

# Section 8 - Testing

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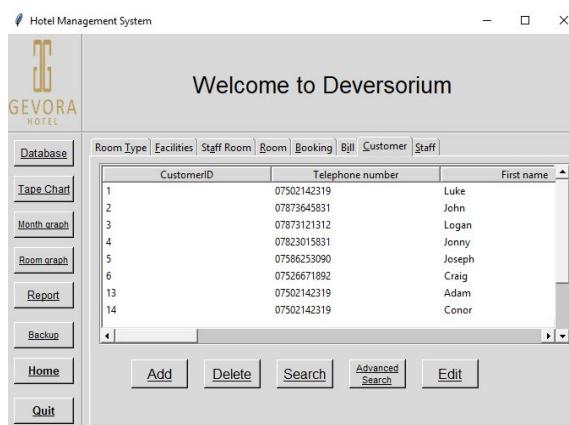
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# Creating Records

## Creation of a record Customer

- Objectives - 1.1.1
- Description of test - I will add a record to the Customer table using the manager's screen.
- Test type - Integration test
- Test data to be used - 07673489164, Randy, Frey, 72 Parkhill Road, DA5 1HY, Visa, 089436846, 4-21, 947, Bexley, 18/03/1993, N/A, [kalemmaniw-7333@yopmail.com](mailto:kalemmaniw-7333@yopmail.com), rfrey123, Rfrey123!
- Test data type - N/A
- Expected results - The record will be added to the table.
- Actual Results -

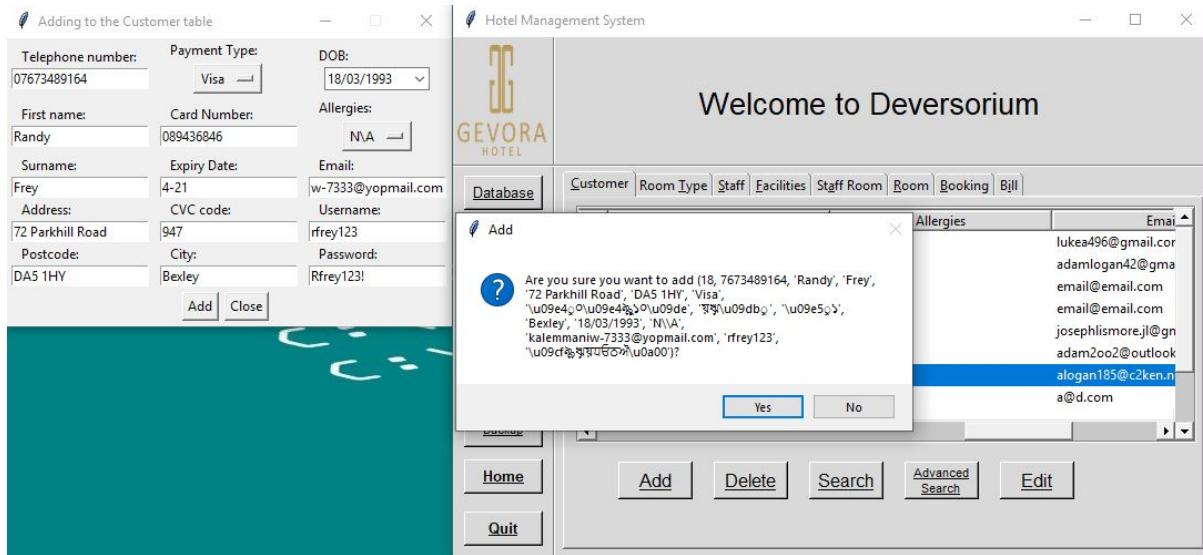


The add button has been clicked and the record added.

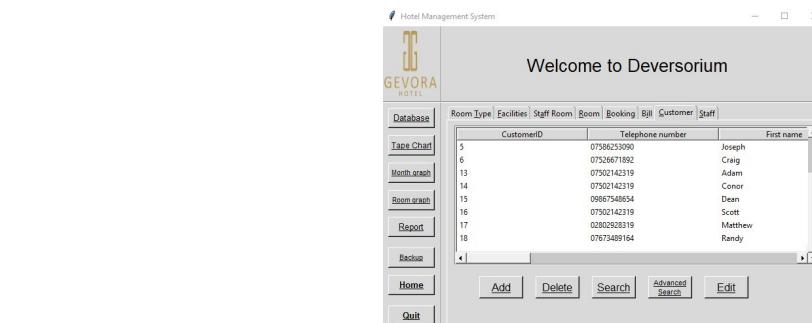
A screenshot of a dialog box titled "Adding to the Customer table". It contains fields for inputting customer information. The fields include: Telephone number (07673489164), Payment Type (Visa), DOB (18/03/1993), First name (Randy), Card Number (089436846), Allergies (N/A), Surname (Frey), Expiry Date (4-21), Email (kalemmaniw-7333@yo...), Address (Flat 3, 72 Parkhill Road), CVC code (947), Username (rfrey123), Postcode (DA5 1HY), City (Bexley), Password (Rfrey123!). At the bottom are "Add" and "Close" buttons.

## Section 8 - Testing

The ‘add’ button on the pop-up window has been clicked



'Yes' has been selected and the record has been added to the database.



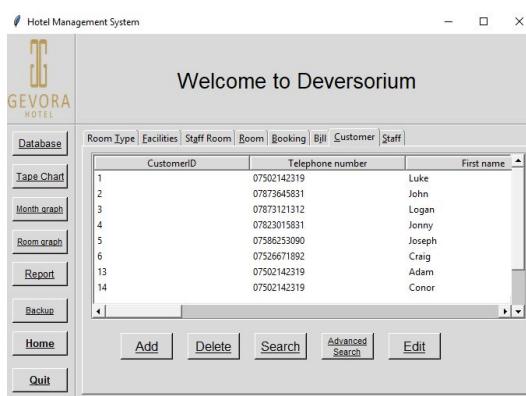
Customer										New Record		Delete Record		New Record						Delete Record					
CustomerID	slephone_numb	First_name	Surname	Address	Postcode	Payment_Type	Card_Number	Expiry_Date	CVC_code	City		City	DOB	Allergies	Email	Username	Password		City	DOB	Allergies	Email	Username	Password	
1	07502142319	Luke	Anderson	11 Baird Avenue	B73 9HJ	Visa	4321 0000 0000 0000	03/23	1234	Belfast	1	Belfast	11/01/2001	Fish	luke@96@gmail.com	landerlawn123	luke96@outlook.com		Belfast	11/01/2001	Fish	luke@96@gmail.com	landerlawn123	luke96@outlook.com	
2	07873645831	John	Smith	11 Charming ...	BT8 9JK	Visa	4321 0000 0000 0000	03/23	1234	Cardiff	2	Cardiff	22/04/1978	Nuts	ademlogan42@...com	jsmith123	ademlogan42@...com		Cardiff	22/04/2000	NVA	email@email....com	logan123	ademlogan42@...com	
3	07873121312	Logan	Logan	68 Charming ...	JE9 8KA	Master Card	5432 0000 0000 0000	03/23	1234	London	2	London	22/04/2002	NVA	email@email....com	logan123	ademlogan42@...com		London	22/04/2002	NVA	email@email....com	logan123	ademlogan42@...com	
4	07823015831	Jonny	Lam	4 Liverpool St...	LS8 8XK	Visa	4321 0000 0000 0000	03/23	1234	London	2	London	22/11/2002	NVA	email@email....com	lam1234	johnny.lam@outlook.com		London	22/11/2002	NVA	email@email....com	lam1234	johnny.lam@outlook.com	
5	07562633090	Joseph	Lismore	48 Meadowbank...	EH12 9UR	Master Card	5432 0000 0000 0000	03/23	1234	Jordanstown	1	Jordanstown	14/11/2001	NVA	josephlismore@...com	josephlismore@...com	josephlismore@...com		Jordanstown	14/11/2001	NVA	josephlismore@...com	josephlismore@...com	josephlismore@...com	
6	07526617182	Craig	Best	3 St Andrews...	PH3 4HW	Master Card	5432 0000 0000 0000	03/23	1234	Glasgow	2	Glasgow	22/04/1991	Nuts	ademzo2@...com	craig123	ademzo2@...com		Glasgow	22/04/1991	Nuts	ademzo2@...com	craig123	ademzo2@...com	
7	07502142319	Adam	Logan	10 Baird Close	TR5 0QP	Visa	4321 0000 0000 0000	03/23	1234	Belfast	2	Belfast	23/01/2002	Fish	adlogan185@...com	adlogan123	adlogan185@...com		Belfast	23/01/2002	Fish	adlogan185@...com	adlogan123	adlogan185@...com	
8	07502142319	Conor	Nugent	9 Abbey Road	BT3 6DL	Visa	4321 0000 0000 0000	03/23	1234	Newtownabbey	2	Newtownabbey	26/01/2001	NVA	ad@ad.com	cnugen123	ad@ad.com		Newtownabbey	26/01/2001	NVA	ad@ad.com	cnugen123	ad@ad.com	
9	09867548654	Dean	Logan	10 Glenburn...	D6 4NA	Visa	4321 0000 0000 0000	03/23	1234	Carrick	2	Carrick	20/04/2002	NVA	dean@dean@gmail....com	dlogan123	dean@dean@gmail....com		Carrick	20/04/2002	NVA	dean@dean@gmail....com	dlogan123	dean@dean@gmail....com	
10	07502142319	Scott	McDonald	67 Brambles ...	NH76 1KL	Master Card	5432 0000 0000 0000	03/23	1234	Carrickfergus	2	Carrickfergus	22/07/2002	NVA	smcdonald@e...com	smcdonald123	smcdonald@e...com		Carrickfergus	22/07/2002	NVA	smcdonald@e...com	smcdonald123	smcdonald@e...com	
11	0280928319	Matthew	Mullen	18 Stokesley ...	WR13 6PH	Visa	4321 0000 0000 0000	03/23	1234	Carrickfergus	2	Carrickfergus	27/01/2002	NVA	denlonigan2@...com	mullen123	denlonigan2@...com		Carrickfergus	27/01/2002	NVA	denlonigan2@...com	mullen123	denlonigan2@...com	
12	07673489164	Randy	Frye	72 Parkhill Road	DA5 1HY	Visa	4321 0000 0000 0000	03/23	1234	Bexley	1	Bexley	18/03/1993	NVA	kalemmanniw...@...com	frye123	kalemmanniw...@...com		Bexley	18/03/1993	NVA	kalemmanniw...@...com	frye123	kalemmanniw...@...com	

- Corrective Action - N/A
  - Possible Refinements - N/A

## Validating Customer table (Accepting valid data - 1)

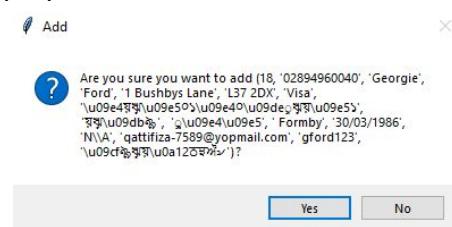
NOTE: The record added above was deleted as part of the 'delete' test.

- Objectives - 1.1.1.2
- Description of test - I will add a record to the Customer table.
- Test type - Integration test
- Test data to be used - '18', '02894960040', 'Georgie', 'Ford', '1 Bushbys Lane', 'L37 2DX', 'Visa', '97124036907216', '3-21', '765', 'Formby', '30/03/1986', 'N/A', '[gattifiza-7589@yopmail.com](mailto:gattifiza-7589@yopmail.com)', 'gf0rd123', 'Gford123!'
- Test data type - Typical
- Expected results - The record will be added to the table.
- Actual Results -



The add button is selected

The add button within the pop-up window is selected



## Section 8 - Testing

The yes button is selected

The screenshot shows the Hotel Management System interface. On the left, there's a sidebar with options like Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area has tabs for Room Type, Facilities, Staff Room, Room, Booking, Bill, Customer, and Staff. The Customer tab is active, displaying a table with columns: CustomerID, Telephone number, and First name. The table contains 18 rows of data. Below the table are buttons for Add, Delete, Search, Advanced Search, and Edit.

Table: Customer

	CustomerID	Telephone number	First name
5	07586253090	Joseph	
6	07526671892	Craig	
13	07502142319	Adam	
14	07502142319	Conor	
15	09867548654	Dean	
16	07502142319	Scott	
17	02802928319	Matthew	
18	02894960040	Georgie	

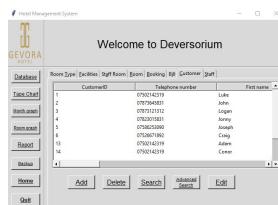
Below the table, there's a large search result table titled 'Customer'. It has columns: Expiry Date, CVC code, City, DOB, Allergies, Email, Username, and Password. The table contains 12 rows of data, each with a 'Filter' link under the first column.

	Expiry Date	CVC code	City	DOB	Allergies	Email	Username	Password
1	07/01/2001	Fish	Belfast	11/01/2001		luke496@gmail.com	landerson123	luke496@gmail.com
2	22/04/1978	Nuts	Cardiff	22/04/1978		adamlogan123	jsmith123	adamlogan123
3	22/04/2002	N/A	London	22/04/2002		email@email.com	logan123	email@email.com
4	22/11/2002	N/A	London	22/11/2002		email@email.com	jbm1234	email@email.com
5	14/11/2001	N/A	Jordanstown	14/11/2001		josephilsmore1	josephilsmore1	josephilsmore1
6	22/04/1991	Nuts	Glasgow	22/04/1991		adam2oo@o...com	cbest123	adam2oo@o...com
7	23/01/2002	Fish	Belfast	23/01/2002		logan185@comcast.net	logan123	logan185@comcast.net
8	26/01/2001	N/A	Newtownabbey	26/01/2001		a@d.com	crugent123	a@d.com
9	20/04/2002	N/A	Carrick	20/04/2002		dean@gmail.com	dlogan123	dean@gmail.com
10	22/07/2002	N/A	Carrickfergus	22/07/2002		smcdonald@e...com	smcdonald123	smcdonald123
11	27/01/2002	N/A	Carrickfergus	27/01/2002		deanlogen42...com	mmulen123	deanlogen42...com
12	30/03/1986	N/A	Formby	30/03/1986		qattifiza-7589...com	gford123	qattifiza-7589...com

- Corrective Action - N/A
- Possible Refinements - N/A

## Validating Customer table (Accepting valid data - 2)

- Objectives - 1.1.1.2
- Description of test - I will add a record to the Customer table.
- Test type - Integration test
- Test data to be used - '19', '09872367591', 'Haydon', 'Butler', '36 Gordon Way', 'OL103LR', 'Visa', '28623', '12-99', '000', 'Heywood', '22/03/2018', 'N/A', '[e@f.com](mailto:e@f.com)', 'hbutler123', 'Hbutler123!'
- Test data type - Extreme. The data above is considered extreme and although they meet the requirements of the validation they do not necessarily make logical sense. The postcode used does not have a space but still is a valid postcode and although the birthday is 2 years ago it should still accept it as in the future these dates will need to be accepted. The email field is also extreme as it is obviously not an email that someone will have but it could be and therefore needs to be accepted.
- Expected results - The record will be accepted and will be added to the database.
- Actual Results -



The add button is selected

The add button within the pop-up window is selected



## Section 8 - Testing

The yes button is selected

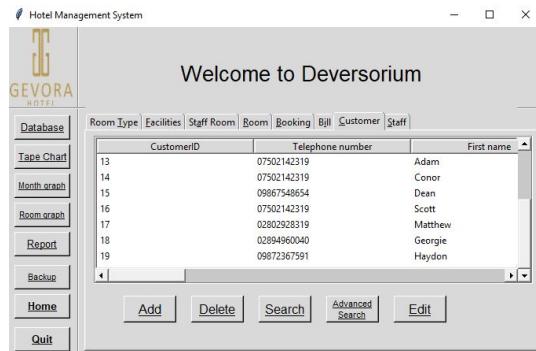


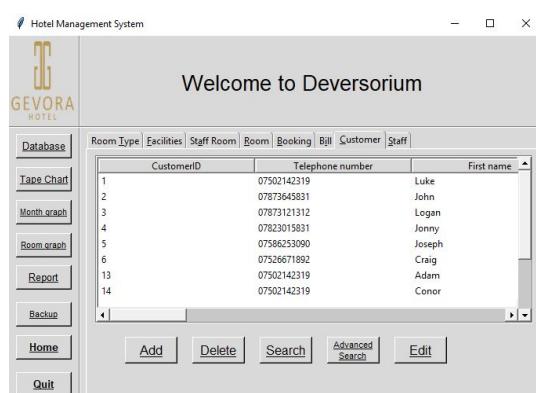
Table: Customer

CustomerID	Telephone_number	First_name	Surname	Address	Postcode	Payment_Type
1	07502142319	Luke	Anderson	11 Baird Avenue	BT73 9RH	Visa
2	07873645831	John	Smith	11 Charming ...	BT84 9XK	Visa
3	07873121312	Logan	Logan	68 Charming ...	JH09 8KA	Master Card
4	07823015831	Jonny	Lam	4 Liverpool St...	JS87 8JK	Visa
5	07586253090	Joseph	Lismore	48 Meadowla...	BT37 0UR	Master Card
6	07526671892	Craig	Best	3 St Andrews...	PH35 4HW	Master Card
7	07502142319	Adam	Logan	10 Baird Close	TR5 0QP	Visa
8	07502142319	Conor	Nugent	9 Abbey Road	B73 6DQ	Visa
9	0986754654	Dean	Logan	10 Glenburn ...	DG6 4NA	Visa
10	07502142319	Scott	McDonald	67 Brambles ...	NH76 9LK	Master Card
11	02802928319	Matthew	Mullen	18 Stokesay C...	WR13 6PN	Visa
12	02894960040	Georgie	Ford	1 Bushbys Lane	L37 2DX	Visa
13	09872367591	Haydon	Butler	36 Gordon Way	OL103LR	Visa

- Corrective Action - N/A
- Possible Refinements - When data is extreme like above instead of not letting the user enter this data but simply as the user again if they are sure that the data is correct. This allows the user to enter the data if it is indeed correct but it is simply 'unique'.

### Validating Customer table (Declining invalid data)

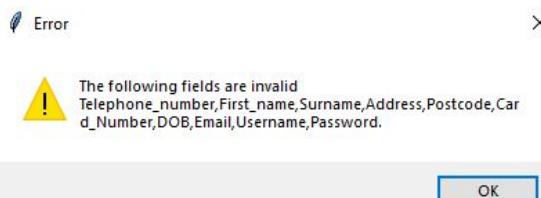
- Objectives - 1.1.1.2
- Description of test - I will add a record to the Customer table.
- Test type - Integration test
- Test data to be used - '9', '@d@m', 'log@n', 'Gordan Way', '8UY6 9IJ', 'Visa', '', '133-097', '457457', '12/03/2021', 'N/A', '@.com', 'alogan123', 'password'
- Test data type - Erroneous
- Expected results - The record will be rejected and not added to the database.
- Actual Results -



## Section 8 - Testing

The add button is selected

The add button within the pop-up window is selected



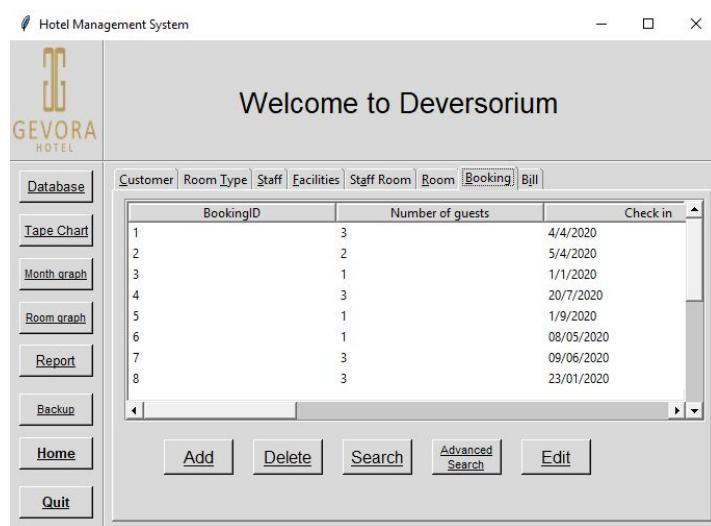
The ok button is selected

	CustomerID	Telephone_number	First_name	Surname	Address	Postcode	Payment_Type		Card_Number	Expiry_Date	CVC_code	City	DOB	Allergies	Email	Username	Password
1	1	07502142319	Luke	Anderson	11 Baird Avenue	B73 9HJ	Visa					Belfast	11/01/2001	Fish	luke496@gmail...	landerson123	fish@landerson...
2	2	07873645831	John	Smith	11 Charming ...	BT64 9JK	Visa					Cardiff	22/04/1978	Nuts	adamlogan42...	jsmith123	adam@smith...
3	3	07873121312	Logan	Logan	68 Charming ...	JH09 8KA	Master Card					London	22/04/2002	N/A	email@email...	ilogan123	ilogan@ilogan...
4	4	07823015831	Jonny	Lam	4 Liverpool St...	JS87 8JK	Visa					London	22/11/2002	N/A	email@email...	jlam123	jlam@jlam...
5	5	07586253090	Joseph	Lismore	48 Meadowla...	BT37 0UR	Master Card					Jordanstown	14/11/2001	N/A	josephilsmore...	josephilsmore1	josephilsmore...
6	6	07526671892	Craig	Best	3 St Andrew's...	PH35 4HW	Master Card					Glasgow	22/04/1991	Nuts	adam2002@o...	cbest123	adam@cbest...
7	13	07502142319	Adam	Legan	10 Baird Close	TR5 0QP	Visa					Belfast	23/01/2002	Fish	alogan185@...	alogan123	alogan@alogan...
8	14	07502142319	Conor	Nugent	9 Abbey Road	B73 6DQ	Visa					Newtownabbey	26/01/2002	N/A	a@f.com	cruagent123	cruagent@cru...
9	15	09867548654	Dean	Logan	10 Glenburn ...	DG5 4NA	Visa					Carrick	20/04/2002	N/A	dean@gmail.c...	dlogan123	dean@dean...
10	16	07502142319	Scott	McDonald	67 Brambles ...	NH76 9LK	Master Card					Carrickfergus	22/07/2002	N/A	smcdonald@...	smcdonald123	smcdonald@sm...
11	17	02802928319	Matthew	Mullen	18 Stokesley C...	WR13 6PN	Visa					Carrickfergus	27/01/2002	N/A	deanloga42...	mmullen123	deanloga@dean...
12	18	02894960040	Georgie	Ford	1 Bushys Lane	L37 2DX	Visa					Formby	30/03/1986	N/A	qattifiza-7589...	gford123	gford@gford...
13	19	09872367591	Haydon	Butler	36 Gordon Way	OL103LR	Visa					Heywood	22/03/2018	N/A	e@f.com	hbutler123	hbutler@hbutler...

- Corrective Action - The 'expiry\_date' field was not rejected. The problem occurred with the regular expression used within the program. The regular expression used was "[0-9][0-9][0-9]-[0-9][0-9]" and the new corrected one is "([0-9][0-9][0-9])-([0-9][0-9])\$". The corrections made was that brackets surround the numbers which means that they are treated separately instead of a whole. The '\$' signifies that it is the end of the expression and no other characters should be accepted after that point.
- Possible Refinements - N/A

## Creation of a record Booking

- Objectives - 1.2.1
- Description of test - I will add a record to the Booking table.
- Test type - Integration test
- Test data to be used - 3, 5/08/2020, 14/08/2020, 10, Room Only, 678.0, 6/03/2020, N/A, 11
- Test data type - N/A
- Expected results - The record will be added to the table.
- Actual Results -



The add button is clicked

The add button is clicked in the pop-up window



## Section 8 - Testing

'Yes' is clicked

The image shows two screenshots of a hotel management system. The top screenshot is a Windows application titled 'Hotel Management System' with a logo for 'GEVORA HOTEL'. It has a menu bar with 'Customer', 'Room Type', 'Staff', 'Facilities', 'Staff Room', 'Room', 'Booking', and 'Bill'. On the left is a sidebar with buttons for 'Database', 'Tape Chart', 'Month graph', 'Room graph', 'Report', 'Backup', 'Home', and 'Quit'. The main area displays a table with columns 'BookingID', 'Number of guests', and 'Check in'. The data includes rows for BookingID 14 through 21. Below the table are buttons for 'Add', 'Delete', 'Search', 'Advanced Search', and 'Edit'. The bottom screenshot is 'DB Browser for SQLite' showing the 'Booking' table. The table has columns: BookingID, Number\_of\_guest, Check\_in, Check\_out, RoomID, Holiday\_Type, Price, Date\_of\_booking, Offer\_code, CustomerID, and a Filter column for each. There are 21 rows of data, with rows 7 through 21 visible. At the bottom of the table are navigation buttons for 'Go to:' and a page number '1'.

