Team 05
Elaboration Document

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REVISION HISTORY

Date	Revision	Changes
24/03/2010	1.0	Original document created

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1 FUNCTIONAL REQUIREMENTS

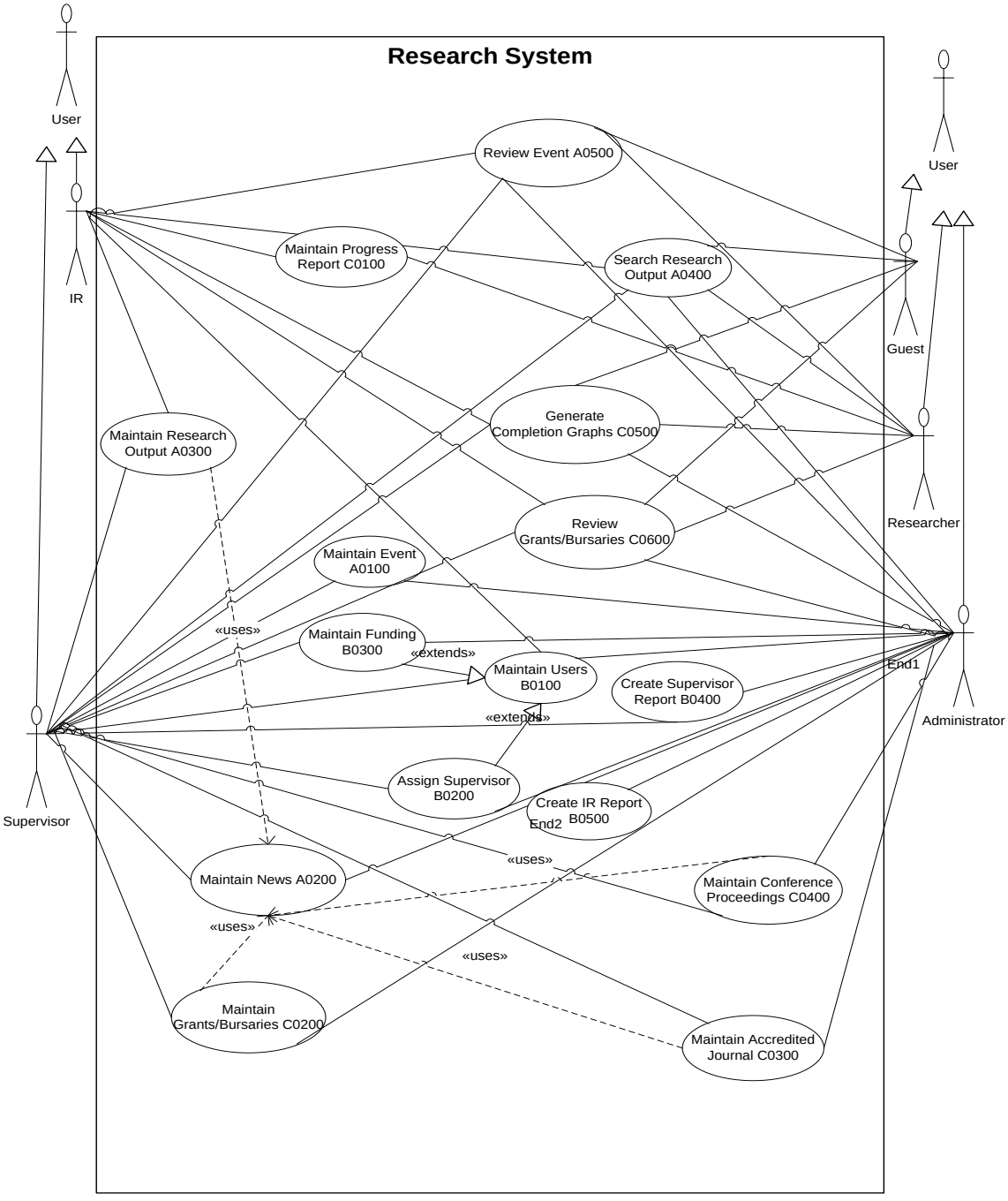
1.1 Amended Business Rules

Rule ID	Rule	Source	Related Rules
BR010	Only an Administrator can: • Add supervisors or independent researchers • Activate or Deactivate User's accounts • Assign or edit the funding of any researcher or independent researcher	Developers	
BR011	Only an Administrator or Supervisor can maintain an event or news	Developers	
BR012	Only a Supervisor can assign a Researcher to them self or an Administrator can assign a Researcher to a Supervisor	Developers	
BR013	Only a Supervisor or Administrator can add a Researcher	Developers	
BR014	Grants and Bursaries can only be added, updated or removed by a Administrator or Supervisor	Developers	
BR015	Only an Administrator or supervisor has access to the Maintain Accredited Journals Page	Developers	

1.2 Use Case Change Log

Use Case Number	Change Description & Motivation
A0500	Added a Review Event use case to show the full details of an event

1.3 Analysis Use Case Model



1.4 Updated Use Case Glossary

Package Id: A9999	**Package Name: Stacey**	
Team Member Responsible: Stacey		
Use Case Id	**Use Case Name**	**Actors**
A0100	Maintain Event	Supervisor, Administrator
A0200	Maintain News	Supervisor, Administrator
A0300	Maintain Research Output	Supervisor, IR
Queries/Reports		
A0400	Search Research Output	Administrator, Supervisor, IR, Researcher, Guest
A0500	Review Event	Administrator, Supervisor, IR, Researcher, Guest

Package Id: B9999	**Package Name: Chesney**	
Team Member Responsible: Chesney		
Use Case Id	**Use Case Name**	**Actors**

