

## **Project Summary**

The domain of this application is the entertainment industry, specifically focused on Disney Resorts. It encompasses various aspects of providing information to administrators and guests about these resorts, their residing theme parks, and the smaller themed “lands” within those. This database will facilitate the efficient management of guest information, merchandise, food, and attractions found in each resort, such as rides and shows.

Here is a list of things guests can do:

- Project on certain tables in the database. For privacy/security, guests cannot project on Account, Reserve, and TicketAtDisneyResortOwnedByAccount
- Make reservations or update their reservations at restaurants
- Find out which Disney Lands appear in every single Disney Resort in the world
- Find out which Land has the lowest average wait time for rides across all Disney Resorts
- Find what stores are in a Theme Park
- Find the average price of merchandise at a store

On the other hand, administrators have unrestricted access to project on all tables in the database, and also delete accounts.

## **How The Schema Differed**

Since our normalization process was done incorrectly, changes were made. These changes include:

- Removing DisneyResortPostal and AddressCityCountry, and altering DisneyResortAddress to contain foreign key postalCode
- Completely overhauling the schemas from the normalization of LandContainThemePark
  - Removing LandTheme, LandYearOpen, and ThemeParkThemeName
  - Adding ThemeNameand ThemeParkLand
- For the normalization of Ride
  - Removing RideMinimumHeight
  - Adding a foreign key minimumHeight to RideAvgWaitTime
  - Altering name of MinimumHeightRideType to RideTypeMinimumHeight
- Added partySize attribute to Reserve table to meet the requirements for insert query

## Schema and Screenshots

PostalCodeCity(postalCode, city)

POSTALCODE
-----
CITY
-----
92802
Anaheim
98264
Bay Lake
279-0031
Chiba
77700
Coupray
HKG
Hong Kong
10011005
Shanghai

PostalCodeCountry(postalCode, country)

POSTALCODE
-----
COUNTRY
-----
92802
USA
98264
USA
279-0031
Japan
77700
France
HKG
Hong Kong SAR
10011005
China

DisneyResortAddress(disneyResortName, address, **postalCode**)

DISNEYRESORTNAME

ADDRESS

POSTALCODE

Disneyland Resort  
1313 Disneyland Dr  
92802

Walt Disney World Resort  
1375 East Buena Vista Drive  
98264

Tokyo Disney Resort  
1-1 Maihama  
279-0031

Disneyland Paris  
Bd de Parc  
77700

Hong Kong Disneyland Resort  
Park Promenade  
HKG

Shanghai Disneyland Resort  
No. 310 Huang Zhao Road  
10011005

ComprisingThemePark(themeParkId, name, **disneyResortName**)

THEMEPARKID

-----

NAME

-----

DISNEYRESORTNAME

-----

1  
Disneyland Park  
Disneyland Resort

2  
Disney California Adventure Park  
Disneyland Resort

3  
Magic Kingdom Park  
Walt Disney World Resort

4  
Epcot  
Walt Disney World Resort

5  
Disney's Hollywood Studios  
Walt Disney World Resort

6  
Disney's Animal Kingdom Theme Park  
Walt Disney World Resort

7  
Tokyo Disneyland  
Tokyo Disney Resort

8  
Tokyo DisneySea  
Tokyo Disney Resort

9  
Disneyland Park (Paris)  
Disneyland Paris

10  
Walt Disney Studios Park  
Disneyland Paris

11  
Hong Kong Disneyland  
Hong Kong Disneyland Resort

12  
Shanghai Disneyland Park  
Shanghai Disneyland Resort

ThemeName(name, theme)

NAME

THEME

Main Street, U.S.A.

