

Business Requirements Document

Document Name: Cape College Student Management System

Company Name: All Systems Go

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Version: Final

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1. Executive Summary

Our company was approached by Cape College with the task of modernising their student administration system. In the initial phases, this entails building a new student administration system using modern technologies and design methodologies, resulting in a system that enables the College to manage their student lists and course catalogue effectively., Additionally, this would enable the capture of marks and information relevant to each student and course.

The envisioned system would be both accessible and easy to use, allowing students, applicants, and administrators to manage their Cape College academics in an efficient and secure manner.

2. Needs Statement

The envisioned system would utilise modern web technologies and design methodologies to enable administrators to manage their student list and course catalogue, and capture marks. Additionally, the envisioned system will be able to capture information about both student profiles and courses, in a manner that is secure and efficient. The envisioned system will also enable potential students to apply to Cape College, as well as allowing currently enrolled students to manage and pay their financial accounts. Currently enrolled students will be able to access their academic affairs, such as viewing grades and assessment dates, by viewing their academic records.

3. Requirements

3.1. Functional Requirements

The functional requirements of Cape College's new student administration system are defined as the externally visible behaviours that the system must perform in order to support the work of the user.

The functional requirements of the envisioned system are as follows:

- Enables applicants to create an account and choose a password.
- Allows users to view their user ID.
- Enables applicants to submit applications to enrol at Cape College.
- Enables applicants to select the courses they wish to apply for.

- Allows applicants to select five modules applicable to their chosen course.
- Enables applicants to accept an offer of enrolment from Cape College.
- Enables applicants to reject an offer of enrolment from Cape College.
- Allows applicants to view the status of their application.
- Convert an applicant into a student if the offer of enrolment is accepted.
- Allows students to view their list of modules.
- Allows students to view their assessments.
- Allows students to view their academic records.
- Allows students to view their statements of account.
- Enables students to make payments towards their fee accounts.
- Allows administrators, students, and applicants to login securely.
- Enables administrators, students, and applicants to update their profiles.
- Allows administrators, students, and applicants to view the course catalogue.
- Allows administrators, students, and applicants to logout securely.
- Enables administrators to update an applicant's application status.
- Allows administrators to view student list.
- Enables administrators to create assessments.
- Enables administrators to update student's academic records.

3.2. Non-Functional Requirements

The non-functional requirements of the system can be defined as the required system characteristics other than the functional requirements and activities it must perform or support.

3.2.1. Usability Requirements

The usability requirements are a type of non-functional requirement that describe the operational characteristics of the system that are related to the user interface.

The usability requirements of the envisioned system are as follows:

- The new students administration system must be accessible via the user's web browser.
- The new students administration system must enable the user to navigate both easily and intuitively, acknowledging the actions of the user.
- The new student administration system interface must be consistent.

3.2.2. Reliability Requirements

The reliability requirements of a system refer to the fault-tolerance required by the system.

The reliability requirements of the system are as follows:

- The envisioned system should be dependable, and exhibit minimal behaviours such as service outages and incorrect processing.
- When these behaviours are experienced, the system should be able to recover from these problems.
- The envisioned system should employ various data validation techniques in order to cope with and recover from user error.

3.2.3. Performance Requirements

Performance requirements of the system refer to the operational characteristics that relate to the measure of speed and workload.

The performance requirements of the system are as follows:

- The system should be able to handle Cape College's applicants, students, and administrators as simultaneous client session with fast response times.

3.2.4. Security Requirements

The security requirements of the system describe how access to the application and data will be controlled, and how data will be protected during storage and transmission.

The security requirements of the system are as follows:

- The system must be password protected.
- The system will authenticate users.
- The system will encrypt locally stored data to protect the private information of users.

3.2.5. Additional Requirements (FURPS+)

3.2.5.1. Design Constraints

The design constraints of the envisioned system refer to the restrictions the software of the system must adhere to.

The design constraints of the system are as follows:

- The system must be compatible with multiple browsers.
- The system must be compatible with both Android, Apple, and Windows operating systems.

3.2.5.2. Implementation Requirements

The implementation requirements refer to the tools needed to implement the system, such as limitations on platforms, coding languages, and standards.

The implementation requirements of the system are as follows:

- The system will be designed and developed in JavaScript using the React and React-admin frameworks, with PocketBase as a backend.
- Development will take place on GitHub and development of the system will be managed through the use of Git.

3.2.5.3. Interface Requirements

The interface requirements of the system describe the system's capability to interact with external systems and the nature of those interactions.

The interface requirements of the system are as follows;

- The system must be able to interact with the Cape College database, including viewing, and updating.

3.2.5.4. Physical Requirements

The physical requirements of the system refer to the physical constraints of the hardware. As the system is browser based, there are no physical requirements outside of browser compatibility and a reliable internet connection.