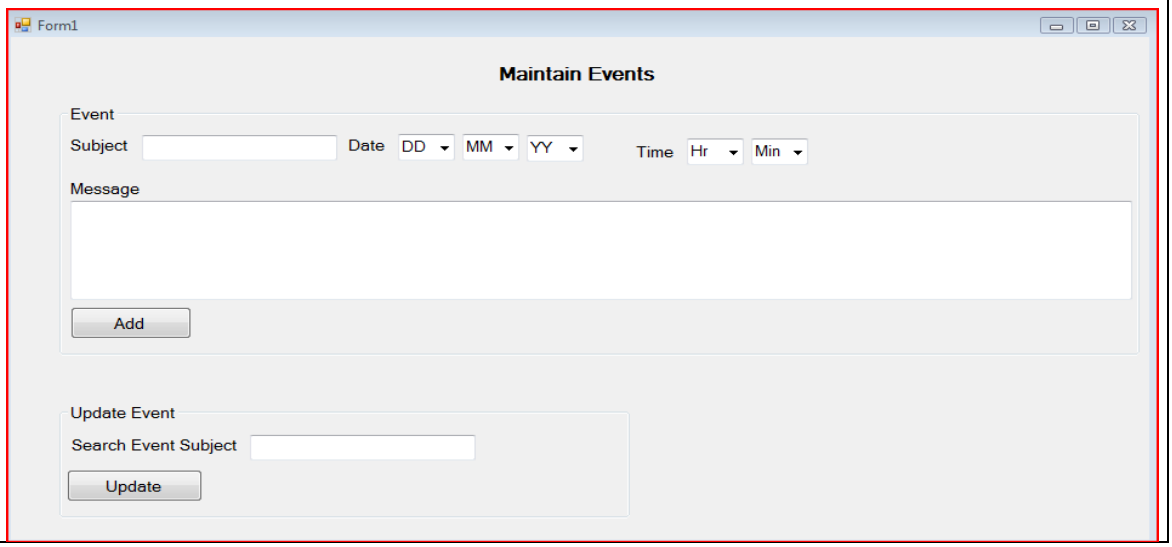
B0100	Maintain Users	Administrator, Supervisor, IR
B0200	Assign Supervisor	Supervisor
B0300	Maintain Funding	Administrator, Supervisor
Queries/Reports		
B0400	Create Supervisor Report	Administrator, Supervisor
B0500	Create IR Report	Administrator

Package Id: C9999	**Package Name: Jeffrey**	
Team Member Responsible: Jeffrey		
Use Case Id	**Use Case Name**	**Actors**
C0100	Maintain Progress Reports	IR, Researcher
C0200	Maintain Grants/Bursaries	Administrator, Supervisor
C0300	Maintain Accredited Journal	Administrator, Supervisor
C0400	Maintain Conference Proceeding	Administrator, Supervisor
Queries/Reports		

C0500	Generate Completion Graphs	IR, Administrator, Supervisor, Researcher, Guest
C0600	Review Grants/Bursaries	IR, Administrator, Supervisor, Researcher, Guest

1.5 Detailed Use Case Narratives with Screen Designs

1.5.1 Package A: Stacey

Use Case ID	Use Case Name
A0100	Maintain Event
Primary Business Actors	**Other participating Actors**
Administrator Supervisor	
Description	Adding, updating and informing users of upcoming research related events on the general forum page
Pre-Conditions	User must be logged on as administrator or supervisor to update or add an event
Triggers	New upcoming event or change in event information
Post-Conditions	New note showing event details on the forum page
Business Rule(s)	BR011
Basic Flow of Events	
1. Actor clicks Maintain Event button on their profile 2. Maintain Events page displayed 3. Event details entered by user 4. Add button is clicked by user 5. Summarized event message displayed on the user profiles and event stored in the Event database 6. User returns to their profile	
Alternate Flow of Events	
2.1 Event subject entered into the search and update button clicked 2.2 Search executed and event displayed in Event box 2.3 Return to step 3 above	
Initial Screen Design	
	

Use Case ID	Use Case Name

A0200	Maintain News
Primary Business Actors	**Other participating Actors**
Administrator Supervisor	
Description	Informing users of new publications or important news
Pre-Conditions	User must be logged on as administrator or supervisor to update or add news
Triggers	The need to inform users of news
Post-Conditions	New note showing news details on the forum page
Business Rule(s)	BR011

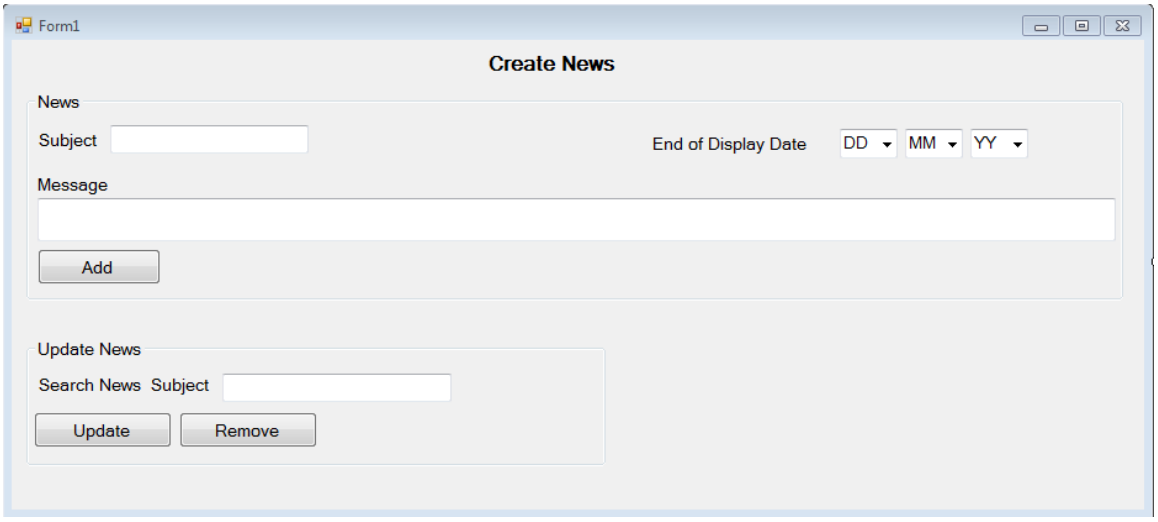
Basic Flow of Events

1. Actor clicks Add news button on their profile
2. Create News page displayed
3. New News details entered by user
4. Add button is clicked by user
5. News message displayed on the user profiles and new news stored in the News database
6. Pop-up message displayed confirming action
7. User returned to their profile when OK button clicked

Alternate Flow of Events

2.1 News subject entered into the search
2.1.1 Update button clicked
2.1.2 Message details displayed in News box
2.1.3 Return to point 3 above
2.2. Remove button clicked
2.2.1 News removed from the database and Flow of Events continued from point 6 above

Initial Screen Design



1.5.2 Package B: Chesney

Use Case ID	Use Case Name	
B0100	Maintain Users	
Primary Business Actors		**Other participating Actors**
Administrator Supervisor		IR
Description	This use case allows for maintenance of all the user's accounts within the system.	
Pre-Conditions	The users involved must exist, for activation the user must have previously been deactivated and for deactivation the user must still be active.	
Triggers	The respective user clicks on the respective add, update, activate or deactivate buttons.	
Post-Conditions	The action's result is stored in the relative database.	
Business Rule(s)	BR010, BR013	

Basic Flow of Events

1. Update:
   - 1.1. The user clicks on the Profile Options button on their / another user's profile page.
   - 1.2. The tab control is then displayed.
   - 1.3. The user then clicks on the Update tab. If the user that is to be edited is a supervisor, then the group box titled "Researcher(s)" is displayed if not, then it is hidden.
   - 1.4. The Update tab is displayed.
   - 1.5. The user then makes changes by editing various text fields, radio buttons and drop down boxes.
   - 1.6. Once the editing is complete the user clicks on the update button at the top of the page.
   - 1.7. All applicable information is stored in the database and changed on the affected user's profile.

