Requirements

псч	an ements
R1	A user can be registered with matching password and verified password
R2	A user can log in with valid credentials
R3	A recipient can view recipient orders
R4	A recipient can view order progress including transactions against an their own individual order
R5	A driver can view all orders
R6	A driver can add a transaction against an order
R7	A driver can remove a transaction from an order
R8	A seller can create a parcel with a valid value for name, type, weight, and seller
R9	A seller can edit a parcel with a valid value for name, type, weight, and seller
R10	A seller can delete a parcel, which subsequently removes the parcel from any existing order it was on
R11	A seller can create an order with a valid recipient and seller
R12	A seller can edit an order with a valid recipient and seller
R13	A seller can delete an order, which subsequently removes all transactions that existed against that order
R14	A seller can view driver metrics to find total delivery counts and average delivery durations (in days) per driver
R15	A seller can view a list of all registered users
R16	A seller can view details of a specific registered user
R17	An order has zero or more parcels
R18	An order has zero or more transactions
R19	An order has a recipient and seller
R20	An order has zero or one driver
R21	A user has zero or more orders
R22	A user has a role recipient, driver, or seller
R23	An order's driver must be "None" when no "Picked up" transaction exists
R24	When an order is "picked up", the driver adding the transaction becomes the named driver on the order
R25	When a "Picked up" transaction is removed, the named driver reverts to "None"
R26	An order's completed date must be blank when no "Dropped off" transaction exists
R27	When an order is "dropped off", the order completed date is filled out
R28	When a "Dropped off" transaction is removed, the order completed date is cleared
R29	A seller can view all orders
R30	A seller can view all parcels
R31	A seller can view details of a specific parcel
R32	A seller can add a parcel to an order with a specific quantity
R33	A driver can view order progress including transactions against any order
R34	A seller can view order progress including transactions against any order

Test cases

Normal values

```
N1     username = "TestUser", password1 = "pass", password2 = "pass" (R1)
N2     username = "recipient", password = "123" (R2)
N3     name = "Book", type = "Large", weight = 50, sellerID = 3 (R8)
N4     name = "Pen", type = "Small", weight = 100, sellerID = 2 (R9)
N5     recipientID = 1, sellerID = 3 (R11, R19)
N6     recipientID = 2, sellerID = 1 (R12, R19)
N7     orderID = 1, parceIID = 1, quantity=2 (R32)
```

Invalid values

```
11
        username = "TestUser" password1 = "pass", password2 = "wrong" (R1)
12
        username = "seller", password = "abc" (R2)
13
        name = "Book", type = "Large", weight = -1, sellerID = 3 (R8)
14
        name = "Pen", type = "Small", weight = 10, sellerID = -1 (R8)
15
        name = "Book", type = "Large", weight = -1, sellerID = 3 (R9)
        name = "Pen", type = "Small", weight = 10, sellerID = -1 (R9)
16
17
        recipientID = -1, sellerID = 1 (R11, R19)
        recipientID = 1, sellerID = -1 (R11, R19)
18
19
        recipientID = -1, sellerID = 1 (R12, R19)
110
        recipientID = 1, sellerID = -1 (R12, R19)
111
        orderID = -1, parceIID = 1, quantity = 2 (R32)
112
        orderID = 1, parceIID = -1, quantity = 2 (R32)
113
        orderID = 1, parceIID = 1, quantity = -1 (R32)
```

Boundary values

- B1 There are 0 parcels in an order (R17)
- B2 There are 0 transactions against an order (R18)
- B3 An order has no driver (R20)
- B4 An order has 1 driver (R20)
- B5 A user has 0 orders (R21)
- B6 A user has 1 order (R21)
- B7 A user has no role (R22)
- B8 A user has 1 role (R22)

Special cases

- S1 Recipient (Recipient) views list of (Recipient's) orders (R3)
- S2 Recipient (Recipient) views details of one of (Recipient's) orders (R4)
- S3 Driver (Driver) views list of all orders (R5)
- S4 Driver (Driver) adds transaction "Picked up" to an order (R6)
- S5 Driver (Driver) adds transaction "Dropped off" to an order (R6)
- S6 Driver (Driver) removes transaction "Picked up" from an order (R7)
- S7 Driver (Driver) removes transaction "Dropped off" from an order (R7)
- S8 Seller (Seller) deletes a parcel (R10)
- S9 Seller (Seller) deletes an order (R13)
- S10 Seller (Seller) views driver metrics for driver totals and average delivery days (R14)
- S11 Seller (Seller) views list of all registered users (R15)
- S12 Seller (Seller) views details of a single registered user (R16)
- An orders driver is updated when a "Picked up" transaction changes (R23, R24, R25)
- An orders completed date is updated when a "Dropped off" transaction changes (R26, R27, R28)
- S15 Driver (Driver) views details of an order (R33)
- S16 Seller (Seller) views details of an order (R34)
- S17 Seller (Seller) views list of all orders (R29)
- S18 Seller (Seller) views list of all parcels (R30)
- S19 Seller (Seller) views details of a specific parcel (R31)

