
Team <12>

Elaboration Document

Team Members:

208093209, Irene Booysen

20603419, Bavani Chetty

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1 FUNCTIONAL REQUIREMENTS

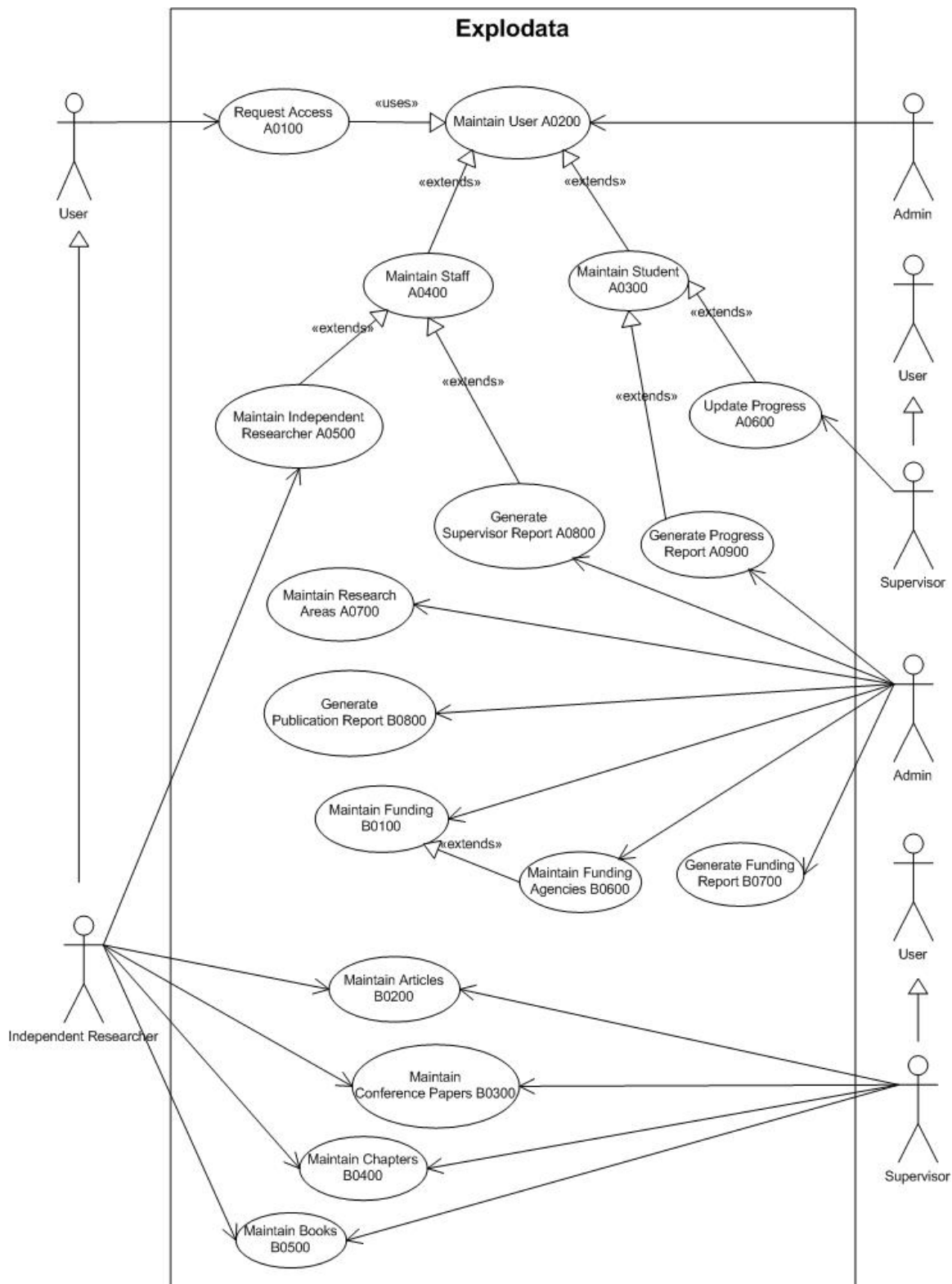
1.1 Amended Business Rules

Rule ID	Rule	Source	Related Rules
BR010	Only accredited publications will be captured		
BR011	Accredited lists will be updated outside of the system		

1.2 Use Case Change Log

Use Case Number	Change Description & Motivation
B0600	Deleted. Will be updated outside of the system (manually)
B0700	Deleted. Will be updated outside of the system (manually)