Alternate Flow of Events

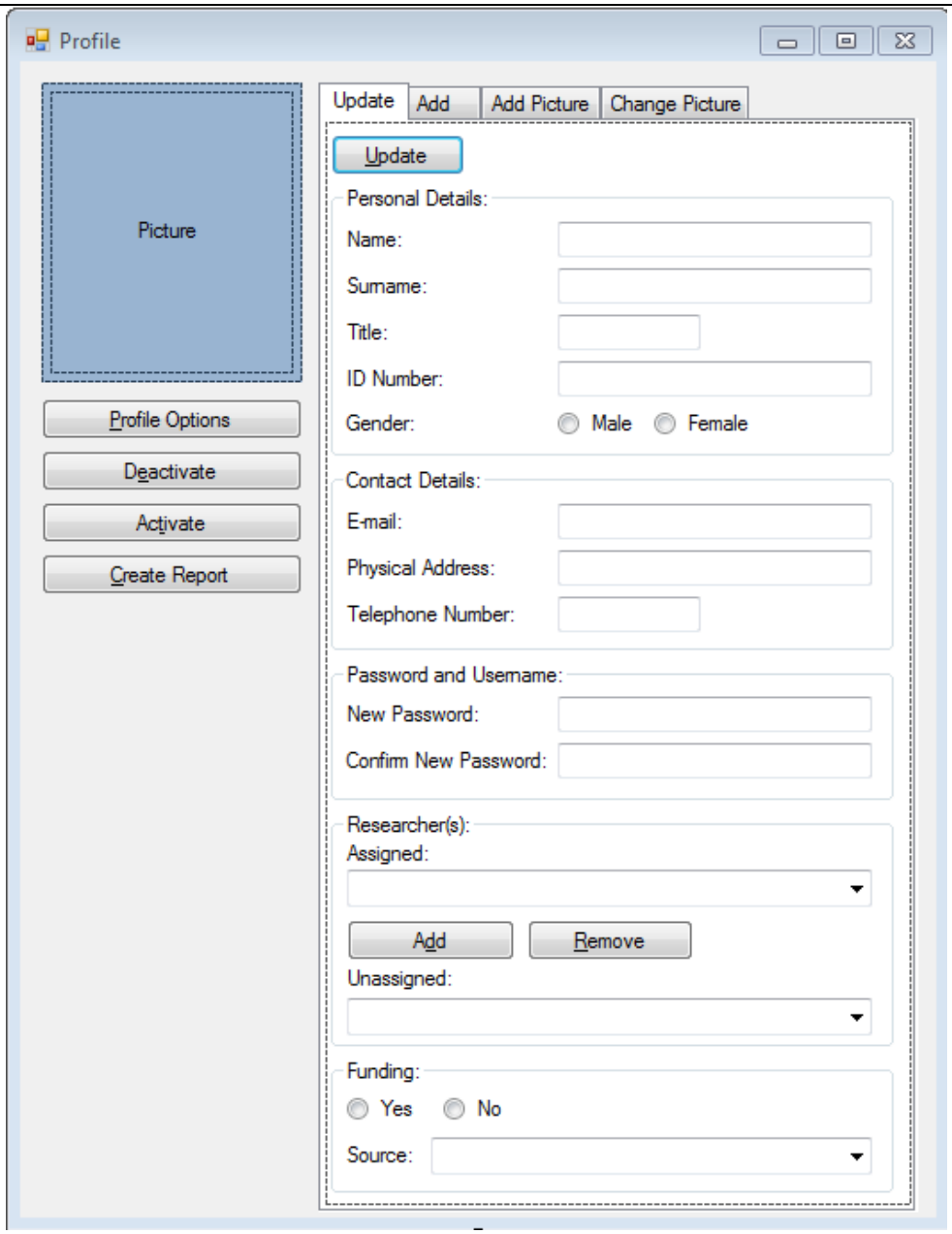
1. Add:
   - 1.1. The user clicks on the Profile Options button on their profile page.
   - 1.2. The tab control is then displayed.
   - 1.3. The user then clicks on the Add tab.
   - 1.4. The Add tab is displayed
   - 1.5. The user chooses what type of user is to be added via a drop down box
   - 1.6. The applicable fields are displayed for the type of user selected, with the non-applicable fields not visible.
   - 1.7. The user then enters the applicable information as laid out in the screen shot.
   - 1.8. Once all information has been added, the user clicks on the Add button
   - 1.9. All applicable information is stored in the database and changed on the affected user's profile.
2. Deactivate:
   - 2.1. The user clicks on the deactivate button on the user's profile that is to be deactivated.
   - 2.2. The user who is being deactivated then is flagged as being deactivated on their profile.
   - 2.3. Affected user has their privileges removed.
   - 2.4. All applicable information is stored in the database and changed on the affected user's profile.
3. Activate:
   - 3.1. The user clicks on the activate button on the user's profile that is to be activated.
   - 3.2. The user who is being activated then is flagged as being activate on their profile
   - 3.3. Affected user has their privileges re-instated.
   - 3.4. All applicable information is stored in the database and changed on the affected user's profile.
4. Change picture:

