CBIB:Stage 2 - Planning and Modelling

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CSC3003S

8/10/18

1. Use case descriptions (narratives)

Create a new user account
Actor: Global administrator
The global administrator logs into the web application. The system authenticates the global administrator. If the log-in details of the global administrator is incorrect, the global administrator is requested to re-enter their log-in details. The global administrator enters new user account details of the global administrator, node administrator or CAIR member. If the user account already exists, the system informs the global administrator that the user account already exists and to specify new details. The system validates new user account details. If the new user account details are of invalid type, the global administrator is requested to re-enter valid user account details. The system informs the global administrator that the new user account has been created successfully.

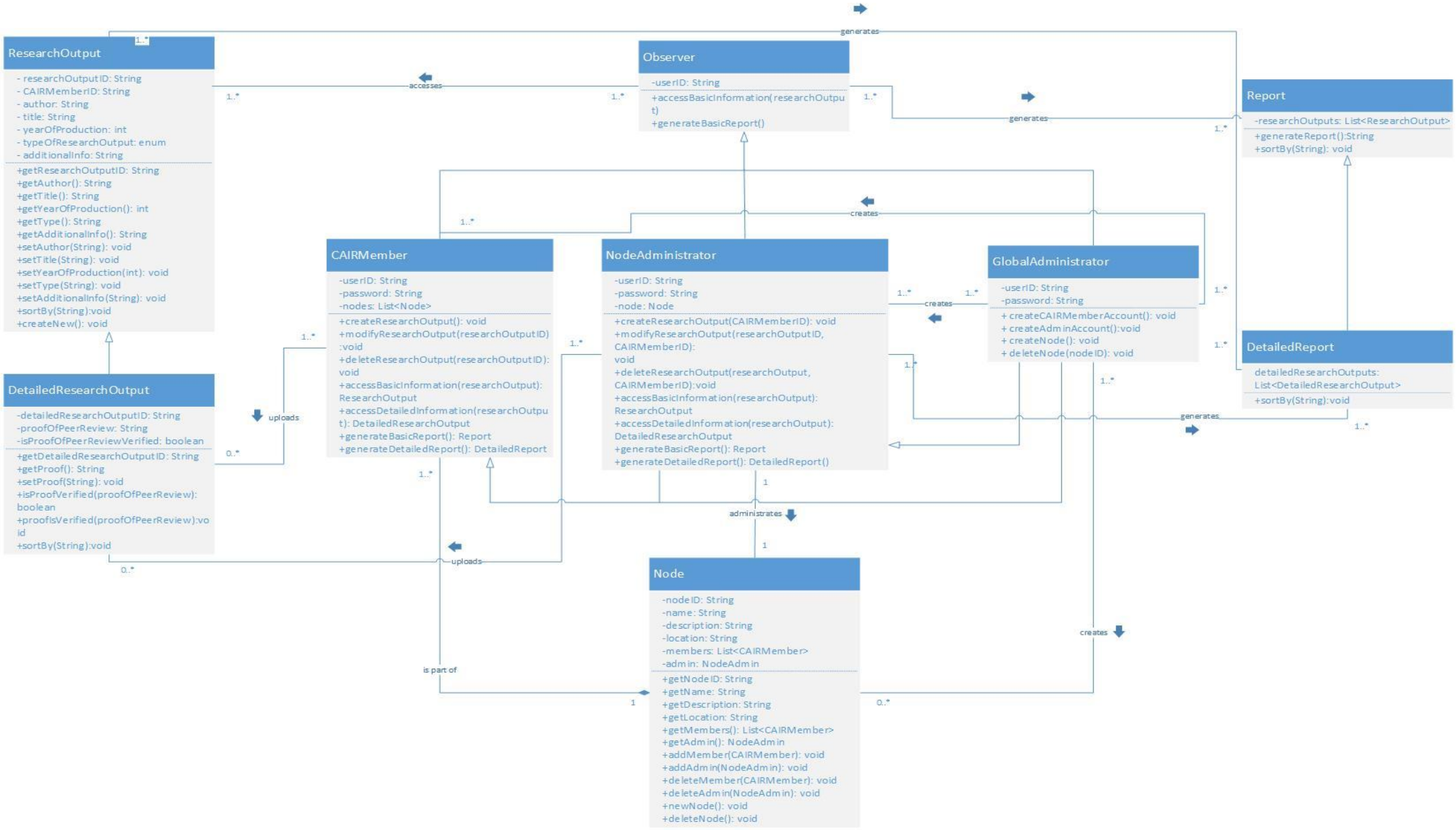
Create a new node
Actor: Global administrator
The global administrator logs into the web application. The system authenticates the global administrator. If the log-in details of the global administrator is incorrect, the global administrator is requested to re-enter their log-in details. The global administrator enters new node details of the node. If the node already exists, the system informs the global administrator that the node already exists and to specify new details. The system validates new node details. If the node details are of invalid type, the global administrator is requested to re-enter valid node details. The system informs the global administrator that the new node has been created successfully.

