





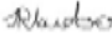
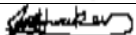


Applications Development Project 3 –ADPA301-2021

Software Requirements Specification (SRS)

I have read, understood and agree to the contents of this document. I accept full responsibility for any errors and omissions in this document.

Group number: 9

Group name: Peaky Blinders

	Reg no	First name	Surname	Sign	Meetings held	Number attended
1	21901959	Keenan	Pillay		12	12
2	21905608	Callan	Naidoo		12	12
3	21912160	Talia	Ramroop		12	8
4	21912220	Avishek	Narsi		12	12
5	21919268	Pashlin	Naidoo		12	9
6	21919281	Kishen	Jurakan		12	9
7	21919901	Adrian	Naidoo		12	12
8	21937943	Shyur	Jeenarain		12	12

Business Domain	e-Commerce Online Library
Business name	Durban Central Library
Contact Person	
Contact number	
Email address	

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1. Executive summary

Libraries have played a significant role in the development and enjoyment of citizens lives. It's always been a place which offers the availability of all kinds of books, whether it be educational or leisure reading. There has always been a need for libraries, as it helped bridge the gap for students who didn't have access to learning resources. Despite its success of libraries in the past few decades the emergence of the Covid-19 pandemic and the resulting lockdown has brought about the closing of libraries. People are adapting to this change and rather looking at buying books online or downloading the PDF versions. We are exploring the idea of developing an e-commerce website which will allow people to borrow books as well as purchasing books through the system. This will enable students to have access to the library from the comfort of their homes.

2. Business use cases

No	Use case	Brief Use Case description	Full Name	Completed Yes / No
1.	Manage Books	The admin can manage all the books in the library	Keenan Pillay	Yes
2.	Purchase Book	Customers can purchase books online	Keenan Pillay	Yes
3.	Create Account	Customers can register/ create an account by entering their personal details	Avishek Narsi	Yes
4.	Browse Books	Customers can view the details about a book	Pashlin Naidoo	Yes
5.	Place Order	Customers can place the order of the books they wish to purchase	Kishen Jurakan	Yes
6.	Borrow Book	Customers can borrow books from the library	Kishen Jurakan	No
7.	Create Account	Customers can register/ create an account by entering their personal details	Avishek Narsi	Yes
8.	Browse Book	Customers can view the details about a book	Keenan Pillay	No
9.	Schedule Pick-Up	Customers can schedule pick-up that is convenient for them	Pashlin Naidoo	No
10.	Book Availability	Customers will be able to check the availability of books in the library	Pashlin Naidoo	No
11.	Deliver Order	Customers that have purchased books can choose the delivery option	Callan Naidoo	Yes
12.	View Options	Customers that have purchased books can choose to have a delivery (express/normal) or pick up	Callan Naidoo	Yes
13.	Manage Payment	Customers can choose their method of payment for the purchase of books	Shyur Jeenarain	Yes
14.	View Methods	Customers can choose the payment options of cash on delivery, credit, or PayPal for the purchase of books	Shyur Jeenarain	Yes

15.	Generate Invoice	Customers will receive an invoice for their purchases	Avishek Narsi	Yes
16.	Update Order	Customers can update their order	Adrian Naidoo	No
17.	View Orders	Customers will be able to view their orders	Avishek Narsi	No
18.	Delivery Details	Customers will be able to view the delivery details for their order	Talia Ramroop	No
19.	Process Order	The admin/employees will process the customers' order	Keenan Pillay	No
20.	View All Orders	The admin/employees will be able to view the customers' orders	Keenan Pillay	No
21.	View Details	The admin can view all the order details	Kishen Jurakan	No
22.	Edit Order Statuses	The admin/employees will be able to edit order statuses	Kishen Jurakan	No

3. Use case

Give a detailed description for each **business use case** identified above. Do not include CRUD operations here.

Use case number	01
Use case name	Manage Books
Brief description	The admin can manage all the books in the library
Triggering event	Admin logs into account
Actor(s)	Admin
Preconditions	Admin must be logged in
Flow of activities	<ol style="list-style-type: none"> 1. Browse books which are on website 2. Add books to website 3. Edit book details 4. Add new authors for new books 5. Add new genres to website

Use case number	02
Use case name	<i>Purchase Book</i>
Brief description	<i>Customers can purchase books</i>
Triggering event	<i>Customer must click on purchase book tab</i>
Actor(s)	<i>Customer</i>
Preconditions	<i>No preconditions</i>
Flow of activities	1. <i>Customers can browse all available books</i> 2. <i>Customers can choose books from specific genres</i> 3. <i>Customers are able to select the books they want to purchase</i>

Use case number	03
Use case name	<i>Create account</i>
Brief description	<i>A customer/s can create an account by entering their personal details</i>
Triggering event	<i>Purchase book</i>
Actor(s)	<i>Customer</i>
Preconditions	<i>The customer must add their personal details and create their account</i>
Flow of activities	1. <i>Select create account</i> 2. <i>Add the necessary details</i> 3. <i>Select create account</i>