BookingID	Number_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offer_code	CustomerID
7	3	09/06/2020	17/09/2020	3	Full-board	2324.0	18/09/2016	N/A	14
8	3	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A	3
9	3	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A	15
10	3	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A	14
11	5	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A	3
12	2	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A	15
13	3	10/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A	3
14	3	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A	6
15	2	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A	15
16	4	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A	6
17	2	11/03/2020	27/03/2020	2	Full-board	400.0	11/04/2019	N/A	3
18	2	07/05/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A	6
19	2	20/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A	14
20	1	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A	6
21	3	05/08/2020	14/08/2020	10	Room Only	678.0	6/03/2020	N/A	11

- Corrective Action - N/A
- Possible Refinements - N/A

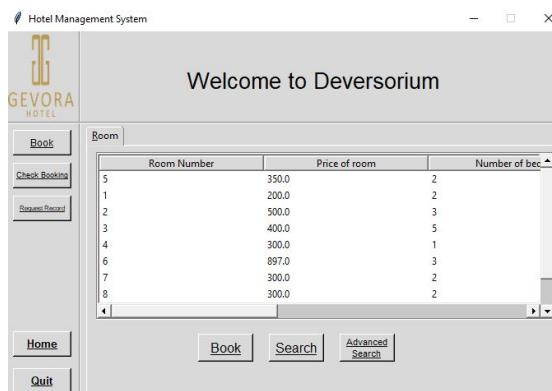
### Validating Booking table (Accepting valid data - 1)

- Objectives - 1.2.1.2.3 (only the 'check\_in' and 'check\_out' validation has been implemented and therefore this will only be tested)
- Description of test - I will add a record to the Booking table within the customer screen
- Test type - Integration test
- Test data to be used - Check in = '20/04/2020' , Check out = '27/04/2020' and RoomID = 6
- Test data type - Typical
- Expected results - The record will be added to the table.
- Actual Results -

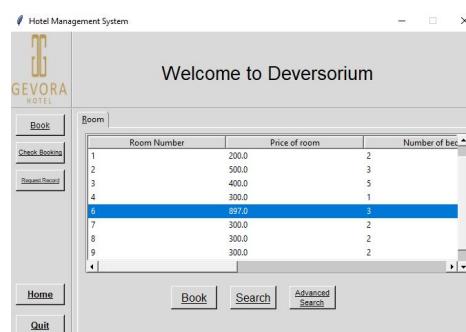
## Section 8 - Testing



The ‘book’ button is pressed



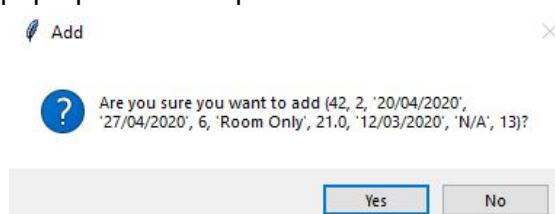
A room is selected from the table



The ‘book’ button below the table is pressed

<b>Number of guests:</b>	2
<b>Check in:</b>	20/04/2020
<b>Check out:</b>	27/04/2020
<b>Holiday Type:</b>	Room Only
<b>Offer code:</b>	N/A
<b>Book</b>	<b>Close</b>

The ‘book’ button in the pop-up window is pressed



## Section 8 - Testing

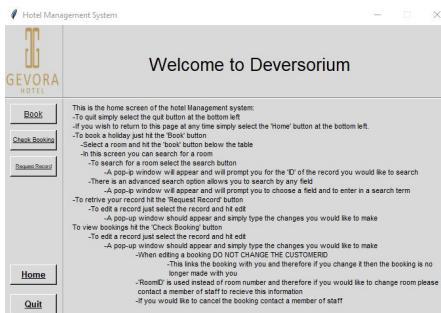
‘Yes’ is selected

Booking Details									<a href="#">New Record</a>	<a href="#">Delete Record</a>
BookingID	umber_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offer_code	CustomerID	
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
5	5	1/9/2020	5/10/2020	1	Room Only	200.0	03/05/2016	N/A	13	
6	6	08/05/2020	17/07/2020	1	All inclusive	1.0	17/07/2016	N/A	14	
7	7	09/06/2020	17/09/2020	3	Full-board	2324.0	18/09/2016	N/A	14	
8	8	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A	3	
9	9	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A	15	
10	10	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A	14	
11	11	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A	3	
12	12	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A	15	
13	13	10/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A	3	
14	14	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A	6	
15	15	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A	15	
16	16	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A	6	
17	17	11/03/2020	27/03/2020	2	Full-board	400.0	11/04/2019	N/A	3	
18	18	07/05/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A	6	
19	19	20/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A	14	
20	20	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A	6	
21	21	20/04/2020	27/04/2020	6	Room Only	21.0	12/03/2020	N/A	13	

- Corrective Action - N/A
  - Possible Refinements - N/A

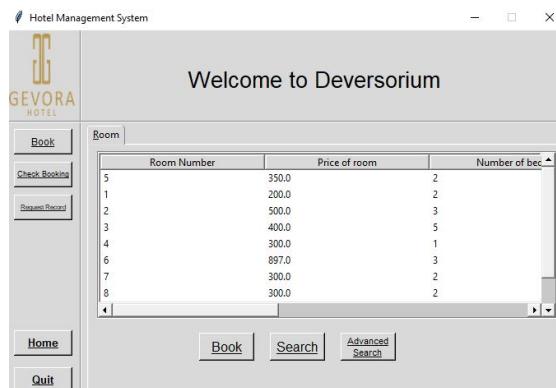
## Validating Booking table (Accepting valid data - 2)

- Objectives - 1.2.1.2.3 (only the 'check\_in' and 'check\_out' validation has been implemented and therefore this will only be tested)
  - Description of test - I will add a record to the Booking table. Only the 'check\_in' and 'check\_out' fields are validated.
  - Test type - Integration test
  - Test data to be used - Check in = '27/04/2020' , Check out = '03/05/2020' and RoomID = 6
  - Test data type - Extreme
  - Expected results - The record will be accepted and added to the database. This is due to the possibility of the previous customer checking out of the room on the same day as a customer is checking in.
  - Actual Results -

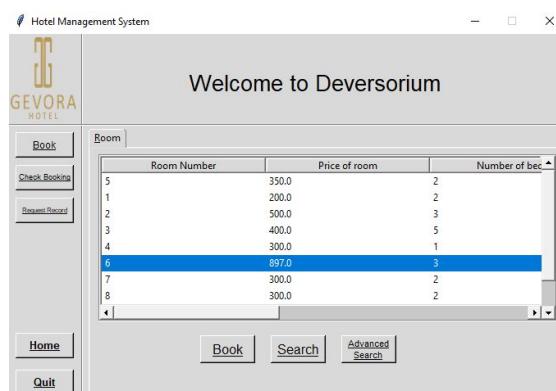


## Section 8 - Testing

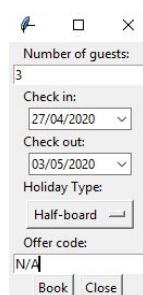
The 'book' button is pressed



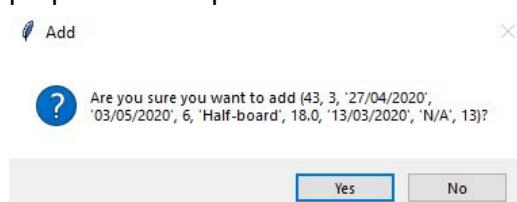
A room is selected from the table



The 'book' button below the table is pressed



The 'book' button in the pop-up window is pressed



## Section 8 - Testing

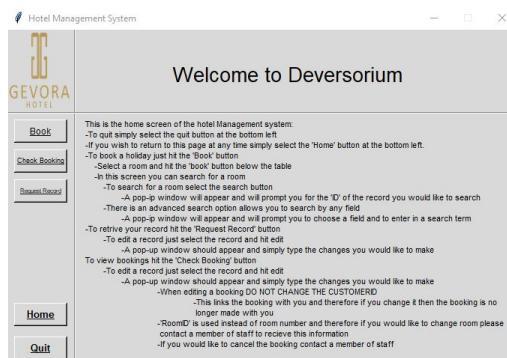
### 'Yes' is selected

Booking									New Record	Delete Record
BookingID	umber_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offer_code	Filter	
6 6	1	08/05/2020	17/07/2020	1	All inclusive	1.0	17/07/2016	N/A		
7 7	3	09/06/2020	17/09/2020	3	Full-board	2324.0	18/09/2016	N/A		
8 8	3	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A		
9 9	3	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A		
10 10	3	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A		
11 11	5	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A		
12 12	2	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A		
13 13	3	10/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A		
14 14	3	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A		
15 15	2	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A		
16 34	4	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A		
17 38	2	11/03/2020	27/03/2020	2	Full-board	400.0	11/04/2019	N/A		
18 39	2	07/05/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A		
19 40	2	26/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A		
20 41	1	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A		
21 42	2	20/04/2020	27/04/2020	6	Room Only	21.0	12/03/2020	N/A		
22 43	3	27/04/2020	03/05/2020	6	Half-board	18.0	13/03/2020	N/A		

- Corrective Action - N/A
- Possible Refinements - N/A

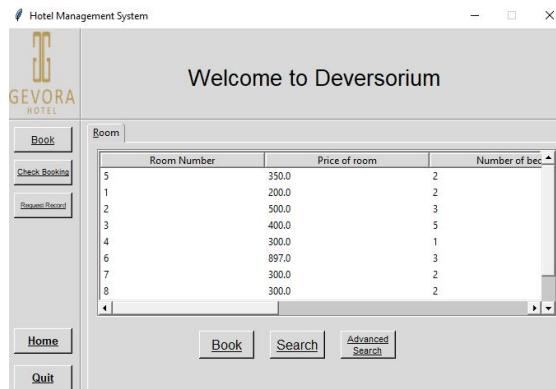
### Validating Booking table (Declining invalid data)

- Objectives - 1.2.1.2.3 (only the 'check\_in' and 'check\_out' validation has been implemented and therefore this will only be tested)
- Description of test - I will add a record to the Booking table. Only the 'check\_in' and 'check\_out' fields are validated.
- Test type - Integration test
- Test data to be used - Check in = 23/06/2020, Check out = 16/08/2020 and RoomID = 1
- Test data type - Erroneous
- Expected results - The record will be rejected and not added to the database.
- Actual Results -

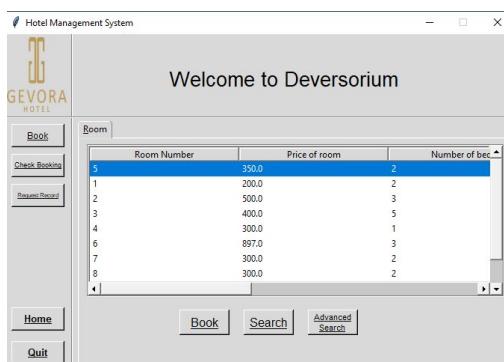


## Section 8 - Testing

The ‘book’ button is pressed



A room is selected from the table



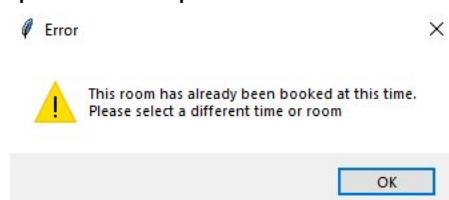
The ‘book’ button below the table is pressed

A modal dialog box titled "Booking". It contains the following fields:

- Number of guests: 2
- Check in: 23/06/2020
- Check out: 16/08/2020
- Holiday Type: Room Only
- Offer code: N/A

At the bottom are "Book" and "Close" buttons.

The ‘book’ button in the pop-up window is pressed



## Section 8 - Testing

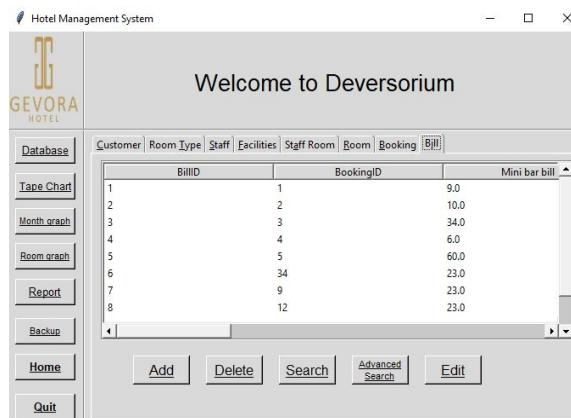
'OK' is then pressed. As can be seen from the screenshot below the record has not been added to the database

BookingID	umber_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offer_code	
5	1	1/9/2020	5/10/2020	1	Room Only	200.0	03/05/2016	N/A	
6	1	08/05/2020	17/07/2020	1	All inclusive	1.0	17/07/2016	N/A	
7	3	09/06/2020	17/09/2020	3	Full-board	2324.0	18/09/2016	N/A	
8	3	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A	
9	3	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A	
10	3	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A	
11	5	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A	
12	2	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A	
13	3	10/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A	
14	3	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A	
15	2	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A	
16	4	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A	
17	38	2	11/03/2020	27/03/2020	2	Full-board	400.0	11/04/2019	N/A
18	39	2	07/05/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A
19	40	2	20/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A
20	41	1	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A
21	42	2	20/04/2020	27/04/2020	6	Room Only	21.0	12/03/2020	N/A

- Corrective Action - N/A
- Possible Refinements - N/A

## Creation of a record Bill

- Objectives - 1.3.1
- Description of test - I will add a record to the Bill table.
- Test type - Integration test
- Test data to be used - 16, 0.0, 57.0, 110.0, 0.0, 0.0, 0.0, Y, 0.0, 167.0
- Test data type - N/A
- Expected results - The record will be added to the table.
- Actual Results -

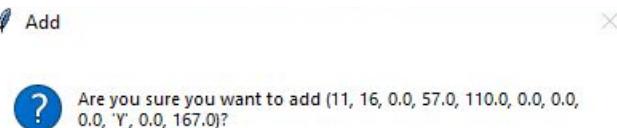


The 'add' button is clicked.

BookingID:	Spa bill:
16	0.0
Mini bar bill:	Room service:
0.0	0.0
Main bar bill:	Deposit paid:
57.0	Y
Restaurant bill:	Gym fee:
110.0	0.0
Telephone bill:	Total price:
0.0	167.0

## Section 8 - Testing

The ‘add’ button in the pop-up window is clicked.



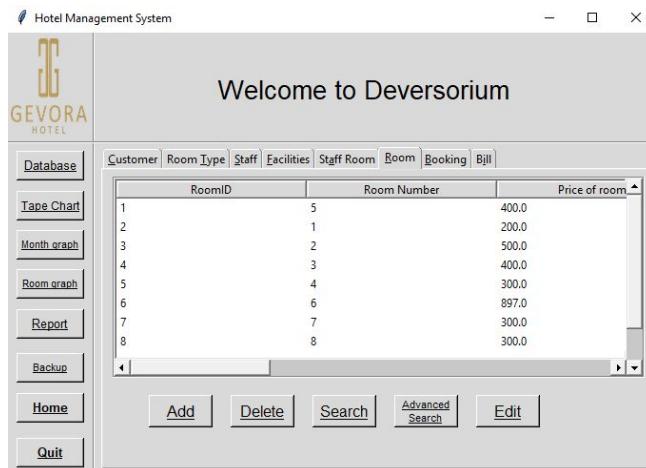
‘Yes’ is clicked.

BillID	BookingID	Mini_bar_bill	Main_bar_bill	Restaurant_bill	Telephone_bill	Spa_bill	Room_service	Deposit_paid	Gym_fee	Total_price	
1	1	9.0	10.0	50.0	2.0	50.0	60.0	Y	20.0	200.0	
2	2	10.0	23.0	32.33	2.0	20.0	34.0	Y	21.0	124.0	
3	3	34.0	50.0	23.0	5.0	70.0	21.98	Y	0.0	1000.0	
4	4	6.0	30.0	106.67	3.0	0.0	0.0	Y	0.0	790.0	
5	5	60.0	187.0	200.0	50.0	32.0	234.6	Y	0.0	1000.0	
6	6	34	23.0	50.0	45.0	0.0	0.0	345.0	Y	21.0	200.0
7	7	23.0	50.0	12.0	0.0	0.0	34.0	N	21.0	790.0	
8	8	12	23.0	67.0	106.67	0.0	0.0	56.0	Y	21.0	124.0
9	9	23.0	50.0	300.0	0.0	0.0	0.0	N	0.0	356.0	
10	10	38	23.0	50.0	56.0	0.0	0.0	0.0	Y	0.0	124.0
11	11	16	0.0	57.0	110.0	0.0	0.0	0.0	Y	0.0	167.0

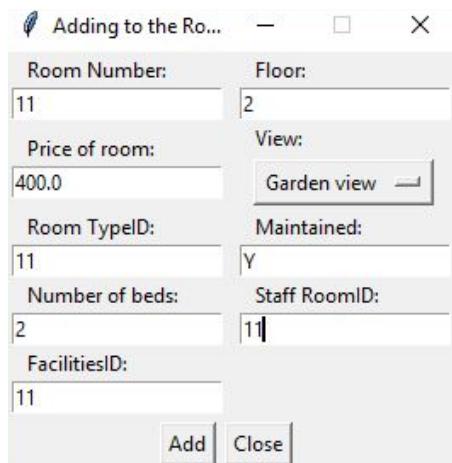
- Corrective Action - N/A
- Possible Refinements - The total price could be automatically generated for the user.

## Creation of a record Room

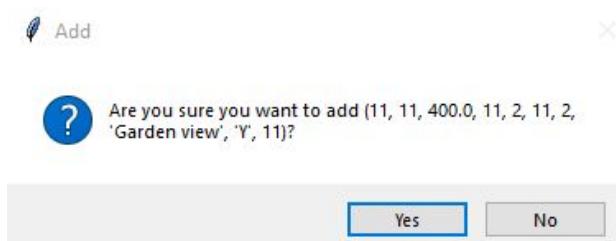
- Objectives - 1.4.1
- Description of test - I will add a record to the Customer tables.
- Test type - Integration test
- Test data to be used - 11, 400.0, 11, 2, 11, 2, Garden view, Y, 11
- Test data type - N/A
- Expected results - The record will be added to the table.
- Actual Results -



The 'add' button is clicked.

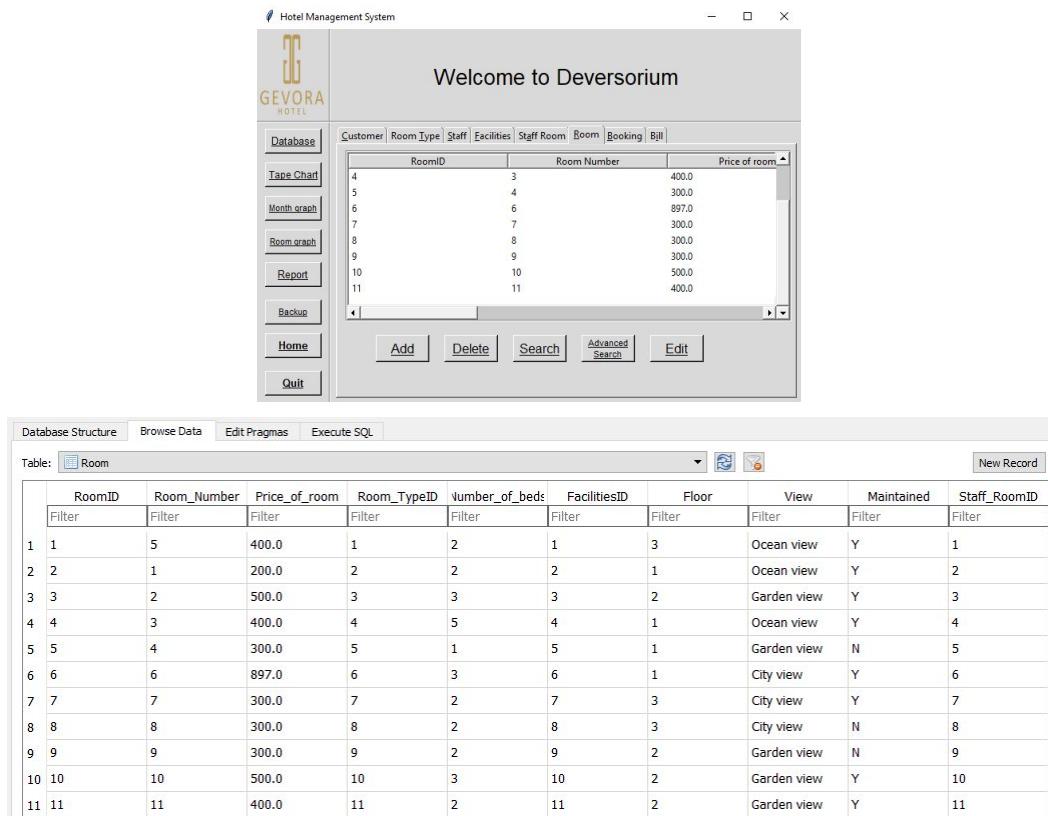


The 'add' button in the 'pop-up' window is clicked



## Section 8 - Testing

The 'yes' button is clicked.



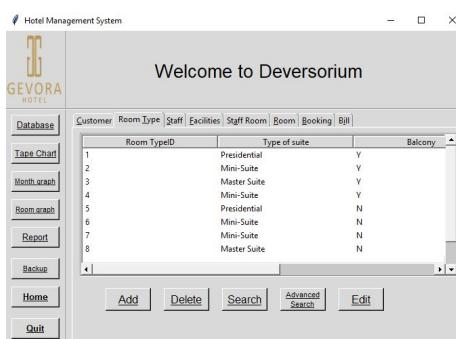
The screenshot shows the Hotel Management System interface. The main window title is "Welcome to Deversorium". On the left, there is a vertical menu bar with options: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. Below the menu is a toolbar with buttons for Add, Delete, Search, Advanced Search, and Edit. The central area displays a table titled "Room". The table has columns: RoomID, Room Number, Price of room, Room\_TypeID, Number\_of\_beds, FacilitiesID, Floor, View, Maintained, and Staff\_RoomID. The data in the table is as follows:

	RoomID	Room Number	Price of room	Room_TypeID	Number_of_beds	FacilitiesID	Floor	View	Maintained	Staff_RoomID
	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	5	400.0	1	2	1	3	Ocean view	Y	1
2	2	1	200.0	2	2	2	1	Ocean view	Y	2
3	3	2	500.0	3	3	3	2	Garden view	Y	3
4	4	3	400.0	4	5	4	1	Ocean view	Y	4
5	5	4	300.0	5	1	5	1	Garden view	N	5
6	6	6	897.0	6	3	6	1	City view	Y	6
7	7	7	300.0	7	2	7	3	City view	Y	7
8	8	8	300.0	8	2	8	3	City view	N	8
9	9	9	300.0	9	2	9	2	Garden view	N	9
10	10	10	500.0	10	3	10	2	Garden view	Y	10
11	11	11	400.0	11	2	11	2	Garden view	Y	11

- Corrective Action - N/A
- Possible Refinements - N/A

## Creation of a record Room\_Type

- Objectives - 1.5.1
- Description of test - I will add a record to the room\_type table.
- Test type - Integration test
- Test data to be used - Presidential, N, N, 175.0
- Test data type - N/A
- Expected results - The record will be added to the table.
- Actual Results -

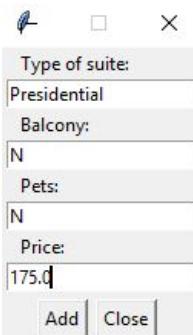


The screenshot shows the Hotel Management System interface. The main window title is "Welcome to Deversorium". On the left, there is a vertical menu bar with options: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. Below the menu is a toolbar with buttons for Add, Delete, Search, Advanced Search, and Edit. The central area displays a table titled "Room\_Type". The table has columns: RoomTypeID, Type of suite, and Balcony. The data in the table is as follows:

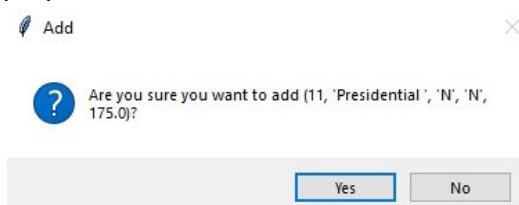
	RoomTypeID	Type of suite	Balcony
	Filter	Filter	Filter
1	1	Presidential	Y
2	2	Mini-Suite	Y
3	3	Master Suite	Y
4	4	Mini-Suite	Y
5	5	Presidential	N
6	6	Mini-Suite	N
7	7	Mini-Suite	N
8	8	Master Suite	N

## Section 8 - Testing

The 'add' button is clicked.



The 'add' button in the 'pop-up' window is selected.



The 'yes' button is selected.