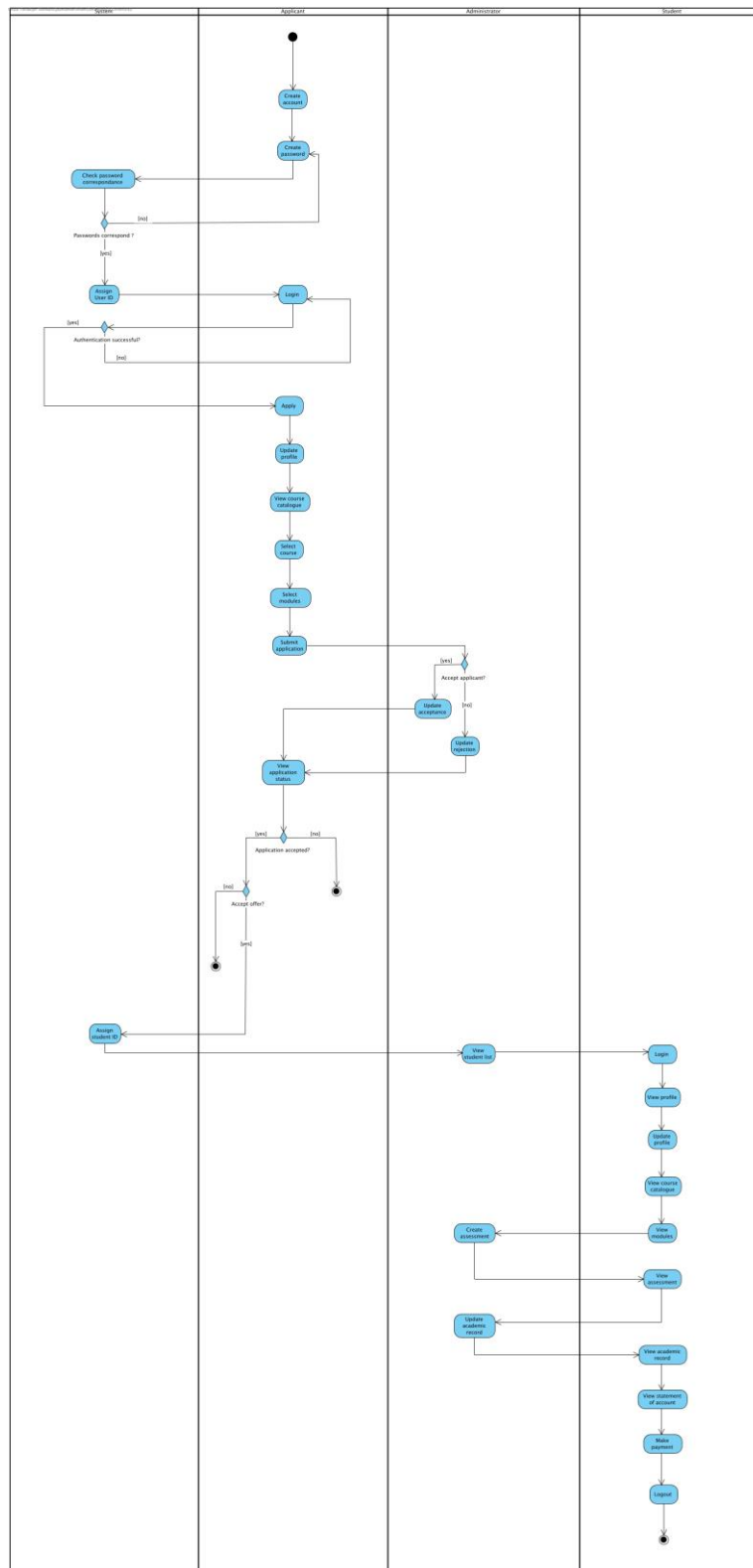
3.2.5.5. Supportability Requirement

The supportability requirements of the system refer to the requirements relating to the monitoring, maintaining, and up of the system.

The new student administration system is browser based, and as such, requires no installation or configuration. Therefore, it can be easily monitored and updated.