Delete research output within node
Actor: Node administrator
The node administrator logs into the web application. The system authenticates the node administrator. If the log-in details of the node administrator is incorrect, the node administrator is requested to re-enter their log-in details. The node administrator selects a research output. The system displays a detailed view of the research output. The node administrator deletes the research output. The system displays a confirm deletion message. If the node administrator opts to cancel the deletion, the system goes back to displaying a detailed view of the research output. The system informs the node administrator that the research output has been deleted successfully.

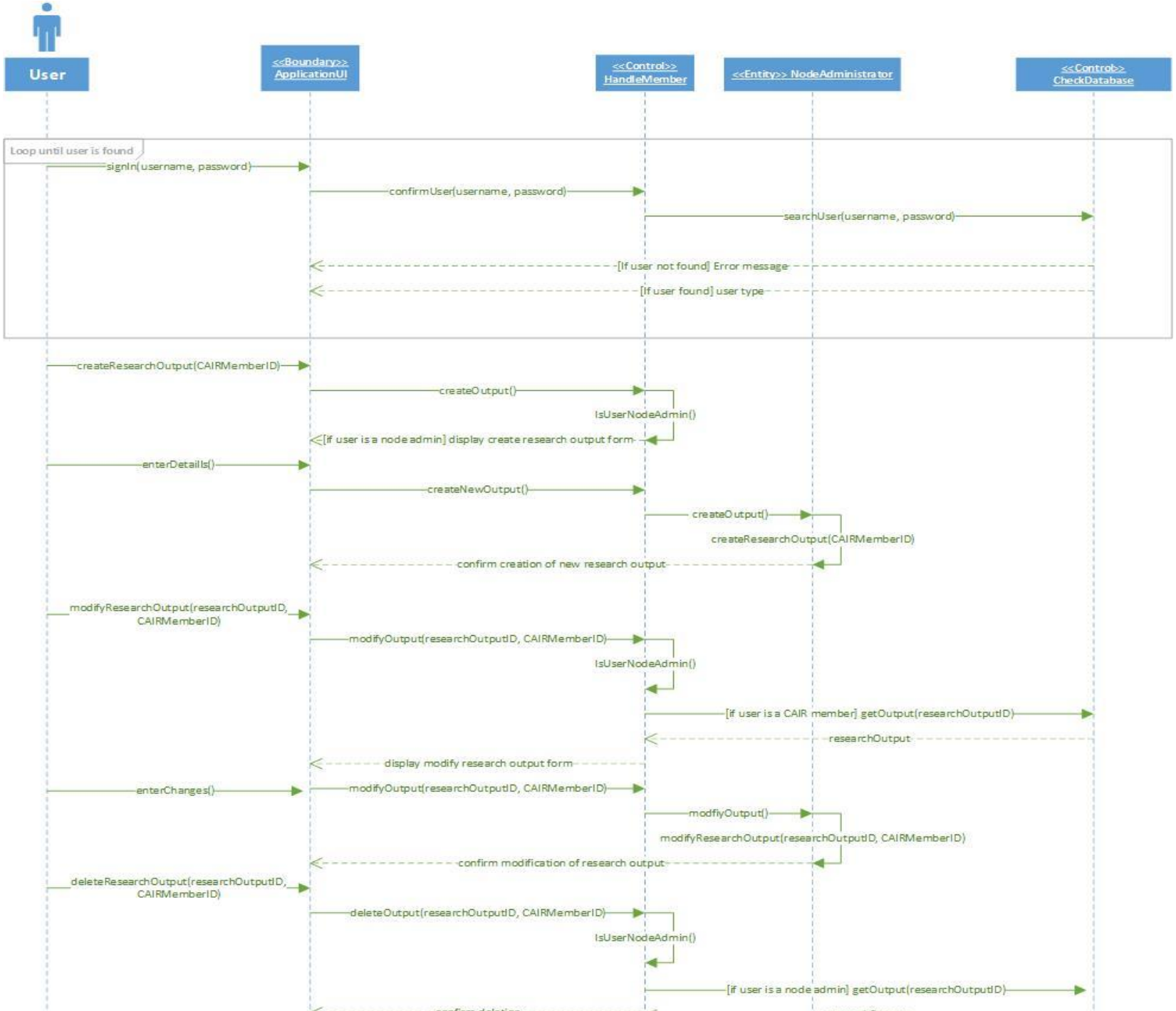
Create a new research output
Actor: CAIR member
The CAIR member logs into the web application. The system authenticates the CAIR member. If the log-in details of the CAIR member is incorrect, the CAIR member is requested to re-enter their log-in details. The CAIR member enters research output details. If the research output already exists, the system informs the CAIR member that the research output already exists and to specify new details. The system validates new research output details. If the new research output details are of invalid type, the CAIR member is requested to re-enter valid research output details. The system informs the CAIR member that the new research output has been created successfully.