Use case number	04
Use case name	<i>Browse Books</i>
Brief description	<i>Customers can view the details about a book</i>
Triggering event	<i>Customers are curious about what the book entail</i>
Actor(s)	<i>Customer</i>
Preconditions	<i>Customers can read the description of the book</i>
Flow of activities	1. <i>Select book</i> 2. <i>View book/description</i>

Use case number	05
Use case name	<i>Place order</i>
Brief description	<i>Customers can place the order of the books they wish to purchase</i>
Triggering event	<i>Place order for books</i>
Actor(s)	<i>Customer</i>
Preconditions	<i>User must be logged in to place an order</i>
Flow of activities	1. <i>Select book</i> 2. <i>View Description</i> 3. <i>Add to order</i>

Use case number	11
Use case name	<i>Deliver Order</i>
Brief description	<i>Customers can choose the delivery option</i>
Triggering event	<i>Customers order to be delivered</i>

Actor(s)	<i>Customer</i>
Preconditions	<i>Orders over R350 is free delivery</i>
Flow of activities	<ol style="list-style-type: none"> 1. <i>Identify the various delivery options</i> 2. <i>Select one</i> 3. <i>Edit address</i>

Use case number	<i>12</i>
Use case name	<i>View Options</i>
Brief description	Customers that have purchased books can choose to have a delivery (express/normal) or pick up
Triggering event	<i>Order to be delivered or picked up</i>
Actor(s)	<i>Customer</i>
Preconditions	<i>Order over R350 is free delivery</i>
Flow of activities	<ol style="list-style-type: none"> 1. <i>Identify the various options</i> 2. <i>Generate prices</i> 3. <i>Choose an option</i>

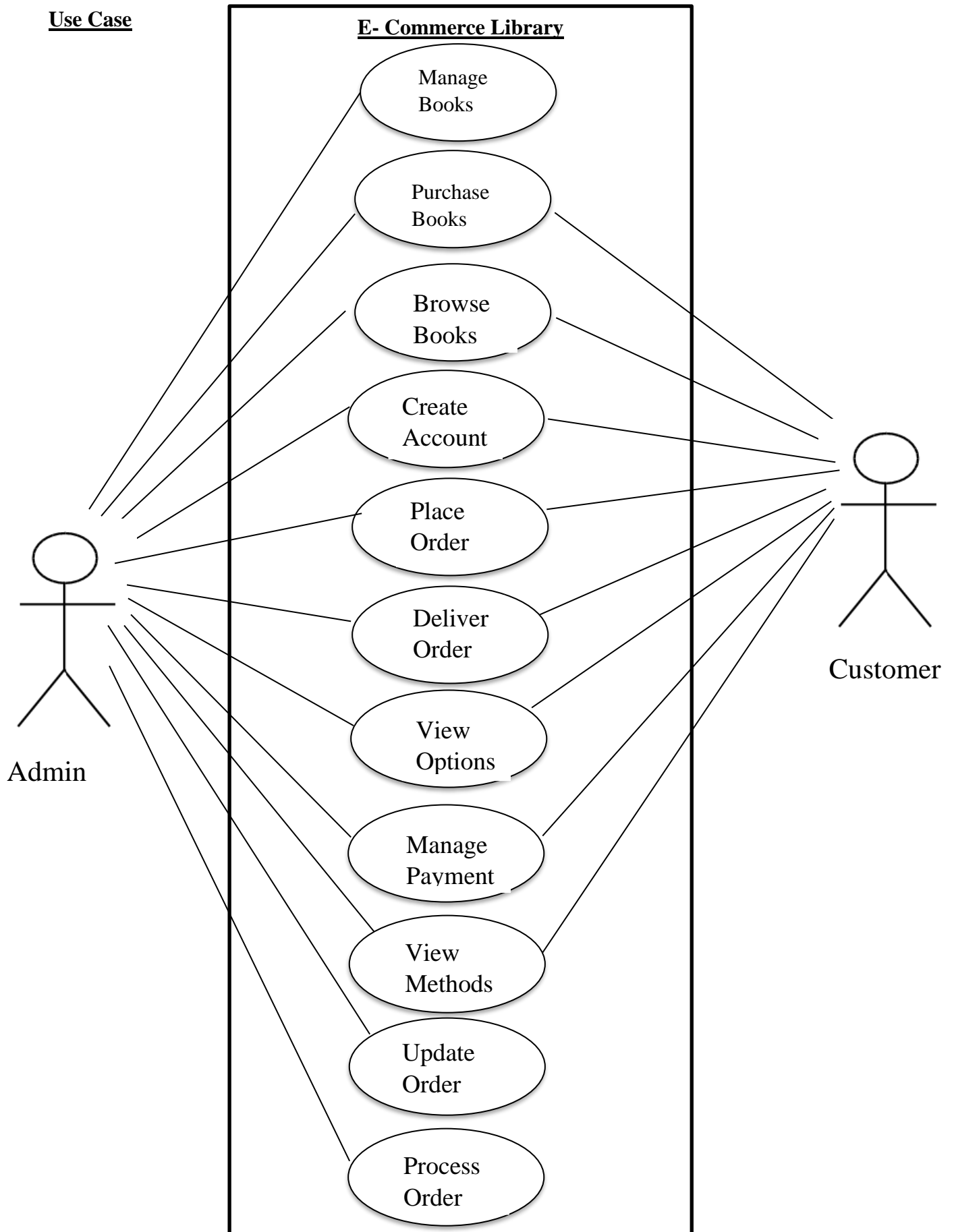
Use case number	<i>13</i>
Use case name	<i>Manage Payment</i>
Brief description	Customers can choose their method of payment for the purchase of books.
Triggering event	Price is generated.
Actor(s)	<i>User</i>
Preconditions	Price is generated and user needs to check out.
Flow of activities	<ol style="list-style-type: none"> 1. <i>Add books to basket.</i> 2. <i>Confirm details.</i> 1. <i>Checkout.</i> 2. <i>Choose method of payment.</i>

