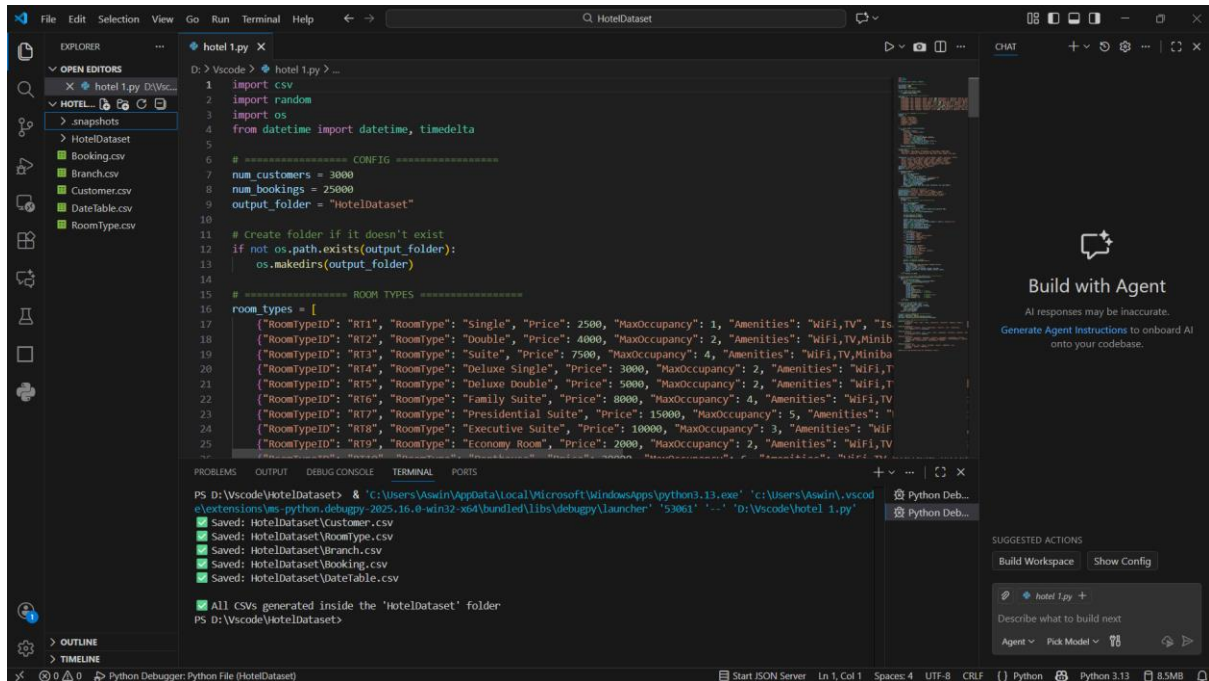


## Module 1: Data Modelling and Ingestion

### 1.Download the Dataset Using Python Code:



## 2.Insert All Dataset into Excel:

Hotel booking - Excel

File Home Insert Draw Page Layout Formulas Data Review View Help Acrobat Tell me what you want to do