Generate a basic research output report
Actor: Observer / Guest
The observer logs into the web application as a guest. The system lists basic information of a list of research outputs. The observer selects to generate a basic research output report. The system informs the observer that the basic research output report has been generated successfully as a downloadable pdf document. If the basic research output report has been generated unsuccessfully, the observer is requested to select to generate a basic research output report again. The observer downloads the pdf document containing the basic research output report.

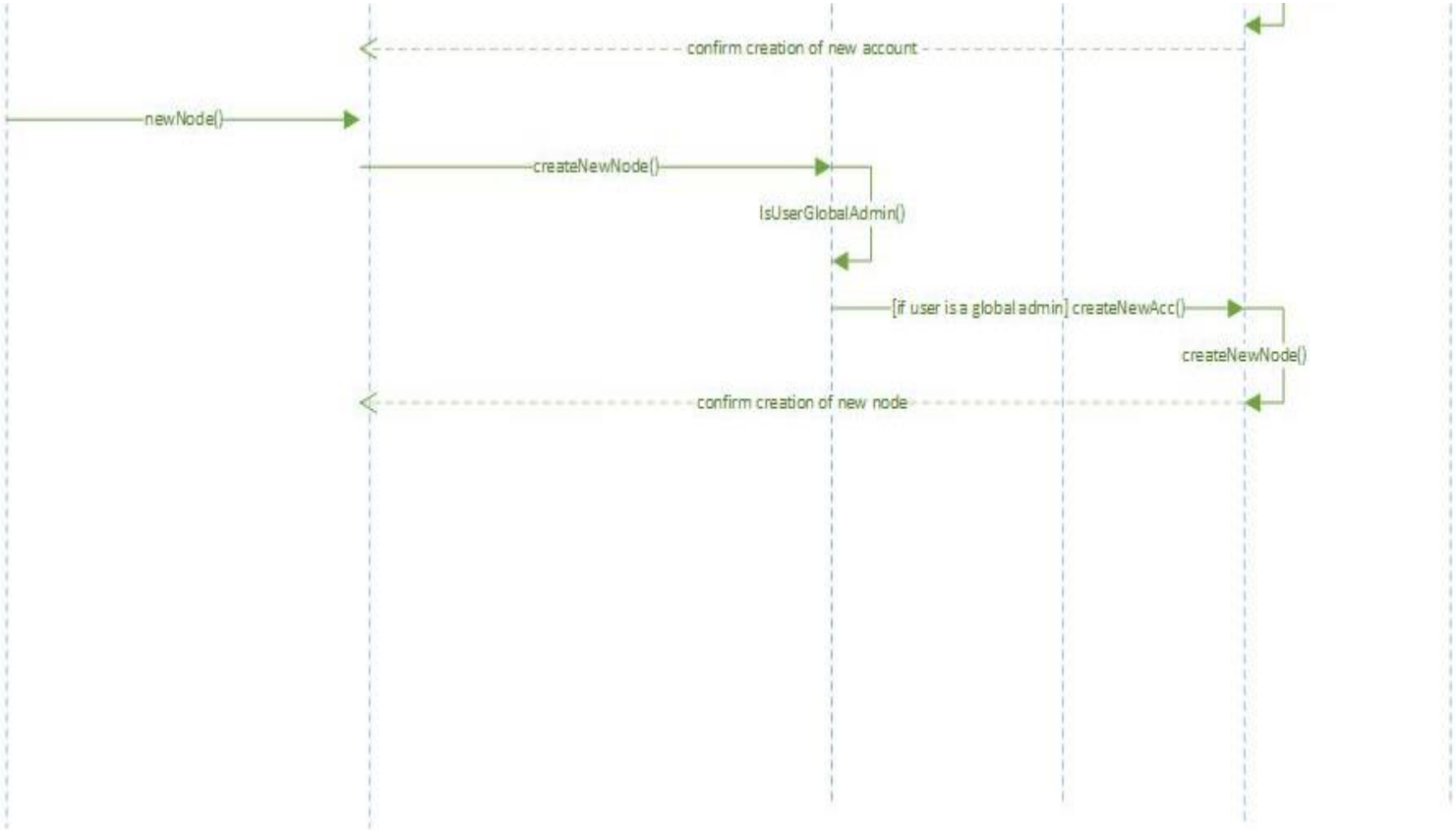
2. Analysis Class model



3. Interaction Diagram




confirm deletion
researchOutput
confirmDeletion()
deleteOutput(researchOutputID, CAIRMemberID)
deleteOutput()
deleteResearchOutput(researchOutputID, CAIRMemberID)
confirm deletion of research output
accessDetailedInformation(researchOutputID)
getOutput(researchID)
IsUserAuthorized()
[if user is authorized] getOutput(researchOutputID)
detailed research output
generateDetailedReport()
createDetailedReport()
IsUserAuthorized()
[if user is authorized] getAllOutput()
all research output
generateDetailedReport()
<<Entity>>
Global Admin
detailed report
createAccount(userType)
createNewAccount(userType)
IsUserGlobalAdmin()
[if user is a global admin] createNewAcc()
createNewAccount(userType)


confirm creation of new account
newNode()
createNewNode()
IsUserGlobalAdmin()
[if user is a global admin] createNewAcc()
createNewNode()
confirm creation of new node