1.3 Analysis Use Case Model



1.4 Updated Use Case Glossary

Package Id: A Package Name: User Maintenance		
Team Member Responsible: Irene Booysen		
Use Case Id	Use Case Name	Actors
A0100	Request Access	User
A0200	Maintain User	Admin
A0300	Maintain Student	Admin
A0400	Maintain Staff	Admin
A0500	Maintain Independent Researcher	Staff
A0600	Update Progress	Supervisor
A0700	Maintain Research Areas	Admin
Queries/Reports		
A0800	Generate Supervisor Report	Admin
A0900	Generate Progress Report	Admin

Package Id: B		Package Name: Funding and Outputs
Team Member Responsible: Bavani Chetty		
Use Case Id	Use Case Name	Actors
B0100	Maintain Funding	Admin
B0200	Maintain Articles	Independent Researcher/ Supervisor
B0300	Maintain Conference Papers	Independent Researcher/ Supervisor
B0400	Maintain Chapters	Independent Researcher/ Supervisor
B0500	Maintain Books	Independent Researcher/ Supervisor
B0600	Maintain Funding Agencies	Admin
Queries/Reports		
B0700	Generate Funding Report	Admin
B0800	Generate Publication Report	Admin

1.5 Detailed Use Case Narratives with Screen Designs

1.5.1 Package A: User Maintenance

Use Case ID	Use Case Name
A0100	Request Access
Primary Business Actors	Other participating Actors
Users	Admin
Description	This use case allows a user to request access to become a general user, an independent researcher, a supervisor or a post graduate student.
Pre-Conditions	The user must be part of the Department of Computing Sciences.
Triggers	User requests access and email is sent to admin.
Post-Conditions	User name and password are emailed to the user and access and authorization granted.
Business Rule(s)	
Basic Flow of Events	
<ol style="list-style-type: none">1. User requests access to the system.2. System saves request and generates email to admin.3. System prints line "Your request has been received"4. User clicks exit button5. System exits	
Alternate Flow of Events	
<ol style="list-style-type: none">1.1 User logs in1.2 User (Staff) requests supervisor and/or independent research rights1.3 User clicks save button1.4 System saves requests and generates email to admin.1.5 System prints line "Your request has been received".1.6 User clicks exit button1.7 System exits <ol style="list-style-type: none">1.1 User logs in1.2 User (Staff) requests for rights to be removed1.3 User clicks save button1.4 System saves requests and generates email to admin.1.5 System prints line "Your request has been received".1.6 User clicks exit button.1.7 System closes	
Initial Screen Design	

Use Case ID	Use Case Name	
A0200	Maintain User	
Primary Business Actors		Other participating Actors
Admin		
Description	In this use case, users are added to, deleted from and updated in a database. Basic details of users are stored here, such as name, surname, email, type of user (staff or student).	
Pre-Conditions	Admin must be logged into the system.	
Triggers	Admin receives an email requesting access. Admin wants to update user details. Admin wants to deactivate a staff member or a student from the system. A user wants more access rights. Invoked from A0100.	
Post-Conditions	All users are maintained within the system.	
Business Rule(s)		
Basic Flow of Events		
<div>1. Admin clicks on the Add User tab</div> <div>2. System opens the Add User form</div> <div>3. Admin types all the details in the required fields</div> <div>4. Admin selects staff radio button</div> <div>5. System opens the staff details</div> <div>6. Admin types in the required details</div> <div>7. Admin clicks the save button</div> <div>8. System saves changes to the database</div> <div>OR</div> <div>1. Admin clicks on the Edit User tab</div> <div>2. System opens the Edit User form</div> <div>3. Admin types part of the surname into the search</div> <div>4. System auto completes the surname and opens drop down list</div> <div>5. Admin selects correct user</div> <div>6. System loads the correct user and invokes Maintain Staff</div> <div>7. Admin changes/edits details/permissions</div> <div>8. Admin clicks save</div> <div>9. System saves the changes to the database</div>		
Alternate Flow of Events		
<div>4.1 Admin selects the student radio button</div> <div>4.2 System opens the student details</div> <div>4.3 Admin types in the required details</div> <div>4.4 Admin clicks the save button</div> <div>4.5 System saves changes to the database</div> <div>OR</div> <div>6.1 System loads the correct user and invokes Maintain Student</div> <div>6.2 Admin changes/edits details</div> <div>6.3 Admin clicks save</div>		

6.4 System saves the changes to the database
OR

- 4.1 System does not indicate that staff member/student is a valid user
- 4.2 Admin selects Add User tab
- 4.3 System opens the Add User form
- 4.4 Admin types all the details in the required fields
- 4.5 Admin selects staff radio button
- 4.6 System opens the staff details
- 4.7 Admin types in the required details
- 4.8 Admin clicks the save button
- 4.9 System saves changes to the database


