

Calendar Application

This document will describe the Calendar App which is used to create Reservation and store the Reservation data into Salesforce Database. The first chapter of this document, user interface, is divided into 3 modules e.g. creating Reservation, storing data into backend database, and displaying data from backend to frontend user interface. Lately, all the essential functionalities will be explained. The software application development from programming point of view will be also depicted in the last section.

Table of Contents

User Interface	3
Creating Reservation from the Interface	4
Storing data in the Salesforce Backend	6
Reservation Object:.....	6
Room Object:	6
Account	6
Payment	6
Fetching Data & Show in the Interface	8
Functionalities.....	9
CalendarApp.....	9
Buttons.....	9
Hide all rooms under a room type	9
ReservationNew	10
Calculate the Length of Stay & Show in the UI as the same time.....	10
Calculate Room Total	10
ReservationDetail.....	12
Green Reservation & Red Reservation	12
Cancel Reservation.....	13
Edit the Reservation.....	13
Application Development: Data Model & Coding.....	14
Date Model	14
Object/ Table.....	14
Relationship Table.....	14
CalendarApp.....	14
Main Index file (CalendarApp)	15
Style.css.....	15
Popup Modal.....	15
ReservationNew & NewReservationClass.....	15

User Interface

The user interface of the Calendar app is straight forward. We have date along column, Room # along row. User can create Reservation from this UI. The empty home page of the Calendar is given below

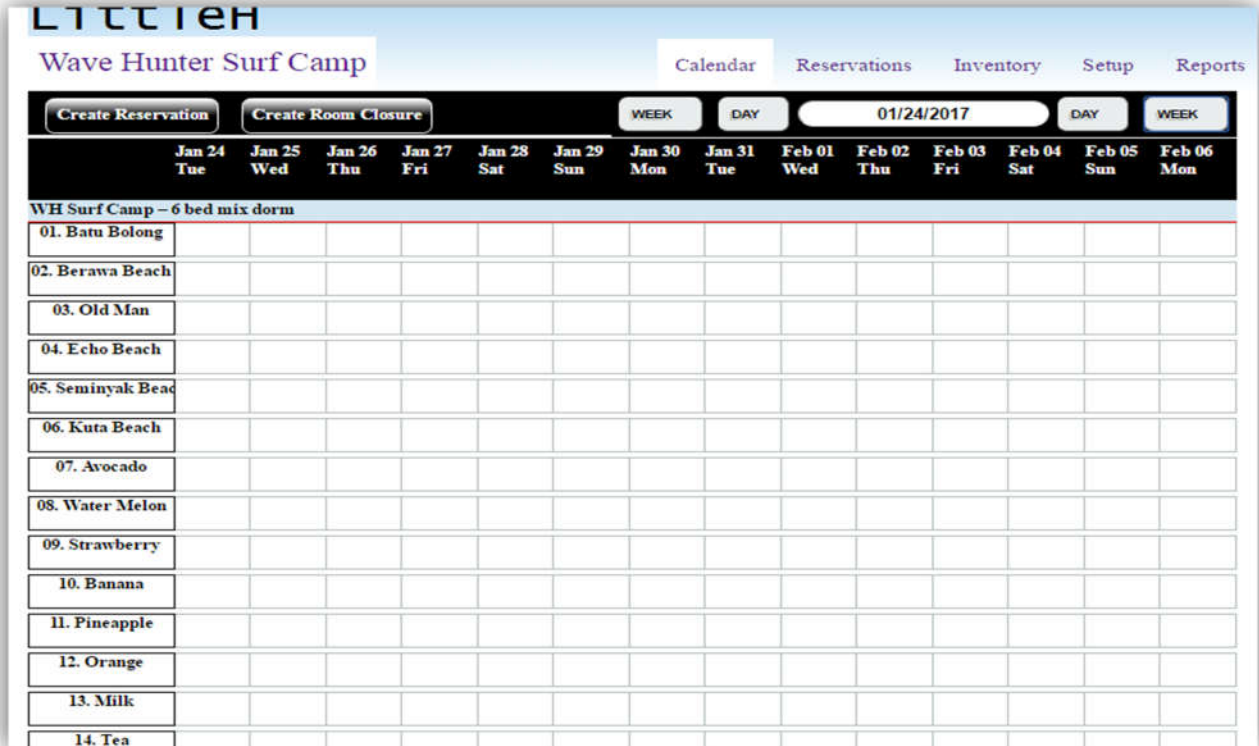


fig1

The Calendar will come with today's date by default. The user can select expected date from datepicker (Red rectangle in Fig2)