RoomTypeID	Type_of_suite	Balcony	Pets	Price
1	Presidential	Y	N	200.0
2	Mini-Suite	Y	Y	100.0
3	Master Suite	Y	N	125.0
4	Mini-Suite	Y	N	90.0
5	Presidential	N	Y	200.0
6	Mini-Suite	N	Y	80.0
7	Mini-Suite	N	N	75.0
8	Master Suite	N	Y	130.0
9	Master Suite	Y	Y	150.0
10	Presidential	Y	Y	250.0
11	Presidential	N	N	175.0

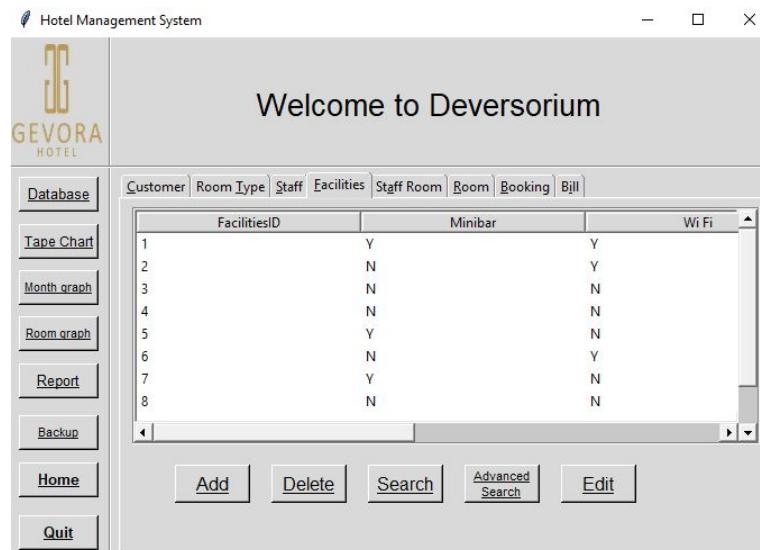
  

Room_TypeID	Type_of_suite	Balcony	Pets	Price
1	Presidential	Y	N	200.0
2	Mini-Suite	Y	Y	100.0
3	Master Suite	Y	N	125.0
4	Mini-Suite	Y	N	90.0
5	Presidential	N	Y	200.0
6	Mini-Suite	N	Y	80.0
7	Mini-Suite	N	N	75.0
8	Master Suite	N	Y	130.0
9	Master Suite	Y	Y	150.0
10	Presidential	Y	Y	250.0
11	Presidential	N	N	175.0

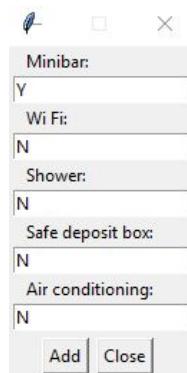
- Corrective Action - N/A
- Possible Refinements - N/A

## Creation of a record Facilities

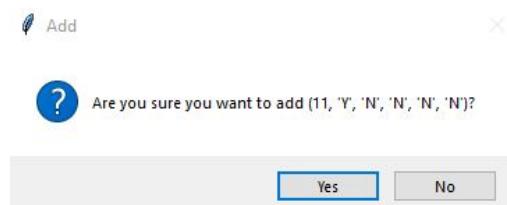
- Objectives - 1.6.1
- Description of test - I will add a record to the facilities table.
- Test type - Integration test
- Test data to be used - Y, N, N, N, N
- Test data type - N/A
- Expected results - The record will be added to the table.
- Actual Results -



The 'add' button is clicked.



The 'add' button in the 'pop-up' window is selected.



## Section 8 - Testing

The 'yes' button is selected.

Welcome to Deversorium

FacilitiesID	Minibar	Wi Fi
4	N	N
5	Y	N
6	N	Y
7	Y	N
8	N	N
9	Y	Y
10	N	Y
11	Y	N

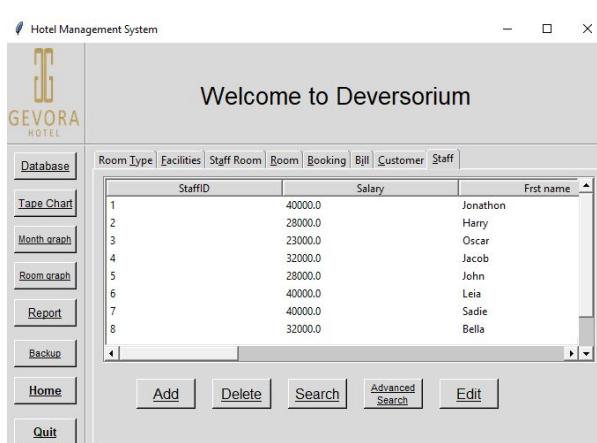
Table: Facilities

FacilitiesID	Minibar	Wi_Fi	Shower	safe_deposit_box	Air_conditioning
1	Y	Y	Y	Y	Y
2	N	Y	N	Y	N
3	N	N	N	N	N
4	N	N	N	N	N
5	Y	N	Y	N	Y
6	N	Y	Y	Y	N
7	Y	N	Y	Y	N
8	N	N	Y	Y	Y
9	Y	Y	Y	N	Y
10	N	Y	N	Y	Y
11	Y	N	N	N	N

- Corrective Action - N/A
- Possible Refinements - N/A

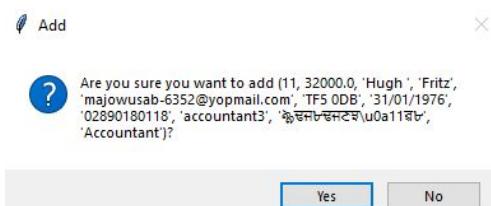
## Creation of a record Staff

- Objectives - 1.7.1
- Description of test - I will add a record to the Staff table.
- Test type - Integration test
- Test data to be used - '11', '32000.0', 'Hugh ', 'Fritz',  
[majowusab-6352@yopmail.com](mailto:majowusab-6352@yopmail.com)', 'TF5 0DB', '31/01/1976',  
'02890180118', 'accountant3', '@Ccount@nt3', 'Accountant'
- Test data type - N/A
- Expected results - The record will be added to the table.
- Actual Results -



The 'add' button is clicked.

The 'add' button in the 'pop-up' window is selected.



## Section 8 - Testing

The 'yes' button is selected.

Hotel Management System

Welcome to Deversorium

	StaffID	Salary	Frst_name	Srn_name	Email	Postcode	DOB	contact_number	Username	Password	Job
4		32000.0	Jacob								
5		28000.0	John								
6		40000.0	Leia								
7		40000.0	Sadie								
8		32000.0	Bella								
9		23000.0	Ray								
10		28000.0	Jose								
11		32000.0	Hugh								

Add Delete Search Advanced Search Edit

Table: Staff

StaffID	Salary	Frst_name	Srn_name	Email	Postcode	DOB	contact_number	Username	Password	Job
1	40000.0	Jonathon	Tucker	piqemmew...	SK13 8NL	09/04/1964	07458927467	manager1	manager1	Manager
2	28000.0	Harry	Wood	getenoffyll...	GU20 6ED	30/01/1985	07097219346	reception...	reception...	Receptionist
3	23000.0	Oscar	Carr	ejucizop...	BS24 0AX	03/10/1986	07845240000	cleaner1	cleaner1	Cleaner
4	32000.0	Jacob	Sandoval	offumurre...	TS22 5GY	02/04/1981	07837520000	accounta...	accounta...	Accountant
5	28000.0	John	Smith	hs123@em...	IV16 9XE	20/01/1999	07847543456	reception...	reception...	Receptionist
6	40000.0	Leia	Russell	cuterrydefe...	FK8 2DG	13/09/1973	07889250000	manager2	manager2	Manager
7	40000.0	Sadie	Cohen	lipuxokyrr...	SW1E 6AW	19/12/1964	07847908131	manager3	manager3	Manager
8	32000.0	Bella	Nicholls	wutacoxuna...	NE63 8RN	11/05/1997	07981634861	accounta...	accounta...	Accountant
9	23000.0	Ray	Morton	etessyrr-e...	MK46 4DJ	18/02/1999	07986387621	cleaner2	cleaner2	Cleaner
10	28000.0	Jose	Cohen	urrippexiva...	IP28 7FG	14/08/1999	07762354289	reception...	reception...	Receptionist
11	32000.0	Hugh	Fritz	majowusab...	TF5 0DB	31/01/1976	02890180118	accounta...	accounta...	Accountant

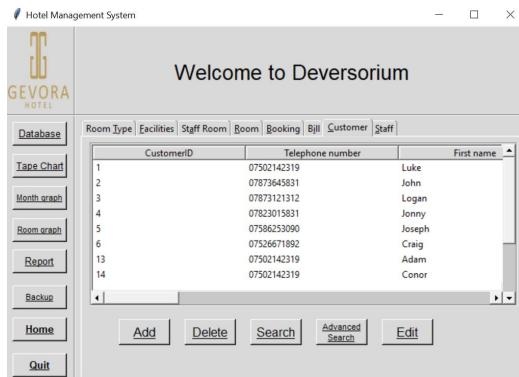
New Record Delete Record

- Corrective Action - N/A
- Possible Refinements - N/A

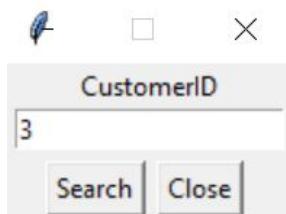
# Searching for Records

## Searching for Records in the Customer table

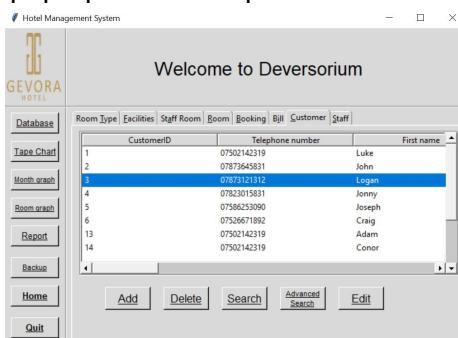
- Objectives - 3.5.
  - Description of test - I will search for a record in the Customer table.
  - Test type - Integration test
  - Test data to be used - I will search for the record with the primary key of 3
  - Test data type - N/A
  - Expected results - The record will be highlighted in the table. The record is '3',  
‘07873121312’, ‘Logan’, ‘Logan’, ‘68 Charming Avenue’,  
‘JH09 8KA’, ‘Master Card’, ‘ୟୁଦ୍ଧବ୍ୟାପକ ନିର୍ମାଣ କୌଣସି’,  
‘London’, ‘22/04/2002’, ‘N/A’, ‘[email@email.com](mailto:email@email.com)’, ‘logan123’,  
‘ଶ୍ରୀମତୀ ଲୋଗାନ’
  - Actual Results -



The search button is pressed



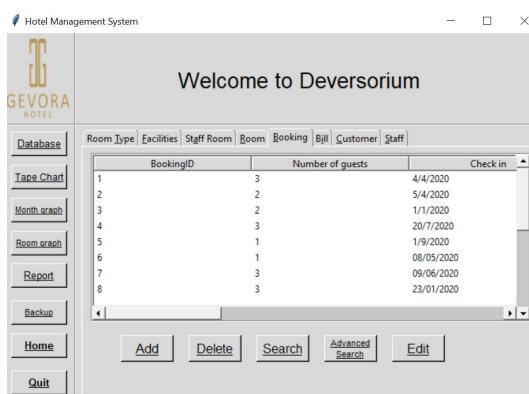
The search button within the pop-up window is pressed



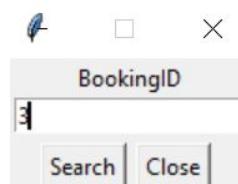
- Corrective Action - N/A
  - Possible Refinements - N/A

## Searching for Records in the Booking table

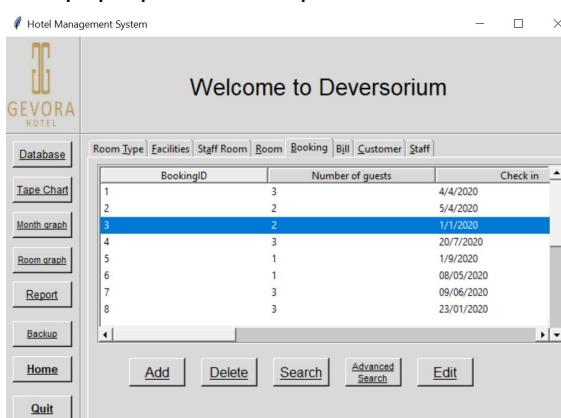
- Objectives - 3.5.
- Description of test - I will search for a record in the Booking table.
- Test type - Integration test
- Test data to be used - I will search for the record with the primary key of 3.
- Test data type - N/A
- Expected results - The record will be highlighted in the table. The record is '3', '2', '1/1/2020', '15/1/2020', '1', 'All inclusive', '0.0', '03/09/2015', 'N/A', '2'
- Actual Results -



The search button is pressed



The search button within the pop-up window is pressed



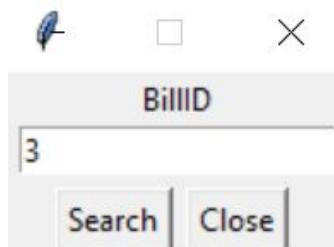
- Corrective Action - N/A
- Possible Refinements - N/A

## Searching for Records in the Bill table

- Objectives - 3.5.
- Description of test - I will search for a record in the Bill table.
- Test type - Integration test
- Test data to be used - I will search for the record with the primary key of 3
- Test data type - N/A
- Expected results - The record will be highlighted in the table. The record is '3', '3', '34.0', '50.0', '23.0', '5.0', '70.0', '21.98', 'Y', '0.0', '1000.0'
- Actual Results -

BillID	BookingID	Mini bar bill
1	9.0	
2	10.0	
3	34.0	
4	6.0	
5	60.0	
6	23.0	
7	23.0	
8	23.0	

The search button is pressed



The search button within the pop-up window is pressed

BillID	BookingID	Mini bar bill
1	9.0	
2	10.0	
3	34.0	
4	6.0	
5	60.0	
6	23.0	
7	23.0	
8	23.0	

- Corrective Action - N/A
- Possible Refinements - N/A

## Searching for Records in the Room table

- Objectives - 3.5.
- Description of test - I will search for a record in the Room table.
- Test type - Integration test
- Test data to be used - I will search for the record with the primary key of 3
- Test data type - N/A
- Expected results - The record will be highlighted in the table. The record is '3', '2', '500.0', '3', '3', '3', '2', 'Garden view', 'Y', '3'
- Actual Results -

RoomID	Room Number	Price of room
1	5	350.0
2	1	200.0
3	2	500.0
4	3	400.0
5	4	300.0
6	6	897.0
7	7	300.0
8	8	300.0

The search button is pressed

RoomID  
3  
Search Close

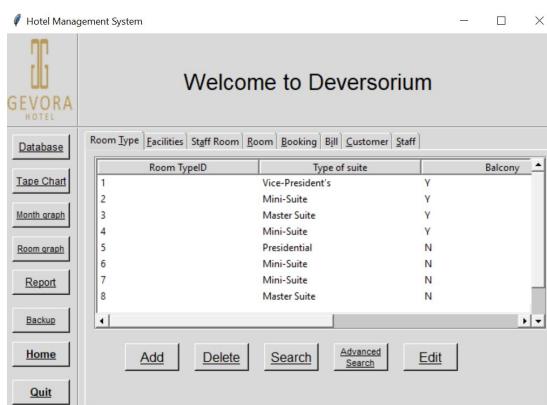
The search button within the pop-up window is pressed

RoomID	Room Number	Price of room
1	5	350.0
2	1	200.0
3	2	500.0
4	3	400.0
5	4	300.0
6	6	897.0
7	7	300.0
8	8	300.0

- Corrective Action - N/A
- Possible Refinements - N/A

## Searching for Records in the Room\_Type table

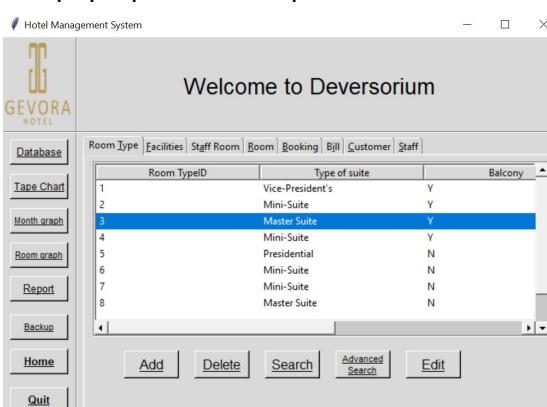
- Objectives - 3.5.
- Description of test - I will search for a record in the Room\_Type table.
- Test type - Integration test
- Test data to be used - I will search for the record with the primary key of 3
- Test data type - N/A
- Expected results - The record will be highlighted in the table . The record is '3', 'Master Suite', 'Y', 'N', '125.0'
- Actual Results -



The search button is pressed



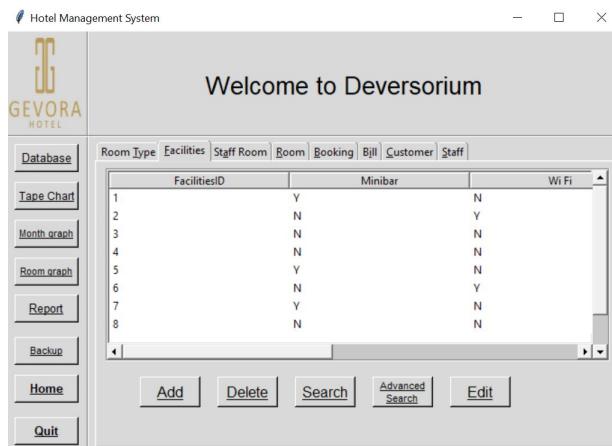
The search button within the pop-up window is pressed



- Corrective Action - N/A
- Possible Refinements - N/A

## Searching for Records in the Facilities table

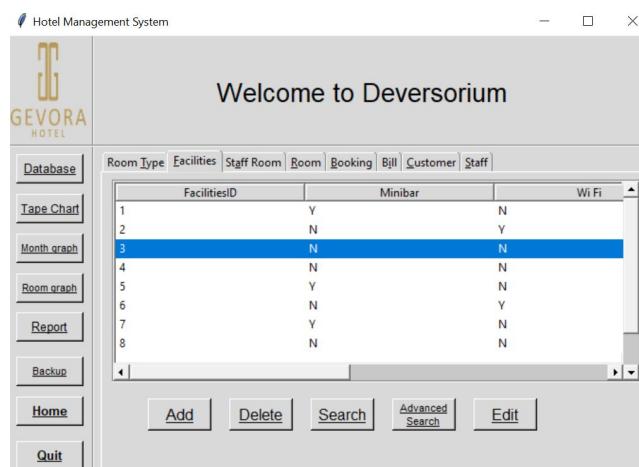
- Objectives - 3.5.
- Description of test - I will search for a record in the Facilities table.
- Test type - Integration test
- Test data to be used - I will search for the record with the primary key of 3
- Test data type - N/A
- Expected results - The record will be highlighted in the table. The record is '3', 'N', 'N', 'N', 'N'
- Actual Results -



The search button is pressed



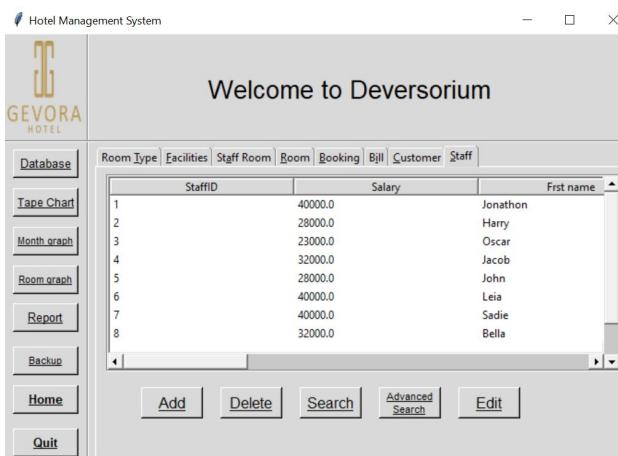
The search button within the pop-up window is pressed



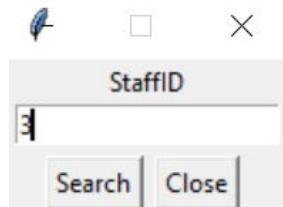
- Corrective Action - N/A
- Possible Refinements - N/A

## Searching for Records in the Staff table

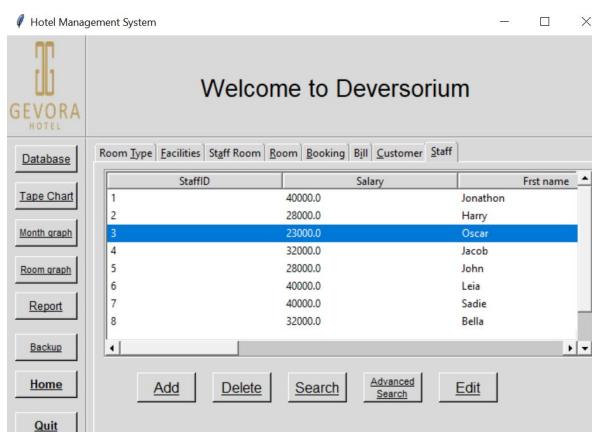
- Objectives - 3.5.
- Description of test - I will search for a record in the Staff table.
- Test type - Integration test
- Test data to be used - I will search for the record with the primary key of 3
- Test data type - N/A
- Expected results - The record will be highlighted in the table. The record is '3', '23000.0', 'Oscar', 'Carr', '[ejucizop-0186@yopmail.com](mailto:ejucizop-0186@yopmail.com)', 'BS24 0AX', '03/10/1986', '07845240000', 'cleaner1', 'ঝাঁঝাঁ উচ্চারণ', 'Cleaner'
- Actual Results -



The search button is pressed



The search button within the pop-up window is pressed

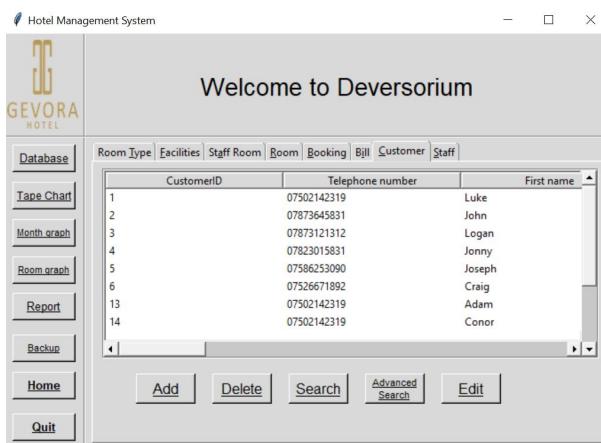


- Corrective Action - N/A
- Possible Refinements - N/A

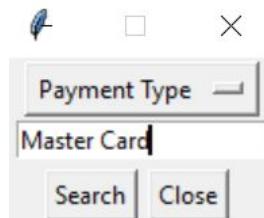
# Using Advanced Search

## Using Advanced Search in the Customer table

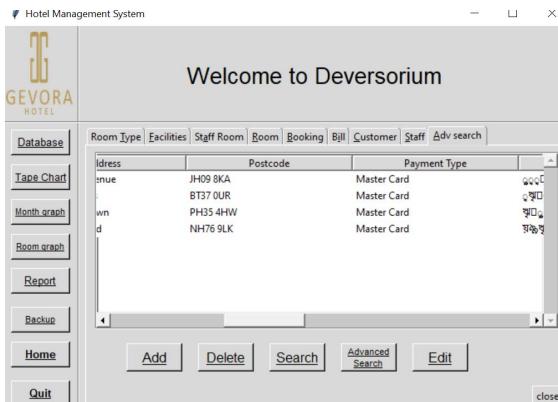
- Objectives - 3.5.1.
- Description of test - I will search for records in the Customer table.
- Test type - Integration test
- Test data to be used - Field = 'Payment Type', Search Term = 'Master Card"
- Test data type - N/A
- Expected results - The records will be displayed in a different table. The records will be displayed in a different table.
- Actual Results -



The 'Advanced Search' button is selected



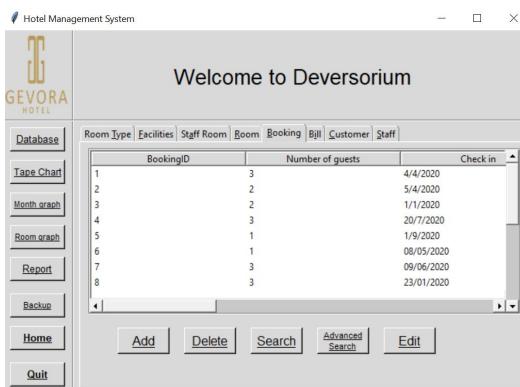
The correct field is selected and the 'search' button in the pop-up window is selected



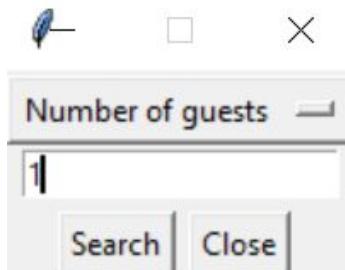
- Corrective Action - N/A
- Possible Refinements - N/A

## Using Advanced Search in the Booking table

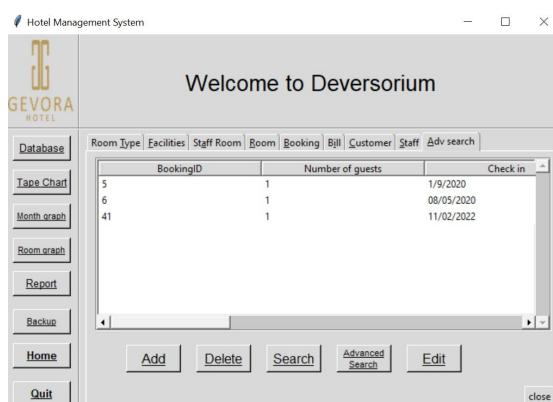
- Objectives - 3.5.1.
- Description of test - I will search for records in the Booking table.
- Test type - Integration test
- Test data to be used - Field = 'Number of guests', Search Term = '1'
- Test data type - N/A
- Expected results - The records will be displayed in a different table. The records will be displayed in a different table.
- Actual Results -



The 'Advanced Search' button is selected



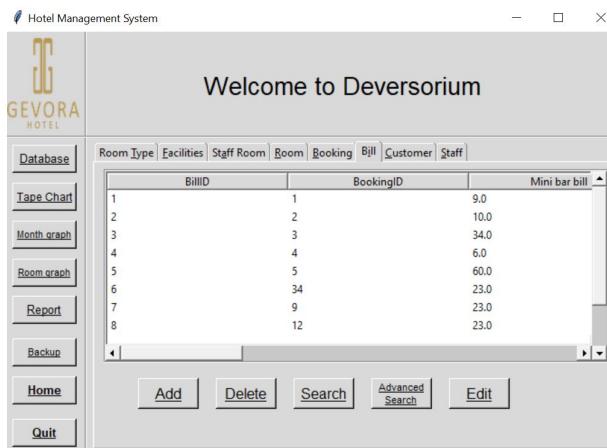
The correct field is selected and the 'search' button in the pop-up window is selected



- Corrective Action - N/A
- Possible Refinements - N/A

## Using Advanced Search in the Bill table

- Objectives - 3.5.1.
- Description of test - I will search for records in the Bill table.
- Test type - Integration test
- Test data to be used - Field = 'Deposit Paid', Search Term = '3'
- Test data type - N/A
- Expected results - The records will be displayed in a different table. The records will be displayed in a different table.
- Actual Results -

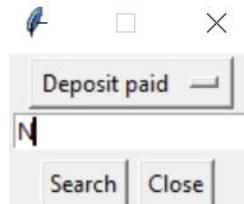


The screenshot shows a Windows application window titled "Hotel Management System". The main title bar says "Welcome to Deversorium". Below the title bar is a menu bar with tabs: Room Type, Facilities, Staff Room, Room, Booking, Bill, Customer, Staff. The "Bill" tab is selected. To the left is a vertical toolbar with buttons: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area contains a table with the following data:

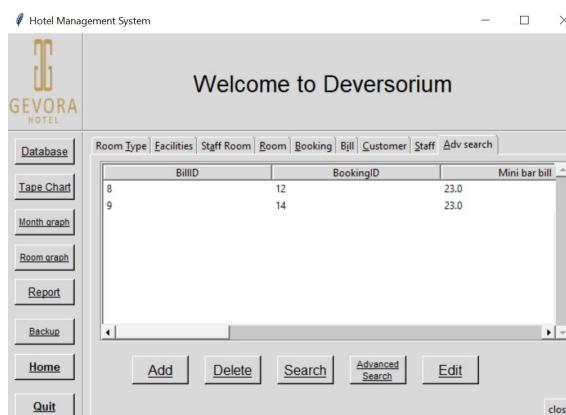
	BillID	BookingID	Mini bar bill
1	1	9.0	
2	2	10.0	
3	3	34.0	
4	4	6.0	
5	5	60.0	
6	34	23.0	
7	9	23.0	
8	12	23.0	

Below the table are five buttons: Add, Delete, Search, Advanced Search, and Edit. The "Advanced Search" button is highlighted.

