BowlingAlley @TerpZone by Group 10

Group members -
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Data Sources

Our database project for TerpZone, the university bowling alley, encompasses data collected from two primary sources:

1. Customer surveys - The customer survey data was gathered through a week-long survey conducted with patrons visiting TerpZone. This dataset includes insights into customer demographics, preferences and frequency of visits.

2. Employee information - Additionally, employee information was obtained directly from the employees themselves and encompasses details such as their names, and any other pertinent data necessary for operational and managerial purposes.

These sources collectively provide a comprehensive foundation for our database, enabling us to analyze and optimize various aspects of TerpZone's operations and customer experiences.

Survey sheet

Customer spreadsheet

	A	B	C	D	E	F	G	H	I
1	customerEmail	customerType	customerStartTime	customerEndTime	customerTotalPlayers	customerShoePrice	customerSocksPrice	customerNoonPrice	customerRegularPrice
2	sgontu@umd.edu	STUDENT	16:35:23	17:40:23	4	8	0	NULL	3.5
3	piyalib@umd.edu	STUDENT	13:13:33	16:08:31	3	9	2	NULL	4.5
4	ityagi1@umd.edu	STUDENT	12:02:29	16:45:04	2	4	0	NULL	3.5
5	jsrebric@umd.edu	FACULTY	11:02:29	13:45:04	1	2	2	NULL	3.5
6	vijayendra096@gmail.com	PUBLIC	15:00:34	16:50:32	2	4	2	1.75	NULL
7	kaurk@umd.edu	FACULTY	14:45:29	16:55:03	3	9	2	NULL	4.5
8	sriyeshk@umd.edu	STUDENT	12:13:33	13:58:32	2	8	0	NULL	5.5
9	vamshi1168@gmail.com	PUBLIC	11:55:34	15:58:12	2	4	2	NULL	3.5
10	gnapika9@umd.edu	STUDENT	12:33:33	14:58:32	1	2	2	NULL	3.5
11	harsha21@umd.edu	STUDENT	16:23:34	17:58:32	2	6	2	NULL	4.5
12	mattson@umd.edu	FACULTY	13:23:34	15:58:32	2	8	2	2.75	NULL

Employee spreadsheet

	A	B	C
1	**Employee Email**	**Emplyee First Name**	**Employee Last Name**
2	mgolze@umd.edu	Mike	Golze
3	sba25@umd.edu	Sarah	Anthony
4	Pollack1@terpmail.umd.edu	Josh	Pollack
5	cnaggard@terpmail.umd.edu	Christine	Naggard
6	akhalfay@umd.edu	Arusa	Khalfay

Players spreadsheet

	A	B	C	D	E
1	playerId	playerName	playerGender	playerDOB	customerEmail
2	P2336	Samhitha	F	2000-04-12	sgontu@umd.edu
3	P2337	Susane	F	2001-10-10	sgontu@umd.edu
4	P2338	Eric	M	1998-05-09	sgontu@umd.edu
5	P2339	Abhinandan	M	1997-10-30	sgontu@umd.edu
6	P2340	Piyali	F	1999-11-11	piyalib@umd.edu
7	P2341	Nilay	M	1993-02-11	piyalib@umd.edu
8	P2342	Avi	M	1998-05-06	piyalib@umd.edu
9	P2343	Isha	F	1975-03-30	ityagi1@umd.edu
10	P2344	Dhruvin	M	1986-04-10	ityagi1@umd.edu
11	P2345	Jelena	F	1966-05-08	jsrebric@umd.edu
12	P2346	Vijayendra	M	1978-09-15	vijayendra096@gmail.com
13	P2347	Alexa	F	2001-09-10	vijayendra096@gmail.com
14	P2348	Kuljeet	M	1987-05-12	kaurk@umd.edu
15	P2349	Vatsalya	F	1996-04-12	kaurk@umd.edu
16	P2350	Dheeraj	M	1997-11-12	kaurk@umd.edu
17	P2351	Yesh	M	2002-05-13	sriyeshk@umd.edu
18	P2352	Apoorva	F	1967-08-16	sriyeshk@umd.edu
19	P2353	Vamshi	M	1999-07-02	vamshi1168@gmail.com
20	P2354	Rahul	M	1991-06-11	vamshi1168@gmail.com
21	P2355	Gnapika	F	2001-10-09	gnapika9@umd.edu
22	P2356	Harsha	M	1999-09-10	harsha21@umd.edu

