

ASSIGNMENT 4

Q. Create SP to manage bookings. We will need to pass customerId, roomIds or room numbers with date range and this should mark those rooms as occupied for those days.

SP must have Transaction commit/rollback concept with try/catch and the parameter used should be JSON.

Sample JSON

```
{  
    "customerId":1,  
    "roomIds":"1,2,3"  
    "from":"06-01-2023"  
    "to":"06-03-2023"  
}
```

Hint:

Step 1 – Insert Three Records in Booking Table

Step 2- Update Room Table And Set These Three Rooms Status As Booked.

Ans:

```
CREATE OR ALTER PROCEDURE [dbo].[SpBookingIns]
```

```
@Json NVARCHAR(MAX)
```

```
AS
```

```
BEGIN
```

```
SET NOCOUNT ON;
```

```
DECLARE @BranchId INT, @CustomerId INT, @RoomId NVARCHAR(MAX),  
@ArrivalDate SMALLDATETIME, @DepartureDate SMALLDATETIME, @UserId INT;
```

```
BEGIN TRY
```

BEGIN TRANSACTION

-- Parsing JSON input

```
SELECT @BranchId = JSON_VALUE(@Json, '$.branchId'),
       @CustomerId = JSON_VALUE(@Json, '$.customerId'),
       @RoomId = JSON_VALUE(@Json, '$.roomIds'),
       @ArrivalDate = CONVERT(SMALLDATETIME, JSON_VALUE(@Json, '$.from'),
101),
       @DepartureDate = CONVERT(SMALLDATETIME, JSON_VALUE(@Json, '$.to'),
101),
       @UserId = JSON_VALUE(@Json, '$.userId');
```

-- Check if rooms are available for the specified date range

```
IF EXISTS (
    SELECT *
    FROM dbo.Room AS r
    WHERE r.RoomId IN (SELECT value FROM STRING_SPLIT(@RoomId, ','))
    AND r.RoomAvailability = 'Available'
)
```

BEGIN

-- Insert booking

```
INSERT INTO [Booking] (BranchId, CustomerId, RoomId, ArrivalDate, DepartureDate,
UserId)
```

```
SELECT @BranchId, @CustomerId, r.RoomId, @ArrivalDate, @DepartureDate, @UserId
FROM dbo.Room AS r
WHERE r.RoomId IN (SELECT value FROM STRING_SPLIT(@RoomId, ','));
```

-- Update room status as occupied for the specified date range

```
UPDATE dbo.Room
SET RoomAvailability = 'Occupied'
```

```
WHERE RoomId IN (SELECT value FROM STRING_SPLIT(@RoomId, ','));

COMMIT TRANSACTION;

END

ELSE

BEGIN

    THROW 50000, 'One or more selected rooms are not available.', 1;

END;

END TRY

BEGIN CATCH

    IF @@TRANCOUNT > 0

        ROLLBACK TRANSACTION;

    THROW;

END CATCH;

END;
```

PASSING JSON

```
CREATE OR ALTER PROCEDURE [dbo].[ManageBooking]
@JSON AS NVARCHAR(MAX)

AS

BEGIN

SET NOCOUNT ON;

EXEC dbo.SpBookingIns @Json = @Json;

SELECT @Json as 'Output from SpBookingIns'
```

```
END;
```

```
EXEC dbo.ManageBooking @Json = '{
```

```
    "branchId" : 20,
```

```
    "customerId":20,
```

```
    "roomId":"15,16,17",
```

```
    "from":"06-01-2023",
```

```
    "to":"06-03-2023",
```

```
    "userId" : 3
```

```
    }';
```