The 'Advanced Search' button is selected



The correct field is selected and the 'search' button in the pop-up window is selected



The screenshot shows the same Hotel Management System window as before. The "Bill" table now displays only two rows of data:

	BillID	BookingID	Mini bar bill
8	12	23.0	
9	14	23.0	

The "Advanced Search" button in the main window is no longer highlighted. A "close" button is visible at the bottom right of the main window.

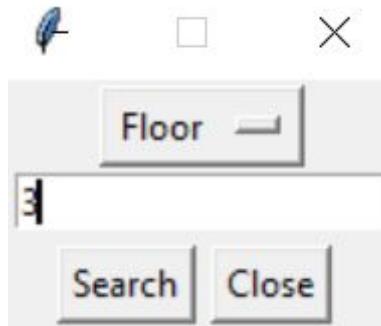
- Corrective Action - N/A
- Possible Refinements - N/A

## Using Advanced Search in the Room table

- Objectives - 3.5.1.
- Description of test - I will search for records in the Room table.
- Test type - Integration test
- Test data to be used - Field = 'Floor', Search Term = '3'
- Test data type - N/A
- Expected results - The records will be displayed in a different table. The records will be displayed in a different table.
- Actual Results -

RoomID	Room Number	Price of room
1	5	350.0
2	1	200.0
3	2	500.0
4	3	400.0
5	4	300.0
6	6	897.0
7	7	300.0
8	8	300.0

The 'Advanced Search' button is selected



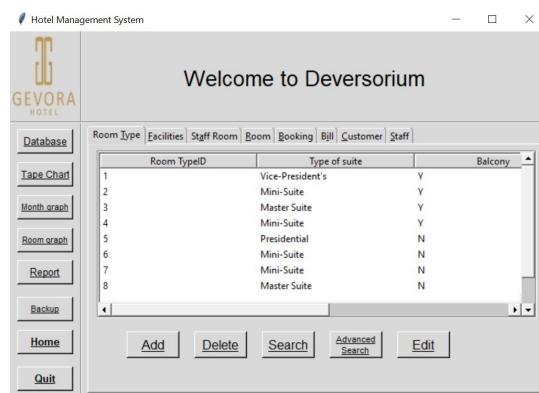
The correct field is selected and the 'search' button in the pop-up window is selected

FacilitiesID	Floor	View
1	3	Ocean view
7	3	City view
8	3	City view

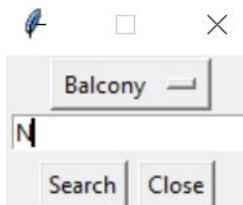
- Corrective Action - N/A
- Possible Refinements - N/A

## Using Advanced Search in the Room\_Type table

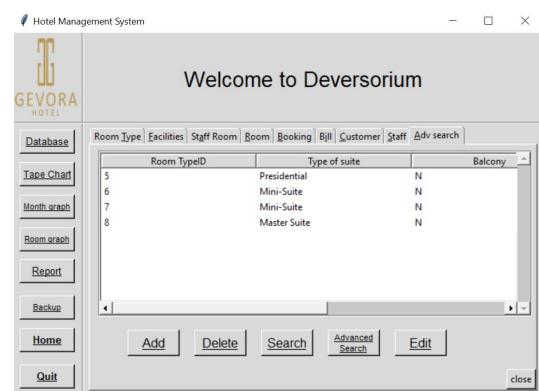
- Objectives - 3.5.1.
- Description of test - I will search for records in the Room\_Type table.
- Test type - Integration test
- Test data to be used - Field = 'Balcony', Search Term = 'N'
- Test data type - N/A
- Expected results - The records will be displayed in a different table. The records will be displayed in a different table.
- Actual Results -



The 'Advanced Search' button is selected



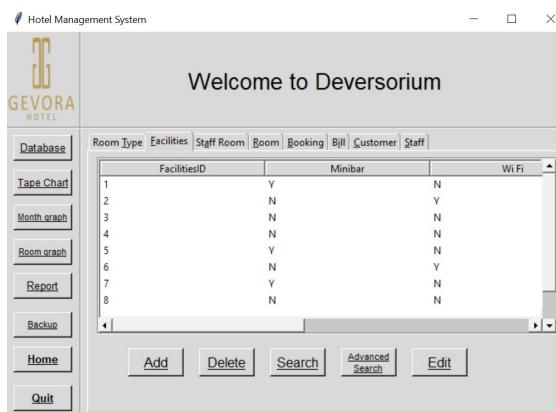
The correct field is selected and the 'search' button in the pop-up window is selected



- Corrective Action - N/A
- Possible Refinements - N/A

## Using Advanced Search in the Facilities table

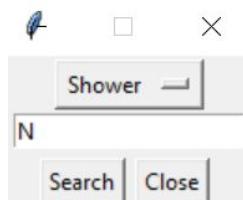
- Objectives - 3.5.1.
- Description of test - I will search for records in the Facilities table.
- Test type - Integration test
- Test data to be used - Field = 'Shower', Search Term = 'N'
- Test data type - N/A
- Expected results - The records will be displayed in a different table. The records will be displayed in a different table.
- Actual Results -



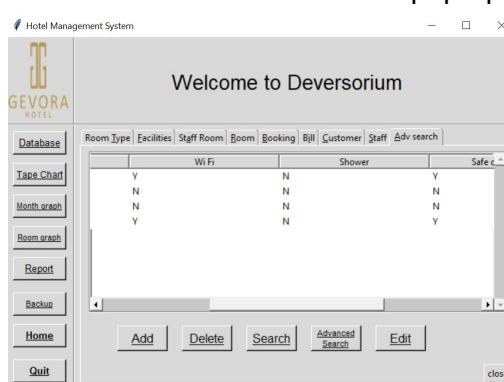
The screenshot shows a Windows application window titled "Hotel Management System". The main title bar says "Welcome to Deversorium". On the left is a vertical menu bar with buttons for Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area has a grid table with columns: FacilitiesID, Minibar, and WiFi. The data rows are numbered 1 to 8. Below the table are buttons for Add, Delete, Search, Advanced Search (which is highlighted), and Edit.

FacilitiesID	Minibar	WiFi
1	Y	N
2	N	Y
3	N	N
4	N	N
5	Y	N
6	N	Y
7	Y	N
8	N	N

The 'Advanced Search' button is selected



The correct field is selected and the 'search' button in the pop-up window is selected



The screenshot shows the same Hotel Management System window as before, but the data in the table has been filtered. The columns are now labeled WiFi, Shower, and Safe c. There are four rows, each with a different combination of values: WiFi (Y, N, N, Y), Shower (N, N, N, Y), and Safe c (N, N, N, Y). The "Advanced Search" button is still highlighted at the bottom of the main window.

WiFi	Shower	Safe c
Y	N	N
N	N	N
N	N	N
Y	N	Y

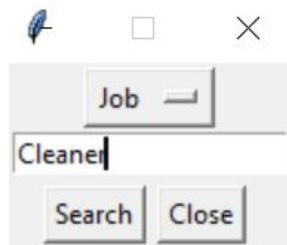
- Corrective Action - N/A
- Possible Refinements - N/A

## Using Advanced Search in the Staff table

- Objectives - 3.5.1.
- Description of test - I will search for records in the Staff table.
- Test type - Integration test
- Test data to be used - Field = 'Position', Search Term = 'Cleaner'
- Test data type - N/A
- Expected results - The records will be displayed in a different table. The records will be displayed in a different table.
- Actual Results -

StaffID	Salary	Fst name
1	40000.0	Jonathon
2	28000.0	Harry
3	23000.0	Oscar
4	32000.0	Jacob
5	28000.0	John
6	40000.0	Leia
7	40000.0	Sadie
8	32000.0	Bella

The 'Advanced Search' button is selected



The correct field is selected and the 'search' button in the pop-up window is selected

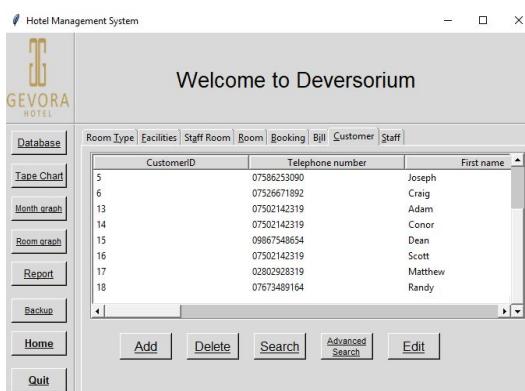
Username	Password	Job
admin	admin	Cleaner
cleaner	cleaner	Cleaner

- Corrective Action - N/A
- Possible Refinements - N/A

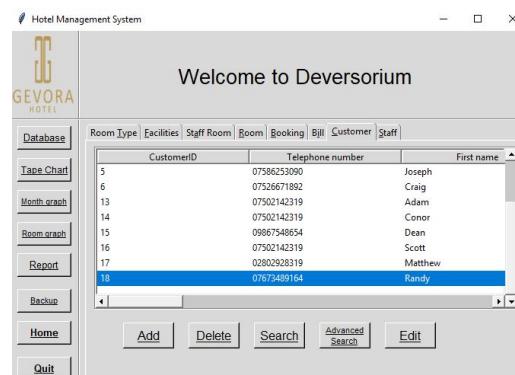
# Updating Records

## Updating a record in the Customer table

- Objectives - 1.1.3
- Description of test - I will update a record in the customer table.
- Test type - Integration test
- Test data to be used - The email in the record '18, 07673489164, Randy, Frey, 72 Parkhill Road, DA5 1HY, Visa, 089436846, 4-21, 947, Bexley, 18/03/1993, N/A, [kalemmaniw-7333@yopmail.com](mailto:kalemmaniw-7333@yopmail.com), rfrey123, Rfrey123!' will be updated to '[ekippelless-6789@yopmail.com](mailto:ekippelless-6789@yopmail.com)'
- Test data type - N/A
- Expected results - The record will be updated in the database.
- Actual Results -



The record to be updated will be selected from the table.

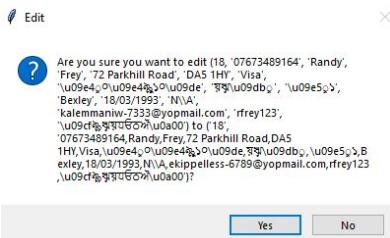


The edit button will be clicked.

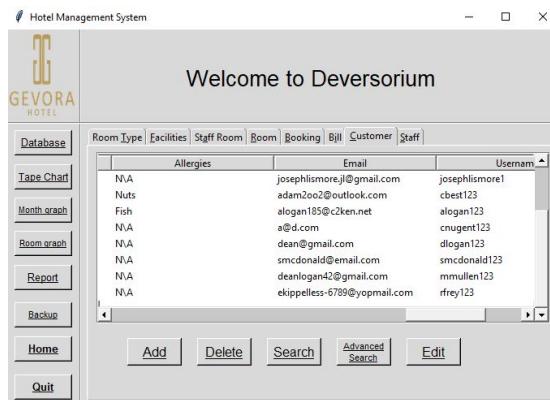
Telephone number:	Payment Type:	DOB:
7673489164	Visa	18/03/1993
First name:	Card Number:	Allergies:
Randy	089436846	N/A
Surname:	Expiry Date:	Email:
Frey	4-21	skippelless-6789@yopr
Address:	CVC code:	Username:
72 Parkhill Road	947	rfrey123
Postcode:	City:	Password:
DA5 1HY	Bexley	Rfrey123!
<input type="button" value="Edit"/> <input type="button" value="Close"/>		

## Section 8 - Testing

The ‘edit’ button within the ‘pop-up’ window will be clicked



The ‘yes’ button will be clicked



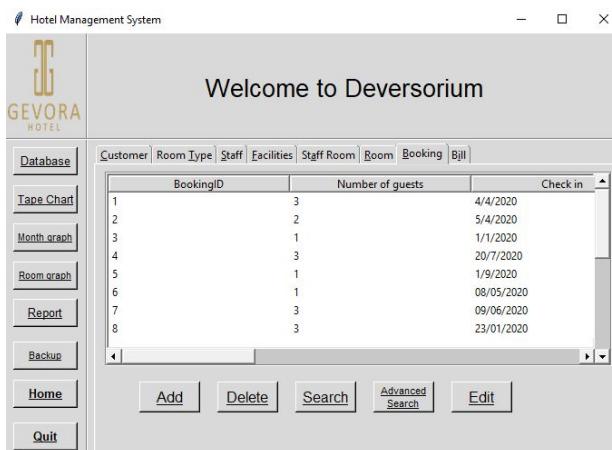
Customer											New Record	Delete Record
	Postcode	Payment_Type	Card_Number	Expiry_Date	CVC_code	City	DOB	Allergies	Email	Username	Password	
	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	
1	BT73 9HJ	Visa	4019 01234567	09/24	1234	Belfast	11/01/2001	Fish	luke496@gmail.com	landerson123	luke496@gmail.com	
2	BT84 9JK	Visa	4019 01234567	09/24	1234	Cardiff	22/04/1978	Nuts	adamlogan42@gmail.com	jsmith123	adamlogan42@gmail.com	
3	JH09 8KA	Master Card	5432 01234567	09/24	1234	London	22/04/2002	N/A	email@email.com	llogan123	llogan123	
4	JS87 8JK	Visa	3019 01234567	09/24	1234	London	22/11/2002	N/A	email@email.com	jiam1234	jiam1234	
5	BT37 0UR	Master Card	5432 01234567	09/24	1234	Jordanstown	14/11/2001	N/A	josephismore@gmail.com	josephismore1	josephismore1	
6	PH35 4HW	Master Card	5432 01234567	09/24	1234	Glasgow	22/04/1991	Nuts	adam2002@yahoo.com	cbest123	cbest123	
7	TR5 0QP	Visa	4019 01234567	09/24	1234	Belfast	23/01/2002	Fish	alogan185@comcast.net	alogan123	alogan123	
8	B73 6DL	Visa	4019 01234567	09/24	1234	Newtownabbey	26/01/2001	N/A	a@ad.com	cnuget123	cnuget123	
9	DG6 4NA	Visa	3019 01234567	09/24	1234	Carrick	20/04/2002	N/A	dean@gmail.com	dlogan123	dlogan123	
10	NH76 9LK	Master Card	5432 01234567	09/24	1234	Carrickfergus	22/07/2002	N/A	smcdonald@eircom.net	smcdonald123	smcdonald123	
11	WR13 6PN	Visa	3019 01234567	09/24	1234	Carrickfergus	27/01/2002	N/A	deanlogan42@gmail.com	mmullen123	mmullen123	
12	DA5 1HY	Visa	4019 01234567	09/24	1234	Bexley	18/03/1993	N/A	ekipellest-67@outlook.com	rfrey123	rfrey123	

- Corrective Action - N/A
  - Possible Refinements - N/A

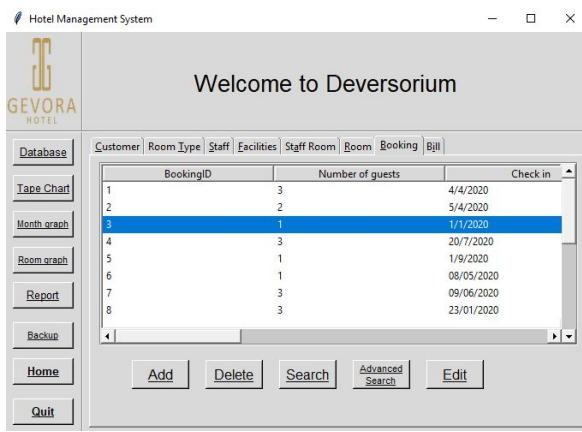
## Updating a record in the Booking table

- Objectives - 1.2.3
  - Description of test - I will update a record in the booking table.
  - Test type - Integration test
  - Test data to be used - The 'number\_of\_guests' field in the record '3', '1', '1/1/2020', '15/1/2020', '1', 'All inclusive', '0.0', '03/09/2015', 'N/A', '2' will be updated to 2.
  - Test data type - N/A
  - Expected results - The record will be updated in the database.
  - Actual Results -

## Section 8 - Testing



The record to be updated will be selected from the table.



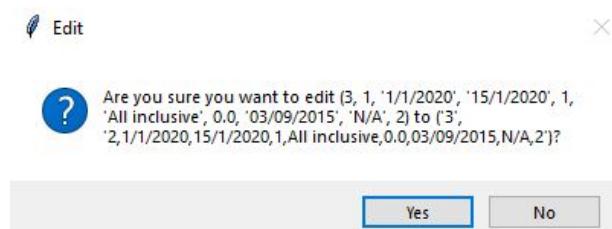
The 'edit' button will be selected.

A modal dialog box titled 'Editing the Booki...'. It contains the following fields:

Number of guests:	Price:
4	0.0
Check in:	Date of booking:
1/1/2020	03/09/2015
Check out:	Offer code:
15/1/2020	N/A
RoomID:	CustomerID:
1	2
Holiday Type:	
All inclusive	

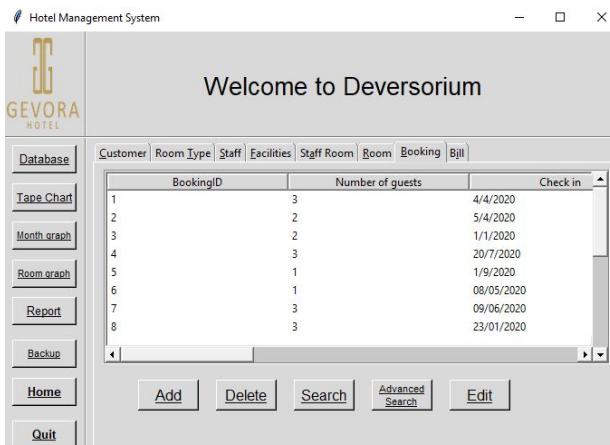
At the bottom are 'Edit' and 'Close' buttons.

The 'edit' button in the 'pop-up' window will be selected.



## Section 8 - Testing

The 'yes' button will be selected.



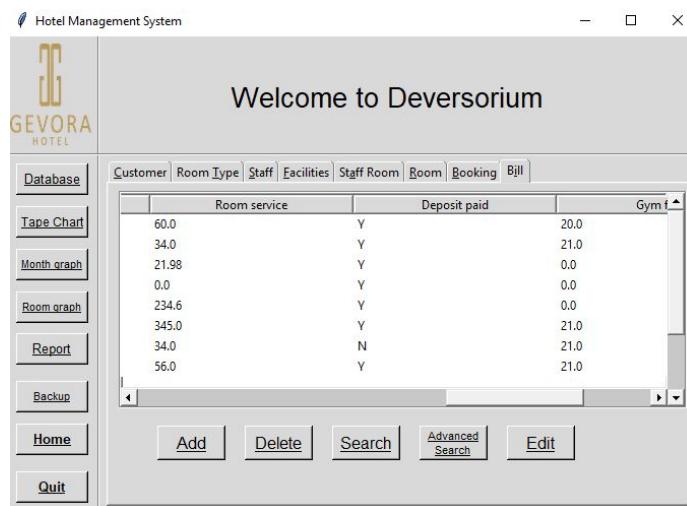
The screenshot shows the Hotel Management System interface. On the left, there's a vertical menu with options like Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main window title is "Welcome to Deversorium". Below the title, there's a navigation bar with tabs: Customer, Room Type, Staff, Facilities, Staff Room, Room, Booking, and Bill. The "Booking" tab is selected. A table titled "Booking" displays 21 rows of booking data. The columns are: BookingID, Number\_of\_guest, Check\_in, Check\_out, RoomID, Holiday\_Type, Price, Date\_of\_booking, Offer\_code, and CustomerID. At the bottom of the main window are buttons for Add, Delete, Search, Advanced Search, and Edit.

BookingID	Number_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offer_code	CustomerID
1 1	3	4/4/2020	14/4/2020	1	Room Only	300.0	17/01/2015	N/A	17
2 2	2	5/4/2020	15/4/2020	2	Half-Board	200.0	02/06/2015	N/A	1
3 3	2	1/1/2020	15/1/2020	1	All inclusive	0.0	03/09/2015	N/A	2
4 4	3	20/7/2020	1/8/2020	2	Room Only	200.0	29/02/2016	N/A	3
5 5	1	1/9/2020	5/10/2020	1	Room Only	200.0	03/05/2016	N/A	13
6 6	1	08/05/2020	17/07/2020	1	All inclusive	1.0	17/07/2016	N/A	15
7 7	3	09/06/2020	17/09/2020	3	Full-board	2324.0	18/09/2016	N/A	14
8 8	3	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A	3
9 9	3	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A	15
10 10	3	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A	14
11 11	5	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A	3
12 12	2	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A	15
13 13	3	10/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A	3
14 14	3	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A	6
15 15	2	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A	15
16 34	4	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A	6
17 38	2	11/03/2020	27/03/2020	2	Full-board	400.0	11/04/2019	N/A	3
18 39	2	07/05/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A	6
19 40	2	20/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A	14
20 41	1	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A	6
21 42	3	05/08/2020	14/08/2020	10	Room Only	678.0	6/03/2020	N/A	11

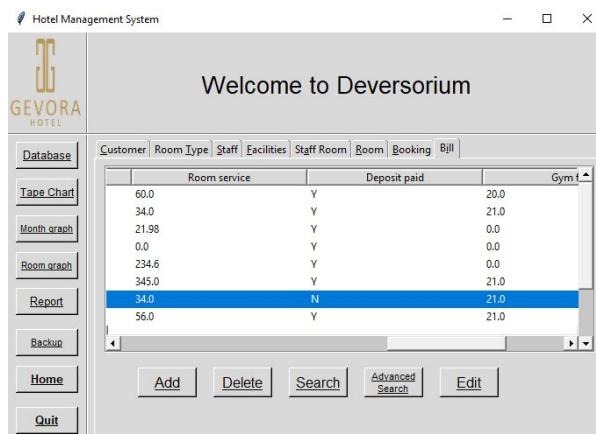
- Corrective Action - N/A
- Possible Refinements - N/A

## Updating a record in the Bill table

- Objectives - 1.3.3
- Description of test - I will update a record in the bill table.
- Test type - Integration test
- Test data to be used - I will update the 'deposit\_paid' field in the record '7', '9', '23.0', '50.0', '12.0', '0.0', '0.0', '34.0', 'N', '21.0', '790.0' to 'Y'.
- Test data type - N/A
- Expected results - The record will be updated in the database.
- Actual Results -



The record to be updated will be selected from the table.



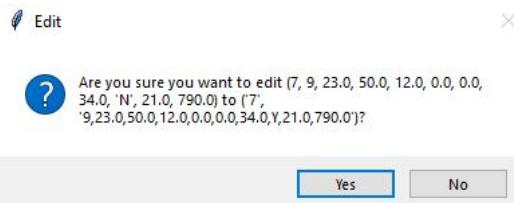
The 'edit' button will be selected.

Editing the Bill table...

BookingID:	Spa bill:
9	0.0
Mini bar bill:	Room service:
23.0	34.0
Main bar bill:	Deposit paid:
50.0	M
Restaurant bill:	Gym fee:
12.0	21.0
Telephone bill:	Total price:
0.0	790.0
<b>Edit</b>	
<b>Close</b>	

## Section 8 - Testing

The 'edit' button in the 'pop-up' window will be selected.



The 'yes' button will be selected.