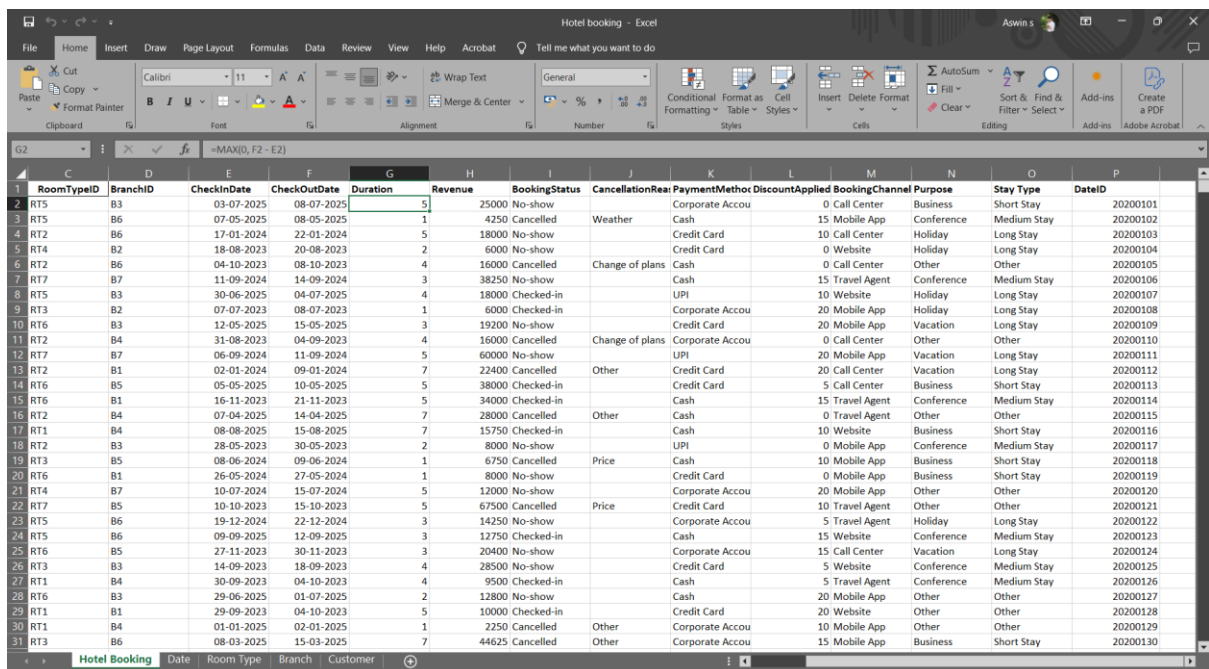
Clipboard Font Alignment Number Conditional Formatting Styles Cells Editing Add-ins

	A	B	C	D	E	F	G	H	I	J	K
	RoomTypeID	RoomType	Price	MaxOccupancy	Amenities	IsAC	IsSeaFacing	Room Category			
1	RT1	Single	2500	1	WiFi,TV	TRUE	FALSE	Budget			
2	RT2	Double	4000	2	WiFi,TV,Minibar	TRUE	TRUE	Budget			
3	RT3	Suite	7500	4	WiFi,TV,Minibar,Balcony	TRUE	TRUE	Premium			
4	RT4	Deluxe Single	3000	1	WiFi,TV,Minibar	TRUE	TRUE	Mid-range			
5	RT5	Deluxe Double	5000	2	WiFi,TV,Minibar,Balcony	TRUE	FALSE	Mid-range			
6	RT6	Family Suite	8000	5	WiFi,TV,Minibar,Balcony,Kitchenette	TRUE	TRUE	Premium			
7	RT7	Presidential Suite	15000	6	WiFi,TV,Minibar,Balcony,Kitchenette,Jacuzzi	TRUE	TRUE	Luxury			
8											
9											
10											
11											
12											
13											
14											