Initial Screen Design

The screenshot displays a web application window titled "Maintian User". On the left is a sidebar with the "Explodata" logo and the text "NMMU Research System". The main content area has two tabs: "Add User" (selected) and "Edit User". Below the tabs is a "Selection" section with the heading "Enter the details of the new user". The form contains the following fields and controls:

- Title:
- Initials:
- Name:
- Surname:
- Date of Birth:
- Gender: ☒ Female ☐ Male
- Email:
- Tel no:
- Cell no:
- Address:
- Area Code:
- Highest Qualification:
- Year Obtained:
- Username:
- Password:
- ☐ Student ☐ Staff
-

Maintian User

Explodata



NMMU
Research
System

Add User

Edit User

Selection

Select the user on the right

Search:

Title: Initials: Name: Surname:

Date of Birth: Gender: ☒ Female ☐ Male Email:

Tel no: Cell no:

Address:

Highest Qualification: Area Code:

Year Obtained:

Username: Password:

☐ Student ☐ Staff

Reset

Use Case ID	Use Case Name	
A0300	Maintain Student	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case contains student details such as student number, level of study and highest qualification. The use case also contains the details regarding the current research the student is conducting (if any).	
Pre-Conditions	Admin must be logged in.	
Triggers	Student informs admin about a change in their student details. Student informs admin that they will be doing a post graduate course and what their research topic is. Invoked from A0200.	
Post-Conditions	Details of students accessing the system are maintained. Details of post graduate students regarding their research topics, highest qualification and level of study are maintained.	
Business Rule(s)		
Basic Flow of Events		
<div>1. Admin clicks on the maintain user button</div> <div>2. The system opens the maintain user form</div> <div>3. Admin clicks on the edit user tab</div> <div>4. Admin types part of the surname into the search</div> <div>5. System auto completes the surname and opens drop down list</div> <div>6. Admin selects correct student</div> <div>7. System loads the correct student and invokes Maintain Student</div> <div>8. Admin changes/edits details</div> <div>9. Admin clicks save</div> <div>10. System saves the changes to the database</div>		
Alternate Flow of Events		
<div>5.1 System does not find a matching student</div> <div>5.2 Admin selects Add User tab</div> <div>5.3 System opens the Add User form</div> <div>5.4 Admin types all the details in the required fields</div> <div>5.5 Admin selects student radio button</div> <div>5.6 System opens the student details</div> <div>5.7 Admin types in the required details</div> <div>5.8 Admin clicks the save button</div> <div>5.9 System saves changes to the database</div>		

Initial Screen Design

Maintain Student

Explodata
NMMU
Research
System

Add User **Edit User**

Selection

Enter the details of the new user

Title: Initials: Name: Surname:

Date of Birth: 22 March 2010 Gender: ☒ Female ☐ Male Email:

Tel no: Cell no:

Address:

 Area Code:

Highest Qualification: Year Obtained:

Username: Password:

☒ Student ☐ Staff

Student Details

Student Number: Current Qualification (Currently studying): BCom CS&IS

Maintain Student

Explodata
NMMU
Research
System

Add User **Edit User**

Selection

Select the user on the right

Title: Initials: Name: Surname:

Date of Birth: 22 March 2010 Gender: ☒ Female ☐ Male Email:

Tel no: Cell no:

Address:

 Area Code:

Highest Qualification: Year Obtained:

Username: Password:

☐ Student ☒ Staff

Student Details

Student Number: Current Qualification (Currently studying): BCom CS&IS

Use Case ID	Use Case Name	
A0400	Maintain Staff	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case is used to maintain details relating to staff such as staff number, position and qualification. Here staff members are also given supervisor rights or no supervisor rights.	
Pre-Conditions	Admin must be logged into the system.	
Triggers	Details of a staff member changes A staff member requests supervisor rights on the system. A staff member wants to be an independent researcher. Invoked from A0200.	
Post-Conditions	Staff is maintained within the system.	
Business Rule(s)		
Basic Flow of Events		
<div>1. Admin clicks on maintain user button.</div> <div>2. The system opens the maintain user form.</div> <div>3. Admin clicks on the edit user tab.</div> <div>4. Admin types part of the surname into the search.</div> <div>5. System auto completes the surname and opens drop down list.</div> <div>6. Admin selects correct staff member.</div> <div>7. System loads the correct staff member and invokes Maintain Staff.</div> <div>8. Admin changes/edits details.</div> <div>9. Optional – Admin changes/edits staff access rights by clicking on the appropriate radio button.</div> <div>10. Admin clicks save.</div> <div>11. System saves the changes to the database.</div>		
Alternate Flow of Events		
<div>5.1 System does not find a matching staff member</div> <div>5.2 Admin selects Add User tab</div> <div>5.3 System opens the Add User form</div> <div>5.4 Admin types all the details in the required fields</div> <div>5.5 Admin selects staff radio button</div> <div>5.6 System opens the staff details</div> <div>5.7 Admin types in the required details</div> <div>5.8 Admin clicks the save button</div> <div>5.9 System saves changes to the database</div>		