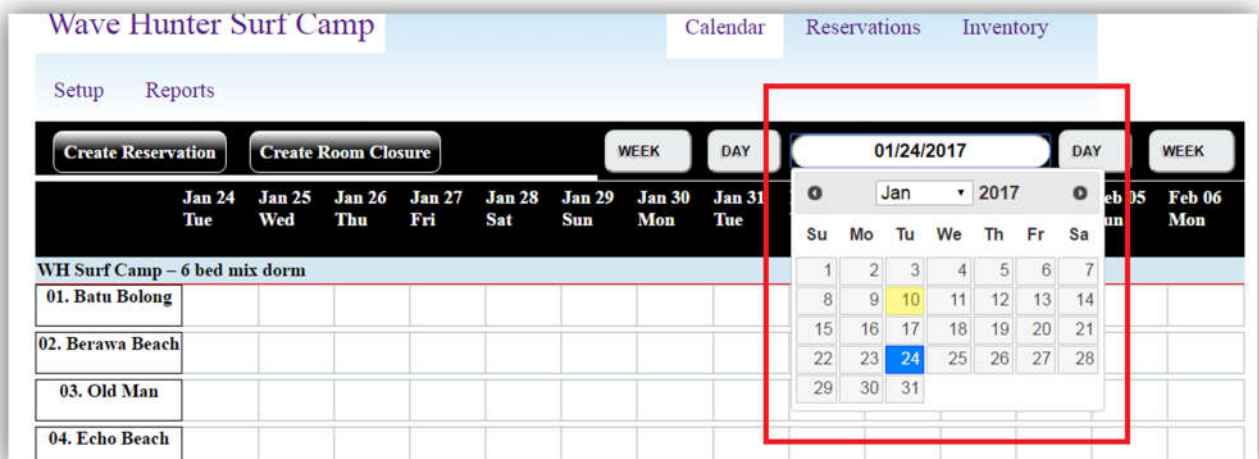


Fig2

There are also four buttons beside the datepicked to change the date to previous week, yesterday, next day, next week respectively. Previous button change the Calendar UI from 24 Jan to 17 Jan (Fig3)

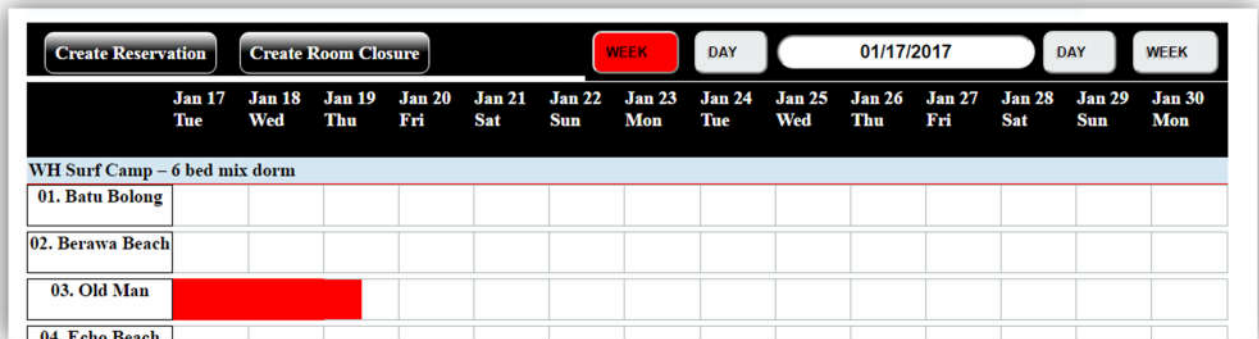


Fig3

Creating Reservation from the Interface

Say, we want to create a Reservation from the UI for Room # WH Surf Camp – 6 bed mix dorm 01. Batu Bolong and Check In Date 12 Jan

Once we click in the corresponding div (fig4), a popup will come (fig5).