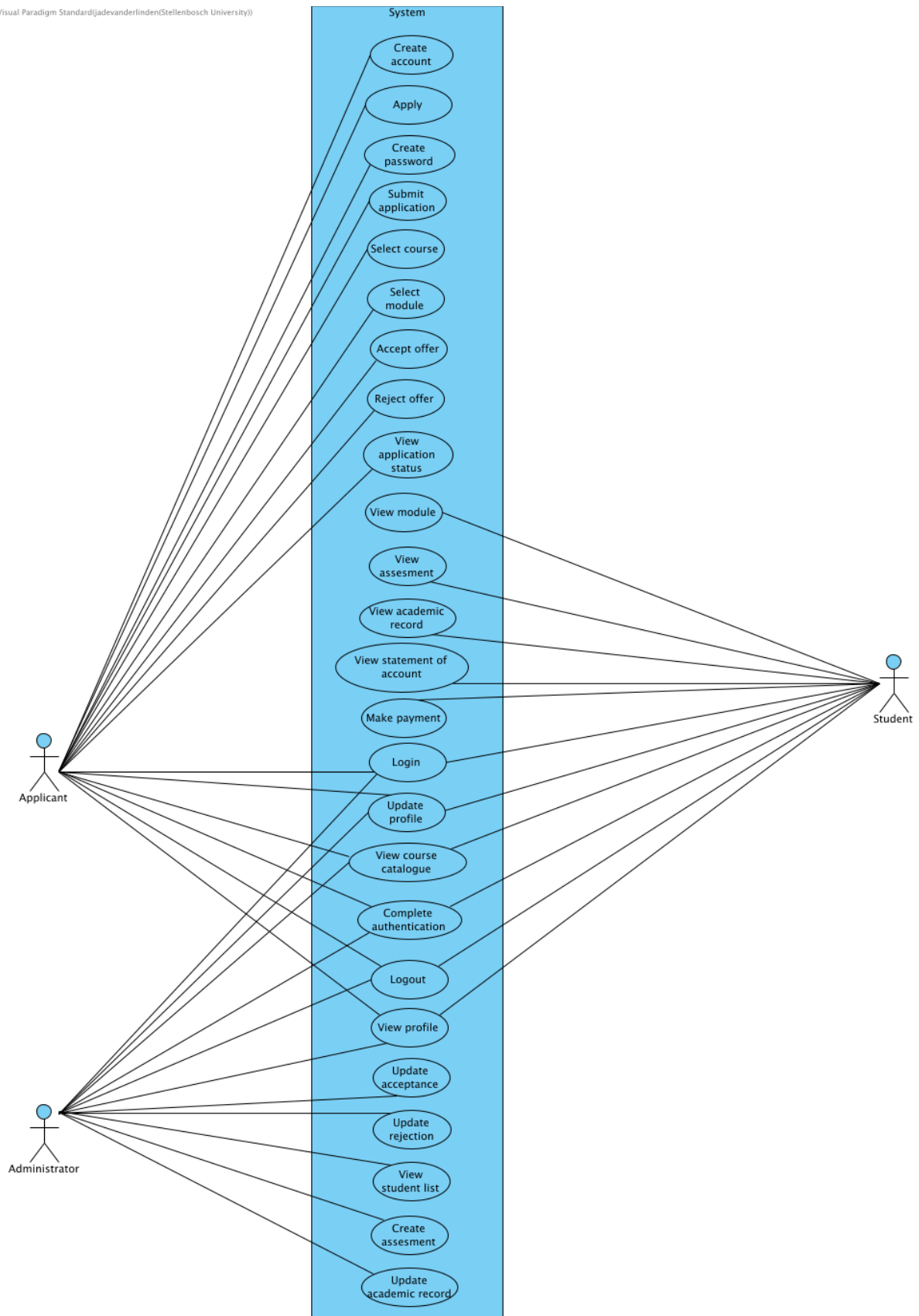
4. UML Diagrams

4.1. Activity Diagram



4.2. Use Case Diagram

Visual Paradigm Standard(jadevanderlinden@Stellenbosch University)



The diagram illustrates three database schemas, each represented by a blue box. The first schema, 'People and Organisations', contains three tables: 'user', 'student', and 'applicant'. The 'user' table has attributes: firstName, lastName, password, emailAddress, userIDNumber, userID, dateOfBirth, address, nationality, gender, role, and email. The 'student' table has attributes: studentID, enrolmentID, listOfModuleID, and academicYear. The 'applicant' table has attributes: status, applicationDate, studentID, financialStatus, and financialStatus. The second schema, 'Products and Services', contains two tables: 'assessmentRecord' and 'courseCatalogue'. The 'assessmentRecord' table has attributes: assessmentID, outcome, assessmentDate, moduleID, courseID, grade, assessmentID, studentID, moduleID, lecturer, moduleName, credit, moduleFee, and courseID. The 'courseCatalogue' table has attributes: courseDescription, prerequisiteModule, prerequisiteCourse, courseCoordinator, learningOutcome, courseFormat, courseID, numberOfYears, creditAmount, courseName, headOfFaculty, and courseFaculty. The third schema, 'Events and Transactions', contains two tables: 'financeAccount' and 'assessment'. The 'financeAccount' table has attributes: statementOfAccount, outstandingBalance, paymentDate, amount, purpose, paymentMethod, dueDate, studentFeeCost, studentID, paymentStatus, currency, billType, and paymentID. The 'assessment' table has attributes: date, weighting, assessmentType, assessmentStatus, and assessmentID.

```

graph LR
    subgraph People_and_Organisations [People and Organisations]
        user((user))
        student((student))
        applicant((applicant))
    end

    subgraph Products_and_Services [Products and Services]
        assessmentRecord((assessmentRecord))
        courseCatalogue((courseCatalogue))
    end

    subgraph Events_and_Transactions [Events and Transactions]
        financeAccount((financeAccount))
        assessment((assessment))
    end
  
```

People and Organisations

- user**
 - firstName
 - lastName
 - password
 - emailAddress
 - userIDNumber
 - userID
 - dateOfBirth
 - address
 - nationality
 - gender
 - role
 - email
- student**
 - studentID
 - enrolmentID
 - listOfModuleID
 - academicYear
- applicant**
 - status
 - applicationDate
 - studentID
 - financialStatus
 - financialStatus
- administrator**
 - position
 - department
 - phoneNumber
 - employmentStatus
 - contracted
 - qualification
 - employmentHistory
 - officeNumber
 - performanceRating

Products and Services

- assessmentRecord**
 - assessmentID
 - outcome
 - assessmentDate
 - moduleID
 - courseID
 - grade
 - assessmentID
 - studentID
 - moduleID
 - lecturer
 - moduleName
 - credit
 - moduleFee
 - courseID
- courseCatalogue**
 - courseDescription
 - prerequisiteModule
 - prerequisiteCourse
 - courseCoordinator
 - learningOutcome
 - courseFormat
 - courseID
 - numberOfYears
 - creditAmount
 - courseName
 - headOfFaculty
 - courseFaculty
- studentModule**
 - studentID
 - moduleID

Events and Transactions

- financeAccount**
 - statementOfAccount
 - outstandingBalance
 - paymentDate
 - amount
 - purpose
 - paymentMethod
 - dueDate
 - studentFeeCost
 - studentID
 - paymentStatus
 - currency
 - billType
 - paymentID
- assessment**
 - date
 - weighting
 - assessmentType
 - assessmentStatus
 - assessmentID