Use case number	<i>14</i>
Use case name	<i>View Methods</i>
Brief description	Customers can choose the payment options of cash on delivery, credit, or PayPal for the purchase of books.
Triggering event	Price is generated.
Actor(s)	<i>User</i>
Preconditions	Price is generated and user needs to check out.
Flow of activities	<ol style="list-style-type: none"> 1. <i>Confirm details.</i> 2. <i>Checkout.</i>

	3. <i>Choose payment type (cash or card).</i>
--	---

Use case number	15
Use case name	Generate invoice
Brief description	Customers will receive an invoice for their purchases
Triggering event	Invoice sent to customer
Actor(s)	Customer
Preconditions	Invoice received for purchases
Flow of activities	<ol style="list-style-type: none"> 1. Views purchases 2. Receive invoice

Use Case



4. User Manual

4.1 Access detail – you are required to setup the URL using the year and Group eg.
<http://2021grp09.azurewebsites.net/>

4.2 Login details for each **role**

Admin - Email: 21901959@dut4life.ac.za

Password: Qwerty\$1234

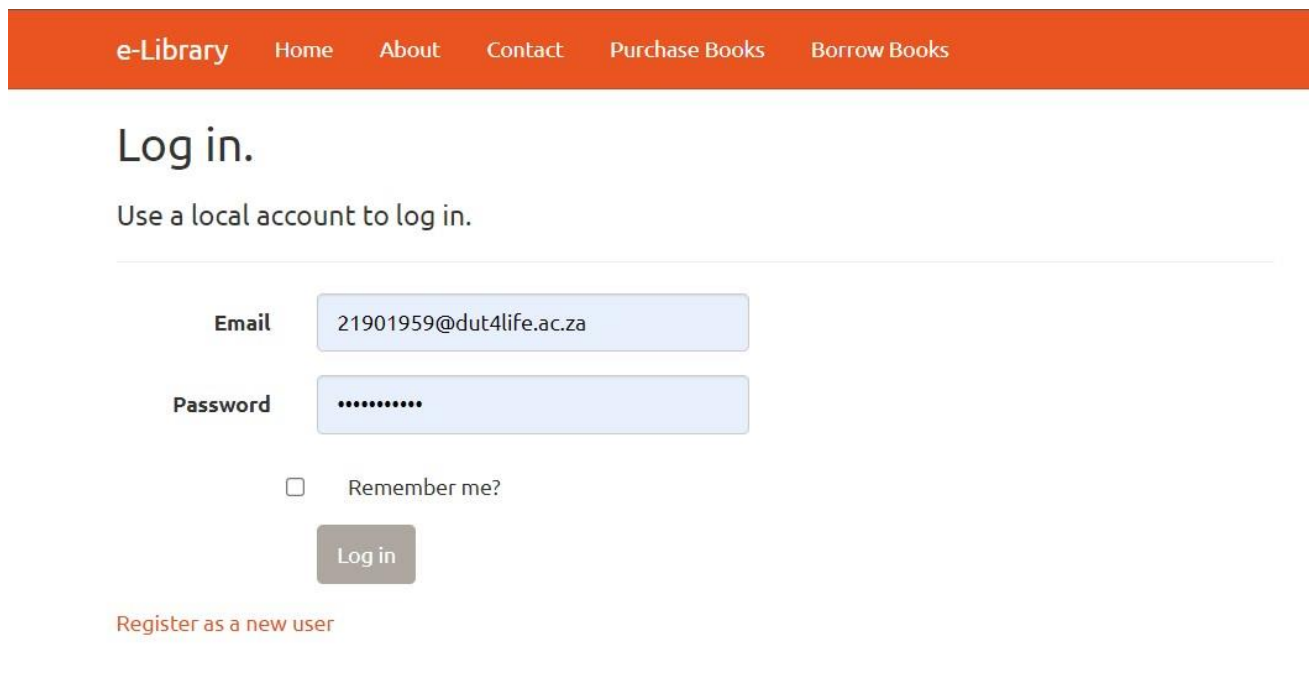
Customer- Email: 21919281@dut4life.ac.za