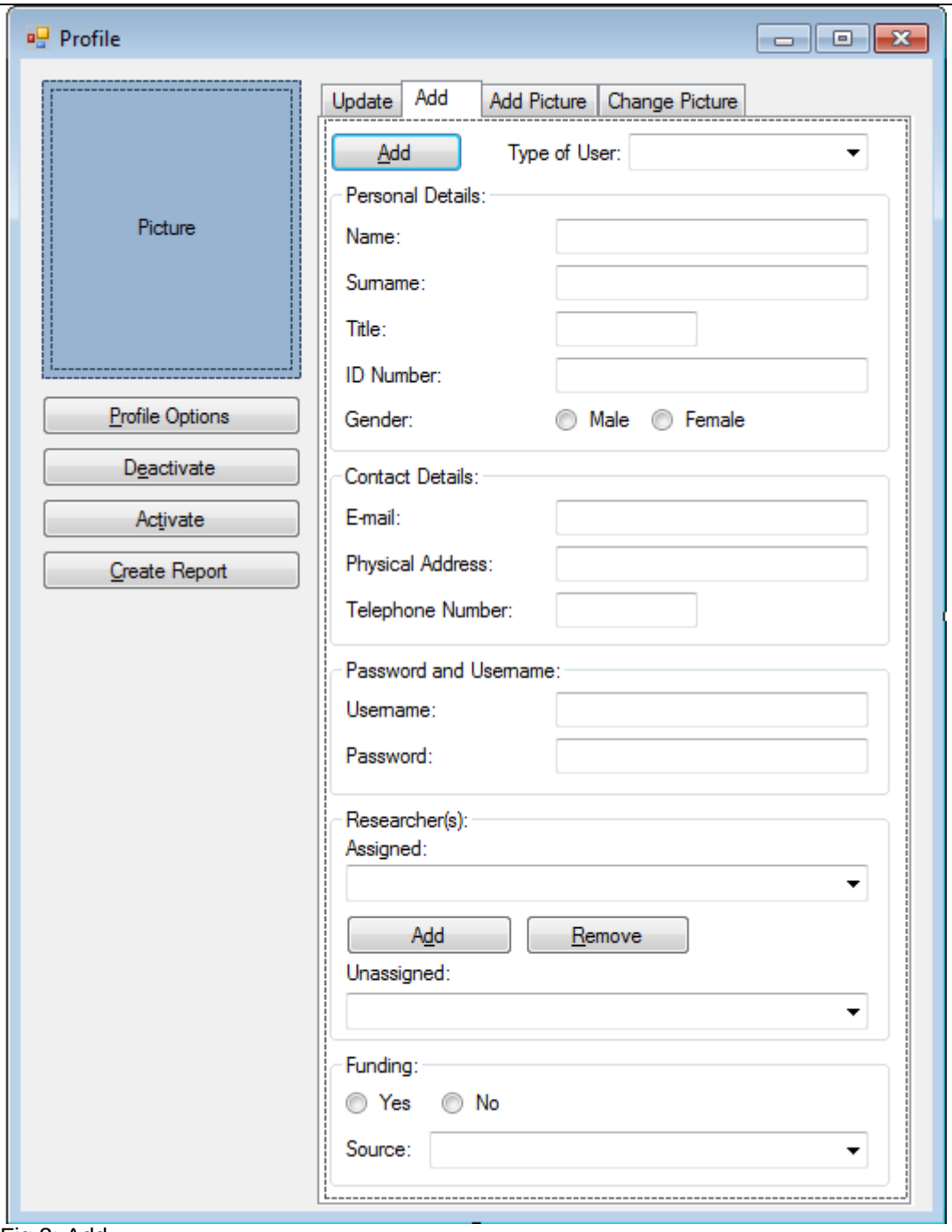
4.1. The user clicks on the Change Picture button on their / another user's profile.
4.2. The tab control is then displayed.
4.3. The user then clicks on the Change Picture tab.
4.4. The Change Picture tab is displayed
4.5. The user selects the picture from those listed in the combo box
4.6. The picture displayed in the group box Preview changes as the selection in the combo box above is made.
4.7. The user clicks on the Change button in the tab.
4.8. The profile picture is changed.
4.9. All applicable information is stored in the database and changed on the affected user's profile.

5. Add Picture:
5.1. The tab control is then displayed.
5.2. The user then clicks on the Add Picture tab.
5.3. The Add Picture tab is displayed
5.4. The user enters the pictures file path.
5.5. The user clicks on the Add Picture button in the tab control titled Add Picture.
5.6. The profile picture is changed, if the check box Make Profile Picture is selected.

All applicable information is stored in the database and changed on the affected user's profile.

Initial Screen Design


Profile
Picture
Profile Options
Deactivate
Activate
Create Report
Update
Add
Add Picture
Change Picture
Update
Personal Details:
Name:
Surname:
Title:
ID Number:
Gender:
Male
Female
Contact Details:
E-mail:
Physical Address:
Telephone Number:
Password and Username:
New Password:
Confirm New Password:
Researcher(s):
Assigned:
Add
Remove
Unassigned:
Funding:
Yes
No
Source:
Fig 1: Update


Profile
Picture
Profile Options
Deactivate
Activate
Create Report
Update
Add
Add Picture
Change Picture
Add
Type of User:
Personal Details:
Name:
Surname:
Title:
ID Number:
Gender:
Male
Female
Contact Details:
E-mail:
Physical Address:
Telephone Number:
Password and Username:
Username:
Password:
Researcher(s):
Assigned:
Add
Remove
Unassigned:
Funding:
Yes
No
Source:
Fig 2: Add