Initial Screen Design

Maintian Staff

Explodata
NMMU
Research
System

Add User **Edit User**

Selection **Select the user on the right** **Search:**

Title: **Initials:** **Name:** **Surname:**

Date of Birth: 22 March 2010 **Gender:** ☒ Female ☐ Male **Email:**

Tel no: **Cell no:**

Address:

 Area Code:

Highest Qualification: **Year Obtained:**

Username: **Password:**

☐ Student ☒ Staff **Reset**

Staff Details

Staff Number: **Position:** Lecturer **Supervisor:** ☐ Yes ☒ No

Active/Not: ☒ Yes ☐ No **Save** **Cancel** **Independent Researcher:** ☐ Yes ☒ No

Maintian Staff

Explodata
NMMU
Research
System

Add User **Edit User**

Selection **Enter the details of the new user**

Title: **Initials:** **Name:** **Surname:**

Date of Birth: 22 March 2010 **Gender:** ☒ Female ☐ Male **Email:**

Tel no: **Cell no:**

Address:

 Area Code:

Highest Qualification: **Year Obtained:**

Username: **Password:**

☐ Student ☒ Staff **Reset**

Staff Details

Staff Number: **Position:** Lecturer **Supervisor:** ☐ Yes ☒ No

Save **Cancel** **Independent Researcher:** ☐ Yes ☒ No

Use Case ID	Use Case Name	
A0500	Maintain Independent Researcher	
Primary Business Actors		Other participating Actors
Independent Researcher		
Description	This use case maintains details of staff members that are independent researchers. Details include research topic, areas of interest. This use case inherits data from the maintain staff use case.	
Pre-Conditions	The user must be an academic staff member in order for him/her to qualify to be an independent researcher. The independent researcher must be logged into the system.	
Triggers	A new independent researcher is added or researcher wants to update their research topic. Independent researcher wants to add/change details. Invoked from A0400.	
Post-Conditions	Independent Researcher's details are maintained and updated by the researchers themselves.	
Business Rule(s)		
Basic Flow of Events		
<div>1. Independent researcher changes his/her research topic</div> <div>2. Independent researcher clicks the save button</div> <div>3. System saves the changes and updates the database.</div> <div>OR</div> <div>1. Independent Researcher changes details regarding research</div> <div>2. Independent Researcher clicks the save button</div> <div>3. System saves the changes and updates the database.</div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
A0600	Update Progress	
Primary Business Actors		Other participating Actors
Supervisor		
Description	Supervisors use this use case to update their students' progress. They can generate and print progress reports and students are emailed when progress is updated.	
Pre-Conditions	The user must be a supervisor in order to access this use case and the supervisor must have student. Supervisor must be logged into the system.	
Triggers	Supervisor wants to update student progress	
Post-Conditions	Research progress is updated and maintained.	
Business Rule(s)		
Basic Flow of Events		
<div>1. Supervisor searches for student</div> <div>2. Supervisor updates the student's research progress</div> <div>3. Supervisor saves student's progress</div> <div>4. System saves the changes to the database</div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
A0700	Maintain Research Areas	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case maintains a list of research areas and topics that are of interest to the department. Admin updates and maintains the research areas and topics but staff and post graduate students will be able to view these lists.	
Pre-Conditions	Admin must be logged into the system.	
Triggers	Admin wants to update the research areas and topics	
Post-Conditions	Research areas and topics are updated.	
Business Rule(s)		
Basic Flow of Events		
<div><div>1.</div><div>Admin loads the list of research areas.</div></div> <div><div>2.</div><div>Admin updates the topics within that research area or admin adds new research areas.</div></div> <div><div>3.</div><div>Admin clicks the save button.</div></div> <div><div>4.</div><div>The system saves the data to the database.</div></div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
A0800	Generate Supervisor Report	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case is used to generate a report containing information regarding supervisors and/or their students.	
Pre-Conditions	Admin must be logged into the system.	
Triggers	A report is requested. Invoked by A0200.	
Post-Conditions	Admin generates a report according to a specific query.	
Business Rule(s)		
Basic Flow of Events		
<div><div>1.</div><div>Admin enters query by adding details such as date, indicating by use of checkboxes what details must be in the report.</div></div> <div><div>2.</div><div>Admin clicks generate report button.</div></div> <div><div>3.</div><div>System produces report.</div></div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
A0900	Generate Progress Report	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case generates a report of a selected number of students that indicates their details and progress. E.g. this case will be used to generate a report containing all the details of the post graduate students that are Telkom bursars.	
Pre-Conditions	Admin must be logged into the system.	
Triggers	A progress report is requested. Invoked by A0300.	
Post-Conditions	Admin generates a progress report according to a specific query.	
Business Rule(s)		
Basic Flow of Events		
<div><div>1.</div><div>Admin enters query by adding details such as date, indicating by use of checkboxes what details must be in the report.</div></div> <div><div>2.</div><div>Admin clicks generate report button.</div></div> <div><div>3.</div><div>System produces report.</div></div>		
Alternate Flow of Events		
Initial Screen Design		