References

	UMD Students/ Student Groups	UMD Faculty/Staff/ Alumni/Departments	General Public
BOWLING	$3.50	$4.50	$5.50
BOWLING SHOES	$2.00	$3.00	$4.00
SOCKS	$2.00	$2.00	$2.00
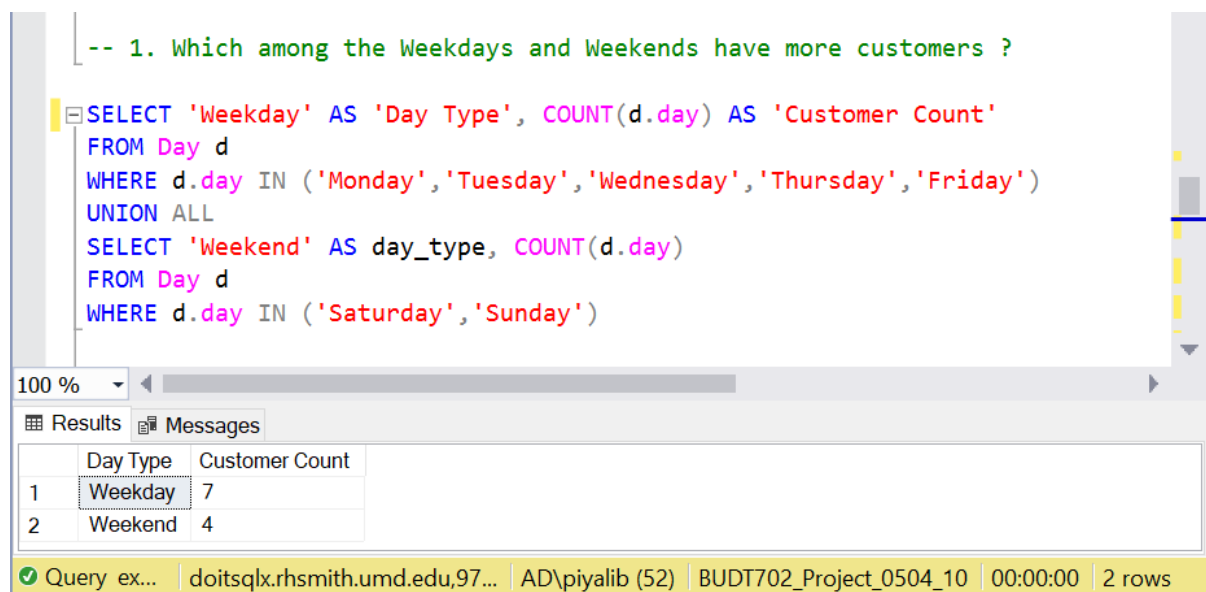
The user pricing table utilized in this documentation is adapted from the pricing information available on https://stamp.umd.edu/centers/terpzone. This table provides a comprehensive overview of the various pricing tiers and features offered at TerpZone relevant to our project's scope and requirements.

How to test the project

1. Executing Select Queries:
   - Open your preferred SQL Server Management Studio
   - Connect to the database BUDT702_Project_0504_10.
   - Select the queries from the file one by one.
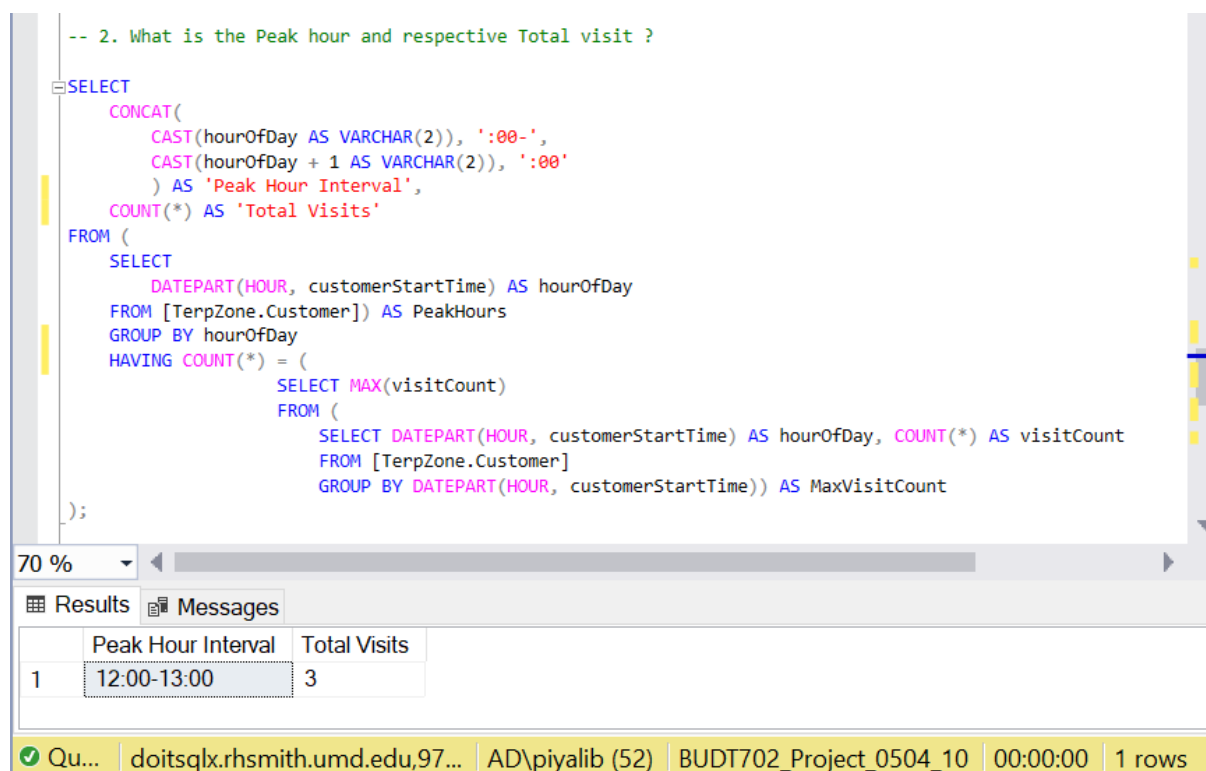   - Execute the queries to retrieve the results.