Password: Qwerty\$1234

4.3 Usage of the **business use cases only**

1. Manage books

Admin Role



The screenshot shows the login interface of an eLibrary system. At the top is an orange navigation bar with links: e-Library, Home, About, Contact, Purchase Books, and Borrow Books. Below the navigation bar, the text "Log in." is displayed in a large font, followed by the instruction "Use a local account to log in." in a smaller font. The login form consists of two input fields: "Email" with the value "21901959@dut4life.ac.za" and "Password" with masked characters ".....". Below these fields is a checkbox labeled "Remember me?". A "Log in" button is positioned below the checkbox. At the bottom of the form, there is a link that says "Register as a new user".

1. The admin must log in to their account to manage the books
2. Enter email address
3. Enter Password
4. Click "LOG IN" button to have access to manage books

1. The admin can manage all the books in the library by clicking the “Admin” tab after logging in

The screenshot shows the e-Library homepage. The navigation bar at the top is orange and contains links: e-Library, Admin, Home, About, Contact, Purchase Books, Borrow Books, 0 items, \$0.00, Hello 21901959@dut4life.ac.za!, and Log off. A red arrow points to the 'Admin' link, which is enclosed in a red box with the number '1'. Below the navigation bar is a large grey banner with the text 'e-Library' and 'Have a look at our wide range of books which you can borrow or even purchase if you're feeling adventurous. Available from the comfort of your home!'. There is a 'Learn more »' button. Below the banner are two sections: 'Purchase Book' and 'Borrow Book', each with a 'Let's Go »' button.

e-Library Admin Home About Contact Purchase Books Borrow Books 0 items \$0.00 Hello 21901959@dut4life.ac.za! Log off

e-Library

Have a look at our wide range of books which you can borrow or even purchase if you're feeling adventurous. Available from the comfort of your home!

Learn more »

Purchase Book

Purchases R350 and over gets you free delivery! Order now!

Let's Go »

Borrow Book

Pick them up, or get them delivered to you! (T's and C's apply!)










Let's Go »

The screenshot shows the 'Manage Books' page. The navigation bar is the same as the homepage. A red arrow points to the 'Admin' link, which is enclosed in a red box with the number '1'. Below the navigation bar is the 'Manage Books' section. It has a link 'Add New Book' and a table of books. A red arrow points to the 'Add New Book' link, which is enclosed in a red box with the number '1'. Another red arrow points to the 'Edit | Delete' link in the first row of the table, which is enclosed in a red box with the number '2'. A third red arrow points to the 'Edit | Delete' link in the second row of the table, which is enclosed in a red box with the number '3'.

e-Library Home About Contact Admin Purchase Books Borrow Books 0 items \$0.00 Hello 21901959@dut4life.ac.za! Log off

Manage Books

Add New Book

Book Name	Author	Genre	Price	Stock	
 The Monk Who Sold his Ferrari	Robin Sharma	Health, Mind & Body	67.00	3	Edit Delete
 Destiny	T D Jakes	Religion & Spirituality	139.00	4	Edit Delete
 Dont Drop the Mic	T D Jakes	Religion & Spirituality	140.00	3	Edit Delete
 Celebrating Marriage	T D Jakes	Religion & Spirituality	85.00	6	Edit Delete
 The Ghost	Danielle Steel	Romance	189.00	4	Edit Delete
 ASP.NET MVC Framework	Stephen Walther	Computers & Technology	328.00	4	Edit Delete
 Macbeth	William Shakespeare	Fiction & Literature	80.00	10	Edit Delete
 Cross	Ryan Blumenthal	Thriller & Horror	184.00	2	Edit Delete
 Gunship Ace	Al J Venter	Biographies & Memoirs	95.00	5	Edit Delete

- 1.The admin can add new book to the system by clicking “Add New Book”
- 2.The admin can edit existing books by clicking “edit”
3. The admin can select a book to be deleted from the site for ‘purchase books’ by clicking “Delete” button for the book to be permanently deleted from the site