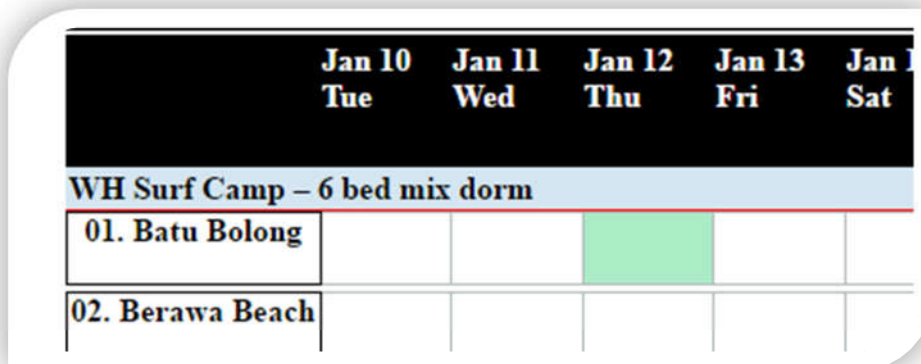


fig4

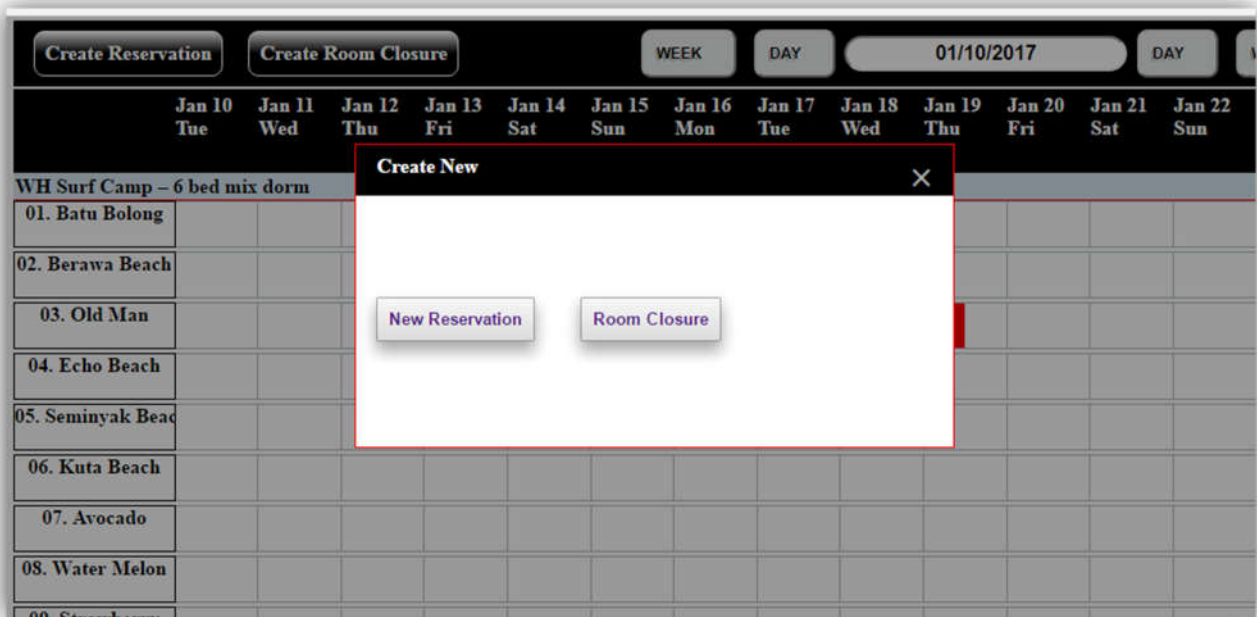


fig5

By clicking **New Reservation**, a Reservation creation page will come with selected Date & Room # prepopulated. In fig6, 12 Jan & Room # Batu Bolong (Red parabola) are autopopulated. By clicking the SAVE button, the newly created Reservation has been stored in to Salesforce Database (fig7).