Query 1

```
-- 1. Which among the Weekdays and Weekends have more customers ?

SELECT 'Weekday' AS 'Day Type', COUNT(d.day) AS 'Customer Count'
FROM Day d
WHERE d.day IN ('Monday','Tuesday','Wednesday','Thursday','Friday')
UNION ALL
SELECT 'Weekend' AS day_type, COUNT(d.day)
FROM Day d
WHERE d.day IN ('Saturday','Sunday')
```

100 %

Results | Messages

	Day Type	Customer Count
1	Weekday	7
2	Weekend	4

Query ex... | doitsqlx.rhsmith.umd.edu,97... | AD\piyalib (52) | BUDT702_Project_0504_10 | 00:00:00 | 2 rows

Query 2

```
-- 2. What is the Peak hour and respective Total visit ?

SELECT
    CONCAT(
        CAST(hourOfDay AS VARCHAR(2)), ':00-',
        CAST(hourOfDay + 1 AS VARCHAR(2)), ':00'
    ) AS 'Peak Hour Interval',
    COUNT(*) AS 'Total Visits'
FROM (
    SELECT
        DATEPART(HOUR, customerStartTime) AS hourOfDay
    FROM [TerpZone.Customer]) AS PeakHours
    GROUP BY hourOfDay
    HAVING COUNT(*) = (
                SELECT MAX(visitCount)
                FROM (
                    SELECT DATEPART(HOUR, customerStartTime) AS hourOfDay, COUNT(*) AS visitCount
                    FROM [TerpZone.Customer]
                    GROUP BY DATEPART(HOUR, customerStartTime)) AS MaxVisitCount
);
```

70 %

Results | Messages

	Peak Hour Interval	Total Visits
1	12:00-13:00	3

Qu... | doitsqlx.rhsmith.umd.edu,97... | AD\piyalib (52) | BUDT702_Project_0504_10 | 00:00:00 | 1 rows

Query 3

```
-- 3. What type of customers visits more ?

SELECT c.customerType AS 'Customer Type', COUNT (C.customerType) AS 'Customer Engagement'
FROM [TerpZone.Customer] c
GROUP BY c.customerType
```

100 %

▦ Results | Messages

	Customer Type	Customer Engagement
1	FACULTY	3
2	PUBLIC	2
3	STUDENT	6

✔ Query executed successfully. | doitsqlx.rhsmith.umd.edu,97... | AD\piyalib (56) | BUDT702_Project_0504_10 | 00:00:00 | 3 rows

Query 4

```
-- 4. Which age group comes to play the most ?

SELECT '18-25' AS 'Age group', COUNT (p.playerId) AS 'No. of Players'
FROM [TerpZone.Player] p
WHERE DATEDIFF(YEAR, p.playerDOB, GETDATE()) BETWEEN 18 AND 25
UNION
SELECT '25-35' , COUNT (p.playerId)
FROM [TerpZone.Player] p
WHERE DATEDIFF(YEAR, p.playerDOB, GETDATE()) BETWEEN 25 AND 35
UNION
SELECT '35 and above', COUNT (p.playerId)
FROM [TerpZone.Player] p
WHERE DATEDIFF(YEAR, p.playerDOB, GETDATE()) BETWEEN 35 AND 100
```

100 %

▦ Results | Messages

	Age group	No. of Players
1	18-25	9
2	25-35	11
3	35 and above	7

✔ Query executed successfully. | doitsqlx.rhsmith.umd.edu,97... | AD\piyalib (56) | BUDT702_Project_0504_10 | 00:00:00 | 3 rows