1.5.2 Package B: Funding and Outputs


Use Case ID	Use Case Name
B0100	Maintain Funding
Primary Business Actors	Other participating Actors
Admin	
Description	This use case updates the amount of funding a student/ independent researcher receives from a funding agency as well as update pending applications.
Pre-Conditions	Admin must be logged onto the system. The student/independent researcher must exist on the system. The funding agency must exist before the funding is allocated to/ applied for by the student/independent researcher.
Triggers	Student/ independent researcher applies for funding/ receives application status
Post-Conditions	A student/ independent researcher's funding status is updated
Business Rule(s)	
Basic Flow of Events	
<ol style="list-style-type: none"> 1. Admin selects Apply For Funding tab 2. System opens Apply For Funding tab 3. Admin searches for student/ independent researcher 4. System displays student/ independent researchers details 5. Admin selects the funding agency's name from a drop down list 6. Admin captures funding details 7. Admin clicks save button 8. Systems saves the funding information 9. When funding agency replies to application, admin will select Edit Funding Status tab 10. repeat steps 3 to 4 11. System will display a list of all the funding applied for by the student/independent researcher 12. Admin will select a funding application from the list 13. System will display the details of the selection 14. Admin selects received or denied radio buttons 15. Admin clicks save button 16. System will save the changes made 	
Alternate Flow of Events	
<ol style="list-style-type: none"> 5.1 If funding agency is not on the drop down list, admin must enter the funding agency name in the text box (invoke maintain funding agency use case) 5.2 Go to step 6 9.1 If details were captures incorrectly, admin will select Edit Funding Status tab 9.2 repeat steps 3 to 4 9.3 System will display list of all funding applied for by the student/independent researcher 9.4 Admin will select a funding application from the list 9.5 System will display the details of the selection 9.6 Admin will edit the relevant details 9.7 Admin will click save button 9.8 System will save the changes made 9.9 Once funding agency replies to application, continue with original step 7 	

Initial Screen Design

The screenshot shows a web application window titled 'Funding'. On the left is a sidebar with the 'Explodata' logo and the text 'NMMU Research System'. The main content area has two tabs: 'Apply For Funding' (active) and 'Edit Funding Status'. Below the tabs, the text 'Please make selection on the left' is displayed. To the right of this text is a 'Search researcher:' dropdown menu with 'Miss Lauren Brown' selected. Below this, the user's details are shown: 'Title: Miss', 'Initials: L', 'Name: Lauren', and 'Surname: Brown'. The 'Funding Agency' section contains a 'Select Funding Agency:' dropdown and an 'Enter Funding Agency Name:' text input, separated by the word 'or'. The 'Funding Details' section has three text inputs: 'Start date:', 'End date:', and 'Funding amount:'. At the bottom right are three buttons: 'Save', 'Cancel', and 'Reset'.

This screenshot shows the same 'Funding' application window, but with the 'Edit Funding Status' tab selected. The sidebar and search field remain the same. The user details are also the same. The 'Funding Agency' section is identical. The 'Funding Details' section now includes three radio buttons labeled 'applied', 'received', and 'denied'. The 'Save', 'Cancel', and 'Reset' buttons are still present at the bottom right.

Use Case ID	Use Case Name	
B0200	Maintain Articles	
Primary Business Actors		Other participating Actors
Independent Researcher/ Supervisor		
Description	This use case adds and updates Journal article details submitted by a student/ independent researcher.	
Pre-Conditions	Independent Researcher/ Supervisor must be logged onto the system. The student/ independent researcher must exist on the system.	
Triggers	The student/ independent researcher submits a Journal article	
Post-Conditions	A Journal article is created on the system and linked to a researcher (student/ independent researcher)	
Business Rule(s)	BR008	
Basic Flow of Events		
<div>1. Supervisor/Independent researcher clicks the Add Article tab</div> <div>2. System opens Add Article Tab</div> <div>3. Supervisor selects student from a drop down list or Independent researcher selects their own name from the drop down list</div> <div>4. System will display the details of the selection</div> <div>5. Supervisor/ independent researcher selects the accredited journal from a drop down list</div> <div>6. Supervisor/ independent researcher captures the journal article details</div> <div>7. Supervisor/ independent researcher clicks save button</div> <div>8. System saves the journal article</div>		
Alternate Flow of Events		
<div>9.1 If details were captured incorrectly, supervisor/independent researcher selects Edit Article tab</div> <div>9.2 repeat steps 2 to 4</div> <div>9.3 System will display list of articles linked to selection</div> <div>9.4 Supervisor/independent researcher selects article from list</div> <div>9.5 System will display the details of the selection</div> <div>9.6 Supervisor/independent researcher edits relevant details of article</div> <div>9.7 Supervisor/independent researcher clicks save button</div> <div>9.8 System saves changes made</div>		
Initial Screen Design		