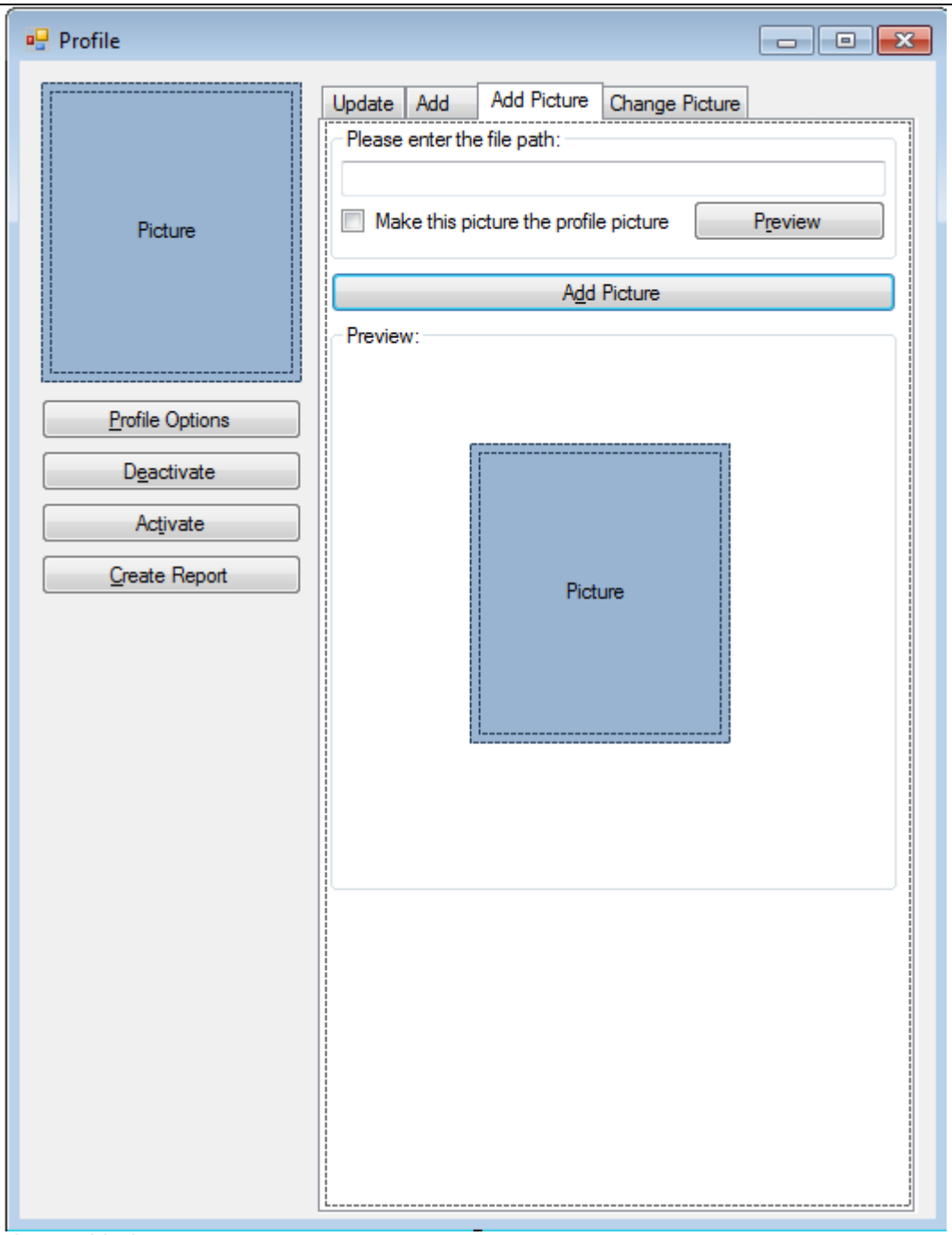


Fig 3: Add Picture

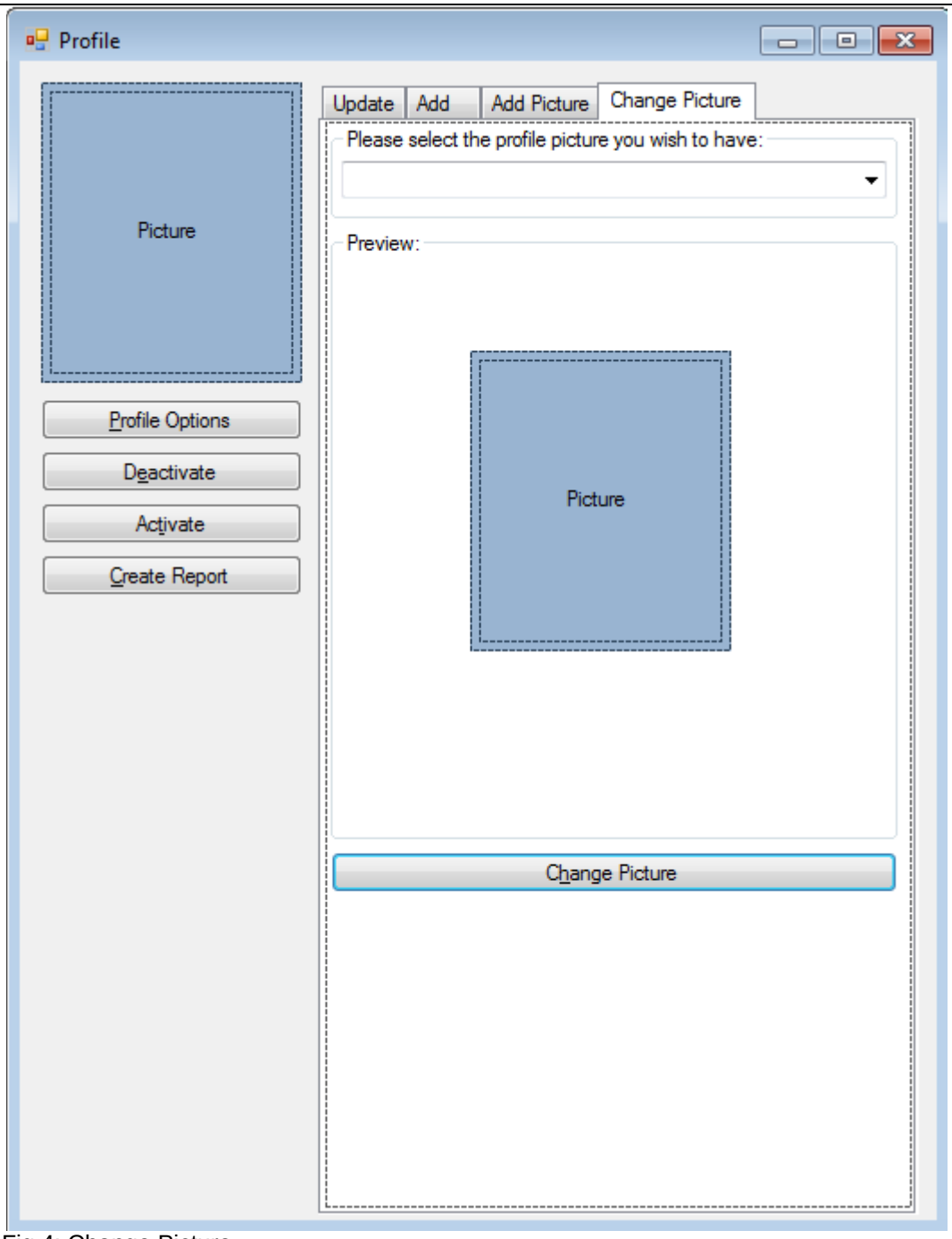
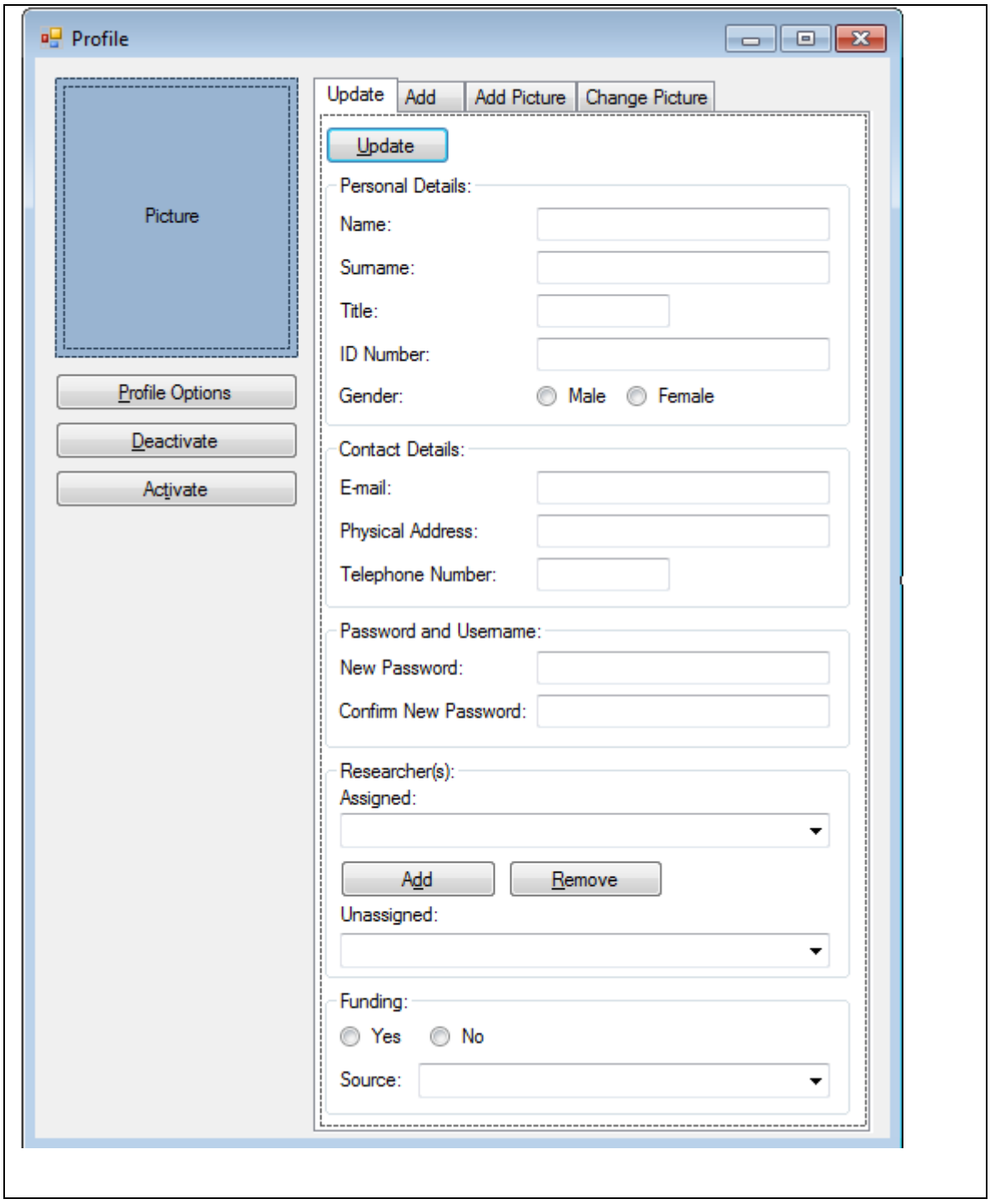


Fig 4: Change Picture

Use Case ID	Use Case Name	
B0200	Assign Supervisor	
Primary Business Actors		**Other participating Actors**
Supervisor, Administrator		
Description	This use case allows a researcher to be assigned to a supervisor.	
Pre-Conditions	The researcher being assigned must exist.	
Triggers	Supervisor clicks on the Add button under the Add tab control of his / her profile options.	
Post-Conditions	A supervisor has a researcher assigned to them.	
Business Rule(s)	BR012	
Basic Flow of Events		
1. Supervisor clicks on the Profile Options button on his / her profile 2. The tab control is then displayed. 3. The supervisor then clicks on the Update tab. 4. The Update tab is displayed. 5. The supervisor selects the applicable researcher in the combo box labeled Unassigned. 6. The supervisor clicks the Add button in the group box named Researcher(s). 7. The selected researcher is then moved to the combo box labeled Assigned. 8. All applicable information is stored in the database and changed on the affected user's profile.		
Alternate Flow of Events		
2.1 If the researcher doesn't exist, the supervisor follows the normal method for adding a new researcher as per use case B0100. 2.2 The supervisor follows the Basic Flow of Events as above from point 3.		
Initial Screen Design		


Profile
Picture
Profile Options
Deactivate
Activate
Update
Add
Add Picture
Change Picture
Update
Personal Details:
Name:
Surname:
Title:
ID Number:
Gender:
Male
Female
Contact Details:
E-mail:
Physical Address:
Telephone Number:
Password and Username:
New Password:
Confirm New Password:
Researcher(s):
Assigned:
Add
Remove
Unassigned:
Funding:
Yes
No
Source:

1.5.3 Package C: Jeffrey

Use Case ID	Use Case Name
C0200	Maintain Grants/Bursaries
Primary Business Actors	**Other participating Actors**
Administrator Supervisor	
Description	Adding, updating and deleting of available grant/bursary agencies and their details are stored in a database.
Pre-Conditions	User must be logged on as a supervisor or administrator.
Triggers	New funding agency is available, details of a funding agency or grant/bursary is changed or an agency is removed from accredited list.
Post-Conditions	List of funding agencies is updated.
Business Rule(s)	BR014