American small towns during the early 20th Century

Adventureland

Remote jungles of Asia, Africa, South America, Oceania, the Caribbean Islands and the Middle East

Frontierland

19th Century American Frontier, American History and North America

Fantasyland

Disney's animated fairy tale films, Fantasy, the towns and villages of Europe

Tomorrowland

Future, technology, outer space, discovery and science fiction

New Orleans Square

19th Century New Orleans

Critter Country

Land of bears and other animals

Mickey's Toontown

Mickey Mouse universe

Star Wars: Galaxy's Edge

Star Wars

Buena Vista Street

20th Century Art Deco/Mission street

Pixar Pier

Pixar/A Victorian era seaside amusement park

Paradise Gardens Park

A Victorian era seaside amusement park

Grizzly Peak

1950s National Recreation Area

Hollywood Land

1930s Hollywood

Avengers Campus

Marvel Cinematic Universe

Cars Land

Cars, Radiator Springs

Adventure Isle

Remote jungles of Asia, Africa, South America, Oceania, the Caribbean Islands and the Middle East

ThemeParkLand(themeParkId, landId, **name**, yearOpen)

THEMEPARKID	LANDID
NAME	
YEAROPEN	
1	1
Main Street, U.S.A.	
1955	
1	2
Adventureland	
1955	
1	3
Frontierland	
1955	
1	4
Fantasyland	
1955	
1	5
Tomorrowland	
1955	
1	6
New Orleans Square	
1966	
1	7
Critter Country	
1972	
1	8
Mickey's Toontown	
1993	

1	9
Star Wars: Galaxy's Edge	
2019	

2	10
Buena Vista Street	
2001	

2	11
Pixar Pier	
2001	

2	12
Paradise Gardens Park	
2001	

2	13
Grizzly Peak	
2001	

2	14
Hollywood Land	
2001	

2	15
Cars Land	
2012	

2	16
Avengers Campus	
2021	

3	6
Fantasyland	
1971	

3	7
Tomorrowland	
1971	

7	5
Fantasyland	
1983	

9	4
Fantasyland	
1992	

11	3
Fantasyland	
2005	

12	3
Fantasyland	
2016	

Attraction(attractionId, name)

ATTRACTIONID

NAME

1

Space Mountain

2

Incredicoaster

3

Big Thunder Mountain Railroad

4

Pirates of the Caribbean

5

Buzz Lightyear Astro Blasters

6

Walt Disney's Enchanted Tiki Room

7

"Believe...In Holiday Magic" Fireworks Spectacular

8

A Christmas Fantasy Parade

9

Disney Junior Dance Party!

10

Fireworks at Disneyland Park

11

Star Wars: Millennium Falcon - Smugglers Run

12

Star Wars: Rise of the Resistance

13

Alice in Wonderland

14

Casey Jr. Circus Train

15

Dumbo the Flying Elephant

16

Peter Pan's Flight

17

It's a Small World



IsPartOf(themeParkId, landId, attractionId)

THEMEPARKID	LANDID	ATTRACTIONID
1	3	3
1	4	13
1	4	14
1	4	15
1	4	16
1	4	17
1	5	1
1	5	5
1	6	4
1	9	11
1	9	12
2	11	2
3	7	1

RideTypeMinimumHeight(minimumHeight, rideType)

MINIMUMHEIGHT
122
Big Drops
117
Medium Drops
107
Small Drops
102
Mini Drops
0
All Heights

RideAvgWaitTime(attractionId, minimumHeight, avgWaitTime)

ATTRACTIONID	MINIMUMHEIGHT	AVGWAITTIME
1	102	50
2	122	50
3	102	35
4	0	40
5	0	25
11	102	80
12	102	80
13	0	25
14	0	35
15	0	10
16	0	45
17	0	60

Event(attractionId, eventType)

ATTRACTIONID	EVENTTYPE
6	Show
7	Fireworks
8	Parade
9	Show
10	Fireworks

ShowtimeEvent(attractionId, startTime, endTime)

ATTRACTIONID	STARTTIME	ENDTIME
6	800	815
6	930	945
7	2400	2115
8	1300	1340
9	1015	1045
9	1115	1145
10	2030	2040

ShowtimeDuration(startTime, endTime, duration)

STARTTIME	ENDTIME	DURATION
800	815	15
930	945	15
2400	2115	15
1300	1340	40
1015	1045	30
1115	1145	30
2030	2040	10

FeatureRestaurant(restaurantId, restaurantName, maxOccupancy, **themeParkId**, **landId**)

RESTAURANTID			
-----			
RESTAURANTNAME			
-----			
MAXOCCUPANCY	THEMEPARKID	LANDID	
-----			
1			
Hungry Bear Restaurant			
150	1	7	
2			
Carthay Circle Restaurant			
200	2	10	
3			
Plaza Inn			
400	1	1	
4			
Blue Bayou Restaurant			
300	1	6	
5			
Paradise Garden Grill			
130	2	12	

