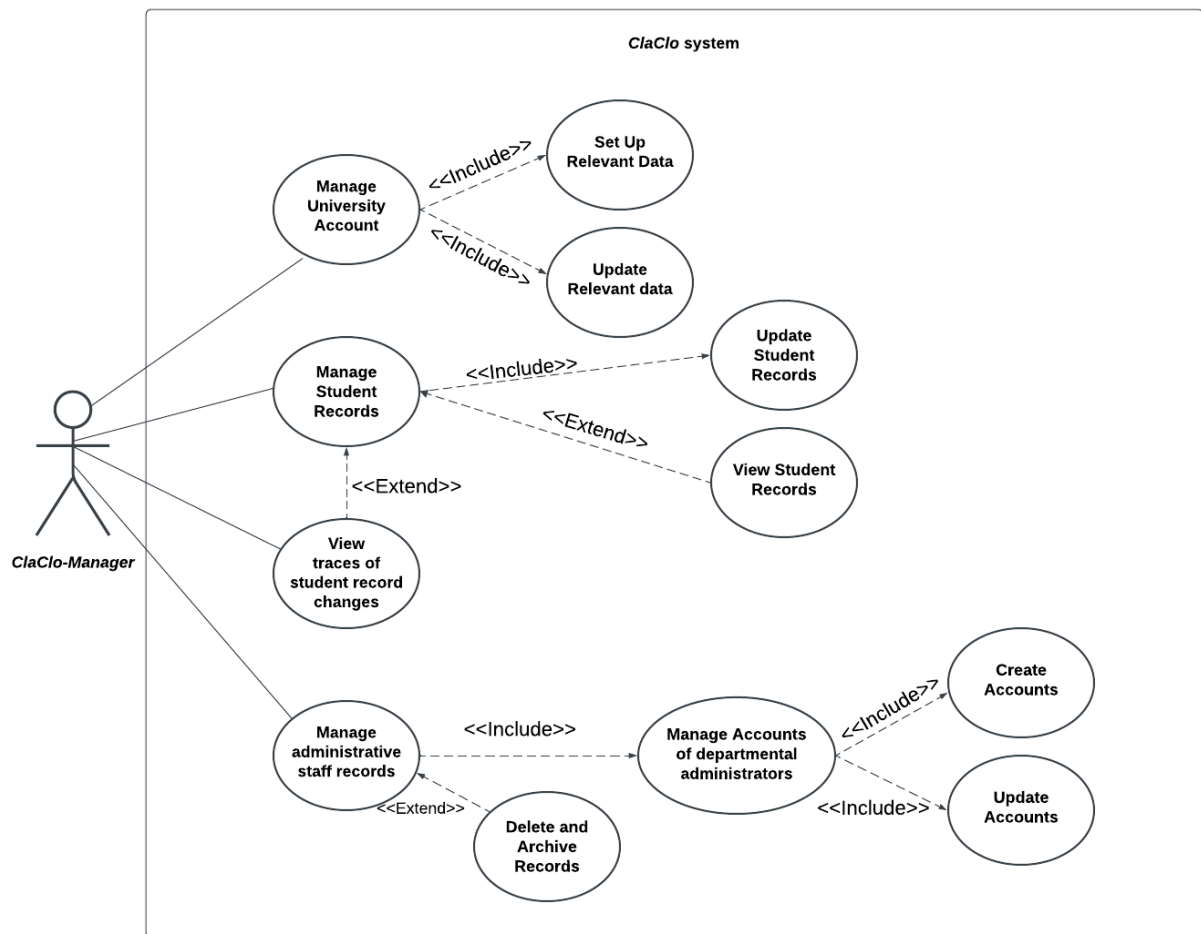
Individual Part

Group: 15

Student Number: 19152436