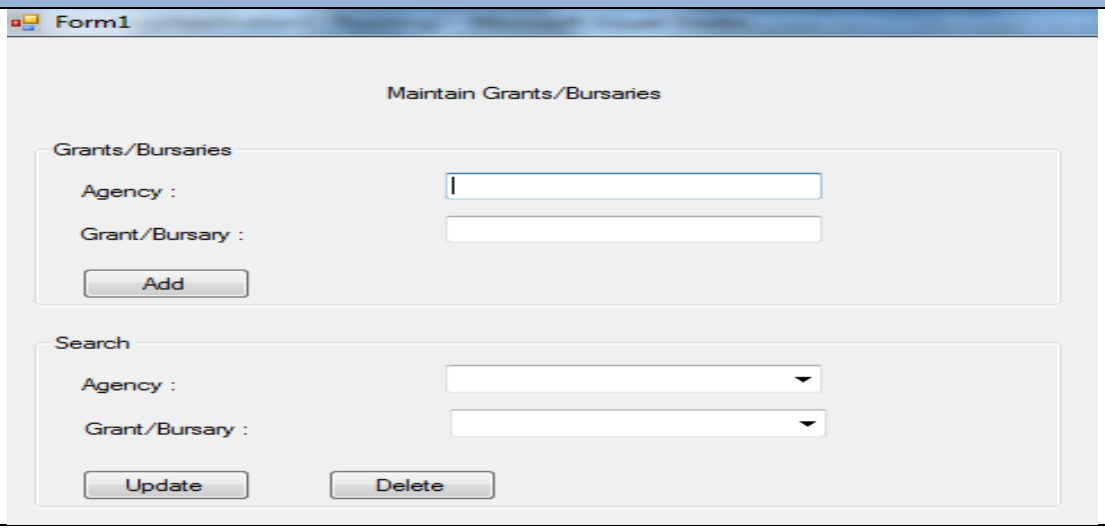
Basic Flow of Events

1. User clicks the Maintain grants/bursaries button on their profile
2. Maintain grants/bursaries screen is displayed
3. Grant/bursary details added by user
4. The Add button is clicked by the user
5. New agency is added to the Grants/Bursaries database and a message is displayed in the News section of user's profiles alerting them about a new Grant/Bursary.
6. User returns to their profile

Alternate Flow of Events

2.1 User selects an agency or a grant/bursary from their respective dropdown lists.
2.1.1 Update button is clicked by user
2.1.2 Funding details appear in the grant/bursaries box
2.1.3 Return to point 3 above
2.2 User selects an agency or a grant/bursary from their respective dropdown lists.
2.2.1 Delete button is clicked by user
2.2.2 Agency is removed from the Funding agency database and user returns to their profile
2.2.3 Return to point 3 above

Initial Screen Design



Use Case ID	Use Case Name
C0300	Maintain Accredited Journal
Primary Business Actors	**Other participating Actors**
Administrator Supervisor	
Description	Adding, updating and deleting a list of accredited journals which is stored in a database
Pre-Conditions	User must be logged on as a supervisor or administrator.
Triggers	New journal is accredited, details of a journal are changed or a journal is not accredited anymore.
Post-Conditions	List of accredited journals is updated.
Business Rule(s)	BR015

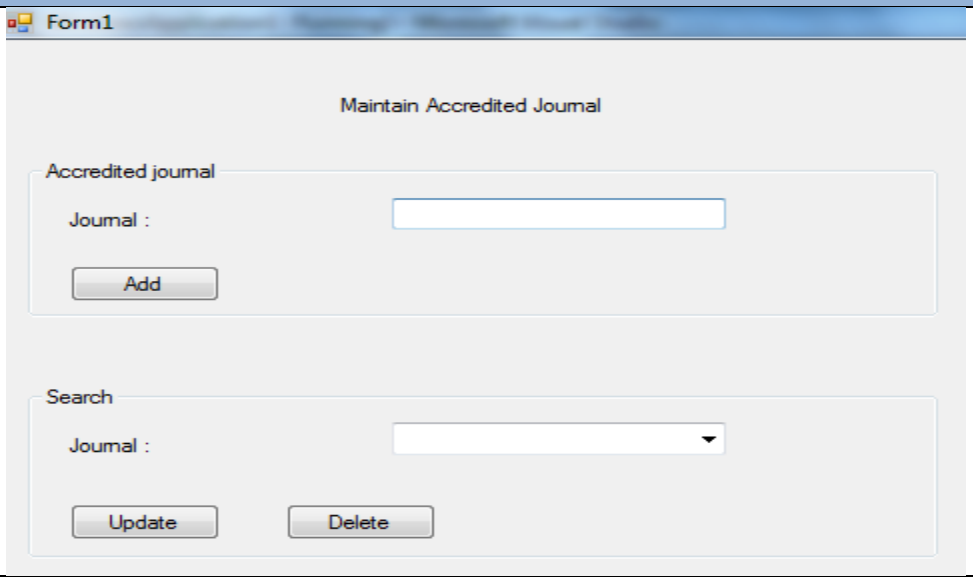
Basic Flow of Events

1. User clicks the Maintain Journal button on their profile
2. Maintain Journal screen is displayed
3. Journal details added by user
4. The Add button is clicked by the user
5. New accredited journal is added to the Accredited Journal database, a message is displayed in the News section of user's profiles alerting them about a new accredited journal.
6. User returns to their profile