BillID	BookingID	Mini_bar_bill	Main_bar_bill	Restaurant_bill	Telephone_bill	Spa_bill	Room_service	Deposit_paid	Gym_fee	Total_price
1 1	1	9.0	10.0	50.0	2.0	50.0	60.0	Y	20.0	200.0
2 2	2	10.0	23.0	32.33	2.0	20.0	34.0	Y	21.0	124.0
3 3	3	34.0	50.0	23.0	5.0	70.0	21.98	Y	0.0	1000.0
4 4	4	6.0	30.0	106.67	3.0	0.0	0.0	Y	0.0	790.0
5 5	5	60.0	187.0	200.0	50.0	32.0	234.6	Y	0.0	1000.0
6 6	34	23.0	50.0	45.0	0.0	0.0	345.0	Y	21.0	200.0
7 7	9	23.0	50.0	12.0	0.0	0.0	34.0	Y	21.0	790.0
8 8	12	23.0	67.0	106.67	0.0	0.0	56.0	Y	21.0	124.0
9 9	14	23.0	50.0	300.0	0.0	0.0	0.0	N	0.0	356.0
10 10	38	23.0	50.0	56.0	0.0	0.0	0.0	Y	0.0	124.0
11 11	16	0.0	57.0	110.0	0.0	0.0	0.0	Y	0.0	167.0
12 12	42	0.0	70.0	100.0	0.0	0.0	0.0	Y	0.0	170.0

- Corrective Action - N/A
- Possible Refinements - N/A

## Updating a record in the Room table

- Objectives - 1.4.3
- Description of test - I will update a record in the room table.
- Test type - Integration test
- Test data to be used - The 'price\_of\_room' field in the record '1', '5', '400.0', '1', '2', '1', '3', 'Ocean view', 'Y', '1' will be updated to 350.0
- Test data type - N/A
- Expected results - The record will be updated in the database.
- Actual Results -

RoomID	Room Number	Price of room
1	5	400.0
2	1	200.0
3	2	500.0
4	3	400.0
5	4	300.0
6	6	897.0
7	7	300.0
8	8	300.0

The record to be updated will be selected from the table.

RoomID	Room Number	Price of room
1	5	400.0
2	1	200.0
3	2	500.0
4	3	400.0
5	4	300.0
6	6	897.0
7	7	300.0
8	8	300.0

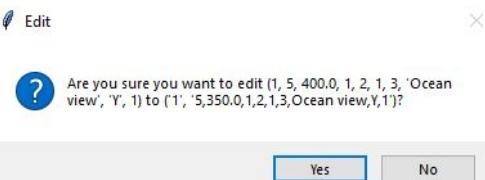
The 'edit' button will be selected.

Editing the Room...

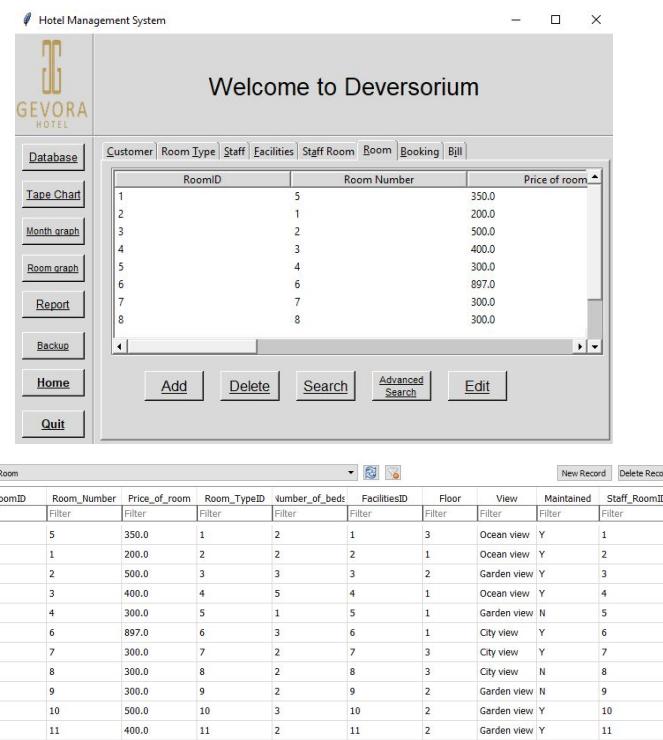
Room Number:	Floor:
5	3
Price of room:	View:
350.0	Ocean view
RoomTypeID:	Maintained:
1	Y
Number of beds:	Staff RoomID:
2	1
FacilitiesID:	
1	
<input type="button" value="Edit"/> <input type="button" value="Close"/>	

## Section 8 - Testing

The 'edit' button in the 'pop-up' window will be selected.



The 'yes' button will be selected.



- Corrective Action - N/A
- Possible Refinements - N/A

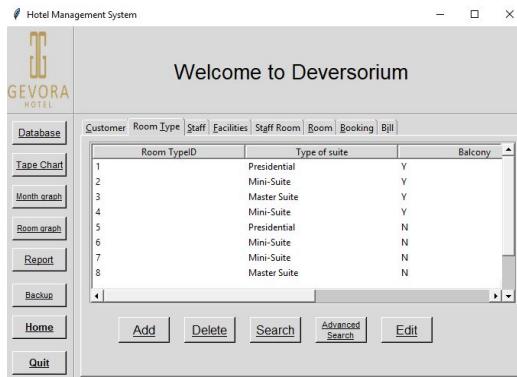
### Updating a record in the Room\_Type table

- Objectives - 1.5.3
- Description of test - I will update a record in the room\_type table.
- Test type - Integration test
- Test data to be used - The field 'Type\_of\_suite' in the record '1', 'Presidential ', 'Y', 'N',

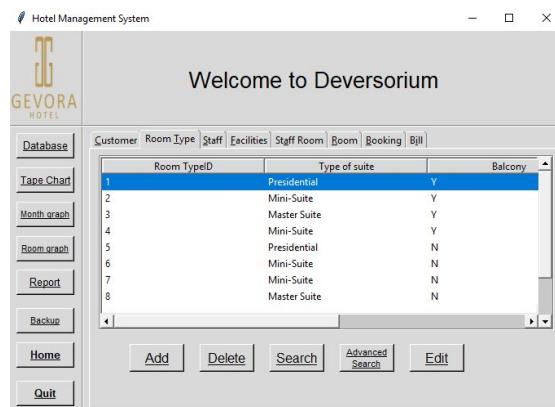
'200.0' will be updated to 'Vice-President's'.

- Test data type - N/A
- Expected results - The record will be updated in the database.
- Actual Results -

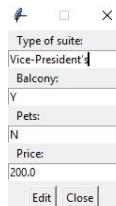
## Section 8 - Testing



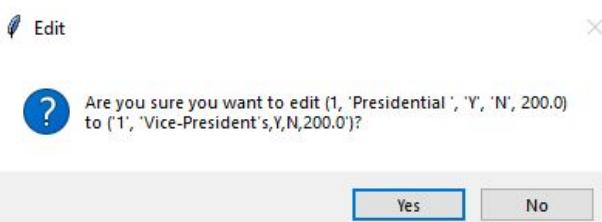
The record to be updated will be selected from the table.



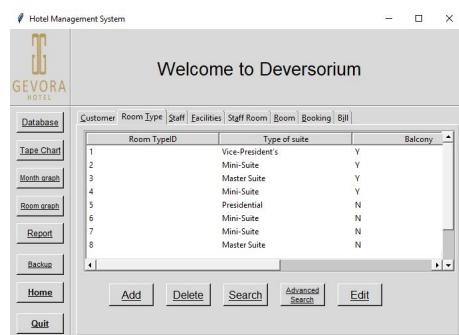
The 'edit' button will be selected.



The 'edit' button in the 'pop-up' window will be selected.



The 'yes' button will be selected.



## Section 8 - Testing

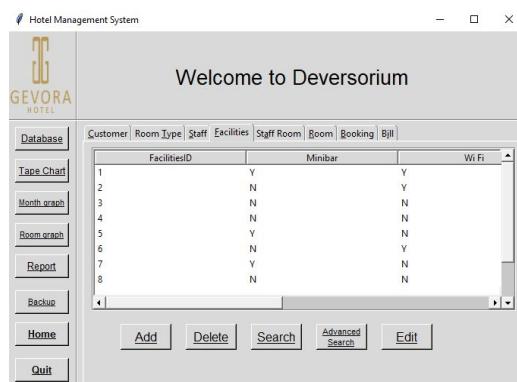
Table: Room\_Type

Room_TypeID	Type_of_suite	Balcony	Pets	Price
Filter	Filter	Filter	Filter	Filter
1 1	Vice-President's	Y	N	200.0
2 2	Mini-Suite	Y	Y	100.0
3 3	Master Suite	Y	N	125.0
4 4	Mini-Suite	Y	N	90.0
5 5	Presidential	N	Y	200.0
6 6	Mini-Suite	N	Y	80.0
7 7	Mini-Suite	N	N	75.0
8 8	Master Suite	N	Y	130.0
9 9	Master Suite	Y	Y	150.0
10 10	Presidential	Y	Y	250.0
11 11	Presidential	N	N	175.0

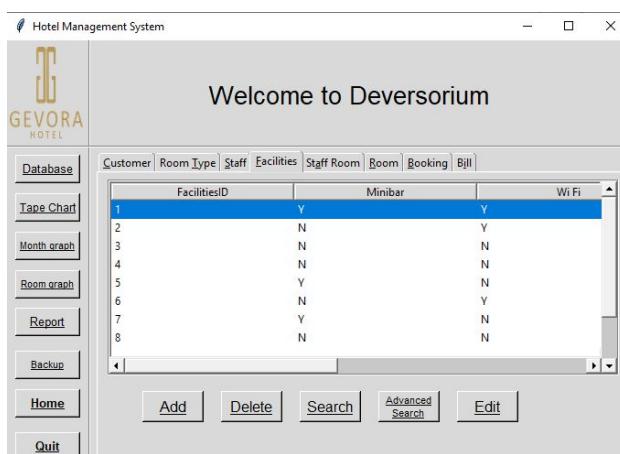
- Corrective Action - N/A
- Possible Refinements - N/A

## Updating a record in the Facilities table

- Objectives - 1.6.3
- Description of test - I will update a record in the facilities table.
- Test type - Integration test
- Test data to be used - The field 'Wi-Fi' in the record '1', 'Y', 'Y', 'Y', 'Y', 'Y' will be updated to 'N'
- Test data type - N/A
- Expected results - The record will be updated in the database.
- Actual Results -

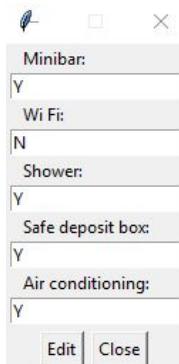


The record to be updated will be selected from the table.

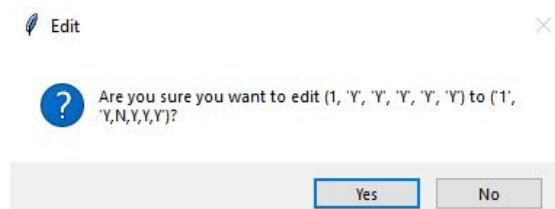


## Section 8 - Testing

The 'edit' button will be selected.



The 'edit' button in the 'pop-up' window will be selected.



The 'yes' button will be selected.

Table: Facilities

FacilitiesID	Minibar	Wi_Fi	Shower	Safe_deposit_box	Air_conditioning
1	Y	N	Y	Y	Y
2	N	Y	N	Y	N
3	N	N	N	N	N
4	N	N	N	N	N
5	Y	N	Y	N	Y
6	N	Y	Y	Y	N
7	Y	N	Y	Y	N
8	N	N	Y	Y	Y
9	Y	Y	Y	N	Y
10	N	Y	N	Y	Y
11	Y	N	N	N	N

- Corrective Action - N/A
- Possible Refinements - N/A

## Updating a record in the Staff table

- Objectives - 1.7.3
- Description of test - I will update a record in the staff table.
- Test type - Integration test
- Test data to be used - The the field salary in the record '11', '32000.0', 'Hugh ', 'Fritz', '[majowusab-6352@yopmail.com](mailto:majowusab-6352@yopmail.com)', 'TF5 0DB', '31/01/1976', '02890180118','accountant3', 'ખૂદજાણદાનાબાળ', 'Accountant' to '34000.0'.
- Test data type - N/A
- Expected results - The record will be updated in the database.
- Actual Results -

	StaffID	Salary	First name
4	32000.0	Jacob	
5	28000.0	John	
6	40000.0	Leia	
7	40000.0	Sedie	
8	32000.0	Bella	
9	23000.0	Ray	
10	28000.0	Jose	
11	32000.0	Hugh	

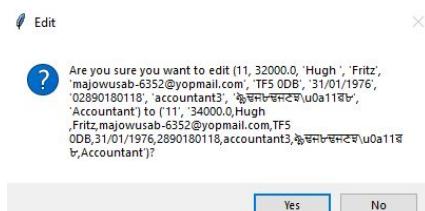
The record to be updated will be selected from the table.

	StaffID	Salary	First name
4	32000.0	Jacob	
5	28000.0	John	
6	40000.0	Leia	
7	40000.0	Sedie	
8	32000.0	Bella	
9	23000.0	Ray	
10	28000.0	Jose	
11	32000.0	Hugh	

The 'edit' button will be selected.

Salary:	34000.0	DOB:	31/01/1976
First name:	Hugh	Contact number:	02890180118
Ssn name:	Fritz	Username:	accountant3
Email:	majowusab-6352@yopmail.com	Password:	@Ccount@nt3
Postcode:	TF5 0DB	Job:	Accountant

The 'edit' button in the 'pop-up' window will be selected.



## Section 8 - Testing

The 'yes' button will be selected.

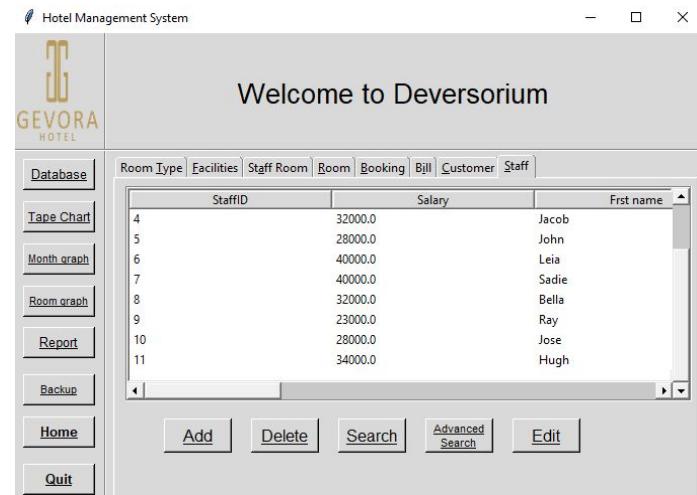


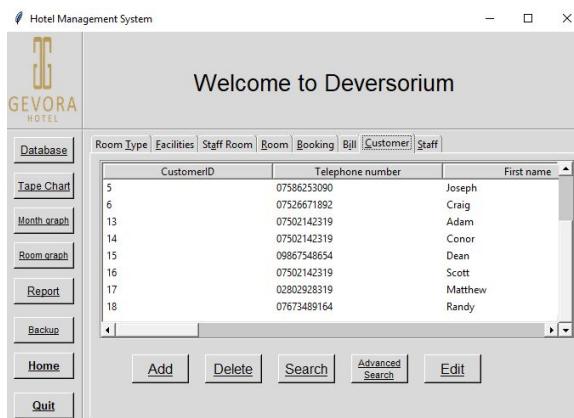
Table: Staff											New Record	Delete Record						
StaffID	Salary	Frst_name	Srn_name	Email	Postcode	DOB	contact_number	Username	Password	Job	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	40000.0	Jonathon	Tucker	pigmewmew...	SK13 8NL	09/04/1964	07458927467	manager1	মানেজেরী	Manager								
2	28000.0	Harry	Wood	getenoffyll...	GU20 6ED	30/01/1985	07097219346	reception...	প্রিফেসর...	Receptionist								
3	23000.0	Oscar	Carr	ejucizop-01...	BS24 0AX	03/10/1986	07845240000	cleaner1	শ্যার্টন-ওয়ার	Cleaner								
4	32000.0	Jacob	Sandoval	offumurre-...	TS22 5GY	02/04/1981	07837520000	accounta...	অভিব্যক্তি	Accountant								
5	28000.0	John	Smith	hs123@em...	IV16 9XE	20/01/1999	07847543456	reception...	প্রিফেসর...	Receptionist								
6	40000.0	Leia	Russell	cuterrydefe...	FK8 2DG	13/09/1973	07889250000	manager2	শ্যার্টন-ওয়ার	Manager								
7	40000.0	Sadie	Cohen	lipuxokyrr-0...	SW1E 6AW	19/12/1964	07847908131	manager3	শ্যার্টন-ওয়ার	Manager								
8	32000.0	Bella	Nicholls	wutacoxuna...	NE63 8RN	11/05/1997	07981634861	accounta...	শ্যার্টন-ওয়ার	Accountant								
9	23000.0	Ray	Morton	etessyrrre-0...	MK46 4DJ	18/02/1999	07986387621	cleaner2	শ্যার্টন-ওয়ার	Cleaner								
10	28000.0	Jose	Cohen	urrippexiva-...	IP28 7FG	14/08/1999	07762354289	reception...	প্রিফেসর...	Receptionist								
11	34000.0	Hugh	Fritz	majowusab...	TF5 0DB	31/01/1976	02890180118	accounta...	শ্যার্টন-ওয়ার	Accountant								

- Corrective Action - N/A
- Possible Refinements - N/A

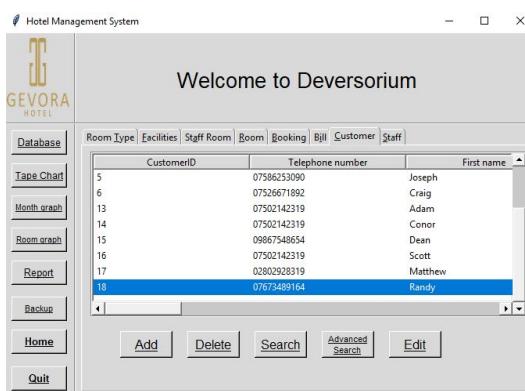
# Deleting Records

## Deleting a record in the Customer table

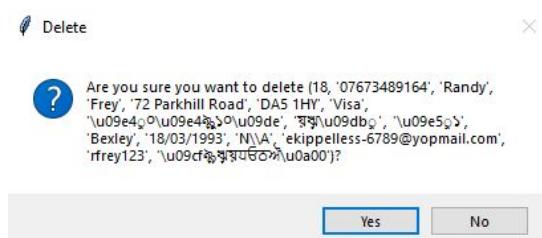
- Objectives - 1.1.4
  - Description of test - I will delete a record in the customer table.
  - Test type - Integration test
  - Test data to be used - '18', '07673489164', 'Randy', 'Frey', '72 Parkhill Road',  
'DA5 1HY', 'Visa', '1993-03-18', 'Bexley',  
'18/03/1993', 'N/A', '[ekippeless-6789@yopmail.com](mailto:ekippeless-6789@yopmail.com)', 'rfrey123',  
'ପ୍ରକାଶ ପଟ୍ଟନାୟକ'
  - Test data type - N/A
  - Expected results - The record will be removed from the database.
  - Actual Results -



The record is selected.



The ‘delete’ button is clicked.



## Section 8 - Testing

The 'yes' button is clicked.

The screenshot shows a Windows application window titled "Welcome to Deversorium". On the left is a vertical menu bar with options: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area contains two tables. The top table is titled "Customer" and has columns: CustomerID, Telephone number, and First name. It contains 17 rows of data. The bottom table has columns: CVC\_code, City, DOB, Allergies, Email, Username, and Password. It also contains 11 rows of data. At the bottom of the screen are several buttons: Add, Delete, Search, Advanced Search, and Edit.

CustomerID	Telephone number	First name
4	07823015831	Jonny
5	07586253090	Joseph
6	07526671892	Craig
13	07502142319	Adam
14	07502142319	Conor
15	09867548654	Dean
16	07502142319	Scott
17	02802928319	Matthew

CVC_code	City	DOB	Allergies	Email	Username	Password
Belfast	1/1/2001	Fish	luke496@gmail...	londoner123	luke496@gmail...	
Cardiff	22/04/1978	Nuts	adamlogan42...	jsmith123	adamlogan42...	
London	22/04/2002	N/A	email@email...	ilogan123	ilogan123	
London	22/11/2002	N/A	email@email...	jlan1234	jlan1234	
Jordanstown	14/11/2001	N/A	josephismore...	josephismore...	josephismore...	
Glasgow	22/04/1991	Nuts	adam200@...	chest123	adam200@...	
Belfast	23/01/2002	Fish	alogan185@...	ologan123	ologan123	
Newtownabbey	26/01/2001	N/A	ad@com	crugent123	crugent123	
Carrick	20/04/2002	N/A	dean@gmail...	dlogan123	dlogan123	
Carrickfergus	22/07/2002	N/A	smcdonald@e...	smcdonald123	smcdonald123	
Carrickfergus	27/01/2002	N/A	deanlogan42...	mmlullen123	mmlullen123	

- Corrective Action - N/A
- Possible Refinements - N/A

## Deleting a record in the Booking table

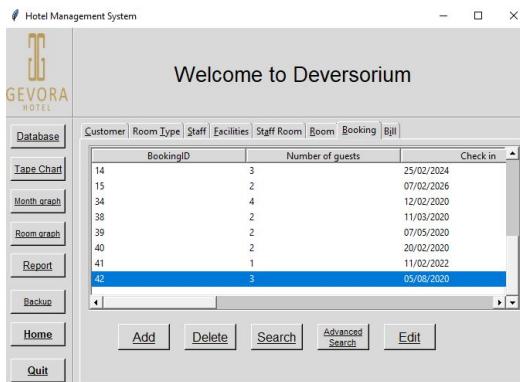
- Objectives - 1.2.4
- Description of test - I will delete a record in the booking table.
- Test type - Integration test
- Test data to be used - '42', '3', '05/08/2020', '14/08/2020', '10', 'Room Only', '678.0', '6/03/2020', 'N/A', '11'
- Test data type - N/A
- Expected results - The record will be removed from the database.
- Actual Results -

The screenshot shows a Windows application window titled "Welcome to Deversorium". On the left is a vertical menu bar with options: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area contains a table titled "Booking" with columns: BookingID, Number of guests, and Check in. It contains 8 rows of data. At the bottom of the screen are several buttons: Add, Delete, Search, Advanced Search, and Edit.

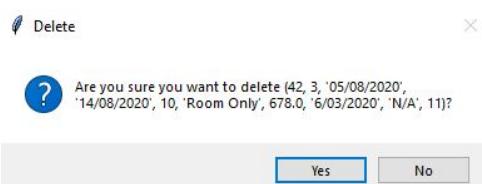
BookingID	Number of guests	Check in
14	3	25/02/2024
15	2	07/02/2026
34	4	12/02/2020
38	2	11/03/2020
39	2	07/05/2020
40	2	20/02/2020
41	1	11/02/2022
42	3	05/08/2020

## Section 8 - Testing

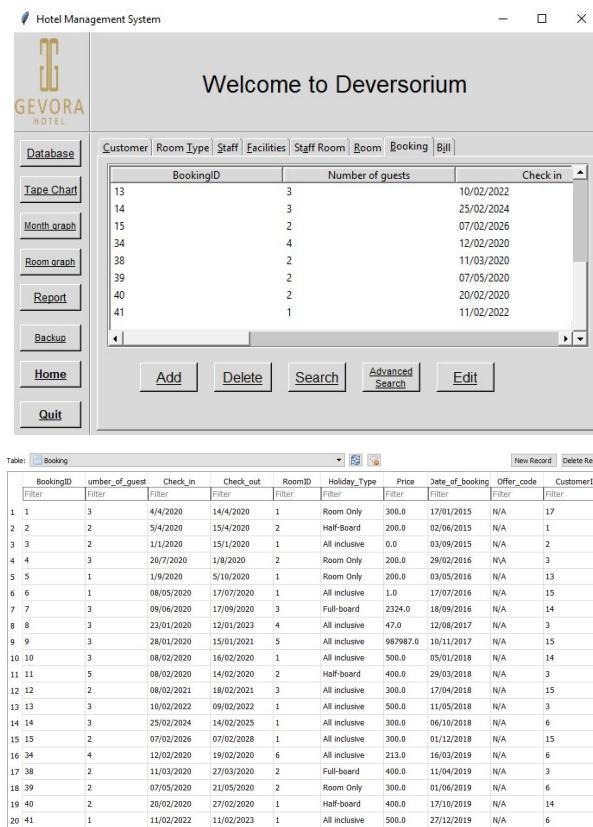
The record is selected.



The 'delete' button is clicked.



The 'yes' button is clicked.

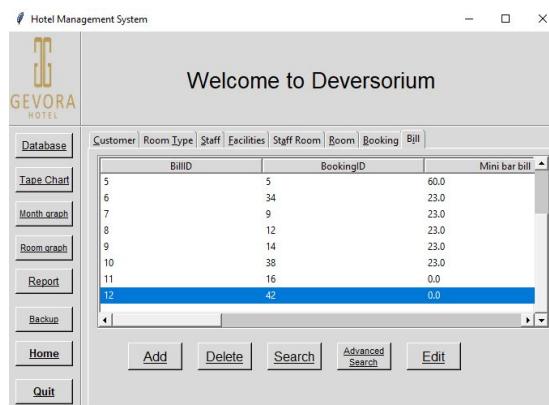


- Corrective Action - N/A
- Possible Refinements - N/A

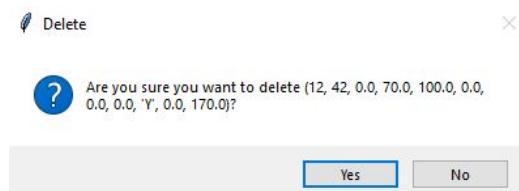
## Deleting a record in the Bill table

- Objectives - 1.3.4
- Description of test - I will delete a record in the bill table.
- Test type - Integration test
- Test data to be used - '12', '42', '0.0', '70.0', '100.0', '0.0', '0.0', '0.0', 'Y', '0.0', '170.0'
- Test data type - N/A
- Expected results - The record will be removed from the database.
- Actual Results -

The record is selected.



