

Milestone 1 – Table Creation (DDL) and INSERT Statements (DML)

STAIRWAYTOHEAVE...uova - Diagram_0*

SQLQuery1.sql - st...amatatuleuova (58))

```
SELECT * FROM DICE1  
SELECT * FROM DICE2  
SELECT * FROM DICE3  
SELECT * FROM DICE4  
SELECT * FROM DICE5
```

100 %

Results Messages

	d1
1	1
2	2
3	3
4	4
5	5
6	6

	d2
1	1
2	2
3	3
4	4
5	5
6	6

	d3
1	1
2	2
3	3
4	4
5	5
6	6

	d4
1	1
2	2
3	3
4	4
5	5
6	6

	d5
1	1
2	2
3	3
4	4
5	5
6	6

Query executed successfully.

stairway.usu.edu (13.0 SP2) | amatatuleuova (58) | amatatuleuova | 00:00:00 | 30 rows

Milestone 2 – CROSS JOIN, Random Number, and TOP FUNCTION

STAIRWAYTOHEAVE...uova - Diagram 0*

```
SQLQuery1.sql - st...amatatuleuova (58)*
```

```
select d1,d2,d3,d4,d5 from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5
```

100 %

	d1	d2	d3	d4	d5
1	1	1	1	1	1
2	1	2	1	1	1
3	1	3	1	1	1
4	1	4	1	1	1
5	1	5	1	1	1
6	1	6	1	1	1
7	1	1	2	1	1
8	1	2	2	1	1
9	1	3	2	1	1
10	1	4	2	1	1
11	1	5	2	1	1
12	1	6	2	1	1
13	1	1	3	1	1
14	1	2	3	1	1
15	1	3	3	1	1
16	1	4	3	1	1
17	1	5	3	1	1
18	1	6	3	1	1
19	1	1	4	1	1
20	1	2	4	1	1
21	1	3	4	1	1
22	1	4	4	1	1
23	1	5	4	1	1
24	1	6	4	1	1
25	1	1	5	1	1
26	1	2	5	1	1
27	1	3	5	1	1
28	1	4	5	1	1
29	1	5	5	1	1
30	1	6	5	1	1
31	1	1	6	1	1
32	1	2	6	1	1
33	1	3	6	1	1
34	1	4	6	1	1
35	1	5	6	1	1
36	1	6	6	1	1
37	1	1	1	2	1

1. Query executed successfully. | stairway.usu.edu (13.0 SP2) | amatatuleuova (58) | amatatuleuova | 00:00:00 | 7776 rows

2. 7,776 rows are created with the CROSS JOIN

STAIRWAYTOHEAVE...uova - Diagram 0*

```
SQLQuery1.sql - st...amatatuleuova (58)*
```

```
select d1,d2,d3,d4,d5 from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5  
order by newid()
```