2. **Purchase books**

Admin and Customer Role

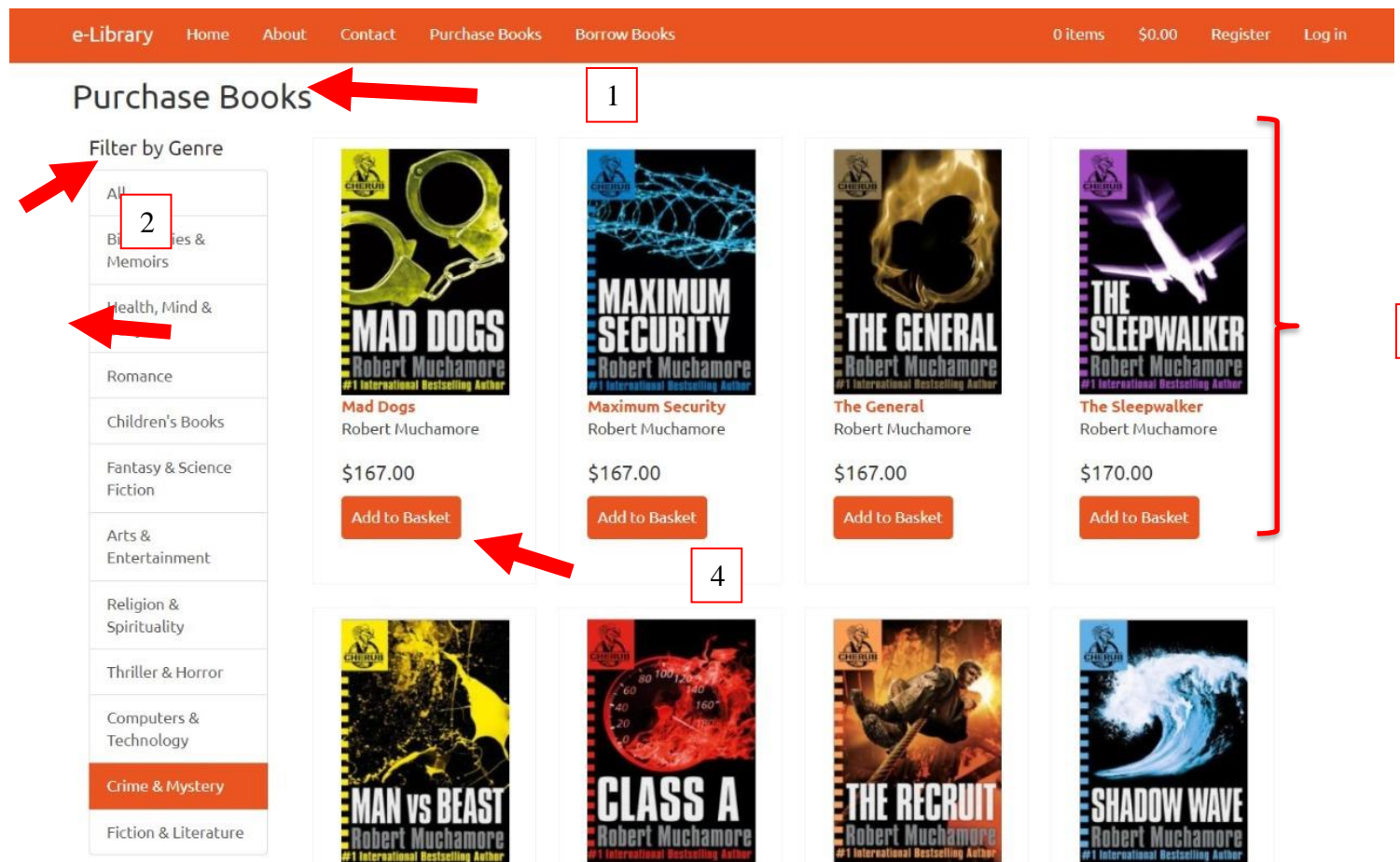
The screenshot shows the login interface of an e-Library system. At the top is an orange navigation bar with links: e-Library, Home, About, Contact, Purchase Books, and Borrow Books. Below the navigation bar, the text "Log in." is followed by a red arrow pointing to a box containing the number "1". Underneath, it says "Use a local account to log in." Below this is a horizontal line. The login form contains an "Email" field with the text "21901959@dut4life.ac.za" and a red arrow pointing to a box with the number "2". Below the email field is a "Password" field with masked characters "....." and a red arrow pointing to a box with the number "3". Below the password field is a checkbox labeled "Remember me?". At the bottom of the form is a "Log in" button with a red arrow pointing to a box with the number "4". Below the button is a link that says "Register as a new user".

1. The admin or customer must log in to their account to purchase books. They can create an account if they don't have one by clicking "Register as a new user" at the bottom left.

2. Enter email address

3. Enter Password

4. Click "LOG IN" button to be able to purchase books



1. Users can view the books available for purchase
2. Users can select the “filter” dropdown list to find a genre of their choice and all those books will appear on the screen
3. The details of each book is displayed on the screen which includes the name of the book, author and price
4. If the user is interested in the book they can select the button below the book “ADD TO BASKET”

e-Library

[Home](#)[About](#)[Contact](#)[Purchase Books](#)[Borrow Books](#)

2 items

\$334.00



[Register](#)

[Log in](#)

1

Basket

2

	BookName	Quantity	Price	Line Total	
	The Recruit	1	\$167.00	\$167.00	<div>Delete</div>
	Maximum Security	1	\$167.00	\$167.00	<div>Delete</div>

Basket Total

\$334.00

3

Checkout

4

1. Users can place the order by first viewing their basket which will show the quantity, price of each book in the basket
2. Users can choose to delete a book by clicking the “DELETE” button
3. The basket total of all the books is displayed
4. Users can select the “Checkout” button which will direct them to the Deliver order page or they can collect the order

3.Deliver order (Admin and Customer Role)

e-Library

Home

About

Contact

Admin

Purchase Books

Borrow Books

2 items

\$334.00

Hello 21901959@dut4life.ac.za!