The 'delete' button is clicked.



## Section 8 - Testing

The 'yes' button is clicked.

Hotel Management System

Welcome to Deversorium

Customer | Room Type | Staff | Facilities | Staff Room | Room | Booking | Bill

	BillID	BookingID	Mini_bar_bill
4		4	6.0
5		5	60.0
6		34	23.0
7		9	23.0
8		12	23.0
9		14	23.0
10		38	23.0
11		16	0.0

Add | Delete | Search | Advanced Search | Edit | New Record | Delete Record

Table: Bill

BookingID	Mini_bar_bill	Main_bar_bill	estaurant_b	Telephone_bill	Spa_bill	Room_service	Deposit_paid	Gym_fee	Total_price
1 1	9.0	10.0	50.0	2.0	50.0	60.0	Y	20.0	200.0
2 2	10.0	23.0	32.33	2.0	20.0	34.0	Y	21.0	124.0
3 3	34.0	50.0	23.0	5.0	70.0	21.98	Y	0.0	1000.0
4 4	6.0	30.0	106.67	3.0	0.0	0.0	Y	0.0	790.0
5 5	60.0	187.0	200.0	50.0	32.0	234.6	Y	0.0	1000.0
6 34	23.0	50.0	45.0	0.0	0.0	345.0	Y	21.0	200.0
7 9	23.0	50.0	12.0	0.0	0.0	34.0	Y	21.0	790.0
8 12	23.0	67.0	106.67	0.0	0.0	56.0	Y	21.0	124.0
9 14	23.0	50.0	300.0	0.0	0.0	0.0	N	0.0	356.0
10 38	23.0	50.0	56.0	0.0	0.0	0.0	Y	0.0	124.0
11 16	0.0	57.0	110.0	0.0	0.0	0.0	Y	0.0	167.0

- Corrective Action - N/A
- Possible Refinements - N/A

## Deleting a record in the Room table

- Objectives - 1.4.4
- Description of test - I will delete a record in the room table.
- Test type - Integration test
- Test data to be used - '11', '11', '400.0', '11', '2', '11', '2', 'Garden view', 'Y', '11'
- Test data type - N/A
- Expected results - The record will be removed from the database.
- Actual Results -

Hotel Management System

Welcome to Deversorium

Customer | Room Type | Staff | Facilities | Staff Room | Room | Booking | Bill

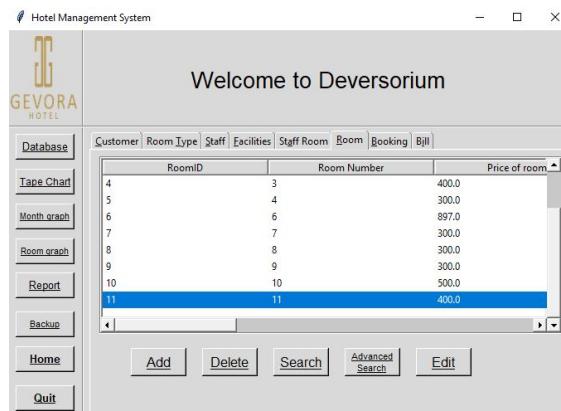
	RoomID	Room Number	Price of room
4	3		400.0
5	4		300.0
6	6		897.0
7	7		300.0
8	8		300.0
9	9		300.0
10	10		500.0
11	11		400.0

Add | Delete | Search | Advanced Search | Edit | New Record | Delete Record

## Section 8 - Testing

The record is selected.



The 'delete' button is clicked.



The 'yes' button is clicked.

RoomID	Room Number	Price of room
3	2	500.0
4	3	400.0
5	4	300.0
6	6	897.0
7	7	300.0
8	8	300.0
9	9	300.0
10	10	500.0

RoomID	Room_Number	Price_of_room	Room_TypeID	mber_of_be	FacilitiesID	Floor	View	Maintained	Staff_RoomID
1	5	350.0	1	2	1	3	Ocean view	Y	1
2	1	200.0	2	2	2	1	Ocean view	Y	2
3	2	500.0	3	3	3	2	Garden view	Y	3
4	3	400.0	4	5	4	1	Ocean view	Y	4
5	4	300.0	5	1	5	1	Garden view	N	5
6	6	897.0	6	3	6	1	City view	Y	6
7	7	300.0	7	2	7	3	City view	Y	7
8	8	300.0	8	2	8	3	City view	N	8
9	9	300.0	9	2	9	2	Garden view	N	9
10	10	500.0	10	3	10	2	Garden view	Y	10

- Corrective Action - N/A
- Possible Refinements - N/A

## Deleting a record in the Room\_Type table

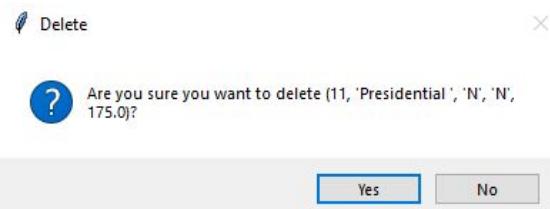
- Objectives - 1.5.4
- Description of test - I will delete a record in the room\_type table.
- Test type - Integration test
- Test data to be used - '11', 'Presidential ', 'N', 'N', '175.0'
- Test data type - N/A
- Expected results - The record will be removed from the database.
- Actual Results -

RoomTypeID	Type of suite	Balcony
4	Mini-Suite	Y
5	Presidential	N
6	Mini-Suite	N
7	Mini-Suite	N
8	Master Suite	N
9	Master Suite	Y
10	Presidential	Y
11	Presidential	N

The record is selected.

RoomTypeID	Type of suite	Balcony
4	Mini-Suite	Y
5	Presidential	N
6	Mini-Suite	N
7	Mini-Suite	N
8	Master Suite	N
9	Master Suite	Y
10	Presidential	Y
11	Presidential	N

The 'delete' button is clicked.



## Section 8 - Testing

The 'yes' button is clicked.

The screenshot shows a Windows application window titled "Welcome to Deversorium". The menu bar includes "Customer", "Room Type", "Staff", "Facilities", "Staff Room", "Room", "Booking", and "Bill". On the left, a vertical toolbar has buttons for "Database", "Tape Chart", "Month graph", "Room graph", "Report", "Backup", "Home", and "Quit". The main area displays a table titled "Room Type". The columns are "RoomTypeID", "Type of suite", and "Balcony". The data rows are:

RoomTypeID	Type of suite	Balcony
3	Master Suite	Y
4	Mini-Suite	Y
5	Presidential	N
6	Mini-Suite	N
7	Mini-Suite	N
8	Master Suite	N
9	Master Suite	Y
10	Presidential	Y

Below the table are buttons: "Add", "Delete", "Search", "Advanced Search", and "Edit". A second table titled "Room\_Type" is shown below, with columns "Room\_TypeID", "Type\_of\_suite", "Balcony", "Pets", and "Price". The data rows are:

Room_TypeID	Type_of_suite	Balcony	Pets	Price
1	Vice-President's	Y	N	200.0
2	Mini-Suite	Y	Y	100.0
3	Master Suite	Y	N	125.0
4	Mini-Suite	Y	N	90.0
5	Presidential	N	Y	200.0
6	Mini-Suite	N	Y	80.0
7	Mini-Suite	N	N	75.0
8	Master Suite	N	Y	130.0
9	Master Suite	Y	Y	150.0
10	Presidential	Y	Y	250.0

- Corrective Action - N/A
- Possible Refinements - N/A

## Deleting a record in the Facilities table

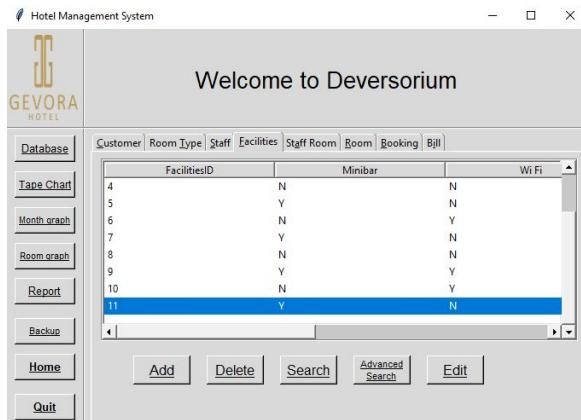
- Objectives - 1.6.4
- Description of test - I will delete a record in the facilities table.
- Test type - Integration test
- Test data to be used - '11', 'Y', 'N', 'N', 'N', 'N'
- Test data type - N/A
- Expected results - The record will be removed from the database.
- Actual Results -

The screenshot shows a Windows application window titled "Welcome to Deversorium". The menu bar includes "Customer", "Room Type", "Staff", "Facilities", "Staff Room", "Room", "Booking", and "Bill". On the left, a vertical toolbar has buttons for "Database", "Tape Chart", "Month graph", "Room graph", "Report", "Backup", "Home", and "Quit". The main area displays a table titled "Facilities". The columns are "FacilitiesID", "Minibar", and "Wi Fi". The data rows are:

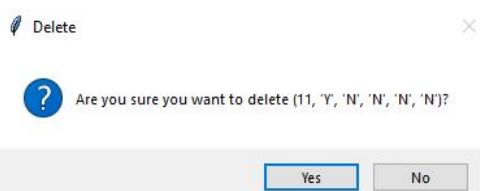
FacilitiesID	Minibar	Wi Fi
4	N	N
5	Y	N
6	N	Y
7	Y	N
8	N	N
9	Y	Y
10	N	Y
11	Y	N

## Section 8 - Testing

The record is selected.



The 'delete' button is clicked.



The 'yes' button is clicked.

FacilitiesID	Minibar	Wi Fi
3	N	N
4	N	N
5	Y	N
6	N	Y
7	Y	N
8	N	N
9	Y	Y
10	N	Y

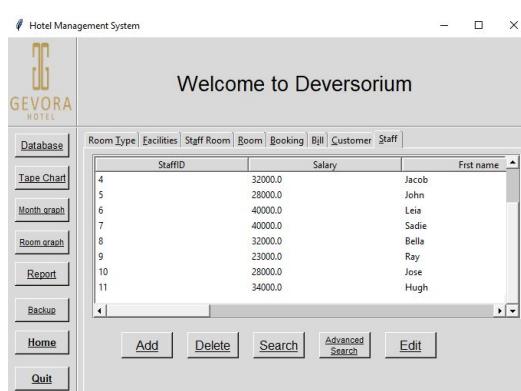
Table: Facilities

FacilitiesID	Minibar	Wi_Fi	Shower	safe_deposit_box	Air_conditioning
1	Y	N	Y	Y	Y
2	N	Y	N	Y	N
3	N	N	N	N	N
4	N	N	N	N	N
5	Y	N	Y	N	Y
6	N	Y	Y	Y	N
7	Y	N	Y	Y	N
8	N	N	Y	Y	Y
9	Y	Y	Y	N	Y
10	N	Y	N	Y	Y

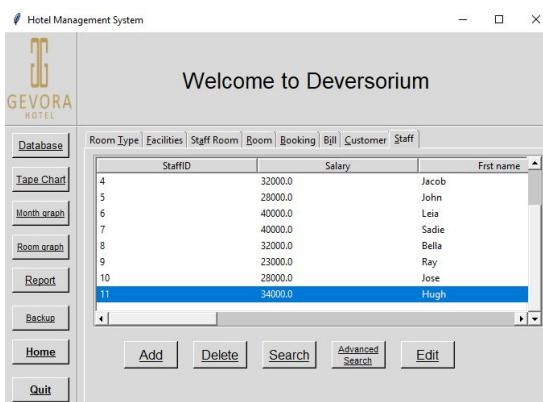
- Corrective Action - N/A
- Possible Refinements - N/A

## Deleting a record in the Staff table

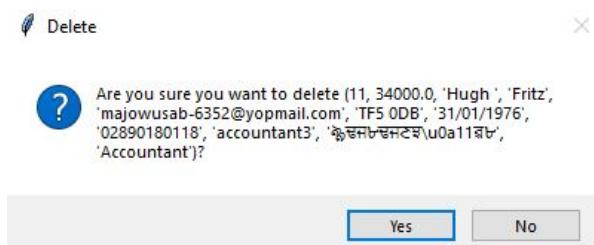
- Objectives - 1.7.4
- Description of test - I will delete a record in the staff table.
- Test type - Integration test
- Test data to be used - '11', '32000.0', 'Hugh ', 'Fritz',  
[majowusab-6352@yopmail.com](mailto:majowusab-6352@yopmail.com)', 'TF5 0DB', '31/01/1976',  
'02890180118', 'accountant3', 'ખૂદજાણદાનાબાળ', 'Accountant'
- Test data type - N/A
- Expected results - The record will be removed from the database.
- Actual Results -



The record is selected.



The 'delete' button is clicked.



## Section 8 - Testing

The 'yes' button is clicked.

The screenshot shows the Hotel Management System interface. On the left is a sidebar with buttons for Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main window title is "Welcome to Deversorium". Below the title is a navigation bar with tabs: Room Type, Facilities, Staff Room, Room, Booking, Bill, Customer, and Staff. The Staff tab is selected, showing a table with columns: StaffID, Salary, and Frst\_name. The table contains 10 rows of data. Below the table are buttons for Add, Delete, Search, Advanced Search, and Edit. At the bottom of the main window is a toolbar with icons for New Record and Delete Record.

StaffID	Salary	Frst_name
3	23000.0	Oscar
4	32000.0	Jacob
5	28000.0	John
6	40000.0	Leia
7	40000.0	Sadie
8	32000.0	Bella
9	23000.0	Ray
10	28000.0	Jose

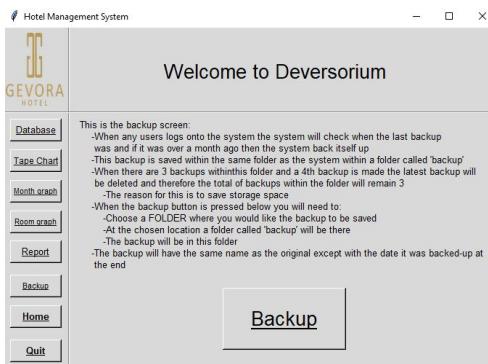
StaffID	Salary	Frst_name	Srn_name	Email	Postcode	DOB	contact_number	Username	Password	Job
1	40000.0	Jonathon	Tucker	pigemmew...	SK13 8NL	09/04/1964	07458927467	manager1	经理员... Manager	
2	28000.0	Harry	Wood	getennoffy... ll...	GU20 6ED	30/01/1985	07097219346	reception...	接待员... Receptionist	
3	23000.0	Oscar	Carr	ejucizop-01...	BS24 0AX	03/10/1986	07845240000	cleaner1	清洁工... Cleaner	
4	32000.0	Jacob	Sandoval	offumurre-...	TS22 5GY	02/04/1981	07837520000	accounta...	会计员... Accountant	
5	28000.0	John	Smith	hs123@em...	IV16 9XE	20/01/1999	07847543456	reception...	接待员... Receptionist	
6	40000.0	Leia	Russell	cutterrydefe...	FK8 2DG	13/09/1973	07889250000	manager2	经理员... Manager	
7	40000.0	Sadie	Cohen	lipuxokyr-0...	SW1E 6AW	19/12/1964	07847908131	manager3	经理员... Manager	
8	32000.0	Bella	Nicholls	wutacoxuna...	NE63 8RN	11/05/1997	07981634861	accounta...	会计员... Accountant	
9	23000.0	Ray	Morton	etessyrr-e...	MK46 4DJ	18/02/1999	07986387621	cleaner2	清洁工... Cleaner	
10	28000.0	Jose	Cohen	urrippexiva...	IP28 7FG	14/08/1999	07762354289	reception...	接待员... Receptionist	

- Corrective Action - N/A
- Possible Refinements - N/A

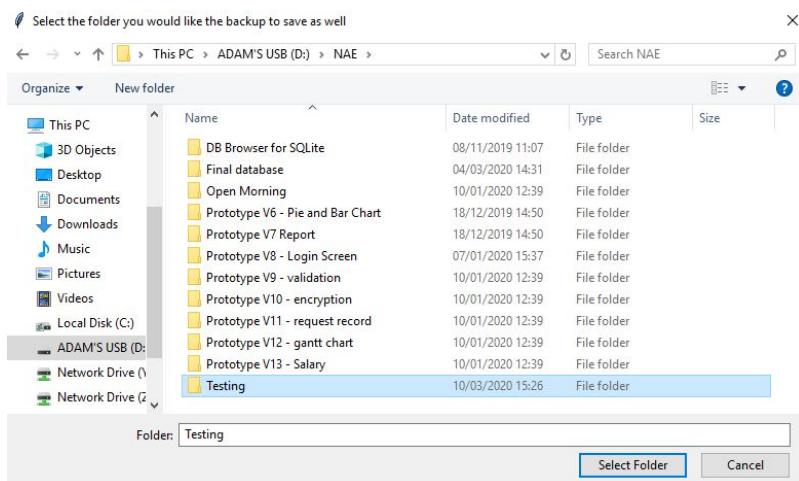
# Backups

## Backup (Manual backup)

- Objectives - 4.3.1
- Description of test - I will use the backup button in the manager's view.
- Test type - Integration test
- Test data to be used - Directory of backup = 'D:\NAE\Testing', The database = 'Hotel\_management.db'
- Test data type - N/A
- Expected results - The system should save the file called 'backup' which contains a copy of the database at the directory given. The copy of the database should have the date of the backup within the name.
- Actual Results -

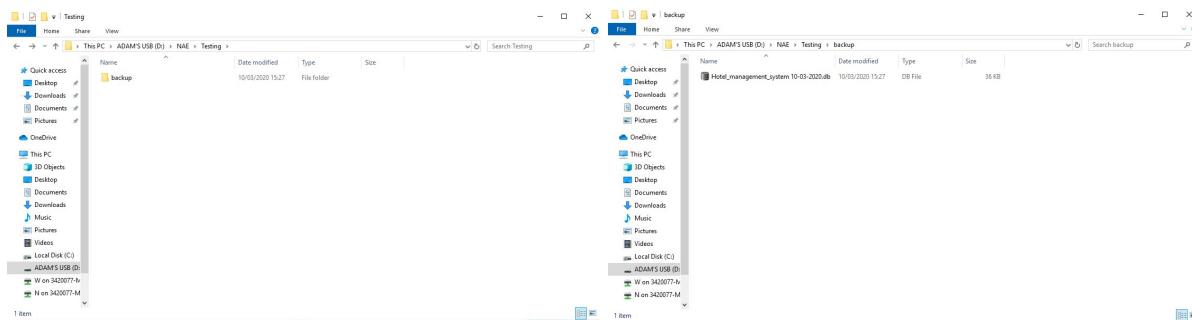


The 'backup' button is selected.



The button 'Select Folder' is then clicked. The screenshot to the left is what is inside the 'testing' (D:\NAE\Testing) folder while the screenshot to the right is within the 'backup' folder (D:\NAE\Testing\backup)

## Section 8 - Testing



- Corrective Action - N/A
- Possible Refinements - The screen where the 'backup' button is pressed could be improved as it does not look particularly 'nice'.

## Backup (Periodic Backup - 1)

- Objectives - 4.3.2. and 4.3.3
- Description of test - Check the 'backup' file only contains the 3 most recent backups.
- Test type - Integration test
- Test data to be used - The date the test has occurred (23/03/2020).
- Test data type - N/A
- Expected results - The system should only contain the 3 most recent files and have deleted any older backups.
- Actual Results -

Below is the code which I used to manually change the previous month

```
changing_month.py - E:/NAE/Prototype V13 - Salary/changing_month.py (3.8.1)
File Edit Format Run Options Window Help
import pickle
pickle.dump(2,open("backup.p", "wb" ))
```

Below is what is currently stored within the 'backup' file. (Note: As can be seen below the system has already been backed-up earlier this month but as I have manually changed the previous month this will not affect the test)

Name	Date modified	Type	Size
Hotel_Management_System 08-01-2020	08/01/2020 15:01	Data Base File	48 KB
Hotel_Management_System 05-02-2020	05/02/2020 13:22	Data Base File	44 KB
Hotel_Management_System 06-03-2020	06/03/2020 11:00	Data Base File	36 KB

The 'main\_script' has been ran

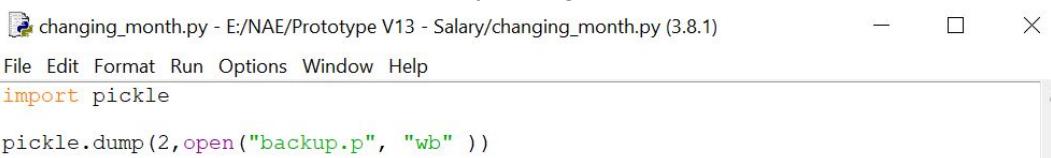
Name	Date modified	Type	Size
Hotel_Management_System 05-02-2020	05/02/2020 13:22	Data Base File	44 KB
Hotel_Management_System 06-03-2020	06/03/2020 11:00	Data Base File	36 KB
Hotel_Management_System 23-03-2020	23/03/2020 14:27	Data Base File	40 KB

- Corrective Action - N/A
- Possible Refinements - N/A

## Backup (Periodic Backup - 2)

- Objectives - 4.3.4
- Description of test - I log onto the system one month and log onto the system in the next month. Due to time restrictions I will not be able to do this and therefore I will manually change the pickle file to store the previous month
- Test type - Integration test
- Test data to be used - The date the test has occurred (23/03/2020).
- Test data type - N/A
- Expected results - The system should save the file called 'backup' which contains a copy of the database within the same directory of the script. The copy of the database should have the date of the backup within the name.
- Actual Results -

Below is the code which I used to manually change the previous month



```
changing_month.py - E:/NAE/Prototype V13 - Salary/changing_month.py (3.8.1)
File Edit Format Run Options Window Help
import pickle
pickle.dump(2,open("backup.p", "wb"))
```

Below is what is currently stored within the 'backup' file. (Note: As can be seen below the system has already been backed-up earlier this month but as I have manually changed the previous month this will not affect the test)

Name	Date modified	Type	Size
Hotel_Management_System 08-01-2020	08/01/2020 15:01	Data Base File	48 KB
Hotel_Management_System 05-02-2020	05/02/2020 13:22	Data Base File	44 KB
Hotel_Management_System 06-03-2020	06/03/2020 11:00	Data Base File	36 KB

The 'main\_script' has been ran

Name	Date modified	Type	Size
Hotel_Management_System 05-02-2020	05/02/2020 13:22	Data Base File	44 KB
Hotel_Management_System 06-03-2020	06/03/2020 11:00	Data Base File	36 KB
Hotel_Management_System 23-03-2020	23/03/2020 14:27	Data Base File	40 KB

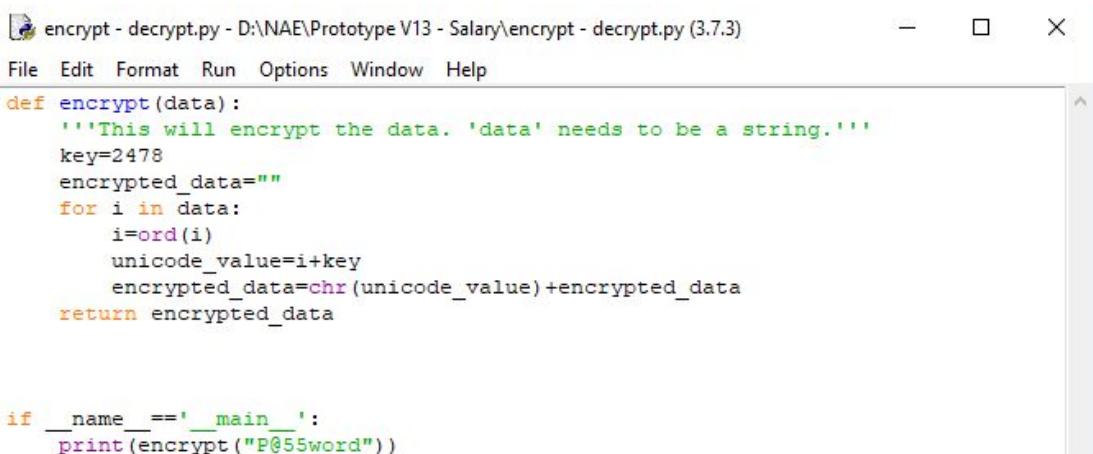
- Corrective Action - N/A
- Possible Refinements - N/A

# Encryption and Decryption

## Encryption

- Objectives - 4.4.1
- Description of test - I will run the 'encrypt' function with test data.
- Test type - Unit Test
- Test data to be used - P@55word
- Test data type - N/A
- Expected results - The data outputted by the system will be unrecognizable from the data inputted. The output should be '□�ശബ്ദം'
- Actual Results -

Below is the script in which I will run.