Food(name, price)

NAME	
-----	
PRICE	
-----	
Honey-Spiced Chicken Sandwich	
13	
Classic Cheeseburger	
13	
BBQ Chicken Salad	
12	
Pumpkin Churro Funnel Cake	
12	
French Fries	
4	
Tiramisu	
11	
Cheesecake	
11	

Serve(**restaurantId**, **foodName**)

RESTAURANTID

-----

FOODNAME

-----

1

BBQ Chicken Salad

1

Classic Cheeseburger

1

French Fries

1

Honey-Spiced Chicken Sandwich

1

Pumpkin Churro Funnel Cake

1

Tiramisu

2

Cheesecake

Account(accountId, name, email, birthDate)

```
ACCOUNTID
-----
NAME
-----
EMAIL
-----
BIRTHDATE
-----
          1
Celine
celine@ubc.ca
14-NOV-03

          2
Brandon
brandon@ubc.ca
29-JUN-01

          3
Josh
josh@ubc.ca
24-APR-01

          4
Melissa
melissa@ubc.ca
15-SEP-01

          5
Rachael
rachael@ubc.ca
01-JAN-75

          6
Kelly
kelly@ubc.ca
19-MAR-00
```

Reserve(accountId, restaurantId, partySize, time)

ACCOUNTID	RESTAURANTID	PARTYSIZE	TIME
1	1	4	06-NOV-23
2	5	8	08-DEC-23
3	3	2	29-JUN-24
1	4	1	12-JAN-24
1	5	10	30-MAY-25
4	3	3	18-FEB-25

TicketAtDisneyResortOwnedByAccount(ticketId, disneyResortName, entryDate, accountId)

TICKETID		
-----		
DISNEYRESORTNAME		
-----		
ENTRYDATE	ACCOUNTID	
-----		
111		
Shanghai Disneyland Resort		
14-NOV-23	1	
112		
Shanghai Disneyland Resort		
15-NOV-23	1	
113		
Disneyland Paris		
20-OCT-23	3	
114		
Disneyland Resort		
21-DEC-19	2	
115		
Shanghai Disneyland Resort		
21-OCT-24	3	

OpenStore(**storeid**, **sku**)

STOREID		
NAME		
THEMEPARKID	LANDID	
1	World of Disney	
2	Emporium	
1	1	
3	Little Green Men Store Command	
1	5	
4	The LEGO Store	
5	Pioneer Mercantile	
1	3	
6	Doko-Ondar's Den of Antiquities	
1	9	
7	The Outpost Shop	
6		
8	Ramone's House of Body Art	
2	15	
9	Bing Bong's Sweet Stuff	
2	11	
10	Rushin' River Outfitters	
2	13	



Merchandise(sku, name, price)

SKU	NAME	PRICE
55555	Winnie-the-Pooh plush large	65
66666	Piglet plush large	60
77777	Tigger plush large	60
88888	Rabbit plush large	60
99999	Eeyore plush large	60
0	Elsa plush small	20
11111	Anna plush small	20
22222	Olaf plush small	20
33333	Kristoff plush small	20
44444	Hans plush small	20
10000	Frozen 10th Anniversary Latte Mug	24.99
10001	Anna Nightgown	36.99
10002	Elsa Nightgown	36.99

Sell(storeid, sku)

STOREID	SKU
1	55555
1	66666
1	77777
1	88888
1	99999
2	10001
2	10002
3	0
3	11111
3	22222
3	33333
3	44444

## Location of Queries

Query	File Name	Line Number
INSERT	reservationService.js	line 9
DELETE	appService.js	line 103
UPDATE	attractionService.js	line 34-36
Selection	attractionService.js	line 5
Projection	appService.js	line 94
Join	storeService.js	line 8-13
Aggregation with Group By	storeService.js	line 27-32
Aggregation with Having	themeParkService.js	line 7-11
Nested Aggregation with Group By	landsService.js	line 30-39
Division	landsService.js	line 7-15

## Query Demonstration

### INSERT

Before

#### Insert Reservation

AccountId:

Enter Account ID

RestaurantId:

Enter Restaurant ID

PartySize:

Enter Party Size

Date:

mm/dd/yyyy

Time:

--:-- --

insert

ACCOUNTID	RESTAURANTID	PARTYSIZE	TIME
1	1	4	06-NOV-23
2	5	8	08-DEC-23
3	3	2	29-JUN-24
1	4	1	12-JAN-24
1	5	10	30-MAY-25
4	3	3	18-FEB-25

During	<div><h3>Insert Reservation</h3><div><div>AccountId:</div><div>1</div></div><div><div>RestaurantId:</div><div>3</div></div><div><div>PartySize:</div><div>4</div></div><div><div>Date:</div><div>12/02/2023</div><div></div></div><div><div>Time:</div><div>07:30 PM</div><div></div></div><div>insert</div></div>
After	<div><h3>Insert Reservation</h3><div><div>AccountId:</div><div>1</div></div><div><div>RestaurantId:</div><div>3</div></div><div><div>PartySize:</div><div>4</div></div><div><div>Date:</div><div>12/02/2023</div><div></div></div><div><div>Time:</div><div>07:30 PM</div><div></div></div><div>insert</div><div>Data inserted successfully!</div></div>

	ACCOUNTID	RESTAURANTID	PARTYSIZE	TIME
	-----	-----	-----	-----
	2	2	2	02-FEB-22
	1	1	4	06-NOV-23
	2	5	8	08-DEC-23
	3	3	2	29-JUN-24
	1	4	1	12-JAN-24
	1	5	10	30-MAY-25
	4	3	3	18-FEB-25

DELETE

Before

Delete Account

Account ID:

Enter Account Id

delete

ACCOUNTID

-----

NAME

-----

EMAIL

-----

BIRTHDATE

-----

1

Celine

celine@ubc.ca

14-NOV-03

2

Brandon

brandon@ubc.ca

29-JUN-01

3

Josh

josh@ubc.ca

24-APR-01

4

Melissa

melissa@ubc.ca

15-SEP-01

5

Rachael

rachael@ubc.ca

01-JAN-75

6

Kelly

kelly@ubc.ca

19-MAR-00

During	<div><div>Delete Account</div><div>Account ID:</div><div><div>1</div><div></div></div></div>
After	<div><div>Delete Account</div><div>Account ID:</div><div><div>1</div></div><div><div>delete</div></div><div>Data deleted successfully!</div></div> <div><div>ACCOUNTID</div><div>-----</div><div>NAME</div><div>-----</div><div>EMAIL</div><div>-----</div><div>BIRTHDATE</div><div>-----</div><div>2</div><div>Brandon</div><div>brandon@ubc.ca</div><div>29-JUN-01</div><div>3</div><div>Josh</div><div>josh@ubc.ca</div><div>24-APR-01</div><div>4</div><div>Melissa</div><div>melissa@ubc.ca</div><div>15-SEP-01</div><div>5</div><div>Rachael</div><div>rachael@ubc.ca</div><div>01-JAN-75</div><div>6</div><div>Kelly</div><div>kelly@ubc.ca</div><div>19-MAR-00</div></div>



UPDATE

Before

Current Rides

Attraction ID	Minimum Height	Average Wait Time
1	102	50
2	122	50
3	102	35
4	0	40
5	0	25
11	102	80
12	102	80
13	0	25
14	0	35
15	0	10
16	0	45
17	0	60

Update Ride Minimum Height AND Average Wait Time

Update Query

Attraction ID:

Enter Attraction Id

Minimum Heights: 

Select an option

New Average Wait Time:

Enter New Average Wait Time

update

	<table><tr><th>AttractionID</th><th>MinimumHeight</th><th>AvgWaitTime</th></tr><tr><td>1</td><td>102</td><td>50</td></tr><tr><td>2</td><td>122</td><td>50</td></tr><tr><td>3</td><td>102</td><td>35</td></tr><tr><td>4</td><td>0</td><td>40</td></tr><tr><td>5</td><td>0</td><td>25</td></tr><tr><td>11</td><td>102</td><td>80</td></tr><tr><td>12</td><td>102</td><td>80</td></tr><tr><td>13</td><td>0</td><td>25</td></tr><tr><td>14</td><td>0</td><td>35</td></tr><tr><td>15</td><td>0</td><td>10</td></tr><tr><td>16</td><td>0</td><td>45</td></tr><tr><td>17</td><td>0</td><td>60</td></tr></table>	AttractionID	MinimumHeight	AvgWaitTime	1	102	50	2	122	50	3	102	35	4	0	40	5	0	25	11	102	80	12	102	80	13	0	25	14	0	35	15	0	10	16	0	45	17	0	60
AttractionID	MinimumHeight	AvgWaitTime																																						
1	102	50																																						
2	122	50																																						
3	102	35																																						
4	0	40																																						
5	0	25																																						
11	102	80																																						
12	102	80																																						
13	0	25																																						
14	0	35																																						
15	0	10																																						
16	0	45																																						
17	0	60																																						
During	<div><div>Current Rides</div><table><tr><th>Attraction ID</th><th>Minimum Height</th><th>Average Wait Time</th></tr><tr><td>1</td><td>102</td><td>50</td></tr><tr><td>2</td><td>122</td><td>50</td></tr><tr><td>3</td><td>102</td><td>35</td></tr><tr><td>4</td><td>0</td><td>40</td></tr><tr><td>5</td><td>0</td><td>25</td></tr><tr><td>11</td><td>102</td><td>80</td></tr><tr><td>12</td><td>102</td><td>80</td></tr><tr><td>13</td><td>0</td><td>25</td></tr><tr><td>14</td><td>0</td><td>35</td></tr><tr><td>15</td><td>0</td><td>10</td></tr><tr><td>16</td><td>0</td><td>45</td></tr><tr><td>17</td><td>0</td><td>60</td></tr></table></div>	Attraction ID	Minimum Height	Average Wait Time	1	102	50	2	122	50	3	102	35	4	0	40	5	0	25	11	102	80	12	102	80	13	0	25	14	0	35	15	0	10	16	0	45	17	0	60
Attraction ID	Minimum Height	Average Wait Time																																						
1	102	50																																						
2	122	50																																						
3	102	35																																						
4	0	40																																						
5	0	25																																						
11	102	80																																						
12	102	80																																						
13	0	25																																						
14	0	35																																						
15	0	10																																						
16	0	45																																						
17	0	60																																						

## Update Ride Minimum Height AND Average Wait Time

### Update Query

Attraction ID:

Minimum Heights: Select an option ▼

New Average Wait Select an option

0  
102  
107  
117  
122

update

After

## Update Ride Minimum Height AND Average Wait Time

### Update Query

Attraction ID:

Minimum Heights: 107 ▼

New Average Wait Time:

update

Ride updated successfully!

ATTRACTIONID	MINIMUMHEIGHT	AVGWAITTIME
--------------	---------------	-------------

1	102	50
2	122	50
3	102	35
4	0	40
5	107	25
11	102	80
12	102	80
13	0	25
14	0	35
15	0	10
16	0	45
17	0	60

Selection

Before	<div><div>Select Attraction</div><div><div>Add Input Box</div><div>Delete Input Box</div></div><div><div>select</div></div><div><div>ThemeParkId</div><div>LandId</div><div>AttractionId</div></div></div>
During	<div><div>Select Attraction</div><div><div>Selection Query</div><div><div>ThemeParkId</div><div>Enter ID</div></div><div><div>Add Input Box</div><div>Delete Input Box</div></div><div><div>select</div></div><div><div>ThemeParkId</div><div>LandId</div><div>AttractionId</div></div></div></div>