Test plan

* Requires manual testing due to dependency injection or unable to unit test this action

Test	Instruction (Satisfies test	Expected result(s)	Actual result(s)	
T1	Cases) Create a user with username "TestUser" and matching passwords "pass". Then log in to the system. (N1, N2)	There is a user called "TestUser" and can be logged in to, taking to Recipient landing page.	RegisterBeanTest .testRegisterValid() PASS (Appendix B)	
T2	Create a user with username "TestUser", password1= "pass" and password2= "wrong". (I1)	Registration attempt will fail validation and an error message "Login credentials are not correct" will be displayed.	RegisterBeanTest .testRegisterInvalid() PASS (Appendix B)	
Т3	Create a parcel with values: name = "Book", type = "Large", weight = -1, sellerID = 3. (I3)	Creation of parcel fails and an error message requesting the value must be an integer of one or more digits will be displayed.	SellerBeanTest .testCreateParcelInvalid Weight() PASS (Appendix D)	
T4	Create a parcel with values: name = "Pen", type = "Small", weight = 10, sellerID = -1. (I4)	Creation of parcel fails, and a null pointer exception is experienced.	SellerBeanTest .testCreateParcelInvalid SellerId() PASS (Appendix D)	
T5	Edit parcel with ID1 with values: name = "Book", type = "Large", weight = -1, sellerID = 3. (I5)	Update of parcel fails and an error message requesting the value must be an integer of one or more digits will be displayed.	SellerBeanTest .testEditParcelInvalidWeight() PASS (Appendix D)	
Т6	Edit parcel with ID1 with values: name = "Pen", type = "Small", weight = 10, sellerID = -1. (I6)	Update of parcel fails, and a null pointer exception is experienced.	SellerBeanTest .testEditParcelInvalidSellerId() PASS (Appendix D)	
Т7	Create parcel with values: name= "Book", type= "Large", weight=50, sellerID=3, then edit the parcel with values: name= "Pen", type= "Small", weight=100, sellerID=2. Create order with values: recipientID=1, sellerID=3. Edit order with values: recipientID=2, sellerID=1.	There is a parcel with values: name= "Pen", type= "Small", weight=100, sellerID=2, there is an order with recipientID=2, sellerID=1 and the parcel is added to the order with quantity 2.	SellerBeanTest .testCreateEditParcel CreateEditOrder AddParcelToOrderValid() PASS (Appendix D)	

	Add parcel with ID{just created} to order ID{just created} with quantity 2. (N3, N4, N5, N6, N7)		
T8	Create an order with values: recipientID = -1, sellerID = 1. (I7)	Create order fails and a null pointer exception is experienced.	SellerBeanTest .testCreateOrderInvalid RecipientID()
			PASS
			(Appendix D)
Т9	Create an order with values:	Create order fails and a	SellerBeanTest
	recipientID = 1, sellerID = -1. (I8)	null pointer exception is	.testCreateOrderInvalid
		experienced.	SellerId()
			PASS
T10	Create a temp order, Edit order with	Edit order fails and a null	(Appendix D) SellerBeanTest
110	ID{just created} with values:	pointer exception is	.testEditOrderInvalid
	recipientID = -1, sellerID = 1. (I9)	experienced.	RecipientId()
	1, 3clicho - 1. (13)	experienced.	PASS
			(Appendix D)
T11	Create a temp order, Edit order with	Edit order fails and a null	SellerBeanTest
	ID{just created} with values:	pointer exception is	.testEditOrderInvalidSellerId()
	recipientID = 1, sellerID = -1. (I10)	experienced.	()
	, compression 2, comment 2, (120,		PASS
			(Appendix D)
T12	Add parcel with ID1 to order with	ParcelID1 is not added to	SellerBeanTest
	ID= -1 and quantity 1. (I11)	orderID-1, and a null	.testAddParcelInvalidOrderId()
		pointer exception is	PASS
		experienced.	PASS
			(Appendix D)
T13	Add parcel with ID-1 to order with	ParcelID-1 is not added to	SellerBeanTest
	ID1 and quantity 1. (I12)	orderID1, and a null	.testAddParcelInvalidParcelId()
		pointer exception is	
		experienced.	PASS
			(Annendix D)
T14	Add parcel with ID1 to order with	ParcelID1 is not added to	(Appendix D) SellerBeanTest
'	ID1 and quantity -1. (I13)	orderID1 and an error	.testAddParcelInvalidQuantity()
		message is displayed	
		requesting a positive	FAIL: The parcel is added and
		integer value.	shows as a negative quantity
			(Appendix A).
			PASS (After modifications)
			(Appendix D)
T15	Order with ID=2 has no parcels. View	Order with ID=2 has no	SellerBeanTest
	details of order with ID=2. (B1)	parcels listed.	.testFindOrderParcels()
			PASS