5. Wireframe Diagrams

Cape College

Course Catalogue

Apply

Modules

Student Account

First Name

Last Name

Date of Birth

Email

Password

Confirm Password

Create Account

Cape College

Course Catalogue

Apply

Modules

Student Account

First Name
John

Last Name
Doe

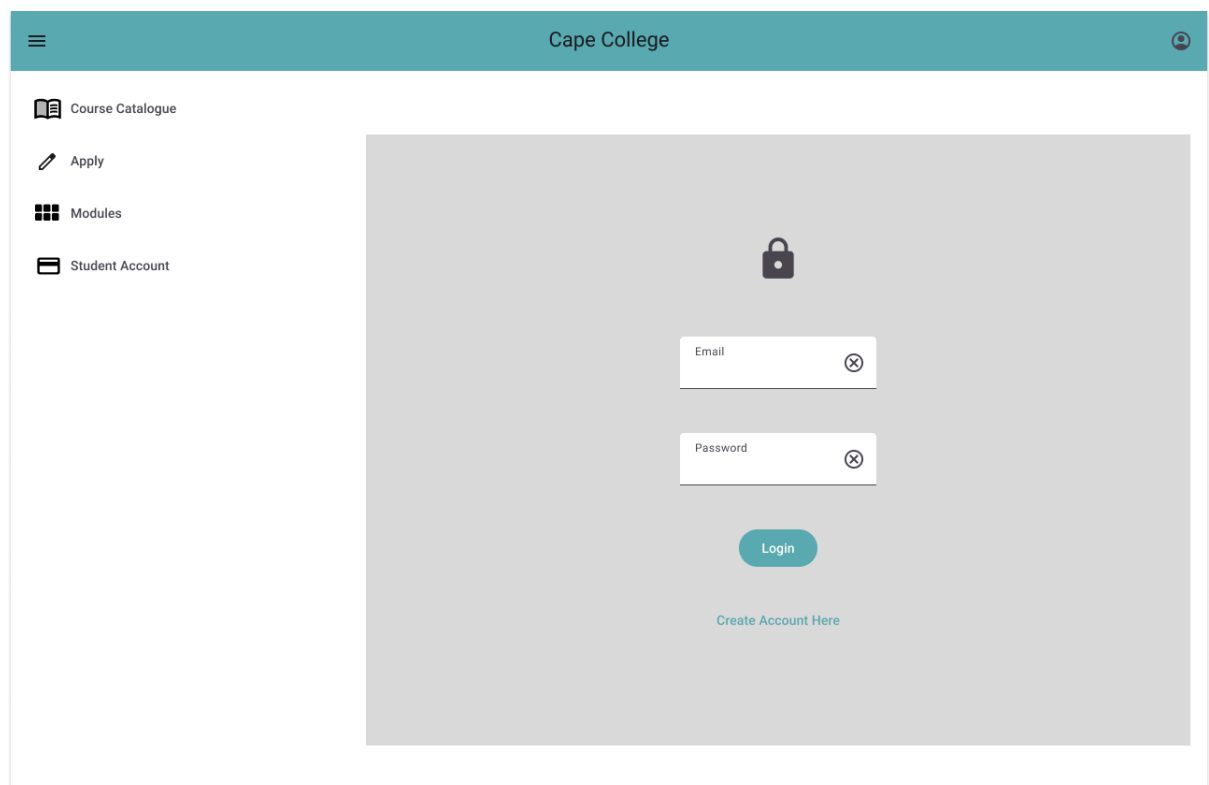
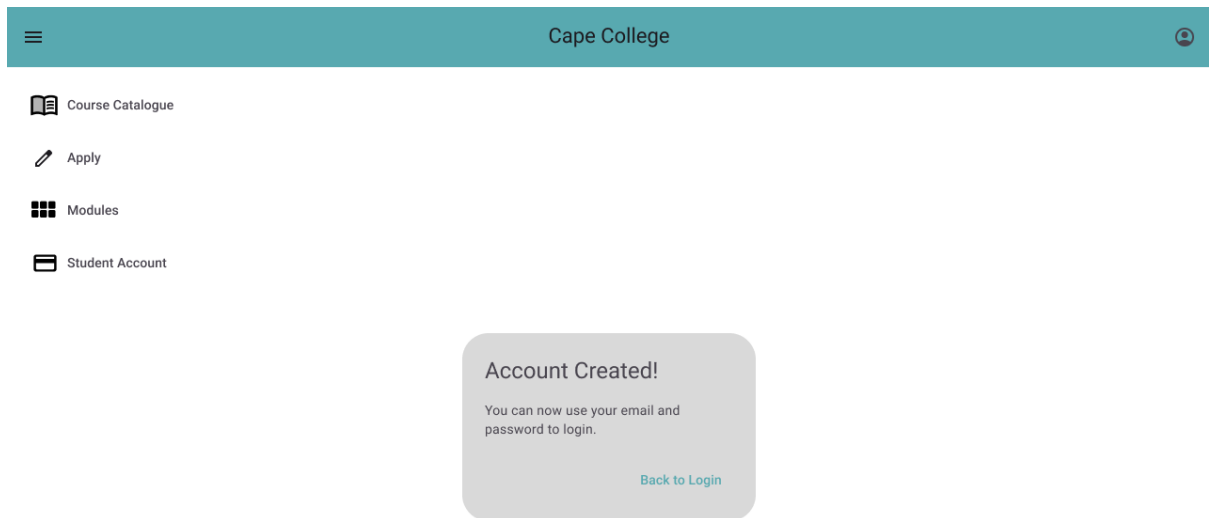
Date of Birth
01/02/2003

Email
johndoe@email.com

Password
JohnD123!

Confirm Password
JohnD123!

Create Account



Cape College

Course Catalogue

Apply

Modules

Student Account

Email

johndoe@email.com

Password

JohnD123!

Login

[Create Account Here](#)

Cape College

Course Catalogue

Apply

Modules

Student Account

Login failed. Please try again.