Explodata

NMMU
Research
System

Funding

Apply For Funding
Edit Funding Status

Please make selection on the left

Search researcher: Miss Lauren Brown

Title: Miss
Initials: L
Name: Lauren
Surname: Brown


Funding Agency

Select Funding Agency:
or
Enter Funding Agency Name:

Funding Details

Start date:
End date:
Funding amount:

Save
Cancel
Reset

Explodata

NMMU
Research
System

Journal Article

Add Article
Edit Article

Please make selection on the left

Search researcher: Miss Lauren Brown

Title: Miss
Initials: L
Name: Lauren
Surname: Brown

List of Articles

Journal

☒ Accredited Journal
☐ Non-Accredited Journal

Select Accredited Journal:
Enter Journal name:

Article Details

Article Code:
Article Title:
Page no from:
Page no to:

Author:

Save
Cancel
Reset

Use Case ID	Use Case Name	
B0300	Maintain Conference Papers	
Primary Business Actors		Other participating Actors
Independent Researcher/ Supervisor		
Description	This use case adds, updates, and deletes Conference paper submitted by a student/ independent researcher.	
Pre-Conditions	Independent Researcher/ Supervisor must be logged onto the system. The student/ independent researcher must exist on the system.	
Triggers	The student/ independent researcher submits a Conference paper	
Post-Conditions	A Conference paper is created on the system and linked to a researcher (student/ independent researcher)	
Business Rule(s)		
Basic Flow of Events		
<div>1. If paper is from an independent researcher, they will search for their name on the system. If the paper is from a student, their supervisor will search for their name on the system.</div> <div>2. The system will display their details.</div> <div>3. The independent researcher/supervisor will select the conference proceeding from a drop down list then capture/edit the details of the conference paper.</div> <div>4. The system will then contain the details of the conference paper submitted.</div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
B0400	Maintain Chapters	
Primary Business Actors		Other participating Actors
Independent Researcher/ Supervisor		
Description	This use case adds, updates, and deletes Chapters of Books submitted by a student/ independent researcher.	
Pre-Conditions	Independent Researcher/ Supervisor must be logged onto the system. The student/ independent researcher must exist on the system.	
Triggers	The student/ independent researcher submits a Chapter of a Book.	
Post-Conditions	A Chapter of a Book is created on the system and linked to a researcher (student/ independent researcher)	
Business Rule(s)		
Basic Flow of Events		
<div>1. If chapter is from an independent researcher they will search for their name on the system. If the chapter is from a student, their supervisor will search for their name on the system.</div> <div>2. The system will display their details.</div> <div>3. The independent researcher/supervisor will then capture/edit the details of the chapter.</div> <div>4. The system will then contain the details of the chapter.</div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
B0500	Maintain Books	
Primary Business Actors		Other participating Actors
Independent Researcher/ Supervisor		
Description	This use case adds, updates, and deletes Books submitted by a student/ independent researcher.	
Pre-Conditions	Independent Researcher/ Supervisor must be logged onto the system. The student/ independent researcher must exist on the system.	
Triggers	The student/ independent researcher submits a Book	
Post-Conditions	A Book is created on the system and linked to a researcher (student/ independent researcher)	
Business Rule(s)		
Basic Flow of Events		
<div>1. If book is from an independent researcher, they will search for their name on the system. If the book is from a student, their supervisor will search for their name on the system.</div> <div>2. The system will display their details.</div> <div>3. The independent researcher/supervisor will then capture/edit the details of the book.</div> <div>4. The system will then contain the details of the book.</div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
B0600	Maintain Funding Agencies	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case adds Funding Agencies that supply the university. The bulk of the funding agency list will be checked and updated once a year outside of the system. Only funding agencies that need to be added during the year are handled by the system.	
Pre-Conditions	Admin must be logged onto the system	
Triggers	A student/independent researcher applies for/gets funding from a Funding Agency that is not on the system	
Post-Conditions	The list of Funding Agencies is up to date	
Business Rule(s)		
Basic Flow of Events		
<div>1. Admin will search for a funding agency on the system</div> <div>2. If it is not found but needs to be added, admin will capture the funding agency's name into the system.</div> <div>3. The system will then contain the updated list of funding agencies.</div>		
Alternate Flow of Events		
Initial Screen Design		