The screenshot shows the 'New Reservation' form. The 'Check In' date is 12/01/2017 and the 'Check Out' date is 14/01/2017, both circled in red. The 'Room #' dropdown is set to '01. Batu Bolong', which is circled in green. The form includes fields for 'Room Type', 'Rate Plan', 'Adult', 'Children', 'Infant', 'Room', 'Extra', and 'Discount'. Below the form is a 'Primary Contact' section with fields for Name, Email, Phone, Address, and Payment. A 'Booking Summary' table is also visible on the right side of the form.

Room Type	Rate Plan	Room #	Adult	Children	Infant	Room	Extra	Discount
WH Surf Camp	Private Room (Social House) Standard	01. Batu Bolong	0	0	0	\$130,000.00	\$0.00	

Primary Contact	
Name	Md Habib
Email	habid@yahoo.com
Phone	+8801876221100
Address	DOHS, Dhaka, Mirpur, MI, 11220
Payment	0099221122220099
Other Details	10:00 AM, Magazine

Booking Summary	
Room Total	130000.0
Extra Person Total	0.0
Discount Total	0.0
Credit Card Surcharge	0.0
Total	130000.0
Total Received	0.0

Fig7

Storing data in the Salesforce Backend

The user will input all data related to a Reservation in the ReservationNew VF page (fig8).

Reservation Object:

The important fields in Reservation Object are Check In, Check Out, Length of Stay, Booking Status.

Room Object:

The Room Object is a Child object of Reservation e.g. Line Item for Reservation.

The related fields are Room Type, Rate Plan, Room #, Number of Adult, Number of Child, Number of Infant, Room Price, Extra, Discount.

Account

The account which is linked to a Reservation.

Payment

All the values from the Booking Summary table are stored in the Payment object.

Fig8 is the UI for creating a Reservation and it's child records & linked Account

The screenshot displays the 'Reservation New VF' page. At the top, there are input fields for 'Check In' (14/01/2017), 'Check Out' (14/01/2017), 'Length of Stay', and a 'Booking Status' dropdown set to 'Confirmed'. Below this is a table for room details with columns: Room Type, Rate Plan, Room #, Adult, Children, Infant, Room, Extra, and Discount. The first row shows 'Dorm Bed', 'Dorm Bed', '02. Berawa Be', 1 Adult, 0 Children, 0 Infant, \$100,000.00 Room, \$0.00 Extra, and an empty Discount field. An 'Add Another Room' button is to the right. The main section is divided into two parts. On the left, under 'Primary Contact', there are fields for Name (apple), Email (app@g.com), Phone (009988), Address (Hatrijeel, dhaka, Wapda, 12009), and a 'Guest Comment' box containing 'dhaka cant'. On the right, a 'Booking Summary' table shows: Room Total (100000.0), Extra Person Total (0.0), Discount Total (0.0), Credit Card Surcharge (0.0), Total (100000.0), and Total Received (0.0). A red 'Total Outstanding' label is at the bottom of the summary. A 'Save' button is at the bottom center.