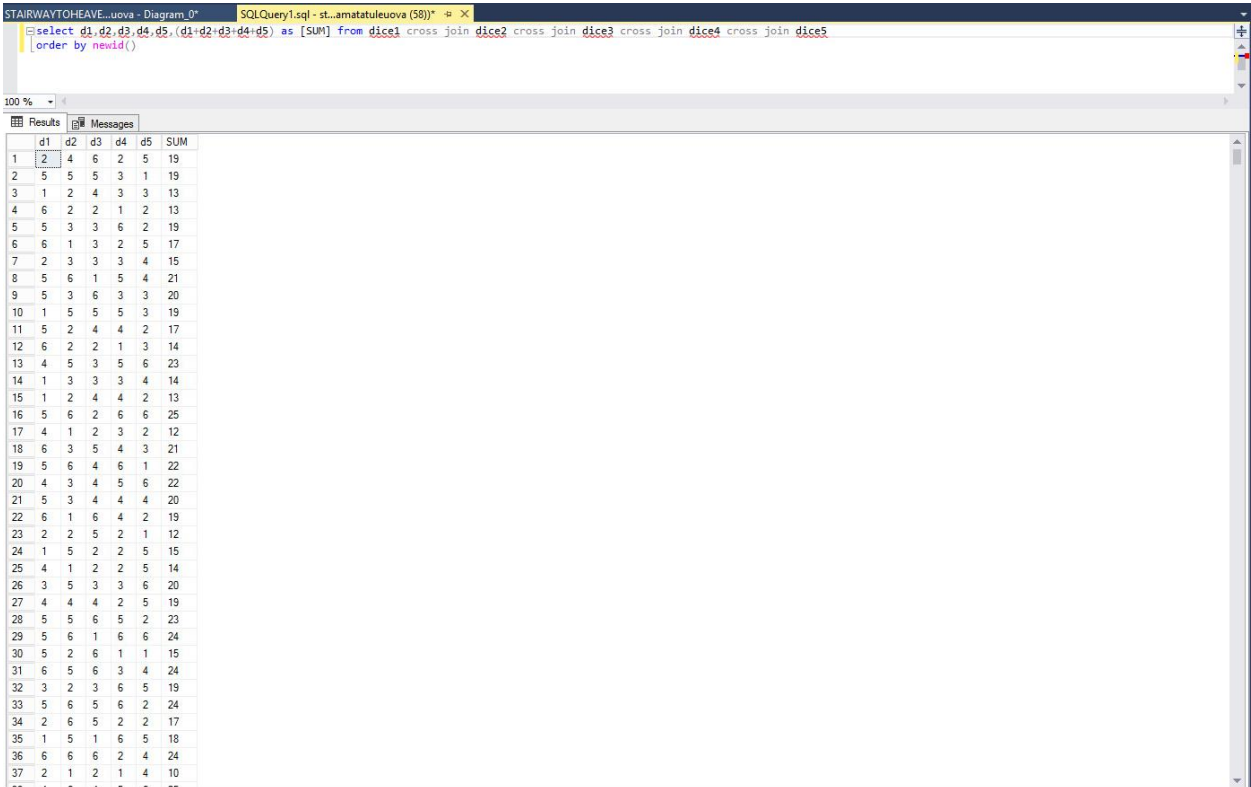
100 %

	d1	d2	d3	d4	d5
1	3	6	1	6	6
2	6	4	3	1	5
3	2	4	2	1	1
4	2	2	6	2	2
5	2	1	6	1	5
6	2	2	4	6	6
7	4	3	5	1	1
8	5	3	5	2	3
9	6	6	1	4	3
10	5	4	6	6	4
11	1	4	4	2	2
12	1	3	5	1	3
13	1	1	5	1	1
14	5	5	5	6	1
15	4	1	6	5	5
16	3	5	3	6	1
17	6	3	3	2	2
18	1	2	4	6	2
19	4	5	4	5	3
20	1	4	5	4	4
21	1	1	5	2	4
22	4	3	2	5	2
23	5	5	3	2	4
24	5	6	2	3	4
25	1	1	3	3	6
26	5	5	1	5	5
27	3	1	3	6	5
28	3	3	3	1	6
29	4	6	4	6	2
30	1	2	1	1	4
31	2	5	4	1	4
32	2	2	2	1	5
33	2	3	5	6	1
34	4	2	2	2	2
35	1	5	2	4	2
36	3	5	3	3	4
37	5	6	6	4	6

3. Query executed successfully. | stairway.usu.edu (13.0 SP2) | amatatuleuova (58) | amatatuleuova | 00:00:00 | 7776 rows

Milestone 3 – Calculated Column & CASE EXPRESSION

1.



Query executed successfully. stairway.usu.edu (13.0 SP2) amatatuleuova (58) amatatuleuova 00:00:00 7776 rows

```
select d1,d2,d3,d4,d5,(d1+d2+d3+d4+d5) as [SUM] from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5
order by newid()
```

	d1	d2	d3	d4	d5	SUM
1	2	4	6	2	5	19
2	5	5	5	3	1	19
3	1	2	4	3	3	13
4	6	2	2	1	2	13
5	5	3	3	6	2	19
6	6	1	3	2	5	17
7	2	3	3	3	4	15
8	5	6	1	5	4	21
9	5	3	6	3	3	20
10	1	5	5	5	3	19
11	5	2	4	4	2	17
12	6	2	2	1	3	14
13	4	5	3	5	6	23
14	1	3	3	3	4	14
15	1	2	4	4	2	13
16	5	6	2	6	6	25
17	4	1	2	3	2	12
18	6	3	5	4	3	21
19	5	6	4	6	1	22
20	4	3	4	5	6	22
21	5	3	4	4	4	20
22	6	1	6	4	2	19
23	2	2	5	2	1	12
24	1	5	2	2	5	15
25	4	1	2	2	5	14
26	3	5	3	3	6	20
27	4	4	4	2	5	19
28	5	5	6	5	2	23
29	5	6	1	6	6	24
30	5	2	6	1	1	15
31	6	5	6	3	4	24
32	3	2	3	6	5	19
33	5	6	5	6	2	24
34	2	6	5	2	2	17
35	1	5	1	6	5	18
36	6	6	6	2	4	24
37	2	1	2	1	4	10