4. Project plan

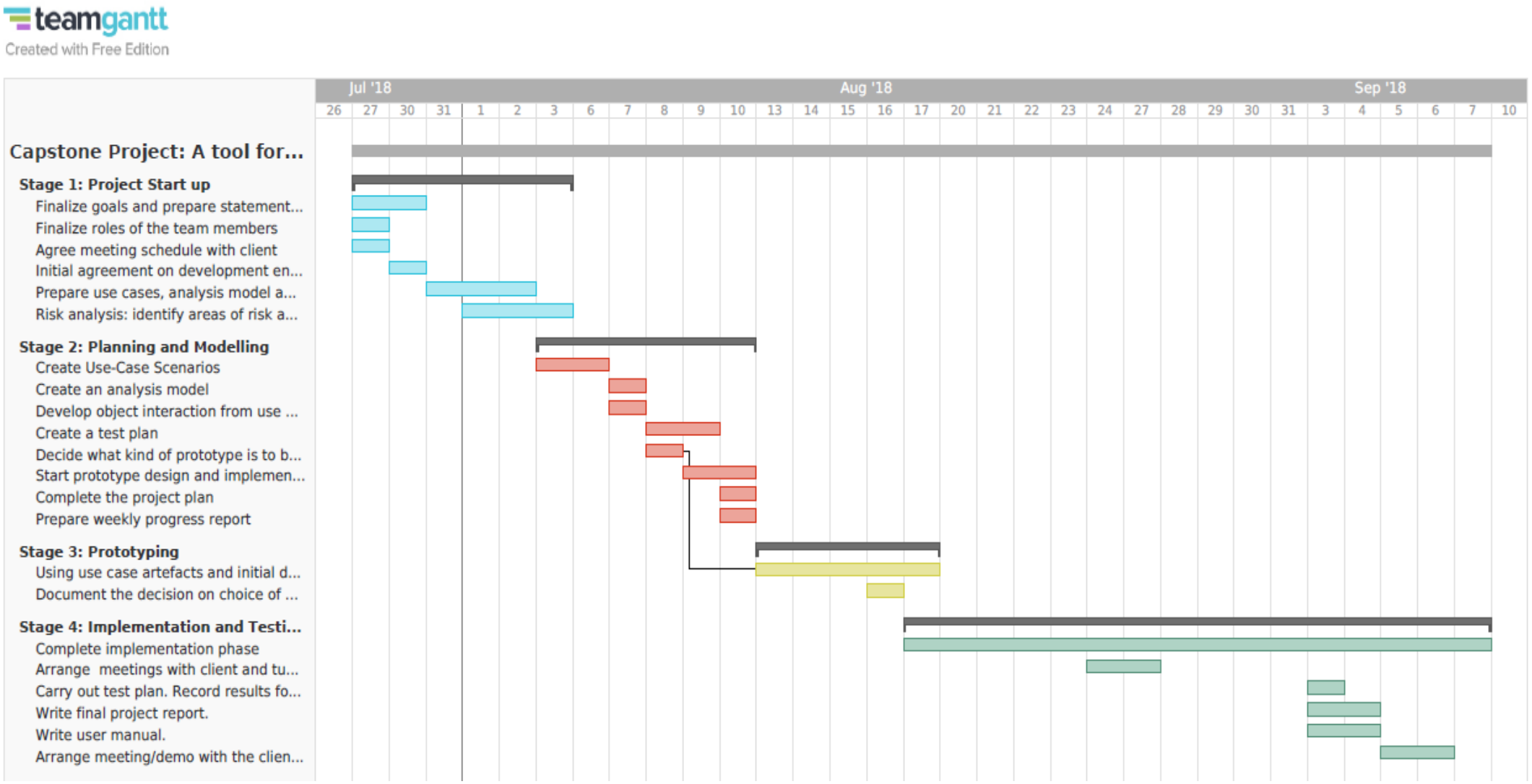
- Schedule

Stage	Task	Start date	End date	Duration
1	• Finalize goals and prepare statement of scope.	27/07/2018	30/07/2018	4 days
	• Finalize roles of the team members.	27/07/2018	27/07/2018	1 day
	• Agree meeting schedule with client.	27/07/2018	27/07/2018	1 day
	• Initial agreement on development environment (including programming language) with client and document outcome.	30/07/2018	30/07/2018	1 day
	• Prepare use cases, analysis model and design model.	31/07/2018	02/08/2018	3 days
	• Risk analysis: identify areas of risk and mitigations.	01/08/2018	03/08/2018	3 days
2	• Create Use-Case Scenarios.	03/08/2018	06/08/2018	4 days