Room Type	Rate Plan	Room #	Adult	Children	Infant	Room	Extra	Discount
Dorm Bed	Dorm Bed	02. Berawa Be	1	0	0	\$100,000.00	\$0.00	

Primary Contact	
Name	apple
Email	app@g.com
Phone	009988
Address	Hatrijeel, dhaka, Wapda, 12009
Guest Comment	dhaka cant

Booking Summary	
Room Total	100000.0
Extra Person Total	0.0
Discount Total	0.0
Credit Card Surcharge	0.0
Total	100000.0
Total Received	0.0

Total Outstanding

Save

fig8: Reservation New VF page

Reservation Detail

EditDeleteClone

Accountapple

Check In14/01/2017

Check Out14/01/2017

Booking StatusConfirmed

Reference

Rate

Notes

Comments

No of Adult1

No of Child0

No of Infant0

Check in text2017-01-14

Check out text2017-01-14

Paid

Total rollup room\$100,000.00

Room Price total100,000.00

Created ByAli Tondkar11/01/2017 01:00

Length of Stay1

Number of Room

Room Total0.00

ReferralNewspaper

Select Arrival Time10:00 AM

Booked Date

Booking SourceExtranet

Last Modified ByAli Tondkar11/01/2017 01:00

EditDeleteClone

Rooms

New Room

Rooms Help?

Action	Room: Room Number	Room Type	Room Price	Rate Plan	No of Adult	Discount	Extra	Room #
Edit Del	088	Dorm Bed	\$100,000.00	Dorm Bed	1		\$0.00	02 Berawa Beach

Payments

New Payment

Payments Help?

Action	Currency	Discount Total	Extra Total	Room Total	Room Total revised	Total
Edit Del		\$0	\$0.00	\$100,000.00	\$100,000.00	\$100,000.00

fig8.1: Reservation record detail page

In Fig8.1, Account apple (Black box) has all field values for Account of the Reservation. Room 088 (Red rectangle) is the Child of the Reservation of fig8.1

Fetching Data & Show in the Interface

When a Reservation is created, it will be shown in the Calendar UI ().

	Create Reservation		Create Room Closure		WEEK		DAY		01/10/2017		DAY		WEEK	
	Jan 10	Jan 11	Jan 12	Jan 13	Jan 14	Jan 15	Jan 16	Jan 17	Jan 18	Jan 19	Jan 20	Jan 21	Jan 22	Jan 23
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Sat
WH Surf Camp – 6 bed mix dorm														
01. Batu Bolong														
02. Berawa Beach						appl								
03. Old Man				Trin										
04. Echo Beach														
05. Seminyak Beach														
06. Kuta Beach														
07. Avocado														
08. Water Melon				Trin										
09. Strawberry														
10. Banana														
11. Pineapple														
12. Orange														

fig9: Calendar UI

When user click the Reservation block in the Calendar UI (Red/Green block in the Calendar UI), the detail information of the respective Reservation is popup. The Reservation Detail page for **Trinisha Das** is shown in fig10

WH Surf Camp – 6 bed mix dorm														
01. Batu Bolong														
02. Berawa Beach						appl								
03. Old Man				Trin										
04. Echo Beach														
05. Seminyak Beach														
06. Kuta Beach														
07. Avocado														
08. Water Melon				Trin										
09. Strawberry														
10. Banana														
11. Pineapple														
12. Orange														

Booking 0025 for Trinisha Das

Guest Details

Guest Name
Trinisha Das

Guest Email
t@gmail.com

Phone Number
88770099

Guest Adult-Child-Infant
2 -0 -0

Note

Comment

Booking Details

Stay Arrival Time
\$ 10:00 AM

Booking Source
Extranet

Booking Total
1840000.00

Total Outstanding
0

Cancel Reservation

Print

Email

Edit

Checkout

fig10

Functionalities

CalendarApp

The CalendarApp visualforce page is the main index file of the webpage from where user can create Reservation. To start with, user will click a cell (Check In date of the Reservation are placed column wise, the Room # are placed row wise). As user click a cell, a popup will appear from where RESERVATION or ROOM CLOSURE can be created. Our main focus is onto creating Reservation & store the information in the Salesforce database.