Hotel Booking Date Room Type Branch Customer

### 3.Creating Duration Calculation using Formula

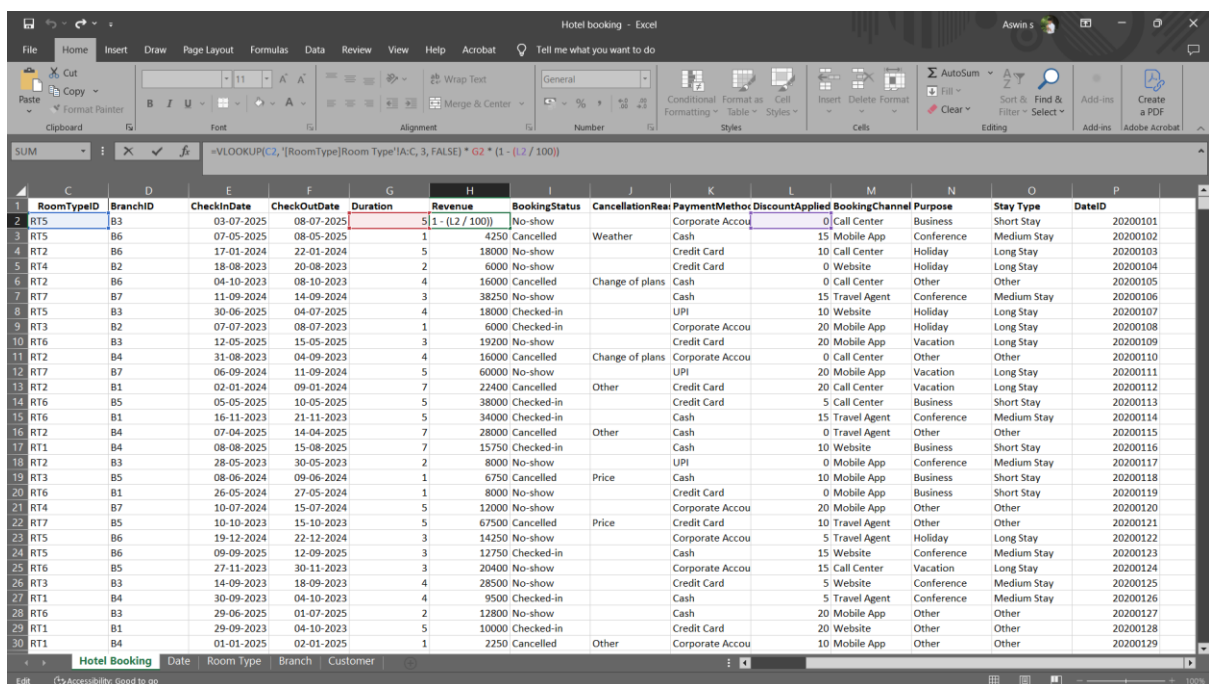
Duration = MAX(0, F2 - E2)