Query executed successfully. stairway.usu.edu (13.0 SP2) amatatuleuova (58) amatatuleuova 00:00:00 1 rows

```
select TOP 1 d1,d2,d3,d4,d5,(d1+d2+d3+d4+d5) as [SUM]
from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5
order by newid()
```

	d1	d2	d3	d4	d5	SUM
1	1	6	2	4	4	17

STAIRWAYTOHEAVE...uova - Diagram_0*

SQLQuery1.sql - st...amatatuleuova (58)*

```

select d1,d2,d3,d4,d5,(d1+d2+d3+d4+d5) as [SUM], CASE
WHEN d1+d2+d3+d4+d5 = 29 THEN 15
WHEN d1+d2+d3+d4+d5 = 28 THEN 7
WHEN d1+d2+d3+d4+d5 = 27 THEN 5
WHEN d1+d2+d3+d4+d5 = 26 THEN 3
WHEN d1+d2+d3+d4+d5 = 25 THEN 3
WHEN d1+d2+d3+d4+d5 = 14 THEN 2
WHEN d1+d2+d3+d4+d5 = 10 THEN 2
WHEN d1+d2+d3+d4+d5 = 9 THEN 3
WHEN d1+d2+d3+d4+d5 = 8 THEN 4
WHEN d1+d2+d3+d4+d5 = 7 THEN 7
WHEN d1+d2+d3+d4+d5 = 6 THEN 15
ELSE '0'
END AS 'Total Won from Current Roll'
from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5
order by newid()

```

100 %

Results Messages

	d1	d2	d3	d4	d5	SUM	Total Won from Current Roll
1	3	6	1	6	3	19	0
2	2	3	3	1	3	12	0
3	2	6	5	4	4	21	0
4	6	5	4	5	6	26	3
5	1	1	3	3	2	10	2
6	4	3	2	2	6	17	0
7	4	6	1	3	6	20	0
8	4	4	1	6	3	18	0
9	4	3	4	2	4	17	0
10	1	3	6	5	1	16	0
11	2	6	2	4	5	19	0
12	1	5	4	1	1	12	0
13	2	1	3	3	6	15	0
14	3	3	2	4	3	15	0
15	2	5	3	5	1	16	0
16	5	5	3	5	3	21	0
17	2	1	5	4	2	14	2
18	1	6	1	2	2	12	0
19	1	2	6	6	4	19	0
20	1	4	2	1	2	10	2
21	3	6	1	3	5	18	0
22	1	6	6	6	6	25	3
23	5	5	1	5	3	19	0
24	6	5	2	3	3	19	0

2. Query executed successfully.

stairway.usu.edu (13.0 SP2) amatatuleuova (58) amatatuleuova 00:00:00 7776 rows

SQLQuery2.sql - st...amatatuleuova (68)*

SQLQuery1.sql - st...amatatuleuova (58)*

STAIRWAYTOHEAVE...uova - Diagram_0*

```

insert into runningtable
select top 1 d1,d2,d3,d4,d5,(d1+d2+d3+d4+d5) as [SUM], CASE
WHEN d1+d2+d3+d4+d5 = 29 THEN 15
WHEN d1+d2+d3+d4+d5 = 28 THEN 7
WHEN d1+d2+d3+d4+d5 = 27 THEN 5
WHEN d1+d2+d3+d4+d5 = 26 THEN 3
WHEN d1+d2+d3+d4+d5 = 25 THEN 3
WHEN d1+d2+d3+d4+d5 = 14 THEN 2
WHEN d1+d2+d3+d4+d5 = 10 THEN 2
WHEN d1+d2+d3+d4+d5 = 9 THEN 3
WHEN d1+d2+d3+d4+d5 = 8 THEN 4
WHEN d1+d2+d3+d4+d5 = 7 THEN 7
WHEN d1+d2+d3+d4+d5 = 6 THEN 15
ELSE '0'
END AS 'Total Won from Current Roll'
from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5
order by newid()

```

100 %

Messages

(1 row(s) affected)

Query executed successfully.