Buttons

1. Create Reservation: To create Reservation
2. Create Room Closure: To create Room
3. Previous week, day, next day, next week: to change the Dates in the User Interface

Hide all rooms under a room type

When all rooms are hidden by clicking respective bar

If we don't have the Rooms hidden,

[illegible]

fig12

ReservationNew

Calculate the Length of Stay & Show in the UI as the same time

New Reservation

Check In: 12/01/2017 Check Out: 14/01/2017 Length of Stay: 3 Booking Status: New Booking

Room Type	Rate Plan	Room #	Adult	Children	Infant	Room	Extra	Discount
WH Surf Camp	Private Room (Social House) Standard	01. Batu Bolon	1	0	0	\$130,000.00	\$0.00	

Primary Contact Search

Name: Md Habib Email: habid@yahoo.com Phone: +8801876221100

Address: DOHS, Dhaka Payment: 0099221122220099 Other Details: 10:00 AM

Mirpur, MI, 11220 1 2017 Magazine

Guest Comment: [Text Area]

Booking Summary

Room Total	130000.0
Extra Person Total	0.0
Discount Total	0.0
Credit Card Surcharge	0.0
Total	130000.0
Total Received	0.0

Total Outstanding

fig13

When user select Check In & Check Out date, the Length of Stay value is calculated automatically & shown in the UI

$$\text{Length of Stay} = (\text{Check Out date} - \text{Check In date}) + 1$$

Calculate Room Total

The room total (1st row in the yellow parabola) in the Booking summary table is the sum of all room prices (Red rectangle) in the Line Item multiplied by the length of stay (Red circle).

The Room price (Red rectangle) is determined by the picklist value selected in the Rate Plan (Green rectangle)

Check In **12/01/2017** Check Out **19/01/2017** Length of Stay **8** Booking Status **New Booking**

Room Type	Rate Plan	Room #	Adult	Children	Infant	Room	Extra	Discount
Dorm Bed	Dorm Bed	03. Old Man	1	0	0	\$100,000.00	\$0.00	\$900
WH Surf Camp	Private Room (Social House) Standard	08. Water Melo	1			\$130,000.00	\$0.00	\$9

[Add Another Room](#)

Primary Contact Search

Name: **Trinisha Das** Email: **t@gmail.com** Phone: **88770099**

Address: **Sy North 2918 2 2017 Internet**

Payment: **8899009988778888** Other Details: **10:00 AM**

Guest Comment: **booking.com**

[Save](#)

Booking Summary

Room Total	1840000.0
Extra Person Total	0.0
Discount Total	909.0
Credit Card Surcharge	0.0
Total	1839091.0
Total Received	0.0

Total Outstanding

fig14

Reservation Detail [Edit](#) [Delete](#) [Clone](#)

Check In: **12/01/2017** Check Out: **19/01/2017** Account: **Trinisha Das**

Booking Status: **New Booking** Length of Stay: **8**

Reference: **Room Total: 0.00**

Rate: **Referral: Internet**

Notes: **Select Arrival Time: 10:00 AM**

Comments: **Booked Date: 11/01/2017 00:49**

No of Adult: 2 **Booking Source: Extranet**

No of Child: **0**

No of Infant: **0**

Check in text: **2017-01-12**

Check out text: **2017-01-19**

Paid: ☐

Total rollup room: **\$230,000.00**

Room Price total: **1,840,000.00**

Created By: **Ali Tondkar** Last Modified By: **Ali Tondkar**

[Edit](#) [Delete](#) [Clone](#)

Rooms [New Room](#) [Rooms Help](#)

Action	Room: Room Number	Room Type	Room Price	Rate Plan	No of Adult	Discount	Extra	Room #
Edit Del	086	Dorm Bed	\$100,000.00	Dorm Bed	1	\$900	\$0.00	03. Old Man
Edit Del	087	WH Surf Camp - 6 bed mix dorm	\$130,000.00	Private Room (Social House) Standard	1	\$9	\$0.00	08. Water Melon

Payments [New Payment](#) [Payments Help](#)

Action	Currency	Discount Total	Extra Total	Room Total	Room Total revised	Total
Edit Del		\$909	\$0.00	\$230,000.00	\$1,840,000.00	\$1,839,091.00

fig15

ReservationDetail

Green Reservation & Red Reservation

If the Reservation is **Confirmed**, the Booking section of the Reservation Detail page will be offWhite as shown in fig16