Select Attraction

Selection Query

ThemeParkId

1

✓ AND

OR

LandId

Add Input Box

Delete Input Box

select

ThemeParkId

LandId

AttractionId

Select Attraction

Selection Query

ThemeParkId

1

ThemeParkId

AND

Enter

✓ LandId

AttractionId

Add Input Box

Delete Input Box

select

ThemeParkId

LandId

AttractionId

### Selection Query

ThemeParkId	LandId	AttractionId
-------------	--------	--------------

### Select Attraction

### Selection Query

AND  Landid

4

ThemeParkId	LandId	AttractionId
1	4	13
1	4	14
1	4	15
1	4	16
1	4	17

# Projection

Before	<div><div></div><div><div>Pick a Table to Project</div><div>Projection Query</div><div>Choose an option: <div>Select an option</div></div></div><div></div><div><div>Pick Attributes to Project</div><div>Project</div></div><div></div><div>After the project button is clicked, picked table will be displayed below :)</div><div></div></div>
During	<div><div></div><div><div>Pick a Table to Project</div><div>Projection Query</div><div>Choose an option</div></div><div></div><div><div>Pick Attributes to Project</div><div>Project</div></div><div></div><div>After the project button is clicked, picked table will be displayed below :)</div><div></div></div> <div><div>✓ Select an option</div><div>POSTALCODECITY</div><div>POSTALCODECOUNTRY</div><div>DISNEYRESORTADDRESS</div><div>COMPRISINGTHEMEPARK</div><div>THEMENAME</div><div>THEMEPARKLAND</div><div>ATTRACTION</div><div>ISPARTOF</div><div>RIDETYPEMINIMUMHEIGHT</div><div>RIDEAVGWAITTIME</div><div>EVENT</div><div>SHOWTIMEEVENT</div><div>SHOWTIMEDURATION</div><div>FEATURERESTAURANT</div><div>FOOD</div><div>SERVE</div><div>OPENSTORE</div><div>MERCHANDISE</div><div>SELL</div></div>

---

## Pick a Table to Project

Projection Query

Choose an option: ATTRACTION 

---

## ATTRACTION

### Pick Attributes to Project

☐ ATTRACTIONID

☐ NAME

**Project**

---

After the project button is clicked, picked table will be displayed below :)

---



After

## ATTRACTION

### Pick Attributes to Project

☒ ATTRACTIONID

☒ NAME

Project

Selected table projected successfully!

After the project button is clicked, picked table will be displayed below :)

ATTRACTIONID	NAME
1	Space Mountain
2	Incredicoaster
3	Big Thunder Mountain Railroad
4	Pirates of the Caribbean
5	Buzz Lightyear Astro Blasters
6	Walt Disney's Enchanted Tiki Room
7	"Believe...In Holiday Magic" Fireworks Spectacular
8	A Christmas Fantasy Parade
9	Disney Junior Dance Party!
10	Fireworks at Disneyland Park
11	Star Wars: Millennium Falcon - Smugglers Run
12	Star Wars: Rise of the Resistance
13	Alice in Wonderland
14	Casey Jr. Circus Train
15	Dumbo the Flying Elephant
16	Peter Pan's Flight
17	It's a Small World

## Join

Before	<div><hr/></div> <div><h3>Find Stores in a Theme Park</h3></div> <div><p><b>Join Query</b></p><p>Explanation: Join the OPENSTORE and THEMEPARKLAND table to find all the land names and corresponding store names under the selcted Theme Park ID.</p><p>Theme Park ID:</p><div><input type="text" value="Enter Theme Park ID"/></div><div><input type="button" value="Submit"/></div><div><table><tr><th>Land</th><th>Store Name</th></tr></table></div><div><hr/></div></div>	Land	Store Name
Land	Store Name		
During	<div><hr/></div> <div><h3>Find Stores in a Theme Park</h3></div> <div><p><b>Join Query</b></p><p>Explanation: Join the OPENSTORE and THEMEPARKLAND table to find all the land names and corresponding store names under the selcted Theme Park ID.</p><p>Theme Park ID:</p><div><input type="text" value="1"/></div><div><input type="button" value="Submit"/></div><div><table><tr><th>Land</th><th>Store Name</th></tr></table></div><div><hr/></div></div>	Land	Store Name
Land	Store Name		

After

## Find Stores in a Theme Park

### Join Query

Explanation: Join the OPENSTORE and THEMEPARKLAND table to find all the land names and corresponding store names under the selected Theme Park ID.