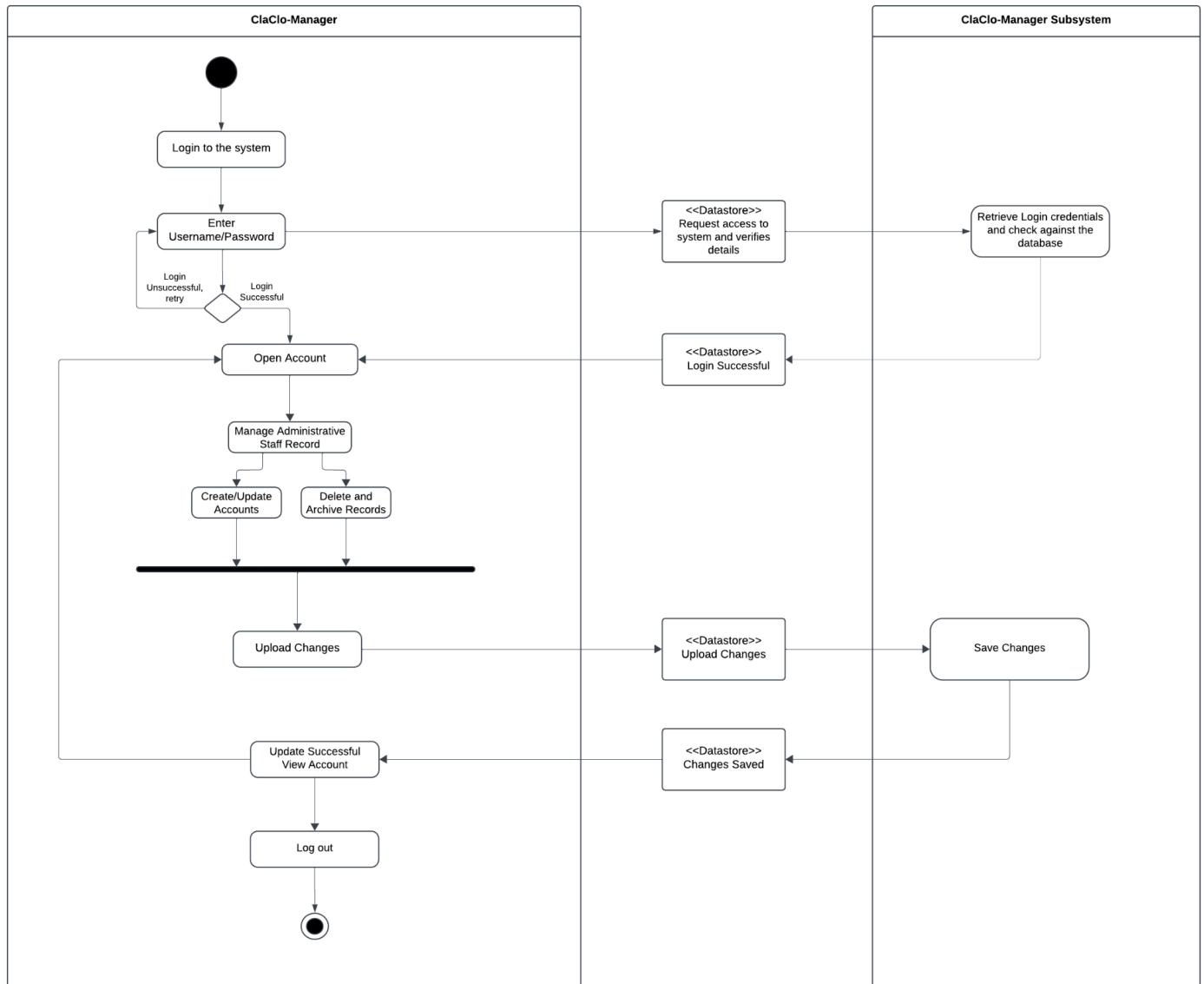
Subsystem: ClaClo-Manager

Use Case Model of