RoomTypeID	BranchID	CheckInDate	CheckOutDate	Duration	Revenue	BookingStatus	CancellationReason	PaymentMethod	DiscountApplied	BookingChannel	Purpose	Stay Type	DateID
RT5	B3	03-07-2025	08-07-2025	5	25000	No-show		Corporate Accou	0	Call Center	Business	Short Stay	20200101
RT5	B6	07-05-2025	08-05-2025	1	4250	Cancelled	Weather	Cash	15	Mobile App	Conference	Medium Stay	20200102
RT2	B6	17-01-2024	22-01-2024	5	18000	No-show		Credit Card	10	Call Center	Holiday	Long Stay	20200103
RT4	B2	18-08-2023	20-08-2023	2	6000	No-show		Credit Card	0	Website	Holiday	Long Stay	20200104
RT6	B6	04-10-2023	08-10-2023	4	16000	Cancelled	Change of plans	Cash	0	Call Center	Other	Other	20200105
RT7	B7	11-09-2024	14-09-2024	3	38250	No-show		Cash	15	Travel Agent	Conference	Medium Stay	20200106
RT5	B3	30-06-2025	04-07-2025	4	18000	Checked-in		UPI	10	Website	Holiday	Long Stay	20200107
RT3	B2	07-07-2023	08-07-2023	1	6000	Checked-in		Corporate Accou	20	Mobile App	Holiday	Long Stay	20200108
RT6	B3	12-05-2025	15-05-2025	3	19200	No-show		Credit Card	20	Mobile App	Vacation	Long Stay	20200109
RT2	B4	31-08-2023	04-09-2023	4	16000	Cancelled	Change of plans	Corporate Accou	0	Call Center	Other	Other	20200110
RT7	B7	06-09-2024	11-09-2024	5	60000	No-show		UPI	20	Mobile App	Vacation	Long Stay	20200111
RT2	B1	02-01-2024	09-01-2024	7	22400	Cancelled	Other	Credit Card	20	Call Center	Vacation	Long Stay	20200112
RT6	B5	05-05-2025	10-05-2025	5	38000	Checked-in		Credit Card	5	Call Center	Business	Short Stay	20200113
RT6	B1	16-11-2023	21-11-2023	5	34000	Checked-in		Cash	15	Travel Agent	Conference	Medium Stay	20200114
RT2	B4	07-04-2025	14-04-2025	7	28000	Cancelled	Other	Cash	0	Travel Agent	Other	Other	20200115
RT1	B4	08-08-2025	15-08-2025	7	15750	Checked-in		Cash	10	Website	Business	Short Stay	20200116
RT2	B3	28-05-2023	30-05-2023	2	8000	No-show		UPI	0	Mobile App	Conference	Medium Stay	20200117
RT3	B5	08-06-2024	09-06-2024	1	6750	Cancelled	Price	Cash	10	Mobile App	Business	Short Stay	20200118
RT6	B1	26-05-2024	27-05-2024	1	8000	No-show		Credit Card	0	Mobile App	Business	Short Stay	20200119
RT4	B7	10-07-2024	15-07-2024	5	12000	No-show		Corporate Accou	20	Mobile App	Other	Other	20200120
RT7	B5	10-10-2023	15-10-2023	5	67500	Cancelled	Price	Credit Card	10	Travel Agent	Other	Other	20200121
RT5	B6	19-12-2024	22-12-2024	3	14250	No-show		Corporate Accou	5	Travel Agent	Holiday	Long Stay	20200122
RT5	B6	09-09-2025	12-09-2025	3	12750	Checked-in		Cash	15	Website	Conference	Medium Stay	20200123
RT6	B5	27-11-2023	30-11-2023	3	20400	No-show		Corporate Accou	15	Call Center	Vacation	Long Stay	20200124
RT3	B3	14-09-2023	18-09-2023	4	28500	No-show		Credit Card	5	Website	Conference	Medium Stay	20200125
RT1	B4	30-09-2023	04-10-2023	4	9500	Checked-in		Cash	5	Travel Agent	Conference	Medium Stay	20200126
RT6	B3	29-06-2025	01-07-2025	2	12800	No-show		Cash	20	Mobile App	Other	Other	20200127
RT1	B1	29-09-2023	04-10-2023	5	10000	Checked-in		Credit Card	20	Website	Other	Other	20200128
RT1	B4	01-01-2025	02-01-2025	1	2250	Cancelled	Other	Corporate Accou	10	Mobile App	Other	Other	20200129
RT3	B6	08-03-2025	15-03-2025	7	44625	Cancelled	Other	Corporate Accou	15	Mobile App	Business	Short Stay	20200130

### 4.Creating Revenue Calculation Using Formula:

Revenue =VLOOKUP(C2, '[RoomType]Room Type'!A:C, 3, FALSE) \* G2 \* (1 - (L2 / 100))