Theme Park ID:

Submit

Land	Store Name
Main Street, U.S.A.	Emporium
Tomorrowland	Little Green Men Store Command
Frontierland	Pioneer Mercantile
Star Wars: Galaxy's Edge	Doko-Ondar's Den of Antiquities

# Aggregation with Group By

Before

## Find Average Merchandise Price

Aggregation with Group By Query

Theme Park ID:

Enter Theme Park ID

Submit

Store ID	Store Name	Average Merchandise Price
----------	------------	---------------------------

## Insert Merchandise

Store ID:

Enter Store ID

Item SKU:

Enter Item SKU

Item Name:

Enter Item Name

Item Price:

Enter Item Price

Insert

During

### Find Average Merchandise Price

Aggregation with Group By Query

Theme Park ID:

1

Submit

Store ID	Store Name	Average Merchandise Price
----------	------------	---------------------------

After

### Find Average Merchandise Price

Aggregation with Group By Query

Theme Park ID:

1

Submit

Store ID	Store Name	Average Merchandise Price
2	Emporium	36.99
3	Little Green Men Store Command	20

During  
(insert  
new  
data)

Insert Merchandise

Store ID:

Item SKU:

Item Name:

Item Price:

New merchandise added successfully!

After  
(insert  
new  
data)

Find Average Merchandise Price

Aggregation with Group By Query

Theme Park ID:

Store ID	Store Name	Average Merchandise Price
2	Emporium	357.99333333333306
3	Little Green Men Store Command	20

## Aggregation with Having

Before	<div><p><b>Find the Number of Rides at a Theme Park For Each Minimum Height Less than a Certain Height</b></p><p>ThemeParkId:</p><input type="text" value="Enter Theme Park ID"/></div> <div><p>Height:</p><input type="text" value="Enter Height (cm)"/></div> <div><input type="button" value="select"/></div> <div><table><tr><th>MinimumHeight (cm)</th><th>Count</th></tr></table></div>	MinimumHeight (cm)	Count
MinimumHeight (cm)	Count		
During	<div><p><b>Find the Number of Rides at a Theme Park For Each Minimum Height Less than a Certain Height</b></p><p>ThemeParkId:</p><input type="text" value="1"/></div> <div><p>Height:</p><input type="text" value="200"/></div> <div><input type="button" value="select"/></div> <div><table><tr><th>MinimumHeight (cm)</th><th>Count</th></tr></table></div>	MinimumHeight (cm)	Count
MinimumHeight (cm)	Count		

After

**Find the Number of Rides at a Theme Park For Each Minimum Height Less than a Certain Height**

ThemeParkId:

Height:

select

MinimumHeight (cm)	Count
102	4
0	7



## Nested Aggregation with Group By

Before	<h3>Find Land with Lowest Average Wait Times</h3> <p>Nested Aggregation with Group By Query</p> <p>Theme Park ID:</p> <input type="text" value="Enter Theme Park ID"/>  <input type="button" value="Submit"/>  <table><thead><tr><th>Land Name</th><th>Average Wait Time</th></tr></thead></table>	Land Name	Average Wait Time				
Land Name	Average Wait Time						
During	<h3>Find Land with Lowest Average Wait Times</h3> <p>Nested Aggregation with Group By Query</p> <p>Theme Park ID:</p> <input type="text" value="1"/>  <input type="button" value="Submit"/>  <table><thead><tr><th>Land Name</th><th>Average Wait Time</th></tr></thead></table> <hr/>	Land Name	Average Wait Time				
Land Name	Average Wait Time						
After	<h3>Find Land with Lowest Average Wait Times</h3> <p>Nested Aggregation with Group By Query</p> <p>Theme Park ID:</p> <input type="text" value="1"/>  <input type="button" value="Submit"/>  <table><thead><tr><th>Land Name</th><th>Average Wait Time</th></tr></thead><tbody><tr><td>Fantasyland</td><td>35</td></tr><tr><td>Frontierland</td><td>35</td></tr></tbody></table> <hr/>	Land Name	Average Wait Time	Fantasyland	35	Frontierland	35
Land Name	Average Wait Time						
Fantasyland	35						
Frontierland	35						

## Division

Before	<div><b>Find All Lands That Appear In All Disney Resorts</b></div> <div><div>find</div></div>
During	Just press the button
After	<div><b>Find All Lands That Appear In All Disney Resorts</b></div> <div><div>find</div></div> <div>The Land(s) that appear in all Disney Resorts: Fantasyland</div>