the Manager Subsystem

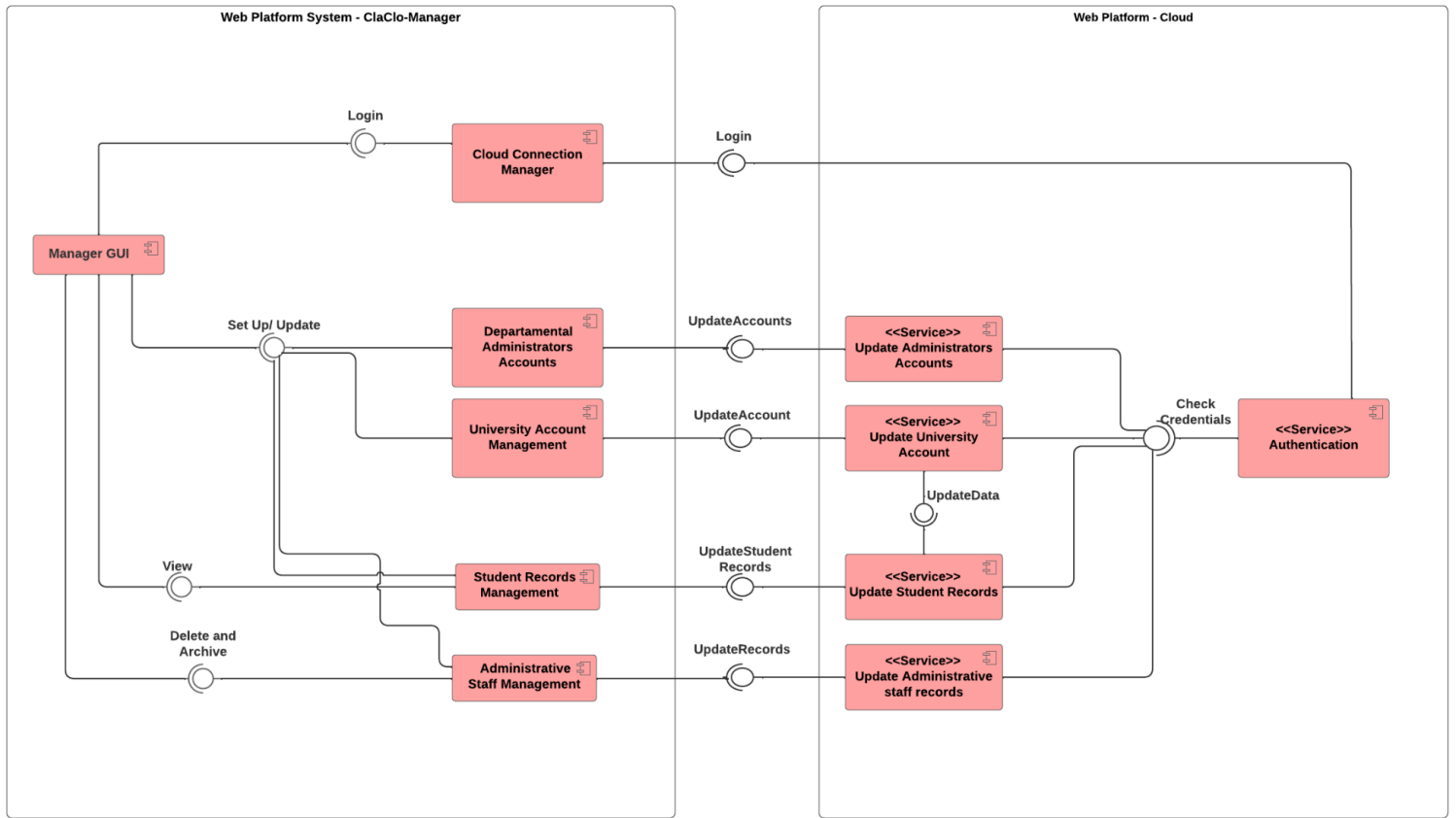


Activity Model