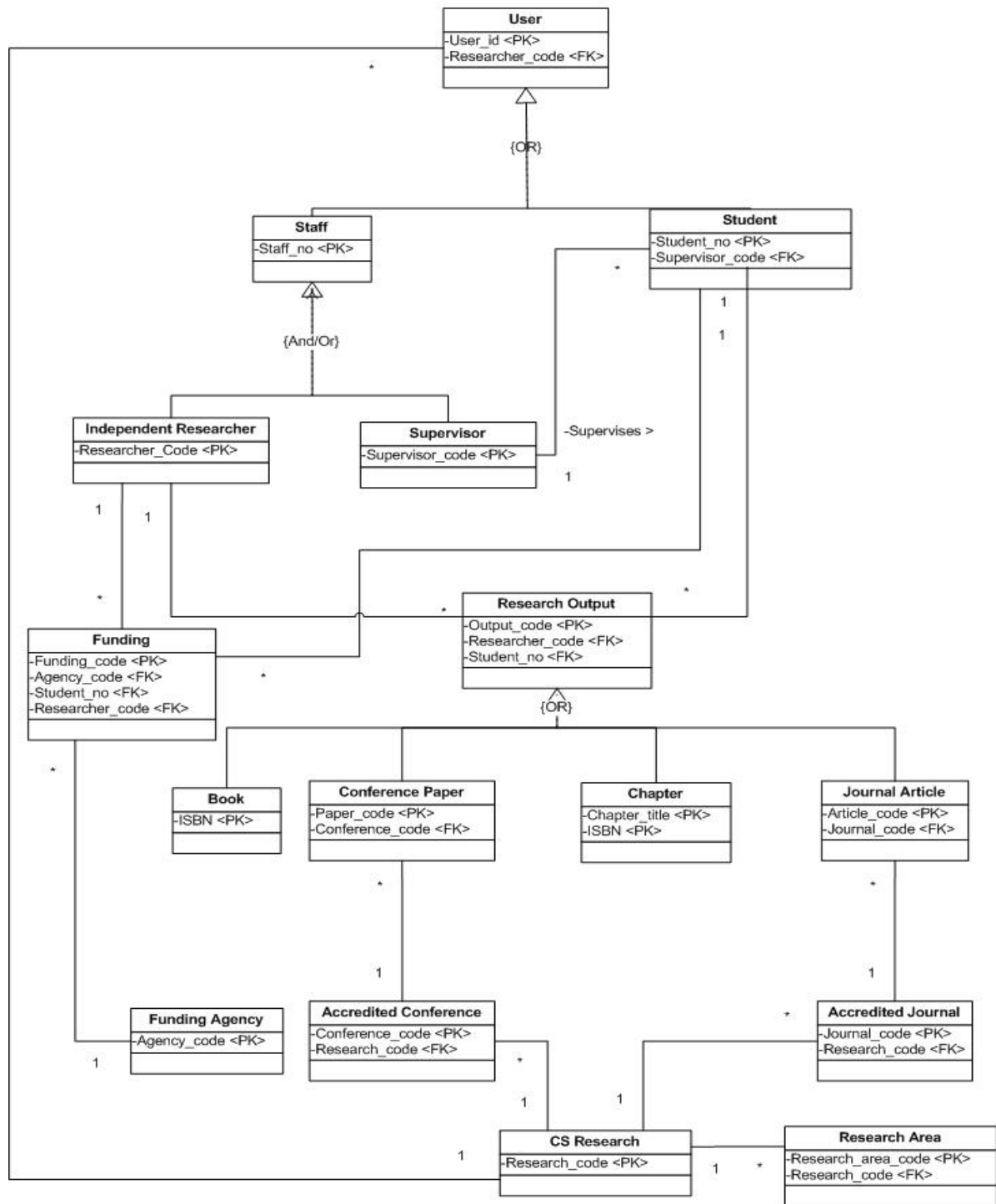
Use Case ID	Use Case Name	
B0700	Generate Funding Report	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case creates a report with information regarding who has received/applied for funding in the past month.	
Pre-Conditions	Admin must be logged onto the system	
Triggers	End of month	
Post-Conditions	A report containing funding information is created and printed or emailed to the destination.	
Business Rule(s)		
Basic Flow of Events		
<div>1. Admin enters query by adding details such as date, indicating by use of checkboxes what details must be in the report.</div> <div>2. Admin clicks generate report button</div> <div>3. System produces report</div>		
Alternate Flow of Events		
Initial Screen Design		