A screenshot of a Python code editor window titled 'encrypt - decrypt.py - D:\NAE\Prototype V13 - Salary\encrypt - decrypt.py (3.7.3)'. The code defines an 'encrypt' function that takes a string 'data' and adds a key of 2478 to each character's Unicode value. It then prints the encrypted string 'P@55word' when run directly.

```
encrypt - decrypt.py - D:\NAE\Prototype V13 - Salary\encrypt - decrypt.py (3.7.3)
File Edit Format Run Options Window Help
def encrypt(data):
    '''This will encrypt the data. 'data' needs to be a string.'''
    key=2478
    encrypted_data=""
    for i in data:
        i=ord(i)
        unicode_value=i+key
        encrypted_data=chr(unicode_value)+encrypted_data
    return encrypted_data

if __name__ == '__main__':
    print(encrypt("P@55word"))
```

The output is:

```
===== RESTART: D:\NAE\Prototype V13 - Salary\encrypt - decrypt.py =====
□�ശബ്ദം
>>> |
```

- Corrective Action - N/A
- Possible Refinements - N/A

## Decryption

- Objectives - 4.4.2
- Description of test - I will run the 'decrypt' function with test data.
- Test type - Unit Test
- Test data to be used - ພົມສະໝັກ
- Test data type - N/A
- Expected results - The data outputted to the system should be understood and meaningful to the user. The result should be encrypted back to the original test data. The output should be 'P@55word'
- Actual Results -

Below is the script I will be using

```
def decrypt(data):  
    '''This decrypts the data'''  
    key=2478  
    encrypted_data=""  
    for i in data:  
        i=ord(i)  
        unicode_value=i-key  
        encrypted_data= chr(unicode_value)+encrypted_data  
    return encrypted_data  
  
if __name__ == '__main__':  
    print(decrypt("ພົມສະໝັກ"))
```

The output is:

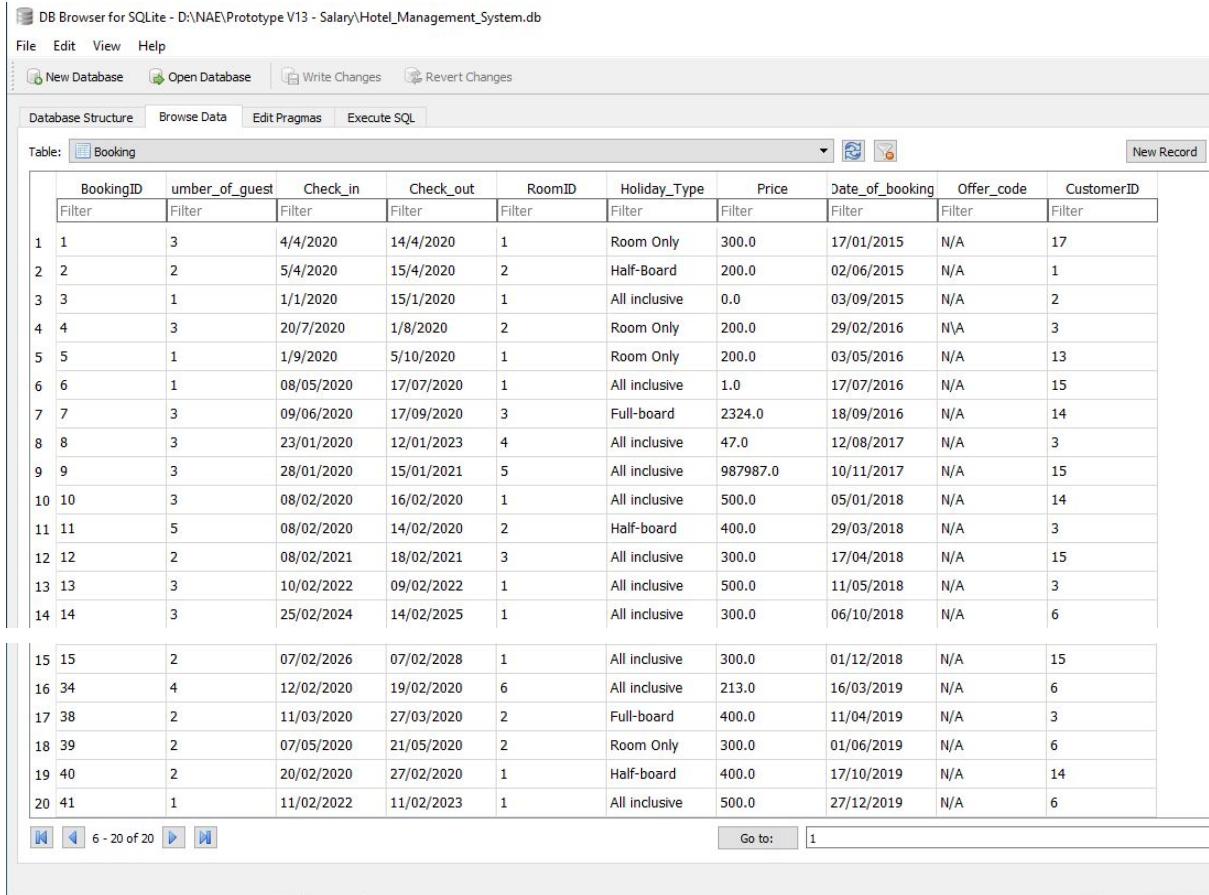
```
===== RESTART: D:\NAE\Prototype V13 - Salary\encrypt - decrypt.py ======  
P@55word  
>>>
```

- Corrective Action - N/A
- Possible Refinements - N/A

# Graphs and Hard copy Outputs

## Month graph

- Objectives - 1.2.2.2.3
- Description of test - I will click the 'month graph' button on my system.
- Test type - Integration test
- Test data to be used -



The screenshot shows the DB Browser for SQLite interface with the 'Booking' table selected. The table has 14 columns: BookingID, number\_of\_guest, Check\_in, Check\_out, RoomID, Holiday\_Type, Price, Date\_of\_booking, Offer\_code, CustomerID, and two filter columns for each row. The data consists of 20 rows of booking information, with rows 15 through 20 being partially visible at the bottom. Navigation buttons for the table are at the bottom left, and a 'Go to:' input field with value '1' is at the bottom right.

	BookingID	number_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offer_code	CustomerID	Filter							
1	1	3	4/4/2020	14/4/2020	1	Room Only	300.0	17/01/2015	N/A	17								
2	2	2	5/4/2020	15/4/2020	2	Half-Board	200.0	02/06/2015	N/A	1								
3	3	1	1/1/2020	15/1/2020	1	All inclusive	0.0	03/09/2015	N/A	2								
4	4	3	20/7/2020	1/8/2020	2	Room Only	200.0	29/02/2016	N/A	3								
5	5	1	1/9/2020	5/10/2020	1	Room Only	200.0	03/05/2016	N/A	13								
6	6	1	08/05/2020	17/07/2020	1	All inclusive	1.0	17/07/2016	N/A	15								
7	7	3	09/06/2020	17/09/2020	3	Full-board	2324.0	18/09/2016	N/A	14								
8	8	3	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A	3								
9	9	3	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A	15								
10	10	3	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A	14								
11	11	5	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A	3								
12	12	2	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A	15								
13	13	3	10/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A	3								
14	14	3	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A	6								
15	15	2	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A	15								
16	34	4	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A	6								
17	38	2	11/03/2020	27/03/2020	2	Full-board	400.0	11/04/2019	N/A	3								
18	39	2	07/05/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A	6								
19	40	2	20/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A	14								
20	41	1	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A	6								

- Test data type - N/A
- Expected results - A pie chart should display with the correct number of guests per month. (Jan - 3 (15%), Feb - 9 (45%), Mar - 1 (5%), Apr - 2 (10%), May - 2 (10%), Jun - 1 (5%), Jul - 1 (5%), Aug - 0, Sept-0, Oct - 0, Nov - 0, Dec - 0)

- Actual Results -

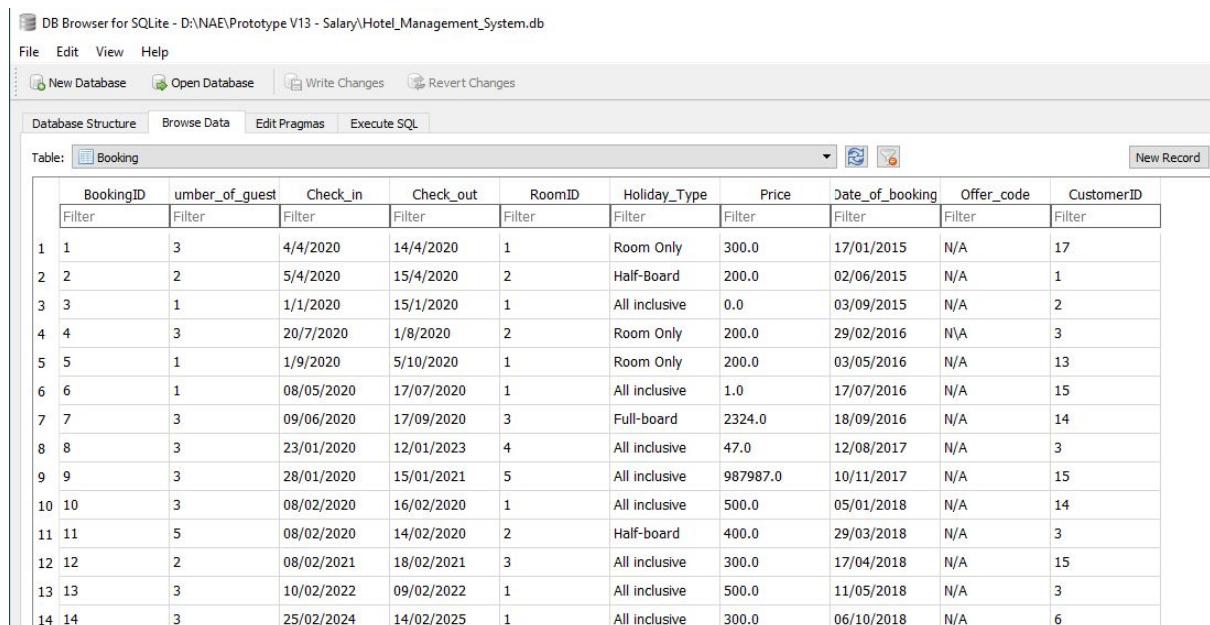
As shown within the image the system correctly displays the number of bookings (i.e. check ins) per month

## Section 8 - Testing

- Corrective Action - N/A
- Possible Refinements - Possible a list to the side showing the months that had 0 bookings. Another refinement could be that each month is assigned a different colour instead of the colours being assigned randomly.

## Room graph

- Objectives - 1.2.2.2.4 and 1.4.2.1.1
- Description of test - I will click the 'room graph' button on my system.
- Test type - Integration test
- Test data to be used -



The screenshot shows the DB Browser for SQLite interface with the 'Booking' table selected. The table has 14 columns: BookingID, number\_of\_guest, Check\_in, Check\_out, RoomID, Holiday\_Type, Price, Date\_of\_booking, Offer\_code, CustomerID, and three filter columns for each of the first five columns. The data consists of 14 rows, each with a unique ID from 1 to 14 and corresponding values for the other fields.

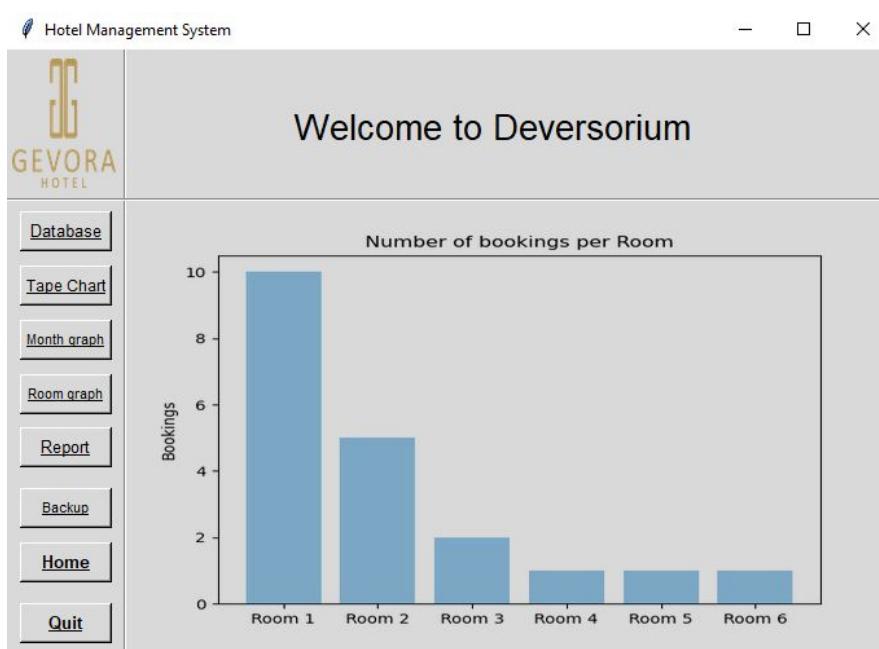
	BookingID	umber_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offer_code	CustomerID
1	1	3	4/4/2020	14/4/2020	1	Room Only	300.0	17/01/2015	N/A	17
2	2	2	5/4/2020	15/4/2020	2	Half-Board	200.0	02/06/2015	N/A	1
3	3	1	1/1/2020	15/1/2020	1	All inclusive	0.0	03/09/2015	N/A	2
4	4	3	20/7/2020	1/8/2020	2	Room Only	200.0	29/02/2016	N/A	3
5	5	1	1/9/2020	5/10/2020	1	Room Only	200.0	03/05/2016	N/A	13
6	6	1	08/05/2020	17/07/2020	1	All inclusive	1.0	17/07/2016	N/A	15
7	7	3	09/06/2020	17/09/2020	3	Full-board	2324.0	18/09/2016	N/A	14
8	8	3	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A	3
9	9	3	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A	15
10	10	3	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A	14
11	11	5	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A	3
12	12	2	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A	15
13	13	3	10/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A	3
14	14	3	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A	6

## Section 8 - Testing

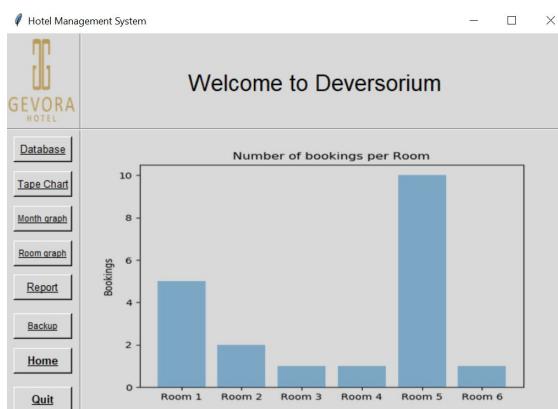
15	15	2	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A	15
16	34	4	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A	6
17	38	2	11/03/2020	27/03/2020	2	Full-board	400.0	11/04/2019	N/A	3
18	39	2	07/05/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A	6
19	40	2	20/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A	14
20	41	1	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A	6

[Navigation icons: back, forward, search, etc.]      Go to: 1

- Test data type - N/A
- Expected results - A bar chart should display the correct number of guests per room.  
(Room 1 - 5 , Room 2 - 2, Room 3 - 1, Room 4 - 1, Room 5 - 10,  
Room 6 - 1)
- Actual Results -



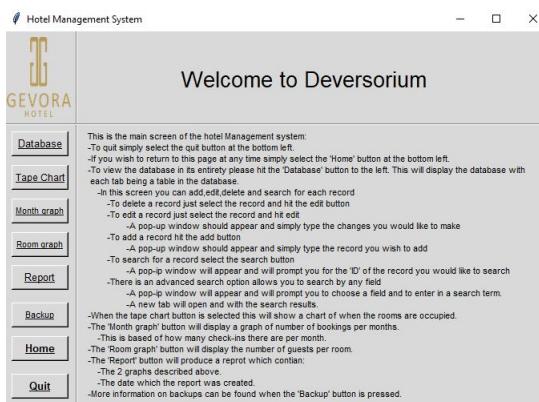
- Corrective Action - The data is not corresponding to the correct room number. This problem occurred due as I was sorting the 'xaxis' list which put the graph 'out of sync'. The solution to this problem was to sort the 'counter' instead and therefore the room numbers are still in ascending order across the xaxis and the data is correct. This can been seen below:



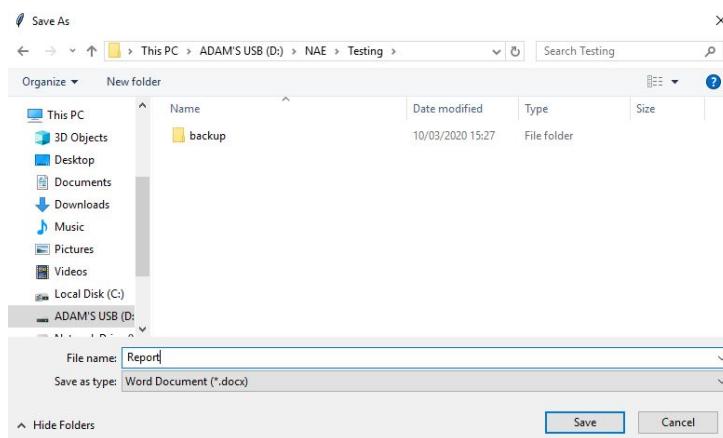
- Possible Refinements - N/A

## Report

- Objectives - 1.2.2.2.3., 1.2.2.2.4. and 1.4.2.1.1.
- Description of test - I will click the 'create report' button and save the report. I will open the report to check if the graphs and date are correct.
- Test type - Integration test
- Test data to be used - The same data used in the month graph and roomgraph tests are used here as well. The date of this test is '10/03/2020'. The directory is "D:\NAE\Testing\Report.docx"
- Test data type - N/A
- Expected results - The correct data will be displayed on the graphs. The graphs should appear identical to those within the month and room graphs. The report should contain the date of the test.
- Actual Results -

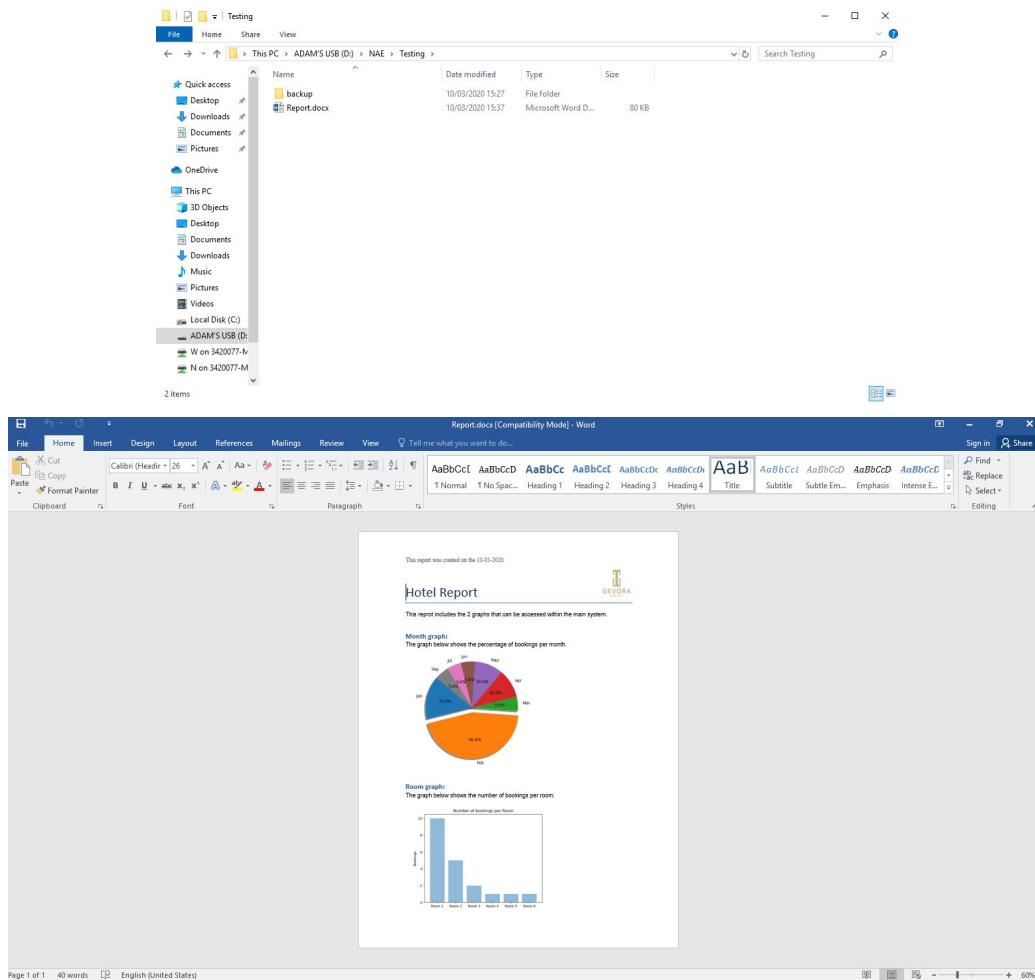


### 'Report' button is clicked



## Section 8 - Testing

### 'Save' button is selected



- Corrective Action - [See 'Room Graph' corrective action](#)
- Possible Refinements - N/A

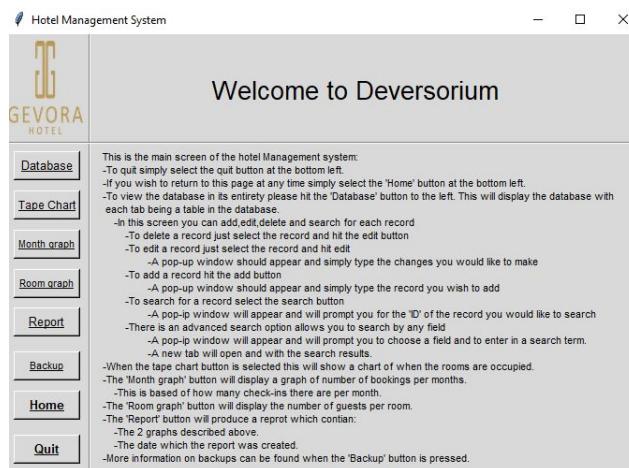
### Tape chart

- Objectives - 1.2.2.2.2. and 1.2.2.3.2.
- Description of test - I will click the 'tape chart' button and enter in the test data below.
- Test type - Integration test
- Test data to be used - The month that I have chosen is February and the year is 2020. Data that is being displayed (check\_in, check\_out, room\_number): '08/02/2020' '16/02/2020', '5' and '08/02/2020', '14/02/2020', '1' and '12/02/2020', '19/02/2020', '6' and '20/02/2020', '27/02/2020', '5' and '23/01/2020', '12/01/2023', '3' and '28/01/2020', '15/01/2021', '4'. The database is shown below:

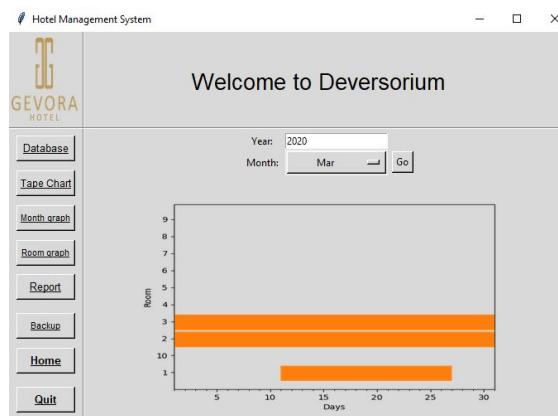
## Section 8 - Testing

Table: Booking									New Record	Delete Record
BookingID	umber_of_guest	Check_in	Check_out	RoomID	Holiday_Type	Price	Date_of_booking	Offe		
1	3	4/4/2020	14/4/2020	1	Room Only	300.0	17/01/2015	N/A		
2	2	5/4/2020	15/4/2020	2	Half Board	200.0	02/06/2015	N/A		
3	2	1/1/2020	15/3/2020	1	All inclusive	0.0	03/09/2015	N/A		
4	4	28/7/2020	1/8/2020	2	Room Only	200.0	29/02/2016	N/A		
5	5	1/9/2020	5/10/2020	1	Room Only	200.0	03/05/2016	N/A		
6	6	08/05/2020	17/07/2020	1	All inclusive	1.0	17/07/2016	N/A		
7	7	09/06/2020	17/09/2020	3	Ful-board	2324.0	18/09/2016	N/A		
8	8	23/01/2020	12/01/2023	4	All inclusive	47.0	12/08/2017	N/A		
9	9	28/01/2020	15/01/2021	5	All inclusive	987987.0	10/11/2017	N/A		
10	10	08/02/2020	16/02/2020	1	All inclusive	500.0	05/01/2018	N/A		
11	11	08/02/2020	14/02/2020	2	Half-board	400.0	29/03/2018	N/A		
12	12	08/02/2021	18/02/2021	3	All inclusive	300.0	17/04/2018	N/A		
13	13	19/02/2022	09/02/2022	1	All inclusive	500.0	11/05/2018	N/A		
14	14	25/02/2024	14/02/2025	1	All inclusive	300.0	06/10/2018	N/A		
15	15	07/02/2026	07/02/2028	1	All inclusive	300.0	01/12/2018	N/A		
16	16	12/02/2020	19/02/2020	6	All inclusive	213.0	16/03/2019	N/A		
17	17	11/03/2020	27/03/2020	2	Ful-board	400.0	11/04/2019	N/A		
18	18	07/03/2020	21/05/2020	2	Room Only	300.0	01/06/2019	N/A		
19	19	20/02/2020	27/02/2020	1	Half-board	400.0	17/10/2019	N/A		
20	20	11/02/2022	11/02/2023	1	All inclusive	500.0	27/12/2019	N/A		
	<								>	

- Test data type - N/A
- Expected results - The report will save in the correct place and all data including graphs and the date created should be correct.
- Actual Results -

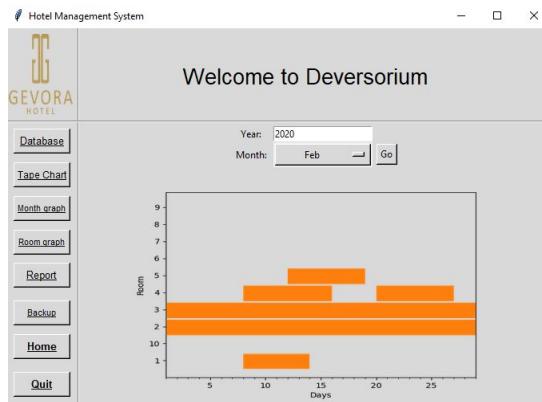


The 'Tape chart' button is clicked

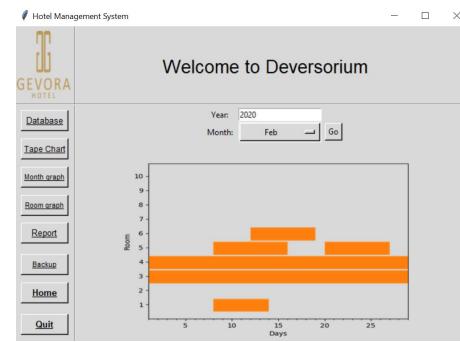


The drop-down menu is clicked and 'Feb' is selected. Then the 'Go' button is clicked

## Section 8 - Testing



- Corrective Action - The y-axis within the graph is incorrect. The problem seems to be 'room 10' being displayed as the second room on the axis. This seems to be the same issue within the bar chart. This issue was fixed by sorting the 'yticklabels' array before converting each element into a string. Below is a screenshot of the fixed result:

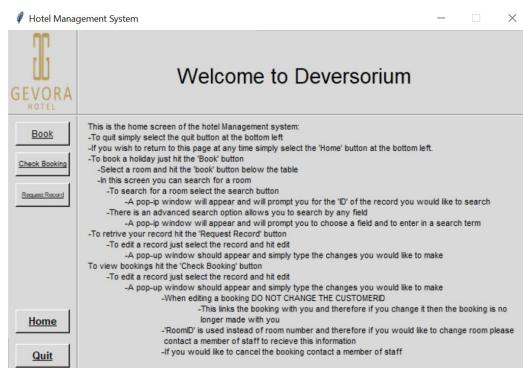


- Possible Refinements - The chart could be larger and the instructions on selecting the date to display the chart could be clearer.