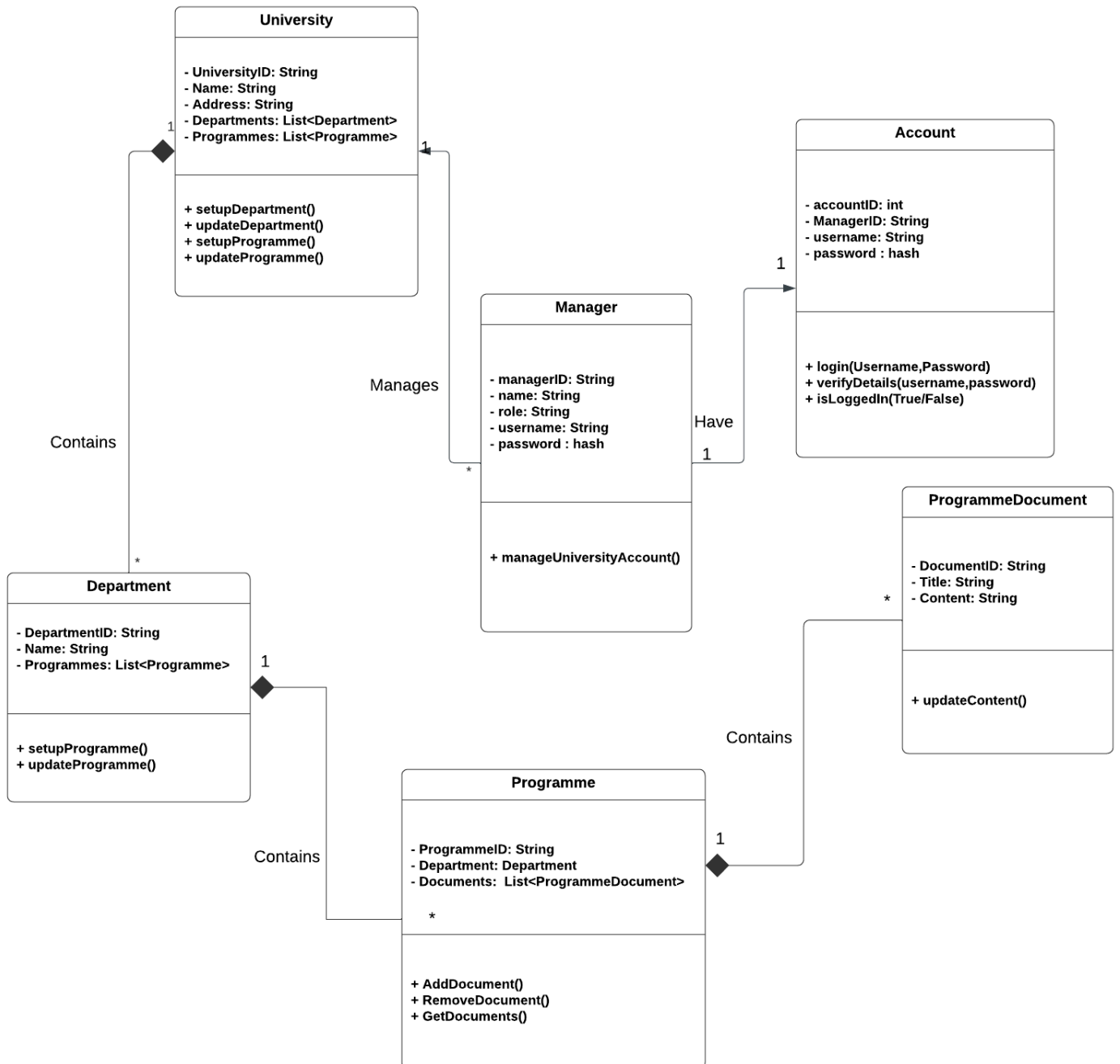
Selected Use case: Manage Administrative Staff Record