RoomTypeID	BranchID	CheckInDate	CheckOutDate	Duration	Revenue	BookingStatus	CancellationReason	PaymentMethod	DiscountApplied	BookingChannel	Purpose	Stay Type	DateID
RT5	B3	03-07-2025	08-07-2025	5	1 - (L2 / 100)	No-show		Corporate Accou	0	Call Center	Business	Short Stay	20200101
RT5	B6	07-05-2025	08-05-2025	1	4250	Cancelled	Weather	Cash	15	Mobile App	Conference	Medium Stay	20200102
RT2	B6	17-01-2024	22-01-2024	5	18000	No-show		Credit Card	10	Call Center	Holiday	Long Stay	20200103
RT4	B2	18-08-2023	20-08-2023	2	6000	No-show		Credit Card	0	Website	Holiday	Long Stay	20200104
RT6	B6	04-10-2023	08-10-2023	4	16000	Cancelled	Change of plans	Cash	0	Call Center	Other	Other	20200105
RT7	B7	11-09-2024	14-09-2024	3	38250	No-show		Cash	15	Travel Agent	Conference	Medium Stay	20200106
RT5	B3	30-06-2025	04-07-2025	4	18000	Checked-in		UPI	10	Website	Holiday	Long Stay	20200107
RT3	B2	07-07-2023	08-07-2023	1	6000	Checked-in		Corporate Accou	20	Mobile App	Holiday	Long Stay	20200108
RT6	B3	12-05-2025	15-05-2025	3	19200	No-show		Credit Card	20	Mobile App	Vacation	Long Stay	20200109
RT2	B4	31-08-2023	04-09-2023	4	16000	Cancelled	Change of plans	Corporate Accou	0	Call Center	Other	Other	20200110
RT7	B7	06-09-2024	11-09-2024	5	60000	No-show		UPI	20	Mobile App	Vacation	Long Stay	20200111
RT2	B1	02-01-2024	09-01-2024	7	22400	Cancelled	Other	Credit Card	20	Call Center	Vacation	Long Stay	20200112
RT6	B5	05-05-2025	10-05-2025	5	38000	Checked-in		Credit Card	5	Call Center	Business	Short Stay	20200113
RT6	B1	16-11-2023	21-11-2023	5	34000	Checked-in		Cash	15	Travel Agent	Conference	Medium Stay	20200114
RT2	B4	07-04-2025	14-04-2025	7	28000	Cancelled	Other	Cash	0	Travel Agent	Other	Other	20200115
RT1	B4	08-08-2025	15-08-2025	7	15750	Checked-in		Cash	10	Website	Business	Short Stay	20200116
RT2	B3	28-05-2023	30-05-2023	2	8000	No-show		UPI	0	Mobile App	Conference	Medium Stay	20200117
RT3	B5	08-06-2024	09-06-2024	1	6750	Cancelled	Price	Cash	10	Mobile App	Business	Short Stay	20200118
RT6	B1	26-05-2024	27-05-2024	1	8000	No-show		Credit Card	0	Mobile App	Business	Short Stay	20200119
RT4	B7	10-07-2024	15-07-2024	5	12000	No-show		Corporate Accou	20	Mobile App	Other	Other	20200120
RT7	B5	10-10-2023	15-10-2023	5	67500	Cancelled	Price	Credit Card	10	Travel Agent	Other	Other	20200121
RT5	B6	19-12-2024	22-12-2024	3	14250	No-show		Corporate Accou	5	Travel Agent	Holiday	Long Stay	20200122
RT5	B6	09-09-2025	12-09-2025	3	12750	Checked-in		Cash	15	Website	Conference	Medium Stay	20200123
RT6	B5	27-11-2023	30-11-2023	3	20400	No-show		Corporate Accou	15	Call Center	Vacation	Long Stay	20200124
RT3	B3	14-09-2023	18-09-2023	4	28500	No-show		Credit Card	5	Website	Conference	Medium Stay	20200125
RT1	B4	30-09-2023	04-10-2023	4	9500	Checked-in		Cash	5	Travel Agent	Conference	Medium Stay	20200126
RT6	B3	29-06-2025	01-07-2025	2	12800	No-show		Cash	20	Mobile App	Other	Other	20200127
RT1	B1	29-09-2023	04-10-2023	5	10000	Checked-in		Credit Card	20	Website	Other	Other	20200128
RT1	B4	01-01-2025	02-01-2025	1	2250	Cancelled	Other	Corporate Accou	10	Mobile App	Other	Other	20200129