Log off

Courier Options

No.	Courier Type	Description	Price
1	Standard Delivery	Orders will be delivered to customers provided addresses between 2-7 working days	R60.00
2	Express Delivery	Orders will be delivered to customers provided addresses the next working day	R95.00

NOTE: Free delivery for orders above the price of R350

Please select a courier method:

Standary Delivery: ☒

Express Delivery: ☐

Proceed to Payment

1. Users can view the courier options for their purchases and the prices of each delivery option (If the basket total is over R350, the delivery is free)
2. After viewing the different options, select one courier method
3. Click “PROCEED TO PAYMENT” button where the user will have to update their delivery address and then proceed to payment

Order

The screenshot shows an online order form with the following fields and annotations:

- 1**: Points to the **First Name** input field containing "Keenan".
- 2**: Points to the **Last Name** input field containing "Pillay".
- 3**: Points to the **Delivery** dropdown menu showing "Courier".
- 4**: Points to the **Street** input field containing "12 St Thomas Road".
- 5**: Points to the **City** input field containing "Durban".
- 6**: Points to the **Zip Code** input field containing "4091".
- 7**: Points to the **Basket Total** display showing "334.00".
- 8**: Points to the **Proceed** button.

Below the form, there is a link: [Back to Basket](#)

1. Enter first name
2. Enter last name
3. Choose an option from the dropdown list
4. Enter Address
5. Enter City
6. Enter Zip Code
7. The basket total is displayed for all the items in the basket including the delivery fee
8. Click the "PROCEED" button to proceed to the payments page

4. Manage payment (Admin and Customer Role)

The screenshot shows the PayPal checkout interface. At the top right, the total amount is displayed as \$394.00 USD with a dropdown arrow, labeled with a red box 1. Below this is a light blue banner with the text 'Hi, John!'. The shipping section, labeled with a red box 2, shows the address 'Ship to John Doe, 1 Main St, San Jose, CA 95131' with a 'Change' link and a checkbox to 'Make this my preferred shipping address'. The payment section, labeled with a red box 3, is titled 'Pay with' and shows three options: 'Balance' (selected), 'Visa Credit ****5828', and 'CREDIT UNION 1 Checking ****4288'. Each option has a checkbox to 'Make this my preferred way to pay'. A red bracket groups these options, with a red box 3 pointing to it. Below the payment options is a link '+ Add debit or credit card'. The 'Pay later' section, labeled with a red box 4, includes a 'NEW' badge and details about 'PayPal Credit', including a link to 'Apply for PayPal Credit' and a note about no interest if paid in full within 6 months. At the bottom, a blue 'Pay Now' button is labeled with a red box 5. A link to 'View PayPal Policies and your payment method rights.' is located just above the button.

PayPal

Hi, John!

Ship to
John Doe
1 Main St, San Jose, CA 95131
[Change](#)
☐ Make this my preferred shipping address

Pay with

Balance \$394.00 USD
☒ ☐ Make this my preferred way to pay

Visa Credit ****5828
☐

CREDIT UNION 1 Checking ****4288
☐

[+ Add debit or credit card](#)

Pay later **NEW**

PayPal Credit
Apply for PayPal Credit
No interest if paid in full in 6 months for your purchase of \$394.00.
Subject to credit approval. [See terms](#)

[View PayPal Policies and your payment method rights.](#)