Username

Password

Login

[Create Account Here](#)

12

Course Catalogue

Apply

Modules

Student Account

Cape College

Course Catalogue

Apply

Modules

Student Account

Hinted search text

Add Filter

<input type="checkbox"/>	StudentID	First Name	Last Name	Date of Birth	Gender	<div><div></div><div>Edit</div></div>
<input type="checkbox"/>	12345	John	Doe	01/02/2003	Male	<div><div></div><div>Edit</div></div>

☰

Cape College

Course Catalogue

Apply

Modules

Student Account

←

Student ID
12345

First Name
John

Last Name
Doe

Date of Birth
01/02/2003

Gender
Male

Nationality
South African

Address
1 Stellenbosch Road

List of Modules
Maths, English, Science

Edit

☰

Cape College

Course Catalogue

Apply

Modules

Student Account

Show

Student ID
12345

Academic Year
3

First Name
John

Last Name
Doe

Date of Birth
01/02/2003

Gender
Male

Nationality
South African

Address
1 Stellenbosch Road

14

Cape College						
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div> <div>Hinted search text</div> <div>Q</div> </div> <div>Add Filter</div>					
<input type="checkbox"/>	CourseID	Course Name	Course Faculty	Years	Credits	ModuleIDs
<input type="checkbox"/>	48219	BA(Humanities)	Arts	3	126	74832, 15984, 32671, 49520, 28473
<input type="checkbox"/>	67345	BCom(Business)	Business	3	126	51294, 69347, 18420, 37561, 84029
<input type="checkbox"/>	92037	BInf(Technology)	Data Science	4	135	27389, 56147, 84932, 72016, 49583
<input type="checkbox"/>	15862	BSc(Medicine)	Science	5	249	93821, 67245, 31829, 50473, 28650
<input type="checkbox"/>	73421	BEd(Teaching)	Education	3	126	19476, 82354, 60521, 73982, 48291

Rows per page: 10

1-5 of 5

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Cape College	
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div>←</div> <div>Edit</div>
<div> <div>Course ID</div> <div>48219</div> </div> <div> <div>Course Name</div> <div>BA(English)</div> </div> <div> <div>Years</div> <div>3</div> </div> <div> <div>Credits</div> <div>126</div> </div> <div> <div>Faculty</div> <div>Art</div> </div> <div> <div>Course Format</div> <div>Continuous Assessment</div> </div> <div> <div>Head of Faculty</div> <div>Anna Smith</div> <div>annasmith@email.com</div> </div> <div> <div>Course Coordinator</div> <div>Prof. Doug Brown</div> <div>dougbrown@email.com</div> </div> <div> <div>Module Choices</div> <div>African Literature, Grammar, Spelling, Public Speaking, Modern Literature</div> </div> <div> <div>Prerequisite Course</div> <div>N/A</div> </div> <div> <div>Course Description</div> <div>This course explores literature, language, and writing. It includes studying a wide range of literary texts from different historical periods and cultures, analyzing them through various critical lenses.</div> </div> <div> <div>Learning Outcomes</div> <div>Graduates of an English degree will have developed advanced skills in critical thinking, textual analysis, and effective communication. They will be able to interpret and critique a wide range of literary and non-literary texts, applying diverse theoretical approaches.</div> </div>	

Cape College																																									
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div> <div>Hinted search text</div> <div></div> </div> <div>Add Filter</div> <table> <tr> <th><input type="checkbox"/></th><th>CourseID</th><th>Course Name</th><th>Years</th><th>Credits</th><th>Course Coordinator</th></tr> <tr> <td><input type="checkbox"/></td><td>48219</td><td>BA(Humanities)</td><td>3</td><td>126</td><td>Prof. Doug Brown</td></tr> <tr> <td><input type="checkbox"/></td><td>67345</td><td>BCom(Business)</td><td>3</td><td>126</td><td>Dr. Kate Lee</td></tr> <tr> <td><input type="checkbox"/></td><td>92037</td><td>BInf(Technology)</td><td>4</td><td>135</td><td>Mr. Mike Cox</td></tr> <tr> <td><input type="checkbox"/></td><td>15862</td><td>BSc(Medicine)</td><td>5</td><td>249</td><td>Dr. Sam Peterson</td></tr> <tr> <td><input type="checkbox"/></td><td>73421</td><td>BEd(Teaching)</td><td>3</td><td>126</td><td>Ms. Amy Davids</td></tr> </table>					<input type="checkbox"/>	CourseID	Course Name	Years	Credits	Course Coordinator	<input type="checkbox"/>	48219	BA(Humanities)	3	126	Prof. Doug Brown	<input type="checkbox"/>	67345	BCom(Business)	3	126	Dr. Kate Lee	<input type="checkbox"/>	92037	BInf(Technology)	4	135	Mr. Mike Cox	<input type="checkbox"/>	15862	BSc(Medicine)	5	249	Dr. Sam Peterson	<input type="checkbox"/>	73421	BEd(Teaching)	3	126	Ms. Amy Davids
<input type="checkbox"/>	CourseID	Course Name	Years	Credits	Course Coordinator																																				
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Cape College	
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div>←</div> <div>Edit</div>
<div>Course ID</div> <div>48219</div> <div>Years</div> <div>3</div> <div>Faculty</div> <div>Art</div> <div>Head of Faculty</div> <div>Anna Smith</div> <div>annasmith@email.com</div> <div>Module Choices</div> <div>English, Psychology, Sociology Visual Arts, Philosophy</div> <div>Course Description</div> <div>This course explores literature, how humans interact with the world, and society. It includes studying a wide range of texts from different historical periods and cultures, analyzing them through various critical lenses.</div> <div>Learning Outcomes</div> <div>Graduates of a Humanities degree will have developed advanced skills in critical thinking, textual analysis, and effective communication. They will be able to interpret and critique a wide range of literary and non-literary texts, applying diverse theoretical approaches.</div>	<div>Course Name</div> <div>BA(Humanities)</div> <div>Credits</div> <div>126</div> <div>Course Format</div> <div>Continuous Assessment</div> <div>Course Coordinator</div> <div>Prof. Doug Brown</div> <div>dougbrown@email.com</div> <div>Prerequisite Course</div> <div>N/A</div>