Use Case ID	Use Case Name	
B0800	Generate Publication Report	
Primary Business Actors		Other participating Actors
Admin		
Description	This use case creates a report with information regarding what new publications have been submitted in the past month.	
Pre-Conditions	Admin must be logged onto the system	
Triggers	End of month	
Post-Conditions	A report containing publication information is created and printed or emailed to destination	
Business Rule(s)		
Basic Flow of Events		
<ol style="list-style-type: none"> 1. Admin enters query by adding details such as date, indicating by use of checkboxes what details must be in the report. 2. Admin clicks generate report button 3. System produces report 		
Alternate Flow of Events		
Initial Screen Design		

2 DATA REQUIREMENTS

2.1 Class Diagram

Explodata – Class Diagram



2.2 Database Design

Table Name	Identifiers <pk> <fk>	Attributes
User	User_id<pk> Researcher_code<fk>	<ul style="list-style-type: none"> Password type
Staff	Staff_no<pk>	<ul style="list-style-type: none"> Title Initial/s Surname Tel_no Cell_no Type Address DOB Email Gender Position Highest_qualification Year_of_highest_qualification
Student	Student_no<pk> Supervisor_code<fk>	<ul style="list-style-type: none"> Title Initial/s Surname Tel_no Cell_no Address DOB Email Gender Highest_qualification Year_of_highest_qualification Current_qualification Research_area_of_interest
Independent Researcher	Researcher_code<pk>	<ul style="list-style-type: none"> Research_area_of_interest
Supervisor	Supervisor_code<pk>	
Research Output	Output_code<pk> Researcher_code<fk> Student_no<fk>	
Funding	Funding_code<pk> Agency_code<pk> Student_no<fk> Researcher_code<fk>	
Funding	Agency_code<pk>	<ul style="list-style-type: none"> Funding_agency_name

Agency		
Book	ISBN<pk>	<ul style="list-style-type: none"> • Title • CESM_no • No_pages • Year_of_publication • Author • Publisher • Target_group • Editor
Chapter	Chapter_title<pk> ISBN<fk>	<ul style="list-style-type: none"> • Book_title • CESM_no • No_ch_pages • No_bk_pages • Page_no_frm • Page_no_to • Year_of_publication • Author • Publisher • Target_group • Editor
Conference Paper	Paper_code<pk> Conference_code<fk>	<ul style="list-style-type: none"> • Paper_title • Proceeding_title • CESM_no • No_pages • Page_no_from • Page_no_to • Author
Journal Article	Article_code<pk> Journal_code<fk>	<ul style="list-style-type: none"> • Article_title • Journal_title • Page_no_from • Page_no_to • Author
Accredited Conference	Conference_code<pk> Research_code<fk>	<ul style="list-style-type: none"> • Conference_title • Date_of_conference • Country • City • ISBN_no • Year_of_publication • Editor
Accredited Journal	Journal_code<pk> Research_code<fk>	<ul style="list-style-type: none"> • Journal_title • Relevant_Index • Publisher • Volume • Number

		<ul style="list-style-type: none"> Year_of_publication
CS Research	Research_code<pk>	
Research Area	Research_area_code<pk> Research_code<fk>	<ul style="list-style-type: none"> Research_area_name

3 USE CASE DEVELOPMENT PRIORITIES

3.1 Package A: User Maintenance

Use Case ID	Main Functionality	Use Case IDs of use case(s) invoked by this use case
A0200	Users or user details are added, deactivated and edited.	A0100
A0100	Users add their details to request access and permissions.	
A0400	Staff details are added or edited and staff permissions are given.	A0200, A0800
A0300	Student details are added or edited and students are made active or inactive.	A0200, A0900
A0500	Independent researcher details are added, edited and deleted. Current research topics are added.	A0400
A0600	Supervisor's use this use case to update students' progress.	A0300
A0700	A list of research areas is maintained (add, edit, delete) and topics that are of interest to the department are also maintained.	
A0900	This use case generates a variety of progress reports dependent on the input received from the user.	
A0800	Generates a variety of supervisor reports, based on input received from user.	

3.2 Package B: Funding and Outputs

Use Case ID	Main Functionality	Use Case IDs of use case(s) invoked by this use case
B0600	Admin adds, updates and deletes Funding Agencies	
B0100	Admin updates amount of funding received and applied for.	B0600
B0200	Independent Researcher/ Supervisor adds or updates Journal Article details	
B0300	Independent Researcher/ Supervisor adds or updates Conference Paper details	
B0400	Independent Researcher/ Supervisor adds or updates Chapter details	
B0500	Independent Researcher/ Supervisor adds or updates Book details	
B0700	Admin generates a report with information regarding funding received and applied for	
B0800	Admin generates a report with information regarding publications submitted	