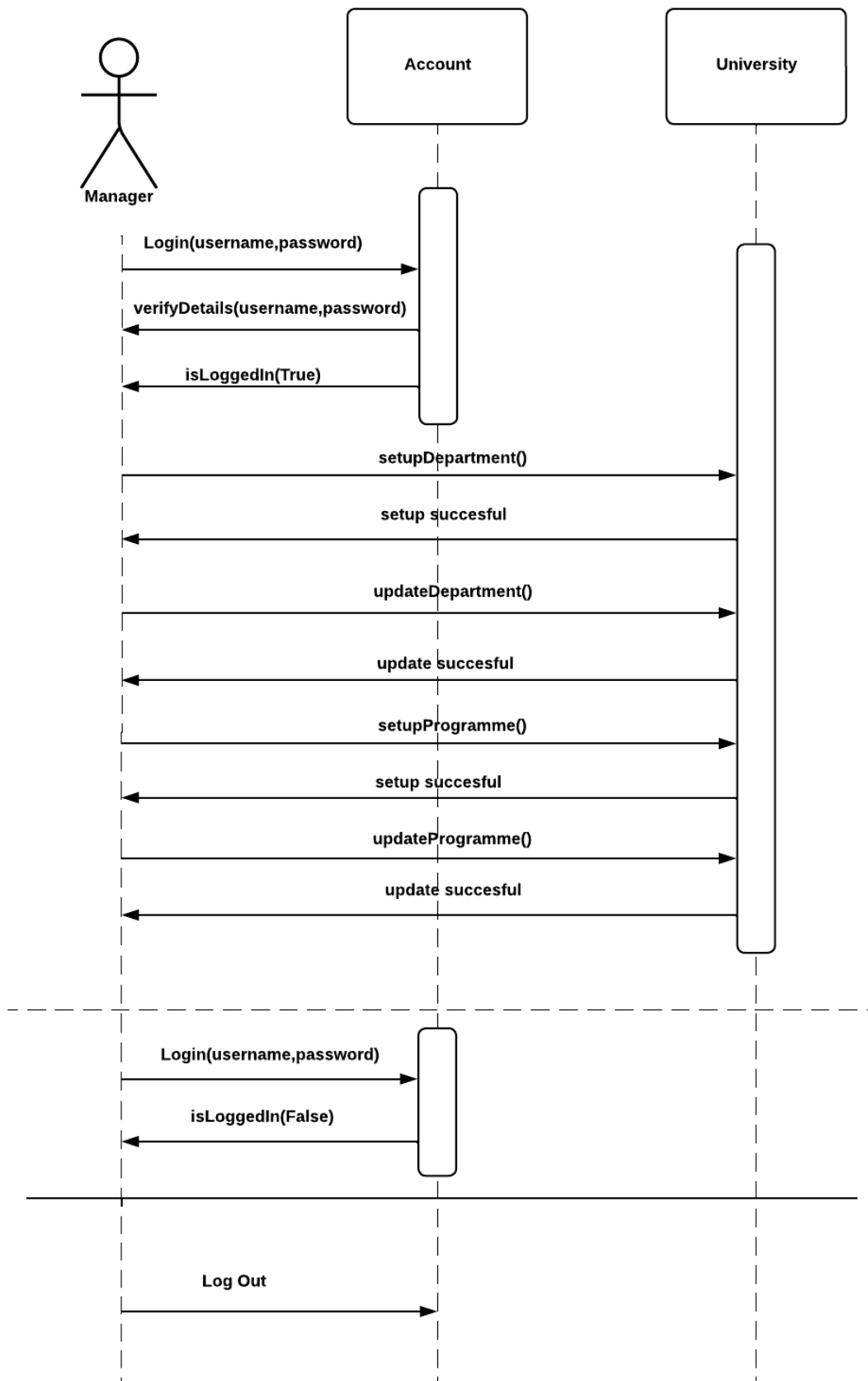
Architecture of the Manager Subsystem



Structural Model: University Account Management



Behaviour Model: University Account Management



Unit test plan for microservices

Test Case	Description	Input	Expected Output
Successful Login	Verify valid credentials	Username = "testUser" Password = "testPass"	isLoggedIn(True)
Unsuccessful Login	Verify Incorrect Password	Username = "testUser" Password ="wrongPass"	isLoggedIn(False)
Verify Account Details (Valid User)	Verify the account for a valid user	Username = "testUser" Password = "testPass"	verifyDetails(username, password)==True
Verify Account Details (Invalid User)	Verify the account for an invalid user	Username = "nonExistentUser" Password = "anyPass"	verifyDetails(username, password)== False
setupDepartment	Verify department was added successfully	UniversityID = "Uni001" Department = "Computer Science"	Department added successfully to the university
updateDepartment	Verify department was updated successfully	Department = "Computer Science" New Name = "Software Engineering"	Department name updated successfully to "Software Engineering".
setupProgramme	Verify Programme was added successfully	Department = "Computer Science" Programme = "BSc Computer Science"	Programme added successfully to the department.
updateProgramme	Verify Programme was updated successfully	Programme = "BSc Computer Science" New Title = "BSc Software Engineering"	Programme title updated successfully to "BSc Software Engineering".
Logout	Verify that a user can successfully log out	None	isLoggedIn(False)

System test plan for Manage Administrative Staff Record

Manager	System
1. Login to the system	2. Verify manager credentials and log in
3. Select the option to manage staff records	4. Display the current list of administrative staff.
5. Create a new staff account with details (name, role, department, username, password).	6. Create new staff account and update the staff list.
7. View updated staff list.	8. Display the updated list of administrative staff.
9. Update a staff member's details (e.g., role, department)	10. Update the selected staff member's details and save changes.
11. Delete a staff member.	12. Remove the selected staff member from the system and update the staff list.
13. Archive a staff member's records.	14. Archive the selected staff member's records and update the staff list
15. View archived records	16. Display the archived records of administrative staff.

Test Data

Input

❖ Administrative Staff Details:

- Name
- Department
- Position
- Contact Information
- Employment Date

❖ Actions:

- Create Account
- Update Account
- Delete Account
- Archive Records