Cape College					
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div> <div>Hinted search text</div> <div>Q</div> </div> <div>Add Filter</div>				
<input type="checkbox"/>	ModuleID	Module Name	Credits	Period	Lecturer
<input type="checkbox"/>	74832	English	42	1	Prof. Doug Brown
<input type="checkbox"/>	15984	Psychology	42	2	Mr. Ben Holmes
<input type="checkbox"/>	32671	Sociology	42	3	Dr. Joan Smith
<input type="checkbox"/>	49520	Visual Studies	42	4	Mr. Matt Fox
<input type="checkbox"/>	28473	Philosophy	42	5	Ms. Jamie Downs

Rows per page: 10

1-5 of 5

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Cape College	
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div>←</div> <div>Edit</div>
<div> <div>Course ID</div> <div>48219</div> </div> <div> <div>Module ID</div> <div>74832</div> </div> <div> <div>Module Name</div> <div>English</div> </div> <div> <div>Credits</div> <div>42</div> </div> <div> <div>Faculty</div> <div>Art</div> </div> <div> <div>Course Format</div> <div>Practical Assessment</div> </div> <div> <div>Lecturer</div> <div>Prof. Doug Brown</div> <div>dougbrown@email.com</div> </div> <div> <div>Period</div> <div>1</div> </div> <div> <div>Topics covered</div> <div>African Literature, Grammar, Spelling, Public Speaking, Modern Literature</div> </div> <div> <div>Prerequisite Course</div> <div>N/A</div> </div> <div> <div>Module Description</div> <div>This module explores literature, language, and writing. Assessments will be done in a practical form of essays, class debates and orals.</div> </div> <div> <div>Learning Outcomes</div> <div>Students of an English module will be able to do public speaking confidently, and will have the skills to create a strong and sound argument.</div> </div>	

Course Catalogue

Apply

Modules

Student Account

Cape College

Hinted search text

Add Filter

	UserID	First Name	Last Name	Application	Status	Applicant Decision	Edit
	54321	John	Doe	BA(Humanities)	Pending	Accept	Edit

Rows per page: 10

1-1 of 1

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Course Catalogue

Apply

Modules

Student Account

Cape College

Edit

User ID

54321

Course ID

48219

Course Name

BA(Humanities)

Intake Year

2025

Application Status

Pending

Final Offer

Pending

Cape College

Course Catalogue

Apply

Modules

Student Account

Show

User ID
12345

ID Number
12345678

First Name
John

Last Name
Doe

Date of Birth
01/02/2003

Gender
Male

Nationality
South African

Address
1 Stellenbosch Road

Intake Year
2025

Course
BA(Humanities)

Cape College

Course Catalogue

Apply

Modules

Student Account

Show

User ID
12345

ID Number

First Name

Last Name

Date of Birth

Gender
Male

Nationality

Address

Intake Year

Course

19

Cape College							
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div> <div>Hinted search text</div> <div></div> </div>			<div> <div>Add Filter</div> </div>			
	<input type="checkbox"/>	StudentID	First Name	Last Name	Date of Birth	Gender	<div><div></div>Edit</div>
	<input type="checkbox"/>	12345	John	Doe	01/02/2003	Male	<div><div></div>Edit</div>
	<input type="checkbox"/>	54321	Jane	Doe	03/04/2003	Female	<div><div></div>Edit</div>
	<input type="checkbox"/>	73946	Shae	Smith	22/05/2003	Female	<div><div></div>Edit</div>
	<input type="checkbox"/>	63830	Matthew	Miller	01/06/2003	Male	<div><div></div>Edit</div>
	<input type="checkbox"/>	74638	Pat	Brown	11/06/2003	Male	<div><div></div>Edit</div>
	<input type="checkbox"/>	17384	Josh	Johnson	20/07/2003	Male	<div><div></div>Edit</div>
	<input type="checkbox"/>	25847	John	Van Zyl	21/07/2003	Male	<div><div></div>Edit</div>
	<input type="checkbox"/>	45632	Sarah	Jones	15/08/2003	Female	<div><div></div>Edit</div>
	<input type="checkbox"/>	04738	Bella	Thompson	21/08/2003	Female	<div><div></div>Edit</div>
	<input type="checkbox"/>	13483	Sarah	Turner	25/10/2003	Female	<div><div></div>Edit</div>
<div> <div>Rows per page: 10</div> <div>1-10 of 15</div> <div>< 1 2 ></div> </div>							

Cape College	
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div> <div>←</div> <div>Edit</div> </div> <div> <div> <div>Student ID</div> <div>12345</div> </div> <div> <div>First Name</div> <div>John</div> </div> <div> <div>Last Name</div> <div>Doe</div> </div> <div> <div>Date of Birth</div> <div>01/02/2003</div> </div> <div> <div>Gender</div> <div>Male</div> </div> <div> <div>Nationality</div> <div>South African</div> </div> <div> <div>Address</div> <div>1 Stellenbosch Road</div> </div> <div> <div>List of Modules</div> <div>Maths, English, Science</div> </div> </div>