			(Appendix D)
T16	Order with ID=2 has no transactions.	Order with ID=2 has no	SellerBeanTest
	View details of order with ID=2 to check for transactions listed. (B2)	transactions listed.	.testFindOrderTransactions()
	()		PASS
			(Appendix D)
T17	Order with ID=2 has no transactions.	Order with ID=2 has	SellerBeanTest
	View details of order with ID=2 to	"None" in the driver	.testFindOrderTransactions
	check its named driver. (B3)	section.	NoTransactionNoDriver()
			PASS
			(Appendix D)
T18	Order with ID=2 has at least 1	Order with ID=2 has a	SellerBeanTest
	transaction "Picked up". (B4)	named driver that is not	.testFindOrderTransactions
		"None".	SomeTransactions()
			PASS
			(Appendix D)
T19	Register user with values: name =	User named	RecipientBeanTest
	"RecipientWithNoOrders", matching passwords = "pass". View recipient	RecipientWithNoOrders has an order total of 0.	.testViewRecipientOrders NoOrders()
	orders. (B5)	rias an order total of 0.	
			PASS
			(Appendix E)
T20	Recipient views recipient orders. (B6)	Recipient has an order	RecipientBeanTest
		total greater than or equal to 1 and the order details	.testViewRecipientOrders()
		are valid values.	PASS
		are vana varaesi	
			(Appendix E)
T21*	A guest user (Not logged in) views	Guest may view login page	Manual test
	the login page. (B7)	without any missing public	DACC
		assets, including stylesheets and images.	PASS
		stylesheets and images.	(Appendix G)
T22*	A guest user (Not logged in)	Filter redirects user back to	Manual test
	attempts to navigate to	login page, no secure	
	"localhost:8080/ParcelTracker/faces/	assets are available to the	PASS
	viewOrder_Recipient.xhtml". (B7)	non-logged in user.	(Appendix H)
T23*	Recipient attempts to navigate to	Expected page	Manual test
	"localhost:8080/ParcelTracker/faces/	viewOrder_Recipient.xhtml	
	viewOrder_Recipient.xhtml" while	loads correctly.	PASS
	being logged in. (B8)		(Appendix I)
T24	Seller views all users. (S11)	Returns a list of 1 or more	SellerBeanTest
		users.	.testViewAllUsers()
			PASS
			(Appendix D)

T25	Seller views details of user with ID=1. (S12)	Returns details of Recipient (User with ID=1).	SellerBeanTest .testSetAndGetUserDetails()
			PASS
			(Appendix D)
T26	 - Create a recipient user with username "Jimmy". - Create a seller user with username "Sally". - Create order where "Jimmy" is the recipient and "Sally" is the seller. - Run View recipient orders when using the application as "Jimmy". - View details of the order where Jimmy is the recipient and Sally is the seller. (S1, S2) 	Returns a list Jimmy's orders containing at least the one where Sally is the seller. Then returns details of the selected order without errors.	SellerBeanTest .textViewRecipientOrdersSpecial() PASS (Appendix D)
Т27	- Create a recipient user with username "Jimmy" Create a seller user with username "Sally" Create order where "Jimmy" is the recipient and "Sally" is the seller Create a driver user with username "Bob" Add transaction "Picked up" to the order while using the application as "Bob" (Driver) View this order's details Add transaction "Dropped off" to the order while using the application as "Bob" (Driver) View this order's details Remove transaction "Dropped off" from the order while using the application as "Bob" (Driver) Bob (Driver) Views all orders View order progress against the order created. (S3, S4, S5, S6, S7, S13, S14, S15)	First order details represent the order with Bob as the named driver. Second order details represent the order with a completed date filled in. Final order details show "Jimmy" is the recipient, "Sally" is the seller, "Bob" is the driver and shows 1x transaction of "Picked up", and no other transactions.	DriverBeanTest .testAddAndRemoveTransaction() PASS (Appendix F)
T28	 Create a seller user with username "Sally". Create parcel with name = "Old item", type = "Book", weight=500, sellerID = (ID of Sally). Delete parcel that was just created. 	Parcel does not exist in database and can not be seen within the application.	SellerBeanTest .testDeleteParcel() PASS (Appendix D)
T29	(S8) - Create a recipient user with	Order no longer exists in	SellerBeanTest
	username "Jimmy". - Create a seller user with username "Sally". - Create order with recipientId=(ID of "Jimmy"), sellerId=(ID of "Sally"). - Delete order that was just created. (S9)	database and can not be seen within the application.	.testDeleteOrder() PASS (Appendix D)
T30	- Create a driver user with username "Bob".	Returns list of metrics showing "Bob" with 2 total	SellerBeanTest .testViewDriverMetrics()
	DOD .	SHOWING DOD WILLIZ LOLD	.ccscvicvvDiiverivietiits()