## 5.Creating StayType Calculation Using Formula:

StayType =SWITCH(TRIM(UPPER(N2)),

"BUSINESS", "Short Stay",

"CONFERENCE", "Medium Stay",

"VACATION", "Long Stay",

"HOLIDAY", "Long Stay",

"FAMILY", "Leisure",

"LEISURE", "Leisure",

"GROUP", "Group Stay",

"SOLO", "Solo Stay",

"UNKNOWN", "Unknown",

"Other"

)

The screenshot shows an Excel spreadsheet titled "Hotel booking - Excel". The formula bar displays the following formula for cell O2:

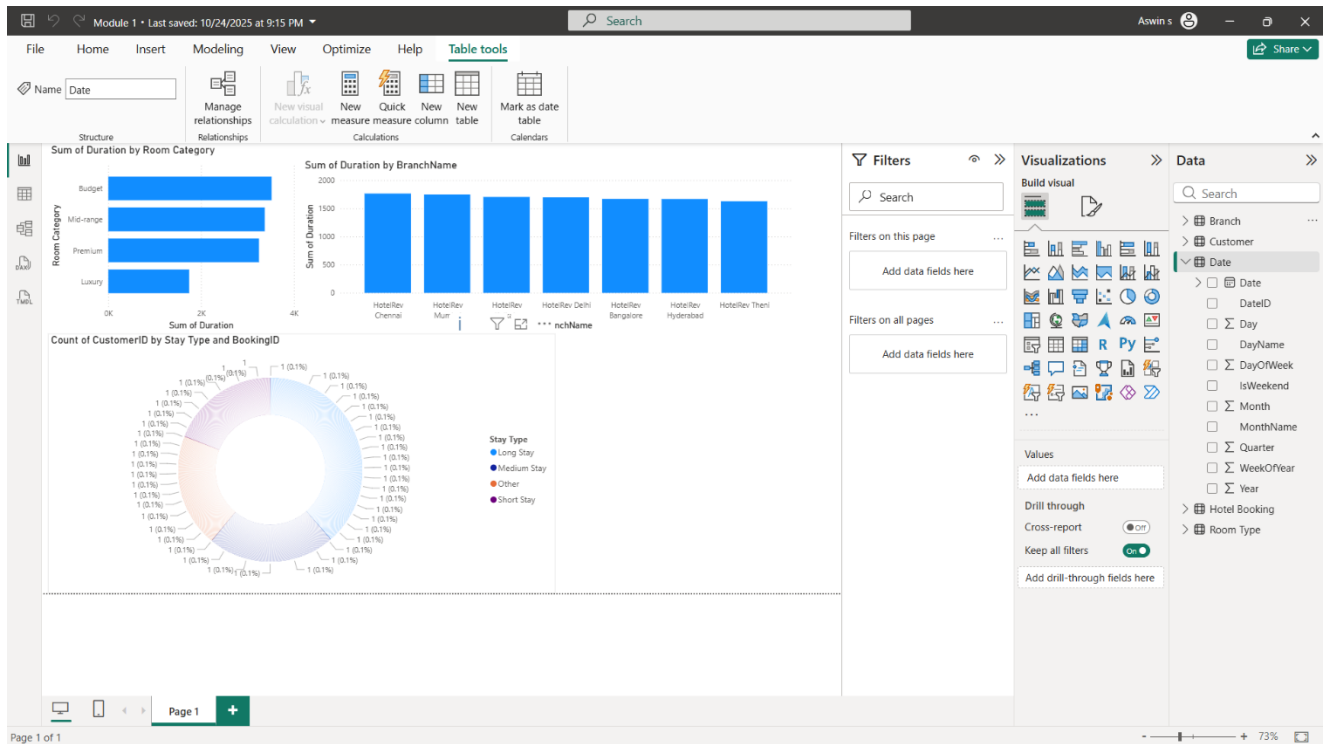
```
=SWITCH(TRIM(UPPER(N2)),  
"BUSINESS", "Short Stay",  
"CONFERENCE", "Medium Stay",  
"VACATION", "Long Stay",  
"HOLIDAY", "Long Stay",  
"FAMILY", "Leisure",  
"LEISURE", "Leisure",  
"GROUP", "Group Stay",  
"SOLO", "Solo Stay",  
"UNKNOWN", "Unknown",  
"Other")
```