Cape College

Course Catalogue

Apply

Modules

Student Account

Show

Student ID

12345

Academic Year

3

First Name

John

Last Name

Doe

Date of Birth

01/02/2003

Gender

Male

Nationality

South African

Address

1 Stellenbosch Road

Cape College

Course Catalogue

Apply

Modules

Student Account

Hinted search text

Add Filter

	Module Name	Module ID	Course ID	Credits	Module Fee (R)	Edit
<input type="checkbox"/>	English	74832	48219	42	5000	Edit
<input type="checkbox"/>	Psychology	15984	48219	42	5000	Edit
<input type="checkbox"/>	Sociology	32671	48219	42	5000	Edit
<input type="checkbox"/>	Visual Arts	49520	48219	42	5000	Edit
<input type="checkbox"/>	Philosophy	28473	48219	42	5000	Edit
<input type="checkbox"/>	Entrepreneurship	51294	67345	42	6000	Edit
<input type="checkbox"/>	Business Analytics	69347	67345	42	6000	Edit
<input type="checkbox"/>	Accounting	18420	67345	42	6000	Edit
<input type="checkbox"/>	Marketing	37561	67345	42	6000	Edit
<input type="checkbox"/>	Investment	84029	67345	42	6000	Edit

Rows per page: 10

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3

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☰

Cape College

👤

📖 Course Catalogue

✎ Apply

🗄 Modules

👤 Student Account

←

✎ Edit

Module Name

Entrepreneurship

Module ID

51294

Course ID

67345

Credits

42

Module Fee (R)

6000

Lecturer

Prof. Lisa Bennett

☰

Cape College

👤

📖 Course Catalogue

✎ Apply

🗄 Modules

👤 Student Account

👁 Show

Module Name

Entrepreneurship

✕

Module ID

51294

✕

Course ID

67345

✕

Credits

42

✕

Module Fee

R5000

✕

Lecturer

Prof. Lisa Bennet

✕

Course Catalogue

Apply

Modules

Student Account

Hinted search text

Add Filter

Create

<input type="checkbox"/>	AssessmentID	Assessment Type	Date	Weighting	Status	<div><div></div><div>Edit</div></div>
<input type="checkbox"/>	13579	Examination	01/02/2024	15%	Past	<div><div></div><div>Edit</div></div>
<input type="checkbox"/>	24681	Project	04/04/2024	70%	Upcoming	<div><div></div><div>Edit</div></div>
<input type="checkbox"/>	12345	Examination	11/05/2024	15%	Upcoming	<div><div></div><div>Edit</div></div>

Rows per page: 101-3 of 3<1>

Course Catalogue

Apply

Modules

Student Account

Edit

Assessment ID

13579

Assessment Type

Examination

Assessment Date

01/02/2024

Weighting

15%

Status

Past

Cape College

Course Catalogue

Apply

Modules

Student Account

Show

Assessment ID

13579

Assessment Type

Examination

Assessment Date

01/02/2024

Weighting

15%

Status

Past

Cape College

Course Catalogue

Apply

Modules

Student Account

←

Save

Assessment ID

Assessment Type

Assessment Date

Weighting

Status

Cape College

Course Catalogue

Apply

Modules

Student Account

Hinted search text

Add Filter

Create

<input type="checkbox"/>	Assessment ID	Module ID	Assessment Date	Grade	Outcome	Edit
<input type="checkbox"/>	12345	74832	11/02/2024	76%	Pass	Edit
<input type="checkbox"/>	54321	74832	17/02/2024	50%	Pass	Edit
<input type="checkbox"/>	76497	74832	24/02/2024	75%	Pass	Edit
<input type="checkbox"/>	64386	15984	01/03/2024	89%	Pass	Edit
<input type="checkbox"/>	07215	15984	11/03/2024	45%	Fail	Edit
<input type="checkbox"/>	25142	15984	22/03/2024	62%	Pass	Edit
<input type="checkbox"/>	25847	32671	24/03/2024	51%	Pass	Edit
<input type="checkbox"/>	33163	32671	30/04/2024	73%	Pass	Edit
<input type="checkbox"/>	87464	32671	01/05/2024	0%	Incomplete	Edit

Rows per page: 101-9 of 9< 1 - >

Cape College

Course Catalogue

Apply

Modules

Student Account

Edit

Assessment ID

12345

Module ID

74832

Course ID

48219

Grade

76%

Outcome

Pass

Assessment Date

11/02/2024

Course Catalogue

Apply

Modules

Student Account

Cape College

Show

Assessment ID

12345

Assessment Date

11/02/2024

Grade

76%

Module ID

74832

Course ID

48219

Outcome

Pass

Course Catalogue

Apply

Modules

Student Account

Cape College

Save

Assessment ID

Assessment Date

Grade

Module ID

Course ID

Outcome

Cape College							
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div> <div>Hinted search text</div> <div></div> </div>			<div> <div></div> <div>Add Filter</div> </div>		<div> <div></div> <div>+ Pay</div> </div>	
	<input type="checkbox"/>	Bill Payer	Amount (R)	Purpose	Payment Date	Outstanding Balance	Payment ID
	<input type="checkbox"/>	Father	R5000	Fees	10/02/2003	R15000	18463
	<input type="checkbox"/>	Student	R100	Printing	03/04/2003	R15000	84363
	<input type="checkbox"/>	Student	R200	Meals	29/03/2003	R15000	35732
	<input type="checkbox"/>	Mother	R2000	Fees	11/04/2003	R13000	47261
	<input type="checkbox"/>	Mother	R2000	Fees	11/05/2003	R11000	12347
	<input type="checkbox"/>	Father	R5000	Fees	24/05/2003	R6000	73526
	<input type="checkbox"/>	Father	R3000	Fees	05/06/2003	R3000	73621
	<input type="checkbox"/>	Grandfather	R3000	Fees	01/07/2003	R3000	23654
	<input type="checkbox"/>	Student	R50	Printing	23/07/2003	R0	83724
<div> <div>Rows per page: 10</div> <div>1-9 of 9</div> <div>< 1 - ></div> </div>							