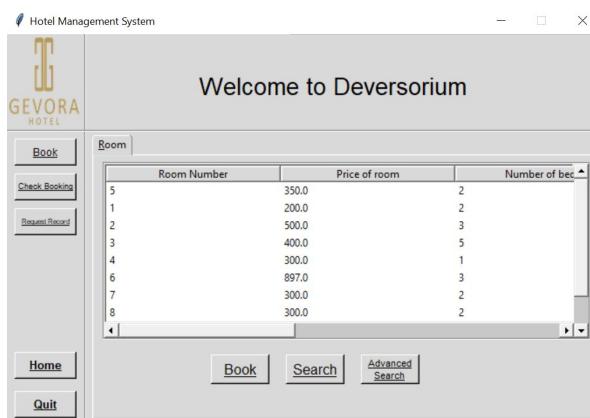
## Confirmation booking email

- Objectives - 1.1.2.1.2. and 1.2.2.1.1.
- Description of test - I will book a holiday within the customer screen and check the email of the user which I booked the holiday with
- Test type - Integration test
- Test data to be used - email = '[alogan185@c2ken.net](mailto:alogan185@c2ken.net)', booking details =
 

(Number of guests = 3, Check in date = 30/03/2020, Check out date = 13/04/2020, Room Number = 10, Holiday Type = Half-board, Price = 42.0, Offer Code = N/A, Date of booking = 23/03/2020)
- Test data type - N/A
- Expected results - The system should send the email to the user with the correct data
- Actual Results -

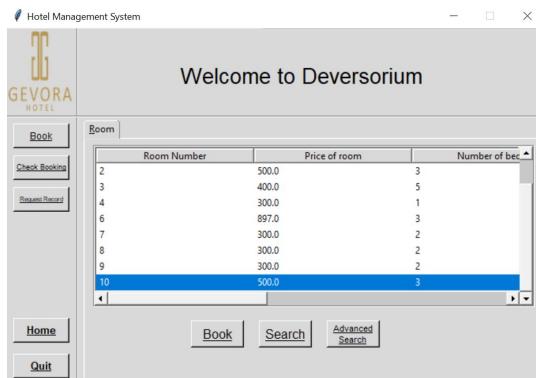


The 'book' button is selected.

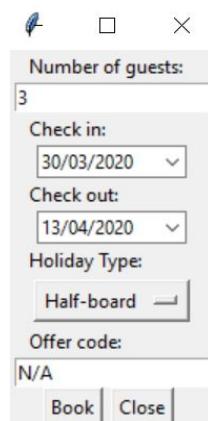


## Section 8 - Testing

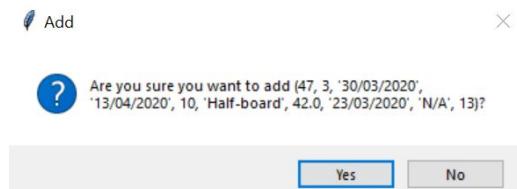
A room from the table is selected



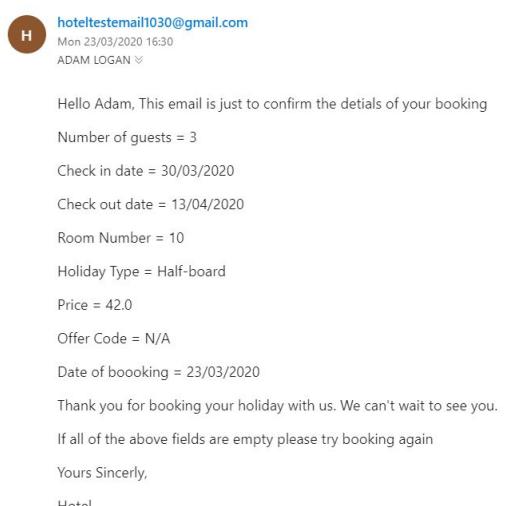
The 'book' button is pressed



The 'book' button within the pop-up window is pressed



The 'yes' button is selected



- Corrective Action - N/A
- Possible Refinements - N/A

## Reminder email

- Objectives - N/A
- Description of test - I will book a holiday a week in advance of the date in which the test takes place. I will then exit the system and run the system again and check the email of the user who booked the holiday
- Test type - Integration test
- Test data to be used - Current date = '23/03/2020', booking record = '45', '3', '30/03/2020', '13/04/2020', '10', 'Half-Board', '588.0', '23/03/2020', 'N/A', '13'
- Test data type - N/A
- Expected results - The system should send the email to the user with the correct data
- Actual Results -

 hoteltestemail1030@gmail.com  
to me ▾

Hello, This is a reminder that you have a booking with us next week. The details are as follows:

Number of guests = 3

Check in date = 30/03/2020

Check out date = 13/04/2020

Room Number = 10

Holiday Type = Half-board

Price = 588.0

\*\*\*

Date of booking = 23/03/2020

Offer code = N/A

Thank you for booking your holiday with us. We can't wait to see you.

If all of the above fields are empty please try booking again

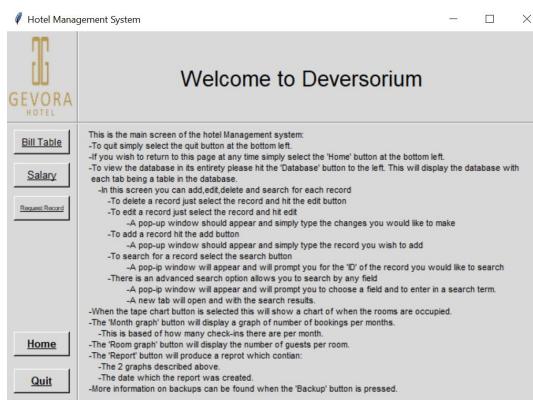
Yours Sincerely,

Hotel

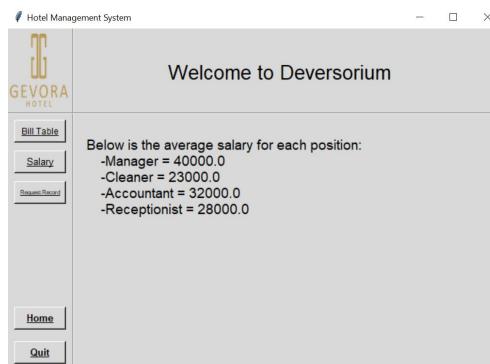
- Corrective Action - N/A
- Possible Refinements - I am unsure why some of the text is displayed in purple and some in black as I have not specified a colour and I also am unsure why the '...' appears in the middle of the email. These issues could be fixed if more time was given. Another issue was that when the system is run and it is sending emails it will not open the screen and therefore the user has to wait. This issue could have been fixed using threading but due to time restrictions I cannot implement this.

## Average Salary

- Objectives - 4.2.3.2.
- Description of test - I will click the 'salary' button.
- Test type - Integration test
- Test data to be used - Manager salary = (40000.0, 40000.0, 40000.0),  
 Cleaner salary = (23000.0, 23000.0),  
 Accountant salary = (32000.0, 32000.0),  
 Receptionist salary = (28000.0, 28000.0, 28000.0)
- Test data type - N/A
- Expected results - The correct averages are displayed. Manager salary = 40000.0,  
 Cleaner salary = 23000.0, Accountant salary = 32000.0,  
 Receptionist salary = 28000.0
- Actual Results -



The 'Salary' button is selected



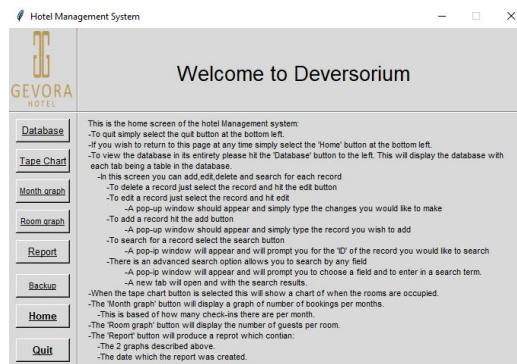
- Corrective Action - N/A
- Possible Refinements - The text could better fit the screen.

# User Views

## Management Screen

- Objectives - 4.2.2
- Description of test - To view the management screen.
- Test type - Integration test
- Test data to be used - N/A
- Test data type - N/A
- Expected results - To have the 'search', 'advanced search', 'edit', 'add' and 'delete' buttons on all tabs of the tables.
- Actual Results -

### Home screen



### Booking Table

Booking		
BookingID	Number of guests	Check in
1	3	4/4/2020
2	2	5/4/2020
3	2	1/1/2020
4	3	20/7/2020
5	1	1/9/2020
6	1	08/05/2020
7	3	09/06/2020
8	3	23/01/2020

### Room Table

Room			
RoomID	Room Number	Price of room	
1	5	350.0	
2	1	200.0	
3	2	500.0	
4	3	400.0	
5	4	300.0	
6	6	897.0	
7	7	300.0	
8	8	300.0	

## Section 8 - Testing

### Customer Table

The screenshot shows a window titled "Welcome to Deversorium" with a "Customer" tab selected in the top navigation bar. The main area displays a table with columns: CustomerID, Telephone number, and First name. The data is as follows:

CustomerID	Telephone number	First name
1	071982712345	Luke
2	78736458312	John
3	78731213123	Logan
4	78230158312	Jonny
5	7586253090	Joseph
6	7526671892	Craig
13	75021423199	Adam
14	7502142319	Conor

Below the table are buttons for Add, Delete, Search, Advanced Search, and Edit.

### Bill Table

The screenshot shows a window titled "Welcome to Deversorium" with a "Bill" tab selected in the top navigation bar. The main area displays a table with columns: BillID, BookingID, and Mini bar bill. The data is as follows:

BillID	BookingID	Mini bar bill
1	1	9.0
2	2	10.0
3	3	34.0
4	4	6.0
5	5	60.0
6	34	23.0
7	9	23.0
8	12	23.0

Below the table are buttons for Add, Delete, Search, Advanced Search, and Edit.

### Room Type Table

The screenshot shows a window titled "Welcome to Deversorium" with a "Room Type" tab selected in the top navigation bar. The main area displays a table with columns: RoomTypeID, Type of suite, and Balcony. The data is as follows:

RoomTypeID	Type of suite	Balcony
1	Vice-President's	Y
2	Mini-Suite	Y
3	Master Suite	Y
4	Mini-Suite	Y
5	Presidential	N
6	Mini-Suite	N
7	Mini-Suite	N
8	Master Suite	N

Below the table are buttons for Add, Delete, Search, Advanced Search, and Edit.

## Section 8 - Testing

### Staff Room Table

The screenshot shows a window titled "Welcome to Deversorium". On the left is a vertical menu bar with options: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area contains a table with the following data:

Staff RoomID	StaffID	RoomID
1	1	1
2	2	1
3	3	2
4	4	3
5	5	4
6	6	5
7	7	6
8	8	7

Below the table are buttons: Add, Delete, Search, Advanced Search, and Edit.

### Staff Table

The screenshot shows a window titled "Welcome to Deversorium". On the left is a vertical menu bar with options: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area contains a table with the following data:

StaffID	Salary	First name
1	40000.0	Jonathon
2	28000.0	Harry
3	23000.0	Ostar
4	32000.0	Jacob
5	28000.0	John
6	40000.0	Leia
7	40000.0	Sadie
8	32000.0	Bella

Below the table are buttons: Add, Delete, Search, Advanced Search, and Edit.

### Facilities Table

The screenshot shows a window titled "Welcome to Deversorium". On the left is a vertical menu bar with options: Database, Tape Chart, Month graph, Room graph, Report, Backup, Home, and Quit. The main area contains a table with the following data:

FacilitiesID	Minibar	Wi Fi
1	Y	N
2	N	Y
3	N	N
4	N	N
5	Y	N
6	N	Y
7	Y	N
8	N	N

Below the table are buttons: Add, Delete, Search, Advanced Search, and Edit.

- Corrective Action - N/A
- Possible Refinements - N/A

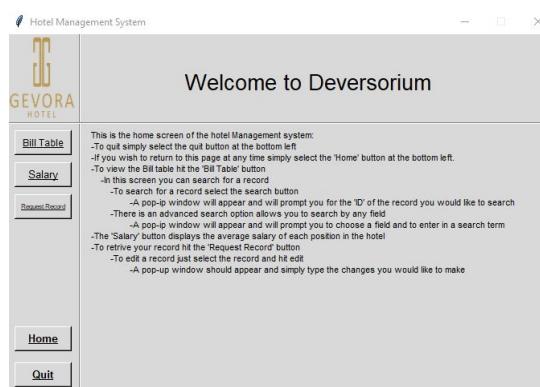
## Customer Screen

- Objectives - 4.2.2
- Description of test - To view the customer screen.
- Test type - Integration test
- Test data to be used - N/A
- Test data type - N/A
- Expected results - To have the 'search', 'advanced search', 'edit', 'add' and 'delete' buttons on the booking table and to only have the 'edit' button and only view their record.
- Actual Results -
- Corrective Action -
- Possible Refinements -

## Accountancy Screen

- Objectives - 4.2.3
- Description of test - To view the accountancy screen.
- Test type - Integration test
- Test data to be used - N/A
- Test data type - N/A
- Expected results - To have the 'edit' button on the 'staff' table with only their record being displayed. They will be able to view the average salary of each position.
- Actual Results -

## Home Screen



## Section 8 - Testing

### Bill Table

BillID	BookingID	Mini bar bill
1	1	9.0
2	2	10.0
3	3	34.0
4	4	6.0
5	5	60.0
6	34	23.0
7	9	23.0
8	12	23.0

Staff Table containing only the user's record

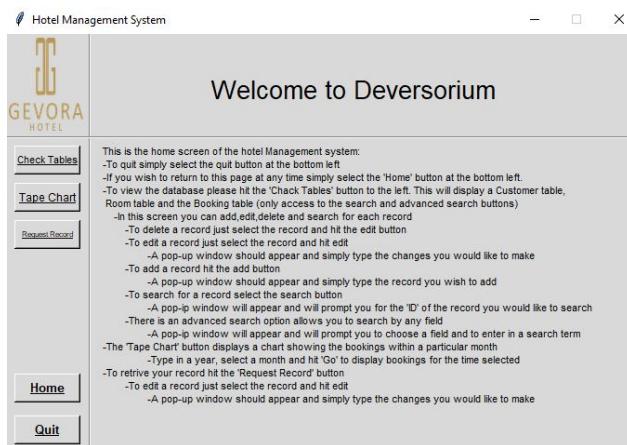
StaffID	Salary	First name
4	32000.0	Jacob

- Corrective Action - N/A
- Possible Refinements - N/A

## Receptionist Screen

- Objectives - 4.2.4. and 4.2.5.
- Description of test - To view the receptionist screen.
- Test type - Integration test
- Test data to be used - N/A
- Test data type - N/A
- Expected results - To have the 'search', 'advanced search', 'edit', 'add' and 'delete' buttons on all tabs of the customer and booking tables. They will also have the 'search' and 'advanced search' buttons on the room table tab. They will also have the 'edit' button on the 'staff' table with only their record being displayed.
- Actual Results -

### Home Screen



### Customer Table

CustomerID	Telephone number	First name
1	071982712345	Luke
2	78736458312	John
3	78731213123	Logan
4	78230158312	Jonny
5	7586253090	Joseph
6	7526671892	Craig
13	75021423199	Adam
14	7502142319	Conor

## Section 8 - Testing

### Booking Table

The screenshot shows a Windows application window titled "Hotel Management System". The main title bar says "Welcome to Deversorium". On the left, there's a vertical menu with buttons for "Check Tables", "Tape Chart", and "Request Record". The central area has three tabs: "Room", "Customer", and "Booking". The "Booking" tab is selected, displaying a table with columns: "BookingID", "Number of guests", and "Check in". The data in the table is as follows:

BookingID	Number of guests	Check in
1	3	4/4/2020
2	2	5/4/2020
3	2	1/1/2020
4	3	20/7/2020
5	1	1/9/2020
6	1	08/05/2020
7	3	09/06/2020
8	3	23/01/2020

Below the table are buttons for "Add", "Delete", "Search", "Advanced Search", and "Edit". At the bottom left are "Home" and "Quit" buttons.

### Room Table

The screenshot shows the same Windows application window. The "Room" tab is selected, displaying a table with columns: "RoomID", "Room Number", and "Price of room". The data in the table is as follows:

RoomID	Room Number	Price of room
1	5	350.0
2	1	200.0
3	2	500.0
4	3	400.0
5	4	300.0
6	6	897.0
7	7	300.0
8	8	300.0

Below the table are "Search" and "Advanced Search" buttons. At the bottom left are "Home" and "Quit" buttons.

### Staff Table containing only the user's record

The screenshot shows the same Windows application window. The "Staff" tab is selected, displaying a table with columns: "StaffID", "Salary", and "First name". The data in the table is as follows:

StaffID	Salary	First name
2	28000.0	Harry

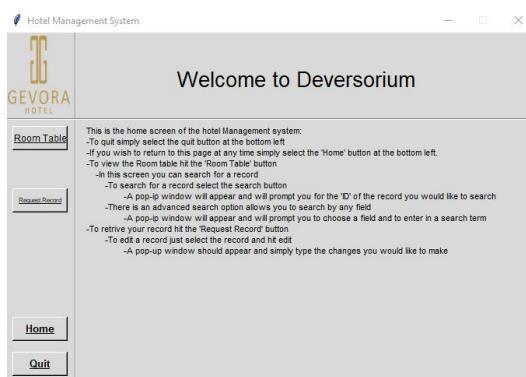
Below the table is an "Edit" button. At the bottom left are "Home" and "Quit" buttons.

- Corrective Action - N/A
- Possible Refinements - N/A

## Cleaner Screen

- Objectives - 4.2.6
- Description of test - To view the cleaner screen.
- Test type - Integration test
- Test data to be used - N/A
- Test data type - N/A
- Expected results - To have the 'search' and 'advanced search' buttons on all tabs of the room table. And to have the 'edit' button on the 'staff' table with only their record being displayed.
- Actual Results -

### Home Screen



### Room Table

Room			
RoomID	Room Number	Price of room	
1	5	350.0	
2	1	200.0	
3	2	500.0	
4	3	400.0	
5	4	300.0	
6	6	897.0	
7	7	300.0	
8	8	300.0	

### Staff Table containing only the user's record

Staff		
StaffID	Salary	Frist name
3	23000.0	Oscar

- Corrective Action - N/A
- Possible Refinements - N/A

# Logging In

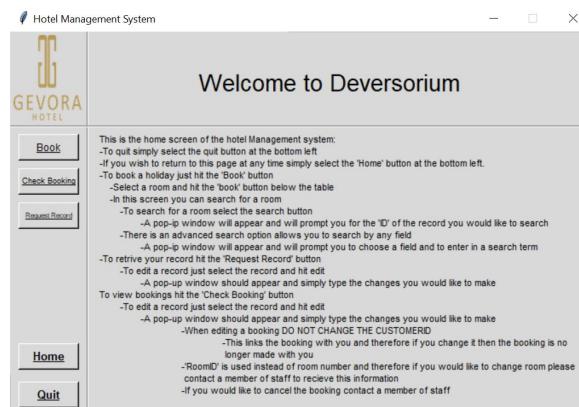
## Authentication

### Authentication (Accepting valid data - 1)

- Objectives - 4.1.
- Description of test - I log onto the system.
- Test type - Integration test
- Test data to be used - Position = 'customer', Username = 'alogan123', Password = '@Log@n123'
- Test data type - Typical
- Expected results - The system should show the correct user view and the correct user when the 'request record' button is clicked.
- Actual Results -



The 'LogIn' button is selected.



## Section 8 - Testing

The 'Request Record' button is selected.

- Corrective Action - N/A
- Possible Refinements - N/A

### Authentication (Declining invalid data - 1)

- Objectives - 4.1.
- Description of test - I log onto the system. The position will be set to manager instead of customer but the correct username and password for a customer will be given.
- Test type - Integration test
- Test data to be used - Position = 'Manager', username = alogan123, password = @Log@n123
- Test data type - Extreme
- Expected results - The system should display a message box informing the user that the username or password is incorrect.
- Actual Results -

## Section 8 - Testing

The 'LogIn' button is selected

- Corrective Action - N/A
- Possible Refinements - N/A

Authentication (Declining invalid data - 2)

- Objectives - 4.1.
- Description of test - I log onto the system.
- Test type - Integration test
- Test data to be used - Position = 'Customer', Username = 'abcd123',  
    Password = 'password1'
- Test data type - Erroneous
- Expected results - The system should display a message box informing the user that  
    the username or password is incorrect.
- Actual Results -

The 'Log In' button is selected

- Corrective Action - N/A
- Possible Refinements - N/A

## Usernames and Passwords

### Usernames and Passwords (Accepting valid data - 1)

- Objectives - 1.1.1.2.10., 1.7.1.2.7. and 4.1.1
- Description of test - I will add a username and password to the system as a customer
- Test type - Integration test
- Test data to be used - Record being entered = ('07276285673', 'Adam', 'Logan',  
'5 Letters Way', 'PA27 8BW,' Visa', '36463653634' , '6-22',  
'465', 'Cairndow', '13/03/2000', 'Milk',  
[vuginuppixi-2233@yopmail.com](mailto:vuginuppixi-2233@yopmail.com)', 'username123',  
'P@55word123')
- Test data type - Typical
- Expected results - The system should add the record to the table.
- Actual Results -

The 'here' button is selected

## Section 8 - Testing

The 'add' button is selected

The 'yes' button is selected

- Corrective Action - N/A
- Possible Refinements - N/A

### Usernames and Passwords (Accepting valid data - 2)

- Objectives - 1.1.1.2.10., 1.7.1.2.7. and 4.1.1
- Description of test - I will add a username and password to the system as a customer
- Test type - Integration test
- Test data to be used - Record being entered = ('07276285673', 'Adam', 'Logan',  
    '5 Letters Way', 'PA27 8BW', 'Visa', '36463653634', '6-22',  
    '465', 'Cairndow', '13/03/2000', 'Milk',  
    '[vuqinuppixi-2233@yopmail.com](mailto:vuqinuppixi-2233@yopmail.com)', 'alogan1234',  
    'P@5sword')
- Test data type - Extreme
- Expected results - The system should add the record to the table.
- Actual Results -

## Section 8 - Testing

The 'here' button is selected

The 'add' button is selected

The 'yes' button is selected

- Corrective Action - N/A
- Possible Refinements - N/A

## Usernames and Passwords (Declining invalid data)

- Objectives - 1.1.1.2.10., 1.7.1.2.7. and 4.1.1
- Description of test - I will create a customer account within the log in screen.
- Test type - Integration test
- Test data to be used - Record being entered = ('07276285673', 'Adam', 'Logan', '5 Letters Way', 'PA27 8BW,' Visa', '36463653634' , '6-22', '465', 'Cairndow', '13/03/2000', 'Milk', '[yuginuppixi-2233@yopmail.com](mailto:yuginuppixi-2233@yopmail.com)', 'alogan123', 'logan123')
- Test data type - Erroneous
- Expected results - The system should not add the record to the table.
- Actual Results -

The 'here' button is selected

The 'Add' button is selected

- Corrective Action - N/A
- Possible Refinements - N/A