	• Create an analysis model.	07/08/2018	07/08/2018	1 day
	• Develop object interaction from use cases.	07/08/2018	07/08/2018	1 day
	• Create a test plan.	08/08/2018	09/08/2018	2 days
	• Decide what kind of prototype is to be implemented: throw-away, evolutionary or agile.	08/08/2018	08/08/2018	1 day
	• Start prototype design and implementation.	09/08/2018	10/08/2018	2 days
	• Complete the project plan.	10/08/2018	10/08/2018	1 day
	• Prepare weekly progress report.	10/08/2018	10/08/2018	1 day
3	• Using use case artefacts and initial design, create prototype for demonstration to client.	13/08/2018	17/08/2018	5 days
	• Document the decision on choice of prototype.	16/08/2018	16/08/2018	1 day
4	• Complete implementation phase.	17/08/2018	07/09/2018	22 days

	• Arrange meetings with client and tutor.	24/08/2018	27/08/2018	4 days
	• Carry out test plan. Record results for all test cases.	03/09/2018	03/09/2018	1 day
	• Write final project report.	03/09/2018	04/09/2018	2 days
	• Write user manual.	03/09/2018	04/09/2018	2 days
	• Arrange meeting/demo with the client.	05/09/2018	06/09/2018	2 days

- Gantt Chart


teamgantt
Created with Free Edition
Jul '18
Aug '18
Sep '18
26 27 30 31 1 2 3 6 7 8 9 10 13 14 15 16 17 20 21 22 23 24 27 28 29 30 31 3 4 5 6 7 10
Capstone Project: A tool for...
Stage 1: Project Start up
Finalize goals and prepare statement...
Finalize roles of the team members
Agree meeting schedule with client
Initial agreement on development en...
Prepare use cases, analysis model a...
Risk analysis: identify areas of risk a...
Stage 2: Planning and Modelling
Create Use-Case Scenarios
Create an analysis model
Develop object interaction from use ...
Create a test plan
Decide what kind of prototype is to b...
Start prototype design and implemen...
Complete the project plan
Prepare weekly progress report
Stage 3: Prototyping
Using use case artefacts and initial d...
Document the decision on choice of ...
Stage 4: Implementation and Testi...
Complete implementation phase
Arrange meetings with client and tu...
Carry out test plan. Record results fo...
Write final project report.
Write user manual.
Arrange meeting/demo with the clien...

5. Preliminary test plan

Test case number	**Data input**	**Application output / behaviour**
1. Member login	Username Password	Testing the details access control. Members expected to login and access member details only.
2. Global admin login	Username Password	Testing the details access control. Global admin expected to login and access CAIR global details.
3. Node admin login	Username Password	Testing the details access control. Node admin expected to login and access CAIR specific node details.
4. Users filter research reports	Node	Filter reports based on the node.
	Author	Filter reports based on author.
	Year	Filter reports based on year.
	Type of publication	Filter reports based on type of publication.
5. Member author	Research document, Proof of peer review	Testing the ability to upload a research output. Expected successful upload of research document to the website.
6. Global admin create an account for	Full name, Email	Successful adding of CAIR member and new node

CAIR member and new CAIR node	address, Node	in the CAIR network.
7. Node admin generate report	Node author OR Node name	Generate report based on node author. OR Generate list/total number of reports based on the node.
8. Node admin access node members research outputs	Member name, Node name	Expected to only have access to their specified node research outputs for changes.
9. Node admin create, modify, and delete node research outputs	Node name, Research output	Testing that otherwise expected cannot happen. Successful creating new research output, modify research and delete research in the specific admin node.
10. Member create, modify and delete research outputs of co-authors.	Author name, Research output	Testing that otherwise expected cannot happen. Successful creating new research output, modify research and delete research specific to the member only.
11. Members generate reports related to all research outputs of which they are a co-author.	Author name OR Member name	Testing that the required report is generated. Generate report of research outputs based on co-author with member, OR Generate report of research outputs based on members written reports