	- Create a driver user with username "Dave" Create a recipient user with username "Jimmy" Create a seller user with username "Sally" Create order "Order1" where "Jimmy" is the recipient and "Sally" is the seller Create order "Order2" where "Jimmy" is the recipient and "Sally" is the seller Create order "Order3" where "Jimmy" is the recipient and "Sally" is the seller Add transaction "Picked up" to "Order1" while using the application as "Bob" Add transaction "Dropped off" to "Order2" while using the application as "Bob" Add transaction "Dropped off" to "Order2" while using the application as "Bob" Add transaction "Dropped off" to "Order2" while using the application as "Bob" Add transaction "Dropped off" to "Order2" while using the application as "Bob" Add transaction "Picked up" to "Order3" while using the application as "Dave" Add transaction "Dropped off" to "Order3" while using the application as "Dave" Run View driver metrics while using the application as "Dave".	deliveries and average days to complete 0 & "Dave" with 1 total delivery and average days to complete 0.	PASS (Appendix D)
T31	Seller views all orders. (S17)	Returns a list of 1 or more orders.	SellerBeanTest .testViewAllOrders() PASS (Appendix D)
T32	Seller views details of order with ID=1. (S16)	Returns details of the order with ID=1.	SellerBeanTest .testFindOrderById() PASS (Appendix D)
T33	Seller views all parcels. (S18)	Returns a list of 1 or more parcels.	SellerBeanTest .testViewAllParcels() PASS (Appendix D)
T34	Seller views details of parcel with ID=1. (S19)	Returns details of the parcel with ID = 1.	SellerBeanTest .testFindParcelById()

	PASS
	(Appendix D)

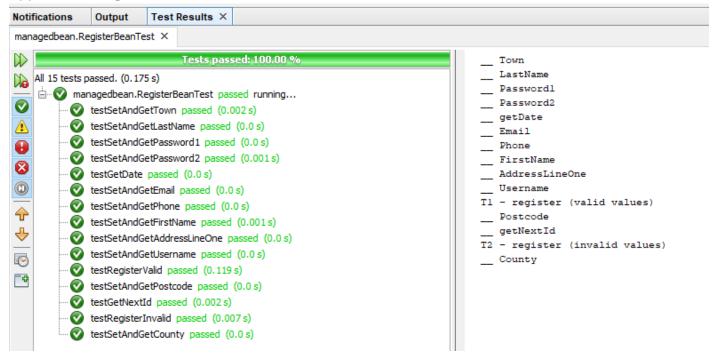
Appendices

Appendix A: Adding negative quantity of parcel to order (fail), before refactoring to pass.

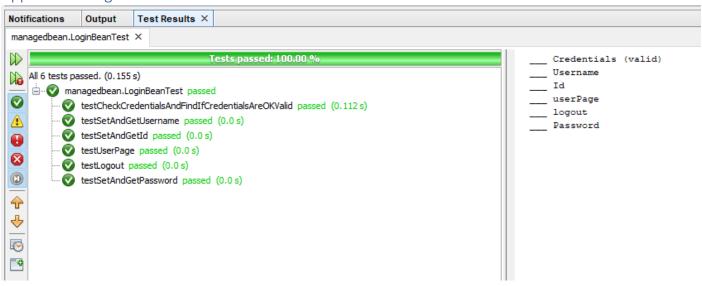
Parcels in order #1

ID	Item	Туре	Quantity	Weight ea. (g)	Seller
1	Item One	Large Box	2	95	recipient
1	Item One	Large Box	-1	95	recipient
Add parcel to this order					