stairway.usu.edu (13.0 SP2) amatatuleuova (58) amatatuleuova 00:00:00 0 rows

Milestone 4 – INSERT INTO SELECT STATEMENT

```

SQLQuery2.sql - st...amatatuleuova (58)*
SQLQuery1.sql - st...amatatuleuova (58)*
STAIRWAYTOHEAVE...uova - Diagram_0

insert into runningtable
select top 1 d1,d2,d3,d4,d5,(d1+d2+d3+d4+d5) as [SUM], CASE
WHEN d1+d2+d3+d4+d5 = 29 THEN 15
WHEN d1+d2+d3+d4+d5 = 28 THEN 7
WHEN d1+d2+d3+d4+d5 = 27 THEN 5
WHEN d1+d2+d3+d4+d5 = 26 THEN 3
WHEN d1+d2+d3+d4+d5 = 25 THEN 3
WHEN d1+d2+d3+d4+d5 = 14 THEN 2
WHEN d1+d2+d3+d4+d5 = 10 THEN 2
WHEN d1+d2+d3+d4+d5 = 9 THEN 3
WHEN d1+d2+d3+d4+d5 = 8 THEN 4
WHEN d1+d2+d3+d4+d5 = 7 THEN 7
WHEN d1+d2+d3+d4+d5 = 6 THEN 15
ELSE '0'
END AS 'Total Won from Current Roll'
from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5
order by newid()

(1 row(s) affected)

Query executed successfully.
stairway.usu.edu (13.0 SP2) | amatatuleuova (58) | amatatuleuova | 00:00:00 | 0 rows

```

Milestone 5 – WINDOW FUNCTION

```

insert into runningtable
select top 1 d1,d2,d3,d4,d5,(d1+d2+d3+d4+d5) as [SUM], CASE
WHEN d1+d2+d3+d4+d5 = 29 THEN 15
WHEN d1+d2+d3+d4+d5 = 28 THEN 7
WHEN d1+d2+d3+d4+d5 = 27 THEN 5
WHEN d1+d2+d3+d4+d5 = 26 THEN 3
WHEN d1+d2+d3+d4+d5 = 25 THEN 3
WHEN d1+d2+d3+d4+d5 = 14 THEN 2
WHEN d1+d2+d3+d4+d5 = 10 THEN 2
WHEN d1+d2+d3+d4+d5 = 9 THEN 3
WHEN d1+d2+d3+d4+d5 = 8 THEN 4
WHEN d1+d2+d3+d4+d5 = 7 THEN 7
WHEN d1+d2+d3+d4+d5 = 6 THEN 15
ELSE '0'
END AS 'Total Won from Current Roll'
from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5
order by newid()
SELECT TOP 1 RollNum, d1, d2, d3, d4, d5, SUM as 'Sum of Current roll',

total as 'Points Earned on Current Roll',
SUM(TOTAL) OVER (ORDER BY RollNum) as 'Total Overall Score'

from runningtable

ORDER BY RollNUM DESC

```

SQLQuery2.sql - st..amatatuleuova (68)*SQLQuery1.sql - st..amatatuleuova (58)*STAIRWAYTOHEAVE...uova - Diagram_0*

Insert into runningtable

select top 1 d1,d2,d3,d4,d5,(d1+d2+d3+d4+d5) as [SUM], CASE

WHEN d1+d2+d3+d4+d5 = 29 THEN 15

WHEN d1+d2+d3+d4+d5 = 28 THEN 7

WHEN d1+d2+d3+d4+d5 = 27 THEN 5

WHEN d1+d2+d3+d4+d5 = 26 THEN 3

WHEN d1+d2+d3+d4+d5 = 25 THEN 3

WHEN d1+d2+d3+d4+d5 = 14 THEN 2

WHEN d1+d2+d3+d4+d5 = 10 THEN 2

WHEN d1+d2+d3+d4+d5 = 9 THEN 3

WHEN d1+d2+d3+d4+d5 = 8 THEN 4

WHEN d1+d2+d3+d4+d5 = 7 THEN 7

WHEN d1+d2+d3+d4+d5 = 6 THEN 15

ELSE 0

END AS 'Total Won from Current Roll'

from dice1 cross join dice2 cross join dice3 cross join dice4 cross join dice5

order by newid()

SELECT TOP 1 RollNum, d1, d2, d3, d4, d5, SUM as 'Sum of Current roll',

total as 'Points Earned on Current Roll',

SUM(TOTAL) OVER (ORDER BY RollNum) as 'Total Overall Score'

from runningtable

ORDER BY RollNum DESC;

100 %

ResultsMessages

RollNum	d1	d2	d3	d4	d5	Sum of Current roll	Points Earned on Current Roll	Total Overall Score	
1	32	1	2	3	1	1	8	4	42

Query executed successfully.

stairway.usu.edu (13.0 SP2)amatatuleuova (58)amatatuleuova00:00:001 rows