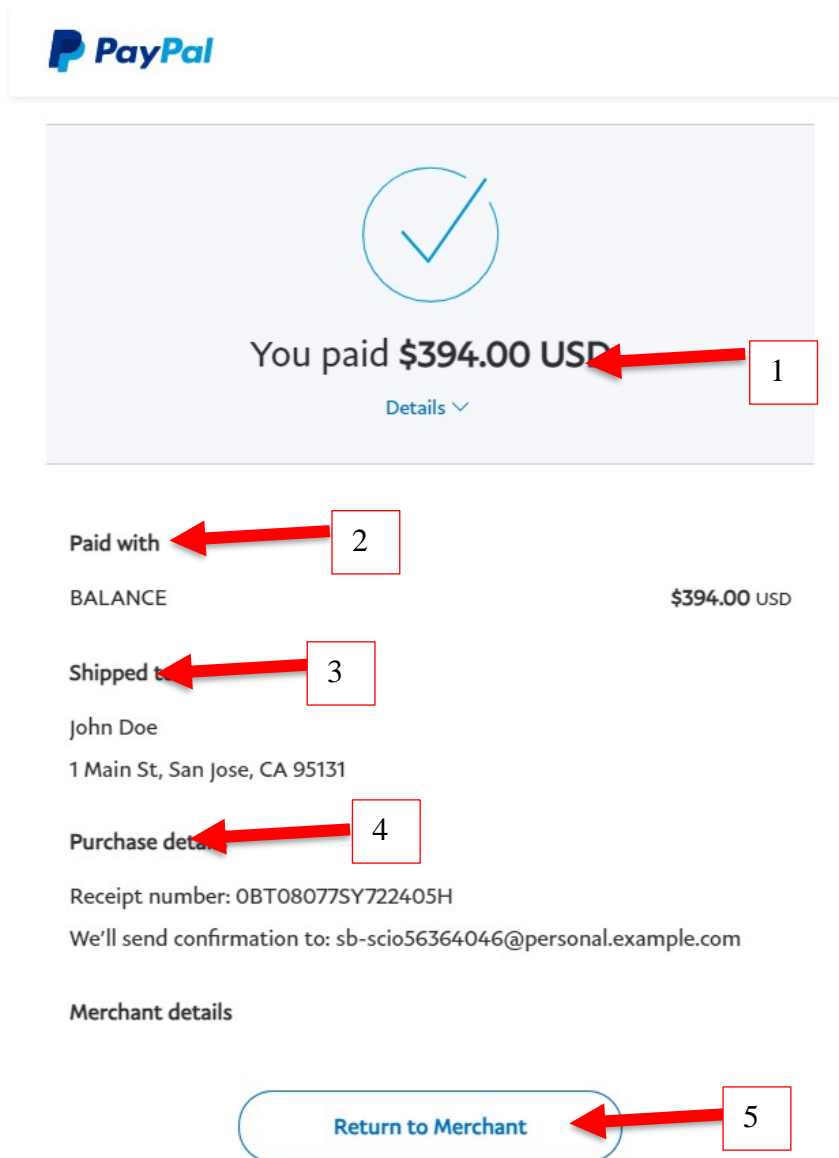
Pay Now

1. This is the total amount owing

2. The order will be shipped to (Customer name) and the address
3. User can choose the method of payment by selecting one (PayPal, Visa or Credit)
4. There is an option to pay later by clicking “PayPal Credit” button
5. Thereafter click “Pay Now” to proceed to the next page

The screenshot shows the PayPal payment interface. At the top left is the PayPal logo, and at the top right is a shopping cart icon with the text "\$394.00 USD". The main heading is "Pay with PayPal". Below this is the instruction "Enter your email or mobile number to get started." followed by a text input field labeled "Email or mobile number". Below the input field is a blue button labeled "Next". Below the "Next" button is the word "or" and a light gray button labeled "Create an Account". At the bottom left, there are language links: "English | Français | Español | 中文". Four red arrows with numbered boxes point to specific elements: arrow 1 points to the "Pay with PayPal" heading, arrow 2 points to the "Email or mobile number" input field, arrow 3 points to the "Next" button, and arrow 4 points to the "Create an Account" button.

1. User making payment via PayPal
2. Enter email address or mobile number for the confirmation to be sent.
3. Click “Next”
4. Create an account if you don’t already have one by clicking “Create an Account”

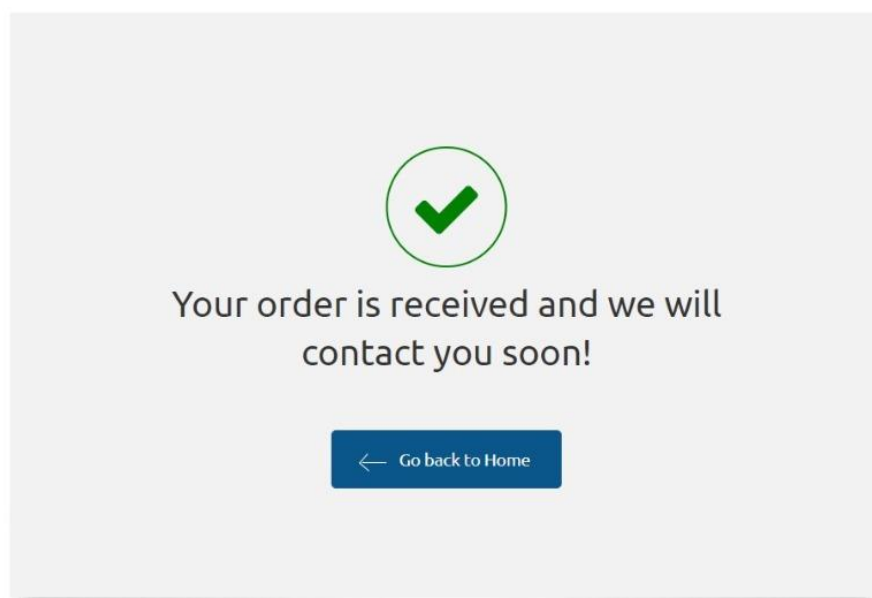


1. Successful payment
2. Method of payment is shown with the total amount
3. Shipped to (Name and Address of the customer)

4. Purchase details:

Receipt Number and a confirmation will be sent via email for the payment

5. Click “Return to Merchant” when complete



1. Successful payment of the order

5. Minutes of meeting

These minutes must indicate all members present and anyone who was absent.