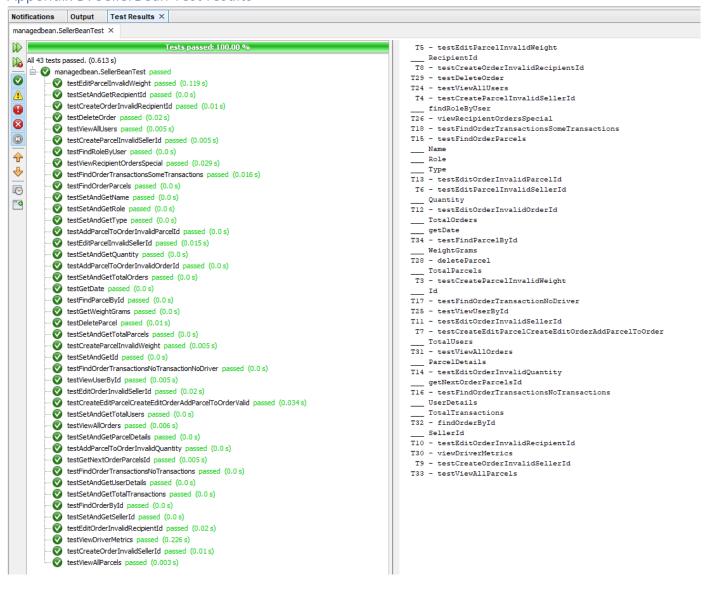
Appendix B: RegisterBean Test results



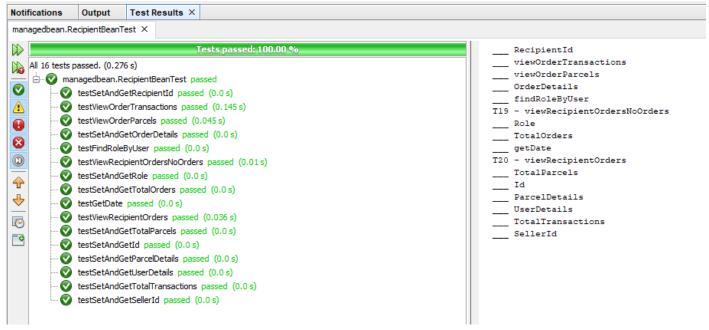
Appendix C: LoginBean Test results



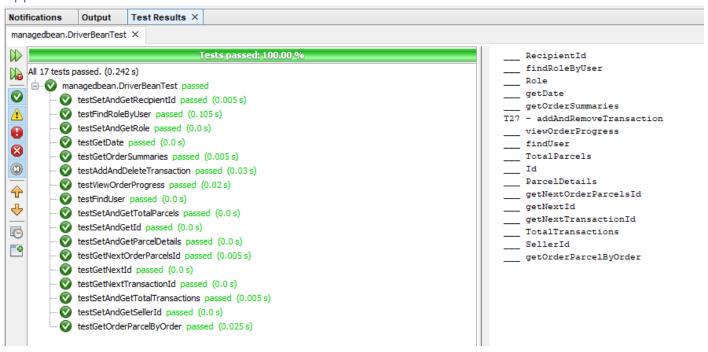
Appendix D: SellerBean Test results



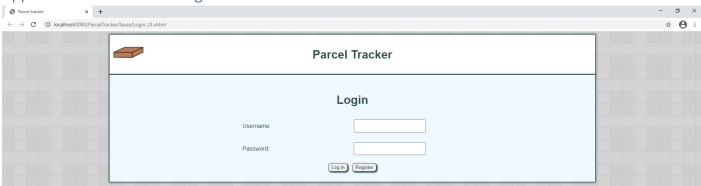
Appendix E: RecipientBean Test results



Appendix F: DriverBean Test results



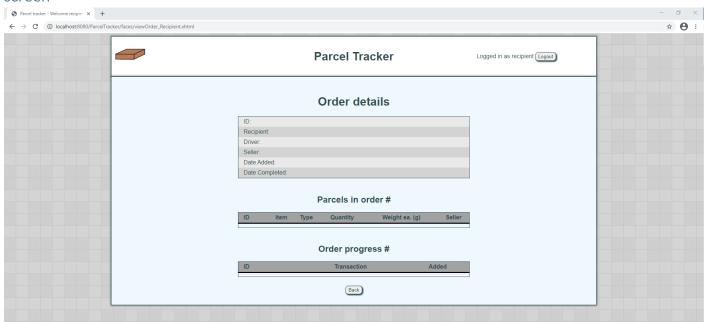
Appendix G: Guest views Login



Appendix H: Guest attempts to view restricted page but is returned to login screen



Appendix I: Recipient views order details page while logged in without being redirected back to login screen



Appendix J: All 153 JUnit tests completed and passed