Cape College	
<div>Course Catalogue</div> <div>Apply</div> <div>Modules</div> <div>Student Account</div>	<div>←</div> <div> <div>Bill Payer</div> <div>Father</div> <div>Amount (R)</div> <div>R5000</div> <div>Purpose</div> <div>Fees</div> <div>Payment Date</div> <div>10/02/2003</div> <div>Outstanding Balance</div> <div>R15000</div> <div>Payment ID</div> <div>18463</div> <div>Payment Status</div> <div>Successful</div> </div>

6. SQL DDL

```
CREATE TABLE user(  
    userID VARCHAR(5) PRIMARY KEY,  
    firstName VARCHAR(15),  
    lastName VARCHAR(15),  
    password VARCHAR(10),  
    emailAddress VARCHAR(30),  
    userIDNumber VARCHAR(13),  
    dateOfBirth TIMESTAMP,  
    address VARCHAR (40),  
    nationality VARCHAR (40),  
    gender VARCHAR (5),  
    role VARCHAR (10),  
);  
  
CREATE TABLE student(  
    studentID VARCHAR(5) PRIMARY KEY,  
    enrolementDate TIMESTAMP,  
    academicYear VARCHAR (4),  
    listOfModuleID VARCHAR (5),  
  
    CONSTRAINT FK_StudentID FOREIGN KEY (studentID) REFERENCES  
user(userID),  
);  
  
CREATE TABLE studentModule ( --COMPOSITE TABLE  
    studentID VARCHAR (5) PRIMARY KEY,  
    moduleID VARCHAR(5) PRIMARY KEY,  
  
    PRIMARY KEY (moduleID, studentID),  
  
    CONSTRAINT FK_ModuleID FOREIGN KEY (moduleID) REFERENCES  
modules(modlueID),
```

```

    CONSTRAINT FK_StudentID FOREIGN KEY (studentID) REFERENCES
student(studentID),

);

```

```

CREATE TABLE module

    moduleID VARCHAR (5) PRIMARY KEY,

    lecturer VARCHAR (20),

    period INT,

    moduleName VARCHAR (20),

    credit INT,

    moduleFee FLOAT (2),

    courseID VARCHAR (5) PRIMARY KEY,

```

```

    CONSTRAINT FK_CourseID FOREIGN KEY (courseID) REFERENCES
courseCatalogue(courseID),

```

```

CREATE TABLE courseCatalogue(

    courseDescription VARCHAR (90),

    prerequisiteModule VARCHAR (20),

    prerequisiteCourse VARCHAR (20),

    courseCoordinator VARCHAR (30),

    learningOutcome VARCHAR (90),

    courseFormat VARCHAR (30),

    courseName VARCHAR(20),

    courseID VARCHAR(5) PRIMARY KEY,

    creditAmount INT,

    numberOfYears INT,

    headOfFaculty VARCHAR(30),

    courseFaculty VARCHAR(30),

);

```

```

CREATE TABLE assessment(

    date TIMESTAMP,

```

```

weighting FLOAT(2),
assessmentType VARCHAR(10),
assesmentStatus VARCHAR(10),
assesmentID VARCHAR(5) PRIMARY KEY,
);

```

```

CREATE TABLE financeAccount(
    statementOfAccount FLOAT(2),
    outstandingBalance FLOAT(2),
    paymentDate TIMESTAMP,
    amount FLOAT (2),
    purpose VARCHAR (30),
    paymentMethod VARCHAR (30),
    dueDate TIMESTAMP,
    studentFeeCost FLOAT(2),
    studentID VARCHAR(5) PRIMARY KEY,
    paymentStatus VARCHAR(30),
    currency VARCHAR(30),
    billPayer VARCHAR (30),
    paymentID VARCHAR(5),

    CONSTRAINT FK_StudentID FOREIGN KEY (studentID) REFERENCES
student(studentID),

);

```

```

CREATE TABLE applicant (
    status VARCHAR (30),
    userID VARCHAR(5) PRIMARY KEY,
    applicationDate TIMESTAMP,
    studentFeePayer VARCHAR (30),
    finanicalAidStatus VARCHAR (30),

```

```
CONSTRAINT FK_userID FOREIGN KEY (userID) REFERENCES user(userID),  
);
```

```
CREATE TABLE academicRecord (  
    assesmentOutcome VARCHAR (30),  
    assesmentDate TIMESTAMP,  
    moduleID VARCHAR (5),  
    courseID VARCHAR(5),  
    grade INT,  
    studentID VARCHAR (5),
```

```
CONSTRAINT FK_CourseID FOREIGN KEY (courseID) REFERENCES  
courseCatalogue(courseID),
```

```
CONSTRAINT FK_ModuleID FOREIGN KEY (moduleID) REFERENCES  
modules(moduleID),
```

```
CONSTRAINT FK_StudentID FOREIGN KEY (studentID) REFERENCES  
students(studentID),
```

```
PRIMARY KEY (moduleID, studentID),  
);
```

```
CREATE TABLE administrator (  
    position VARCHAR (30),  
    department VARCHAR (30),  
    phoneNumber VARCHAR (10),  
    employmentStatus VARCHAR (30),  
    contractEnd TIMESTAMP,  
    qualification VARCHAR(30),  
    employmentHistory VARCHAR(30),  
    officeNumber VARCHAR (20),  
    performanceRating INT,  
    userID VARCHAR (5) PRIMARY KEY,
```



```
CONSTRAINT FK_UserID FOREIGN KEY (userID) REFERENCES user(userID),  
);
```