First meeting:

Location: Discord

Date: 29 March 2021

Duration: 1 hour

Time: 10:00

Members that attended: (All)

21919281 Jurakan KA

21901959 Pillay K

21912220 Narsi AK

21937943 Jeenarain S

21905608 Naidoo C

21919901 Naidoo A

21919268 Naidoo P

21912160 Ramroop TL

Discussion:

All group members were required to come up with ideas before the meeting. In the meeting group members participated in sharing their thoughts and ideas after researching on business topics. We chose the best 3 from all the options and then voted for the best one which we all agreed on.

Second meeting:

Location: Discord

Date: 31 March 2021

Duration: 1 hour

Time: 12:00

Members that attended: (All)

21919281 Jurakan KA

21901959 Pillay K

21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21912160 Ramroop TL

Discussion:

We discussed our chosen topic more in detail. All members shared their thoughts and ideas on how we could go about doing the project.

Third meeting:

Location: Discord

Date: 5 April 2021

Duration: 1 hour

Time: 14:00

Members that attended: (All)

21919281 Jurakan KA
21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21912160 Ramroop TL

Discussion:

We discussed our business summary and the website details. Everyone worked on their parts for the proposal. We reviewed it at the meeting and made the necessary changes. We discussed the business processes in detail.

Fourth meeting:

Location: Discord

Date: 8 April 2021

Duration: 1 hour 20 minutes

Time: 13:00

Members that attended: (All)

21919281 Jurakan KA
21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S

21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21912160 Ramroop TL

Discussion:

We discussed and made our final changes to our proposal before submission.

Fifth meeting:

Location: Discord
Date: 12 April 2021
Duration: 45 minutes
Time: 13:30

Members that attended: (All)

21919281 Jurakan KA
21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21912160 Ramroop TL

Discussion:

Our project was approved but we needed to work on improving our business processes which was done in this meeting.

Sixth meeting:

Location: Discord
Date: 27 April 2021
Duration: 1 hour
Time: 14:00

Members that attended: (All)

21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S

21905608 Naidoo C
21919901 Naidoo A
21912160 Ramroop TL

Members that did not attend:

21919268 Naidoo P
21919281 Jurakan KA

Discussion:

We finished the final business processes and started with the detailed use cases. Prior to this meeting we briefly discussed on WhatsApp how we would split the coding and we started the prototypes.

Seventh meeting:

Location: Discord
Date: 7 May 2021
Duration: 2 hours 30 minutes
Time: 13:45

Members that attended: (All)

21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21919281 Jurakan KA

Members that did not attend:

21912160 Ramroop TL

Discussion:

We discussed the use case allocations and how we will go about with the coding in detail. We completed the final proposal document and shared what we've already coded.

Eighth meeting:

Location: Discord
Date: 13 May 2021
Duration: 2 hours 30 minutes
Time: 13:00

Members that attended: (All)

21919281 Jurakan KA
21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21912160 Ramroop TL

Discussion:

Group members had to display their screens showing the progress with the coding of their parts and what they needed help with. Our group leader showed us how to use GitHub to add our code.

Ninth meeting:

Location: Discord

Date: 17 May 2021

Duration: 1 hour

Time: 13:00

Members that attended: (All)

21919281 Jurakan KA
21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21912160 Ramroop TL

Discussion:

All members coded together during that time to for the e-Library seed method. We coded the different genres of books, authors, descriptions etc.

Tenth meeting:

Location: Discord

Date: 20 May 2021

Duration: 1 hour 30 minutes

Time: 13:00

Members that attended: (All)

21919281 Jurakan KA
21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P
21912160 Ramroop TL

Discussion:

We thoroughly discussed the progress, code and improvements of each page

Eleventh meeting:

Location: Discord

Date: 27 May 2021

Duration: 30 minutes

Time: 13:00

Members that attended:

21919281 Jurakan KA
21901959 Pillay K
21912220 Narsi AK
21937943 Jeenarain S
21905608 Naidoo C
21919901 Naidoo A
21919268 Naidoo P

Members that did not attend:

21919281 Jurakan KA
21912160 Ramroop TL

Discussion:

A short discussion on the finishing up of the pages are and how we will go about with the deployment.

Twelfth meeting:

Location: Discord

Date: 30 May 2021

Duration: 1 hour

Time: 15:00

Members that attended:

21919281 Jurakan KA

21901959 Pillay K

21912220 Narsi AK

21937943 Jeenarain S

21905608 Naidoo C

21919901 Naidoo A

Members that did not attend:

21912160 Ramroop TL

21919268 Naidoo P

Discussion:

Finishing up of the SRS document. Sorting out errors on the app before deployment.