Alternate Flow of Events

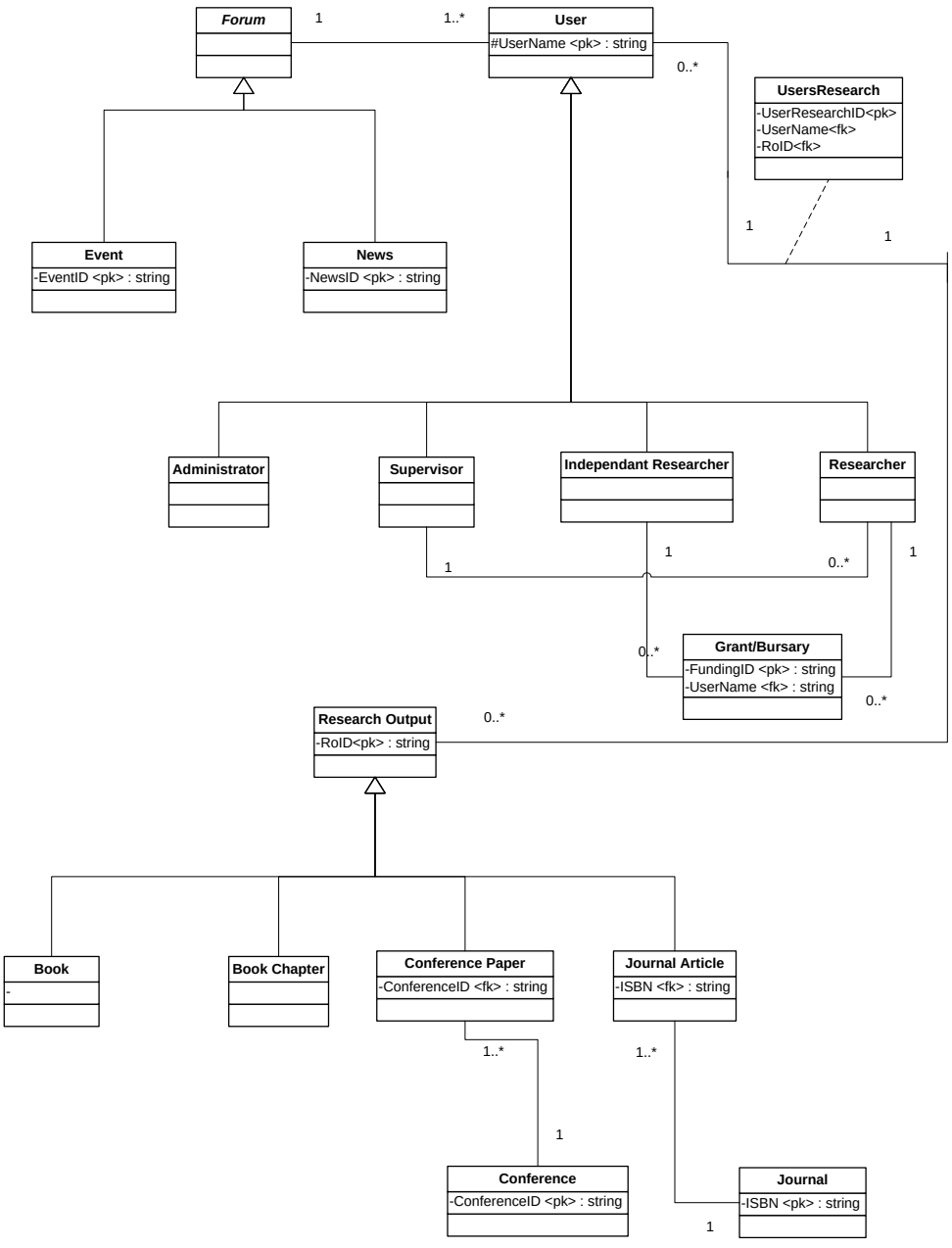
2.1 User selects a journal from journal lists.
2.1.1 Update button is clicked by user
2.1.2 Journal details appear in the accredited journal box
2.1.3 Return to point 3 above
2.2 User selects a journal from journal lists.
2.2.1 Delete button is clicked by user
2.2.2 Journal is removed from the Accredited Journal database.
2.2.3 Return to point 6 above

Initial Screen Design



2 DATA REQUIREMENTS

2.1 Class Diagram



2.2 Database Design

Table Name	Identifiers <pk> <fk>	Attributes
Supervisor	UserName<pk>	Title, Name, Surname, UserName, Password, Address, Email, Gender, TelNumber, PofilePic, AssignedResearchers
Researcher	UserName<pk>	Title, Name, Surname, UserName, Password, Address, Email, Gender, TelNumber, PofilePic, Assigned supervisor, Research Output, Current course, Funding
Administrator	UserName<pk>	Title, Name, Surname, UserName, Password, Address, Email, Gender, TelNumber, PofilePic,
Independent Researcher	UserName<pk>	Title, Name, Surname, UserName, Password, Address, Email, Gender, TelNumber, PofilePic, Funding, Research output
Book	RoID<pk>	Applicant title, Initial, Surname, viewTimes, Title, Author, Publisher, ISBN, Target group, Total Number of pages, Number of chapters
Book Chapter	RoID<pk>	Applicant title, initial, surname, viewTimes, Title, author, publisher, ISBN, chapter number
Conference Paper	RoID<pk> ConferenceID<fk>	Applicant title, initial, surname, viewTimes, Title, related conference title, author, email
Journal Article	RoID<pk> ISBN<fk>	Applicant title, initial, surname, viewTimes, Article title, journal, author, volume number
Conference	ConferenceID<pk>	ConferenceIdD, Conference Title, start date, end date, city, venue
Journal	ISBN<pk>	Journal Title, editor, publisher, ISBN number, organization, email
Event	ForumID<pk>	Subject, message, creator, creator's email, time created, time, date, location
News	ForumID<pk>	Subject, time created, creator, Message, Creator's email

Grant/Bursary	Grant/BursaryID<pk> UserName<fk>	Name, time period, funder, contact
UserResearch	UserResearchID<pk>	UserName<fk>, RoID<fk>

3 USE CASE DEVELOPMENT PRIORITIES

3.1 Package A: Stacey

Use Case ID	Main Functionality	Use Case IDs of use case(s) invoked by this use case
A0200	news message created, then details displayed on the user's profile	
A0300	adding and updating research output and displaying a message under news on users profile	A0200
A0400	search executed and report shown as screen output	
A0100	event message is created or updated and displayed on the user's profile	
A0500	opens the message link in the user profile to display the entire message contents	

3.2 Package B: Chesney

Use Case ID	Main Functionality	Use Case IDs of use case(s) invoked by this use case
B0100	This use case allows for maintenance of all the users' accounts within the system.	B0300, B0200
B0200	This use case allows a researcher to be assigned to a supervisor.	
B0300	This use case will maintain the funding of an independent researcher or researcher.	
B0400	This use case allows a report to be created to show all supervisors and their relative researchers.	
B0500	This use case allows a report to be created to show all IRs.	

3.3 Package C: Jeffrey

Use Case ID	Main Functionality	Use Case IDs of use case(s) invoked by this use case
C0100	Adding and updating a progress report for each user showing a percentage of how far they are with each of their research outputs.	
C0200	Adding, updating and deleting of available	A0200

	grant/bursary agencies and their details are stored in a database.	
C0300	Adding, updating and deleting a list of accredited journals which is stored in a database.	A0200
C0400	Adding, updating and deleting a list of conference proceedings which is stored in a database.	A0200
C0500	The user can generate graphs depicting the difference in various statistics from this and previous years.	
C0600	The user can generate a list of all the available funding agencies with the grants/bursaries they offer.	