Stored Data:

- **On System:**
 - Existing administrative staff records
 - Departments information

Output:

- Confirmation of account creation, update, deletion, or archiving
- Updated list of administrative staff records

Test Process

- ❖ **Set up test context**
 - **System database:**
 - Contains existing administrative staff records
 - Contains departmental information
- ❖ **Create Administrative Staff Account**
 - **Input:** New staff details (Name, Department, Position, Contact Information, Employment Date)
 - **Expected Output:** Confirmation message for account creation, and new record in the system
 - **Check:** Verify if the new staff record appears in the list
- ❖ **Update Administrative Staff Account**
 - **Input:** Staff details to be updated (e.g., contact information)
 - **Expected Output:** Confirmation message for account update, and updated record in the system
 - **Check:** Verify if the changes are reflected in the staff record
- ❖ **Delete Administrative Staff Account**
 - **Input:** Staff ID or record to be deleted
 - **Expected Output:** Confirmation message for account deletion, and removal of the record from the system
 - **Check:** Verify if the staff record no longer appears in the list
- ❖ **Archive Administrative Staff Record**
 - **Input:** Staff ID or record to be archived
 - **Expected Output:** Confirmation message for archiving, and record moved to archived records section
 - **Check:** Verify if the staff record appears in the archived records section

Description of Scenarios

Scenario: Create Administrative Staff Account

- ❖ **Customer:**
 - Enter staff details
 - Submit new staff account creation request
 - View confirmation message

❖ **System:**

- Validate input data
- Create new staff record in the system
- Send confirmation message
- Update staff records list

Scenario: Update Administrative Staff Account

❖ **Customer:**

- Select staff record to update
- Enter updated details
- Submit update request
- View confirmation message

❖ **System:**

- Validate input data
- Update staff record in the system
- Send confirmation message
- Update staff records list

Scenario: Delete Administrative Staff Account

❖ **Customer:**

- Select staff record to delete
- Confirm deletion
- View confirmation message

❖ **System:**

- Validate selection
- Delete staff record from the system
- Send confirmation message
- Update staff records list

Scenario: Archive Administrative Staff Record

❖ **Customer:**

- Select staff record to archive
- Confirm archiving
- View confirmation message

❖ **System:**

- Validate selection
- Move staff record to archived section
- Send confirmation message
- Update archived records list