The screenshot shows a window titled "Booking 0026 for apple". The window is divided into three main sections: "Guest Details", "Booking Details", and a summary section. The "Guest Details" section includes fields for Guest Name (apple), Guest Email (app@g.com), Phone Number (009988), and Guest Adult-Child-Infant (1 -0 -0). The "Booking Details" section includes Stay Arrival Time (1 10:00 AM) and Booking Source (Extranet). The summary section shows Booking Total (100000.00) and Total Outstanding (0). There are buttons for "Cancel Reservation", "Print", "Email", "Edit", and "Checkout". The window has a green header bar with the text "appl".

Booking 0026 for apple	
Guest Details	Booking Details
Guest Name apple	Stay Arrival Time 1 10:00 AM
Guest Email app@g.com	Booking Source Extranet
Phone Number 009988	Booking Total 100000.00
Guest Adult-Child-Infant 1 -0 -0	Total Outstanding 0
Note	Cancel Reservation
Comment	Print Email
	Edit Checkout

fig16

If the Reservation is **New/In Progress**, the Booking section of the Reservation Detail page will be Light Red as shown in fig17

The screenshot shows a window titled "Booking 0025 for Trinisha Das". The window is divided into three main sections: "Guest Details", "Booking Details", and a summary section. The "Guest Details" section includes fields for Guest Name (Trinisha Das), Guest Email (t@gmail.com), Phone Number (88770099), and Guest Adult-Child-Infant (2 -0 -0). The "Booking Details" section includes Stay Arrival Time (8 10:00 AM) and Booking Source (Extranet). The summary section shows Booking Total (1840000.00) and Total Outstanding (0). There are buttons for "Cancel Reservation", "Print", "Email", "Edit", and "Checkout". The window has a red header bar with the text "Trini".

Booking 0025 for Trinisha Das	
Guest Details	Booking Details
Guest Name Trinisha Das	Stay Arrival Time 8 10:00 AM
Guest Email t@gmail.com	Booking Source Extranet
Phone Number 88770099	Booking Total 1840000.00
Guest Adult-Child-Infant 2 -0 -0	Total Outstanding 0
Note	Cancel Reservation
Comment	Print Email
	Edit Checkout

fig17

Cancel Reservation

Clicking the CANCEL Reservation button in the Reservation Detail page will cancel (delete from the UI & the backend) the Reservation.

Booking 0025 for Trinisha Das

Guest Details	Booking Details
Guest Name Trinisha Das	Stay Arrival Time 8 10:00 AM
Guest Email t@gmail.com	Booking Source Extranet
Phone Number 88770099	Booking Total 1840000.00
Guest Adult-Child-Infant 2 -0 -0	Total Outstanding 0
Note	
Comment booking.com	

Buttons: Cancel Reservation, Print, Email, Edit, Checkout

fig18: Reservation Detail page

Edit the Reservation

Clicking the EDIT button (fig18) in the Reservation Detail page will redirect user into the EDIT page of the Reservation where user will be able to edit the Reservation (fig19)

Check In: 12/01/2017 **Check Out:** 19/01/2017 **Length of Stay:** **Booking Status:** New Booking

Room Type	Rate Plan	Room #	Adult	Children	Infant	Room	Extra	Discount
Dorm Bed	Dorm Bed	03. Old Man	1	0	0	\$100,000.00	\$0.00	900

Primary Contact Search

Name	Email	Phone
Trinisha Das	t@gmail.com	88770099

Address

Address Line 1	Address Line 2	City	State	Zip	Country
Shylet	Sy	North	2918	2	2017

Payment **Other Details**

Payment	Other Details
****-****-8888	10:00 AM

Guest Comment
booking.com

Booking Summary

Room Total	Extra Person Total	Discount Total	Credit Card Surcharge	Total	Total Received
100000.0	0.0	900.0	0.0	99100.0	0.0

Total Outstanding

Save

fig19: Reservation Edit page