The spreadsheet contains a table with the following columns: RoomTypeID, BranchID, CheckInDate, CheckOutDate, Duration, Revenue, BookingStatus, CancellationReason, PaymentMethod, DiscountApplied, BookingChannel, Purpose, Stay Type, and DateID. The data rows show various bookings with their respective details and the calculated Stay Type.

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	RoomTypeID	BranchID	CheckInDate	CheckOutDate	Duration	Revenue	BookingStatus	CancellationReason	PaymentMethod	DiscountApplied	BookingChannel	Purpose	Stay Type	DateID
2	RT5	B3	03-07-2025	08-07-2025	5	25000	No-show		Corporate Account	0	Call Center	Business	Short Stay	20200101
3	RT5	B6	07-05-2025	08-05-2025	1	4250	Cancelled	Weather	Cash		15 Mobile App	Conference	Medium Stay	20200102
4	RT2	B6	17-01-2024	22-01-2024	5	18000	No-show		Credit Card		10 Call Center	Holiday	Long Stay	20200103
5	RT4	B2	18-08-2023	20-08-2023	2	6000	No-show		Credit Card		0 Website	Holiday	Long Stay	20200104
6	RT2	B6	04-10-2023	08-10-2023	4	16000	Cancelled	Change of plans	Cash		0 Call Center	Other	Other	20200105
7	RT7	B7	11-09-2024	14-09-2024	3	38250	No-show		Cash		15 Travel Agent	Conference	Medium Stay	20200106
8	RT5	B3	30-06-2025	04-07-2025	4	18000	Checked-in		UPI		10 Website	Holiday	Long Stay	20200107
9	RT3	B2	07-07-2023	08-07-2023	1	6000	Checked-in		Corporate Account		20 Mobile App	Holiday	Long Stay	20200108
10	RT6	B3	12-05-2025	15-05-2025	3	19200	No-show		Credit Card		20 Mobile App	Vacation	Long Stay	20200109
11	RT2	B4	31-08-2023	04-09-2023	4	16000	Cancelled	Change of plans	Corporate Account		0 Call Center	Other	Other	20200110
12	RT7	B7	06-09-2024	11-09-2024	5	60000	No-show		UPI		20 Mobile App	Vacation	Long Stay	20200111
13	RT2	B1	02-01-2024	09-01-2024	7	22400	Cancelled	Other	Credit Card		20 Call Center	Vacation	Long Stay	20200112
14	RT6	B5	05-05-2025	10-05-2025	5	38000	Checked-in		Credit Card		5 Call Center	Business	Short Stay	20200113
15	RT6	B1	16-11-2023	21-11-2023	5	34000	Checked-in		Cash		15 Travel Agent	Conference	Medium Stay	20200114
16	RT2	B4	07-04-2025	14-04-2025	7	28000	Cancelled	Other	Cash		0 Travel Agent	Other	Other	20200115
17	RT1	B4	08-08-2025	15-08-2025	7	15750	Checked-in		Cash		10 Website	Business	Short Stay	20200116
18	RT2	B3	28-05-2023	30-05-2023	2	8000	No-show		UPI		0 Mobile App	Conference	Medium Stay	20200117
19	RT3	B5	08-06-2024	09-06-2024	1	6750	Cancelled	Price	Cash		10 Mobile App	Business	Short Stay	20200118

## 6. Import the Excel into PowerBI and Create the Visualization:

- Duration by Room Category
- Duration by Branch Name
- Count of Customer ID by Stay Type and Booking ID



**Module 1 documentation has been successfully completed.**