

CPSC 304 Project Cover Page

Milestone #: 4

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Group Number: 18

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia.

Project Description:

Our project can be found online at

https://www.students.cs.ubc.ca/~duffydu/project_b4d3u_f4r3h_q7i5g/index.php with source code in https://github.students.cs.ubc.ca/CPSC304-2022S-T2/project_b4d3u_f4r3h_q7i5g

We are aiming to connect skaters from different places, building a community for skaters and people who want to skate.

Skating is not as common as other outdoor activities, like biking and hiking. It is still a prevalent sport in Canada. However, none of the top10 skating friendly cities are in Canada. This application aims to provide a platform for skaters to find relevant information about the skating community. Our mission is to bring skaters across the country together and build a strong and connected skating community!

Accomplishment:

We built a database with administrative features that allow the insertion, deletion and update of skater information in our database. This allows skaters to find other skaters with their relevant skating information and social media accounts, hence providing a platform for skaters to connect with others. In addition, it provides general information about the different types of boards, and the boards details page also provides comprehensive information about each board.

The Trick Help Centre (THC) is designated to find coaches for a specific trick in different regions and skaters with certain familiarity to practice with. It is hard to connect with other skaters in real life, however, you can even find the skaters who want to practice the same tricks as you with SKATEYAY!

The comprehensiveness of our database makes skating a more accessible outdoor activity. With View Data Option in SKATEYAY, a beginner can find information about not only skaters and boards, but also skating events, boardshop, organizations, skate locations and the tricks with difficulty level.

The skater experience in each hometown and organization with more than one affiliated skater are calculated for the skater to decide which organization to join and which city to travel and make more skating friends!

Each year, skaters with full participation in skating events will be awarded and on the leadership board.

Final Schema Changes:

Change Description	Reason for Change
Changed variable types: <ul style="list-style-type: none">- char(n) → varchar(n)- varchar(n) → varchar2(n)	For qualitative data with variable length, varchar is the better choice as char pads variable values with white space if they are short of the max number of characters allowed. The padding manipulates the data and makes it hard to search for in subsequent selection queries. Also, the use of varchar2 was adopted because it was recommended in the documentation to use varchar2 instead of varchar.
Changed variable type for boardLength: <ul style="list-style-type: none">- Double → number	The number datatype is more commonly used in the oracle database for real numbers.

A list of all SQL queries used:

Note: {} indicate user specified values

Query Type	SKATEYAY web app page	SQL Query
Not a required query	Home/Landing page with database stats	SELECT Count(*) FROM {table_name}
INSERT	Skater display page	INSERT INTO Skater VALUES ({skaterID}, {skaterName}, {yearOfSkating}, {homeTown}, {socialMedia})
UPDATE	Skater display page	UPDATE Skater SET SkaterID = {ID}, YearOfSkating = {YOS}, SocialMedia = {socialMedia}, HomeTown = {homeTown}, SkaterName = {NAME} WHERE SkaterID = {ID}
DELETE	Skater display page	DELETE FROM Skater WHERE SkaterID = {IDToDelete}
PROJECTION	Boards display page	SELECT ProductNum, BrandName, BoardName, BoardType FROM Boards, BoardType

		WHERE Boards.BoardLength=BoardType.BoardLength AND Boards.Kicktail = BoardType.Kicktail
JOIN	Trick Help Center	SELECT * FROM Skater JOIN CanDo ON Skater.SkaterID = CanDo.SkaterID WHERE TrickName = {trickName} and Familiarity = {familiarity}
Nested Aggregation with Group By	Trick Help Center	SELECT HomeTown, SkaterName, SocialMedia, MAX(Familiarity) FROM (SELECT * FROM Skater, CanDo WHERE Skater.SkaterID = CanDo.SkaterID) WHERE TrickName = {trick_name} GROUP BY HomeTown, SkaterName, SocialMedia
SELECTION	View Data	SELECT * FROM {TableName} SELECT * FROM {TableName} WHERE {table}Name = {searchWord} SELECT * FROM Skater WHERE Hometown = {searchWord}
Aggregation with group by	Skater Experience	SELECT HomeTown, AVG(YearOfSkating) FROM Skater GROUP BY Hometown
Aggregation with Having	Skater Experience	SELECT OrgName, ROUND(AVG(YearOfSkating), 0) FROM Skater, Affiliate WHERE Skater.SkaterID = Affiliate.SkaterID GROUP BY OrgName HAVING COUNT(*)>1
Division	Leadership Board	SELECT * FROM Skater S WHERE NOT EXISTS ((SELECT E.eventName FROM Events E) MINUS (SELECT P.eventName FROM Participate P WHERE S.skaterID = P.skaterID))

Query Details:

Note: All queries can be found in `app/request_functions.php`

Insertion Operation - Skater display page

Before insertion:

SKATEYAY

[Home](#) [Skater Display Page](#) [Boards Display Page](#) [Trick Help Center](#) [View Data](#) [Skater Experience](#) [Leadership Board](#)

All talented skaters!

Add

ID	Name	Years Of Skating	Hometown	Social Media	Delete Option	Update Option
1	Duffy Du	10	Toronto	www.google.com	Delete	Edit
2	May	1	New Zealand	www.ubc.com	Delete	Edit
3	Jonachan	1	Hong Kong	www.Jonathan.com	Delete	Edit
4	Yifan	15	sydney	www.reddit1Yifan.com	Delete	Edit
5	Mary	100	Jamaica	www.jam.com	Delete	Edit

Click on add and fill in the fields:

SKATEYAY

HomeSkater Display PageBoards Display PageTrick Help CenterView DataSkater ExperienceLeadership Board

Insert Values into Skater Table

SkaterID:

1243

SkaterName:

Duffduff

YearOfSkating:

5

Hometown:

Shanghai

SocialMedia:

www.instagram.com/duffduff

Submit

After clicking on submit:

SKATEYAY						
Home Skater Display Page Boards Display Page Trick Help Center View Data Skater Experience Leadership Board						
All talented skaters!						
Add						
ID	Name	Years Of Skating	Hometown	Social Media	Delete Option	Update Option
1243	Duffduff	5	Shanghai	www.instagram.com/duffduff	Delete	Edit
1	Duffy Du	10	Toronto	www.google.com	Delete	Edit
2	May	1	New Zealand	www.ubc.com	Delete	Edit
3	Jonachan	1	Hong Kong	www.Jonathan.com	Delete	Edit
4	Yifan	15	sydney	www.reddit1Yifan.com	Delete	Edit
5	Mary	100	Jamaica	www.jam.com	Delete	Edit

Delete Operation - Skater display page

User can click on “Delete” button to delete the corresponding skater’s data. The deletion is on cascade, which means if a skater is deleted, all the data associated with this skater from other tables will be deleted as well.

Before Deletion:

All talented skaters!

Add

ID	Name	Years Of Skating	Hometown	Social Media	Delete Option	Update Option
1243	Duffduff	5	Shanghai	www.instagram.com/duffduff	Delete	Edit
1	Duffy Du	10	Toronto	www.google.com	Delete	Edit
2	May	1	New Zealand	www.ubc.com	Delete	Edit
3	Jonachan	1	Hong Kong	www.Jonathan.com	Delete	Edit
4	Yifan	15	sydney	www.reddit1Yifan.com	Delete	Edit
5	Mary	100	Jamaica	www.jam.com	Delete	Edit

After Deletion:

All talented skaters!

Add

ID	Name	Years Of Skating	Hometown	Social Media	Delete Option	Update Option
1243	Duffduff	5	Shanghai	www.instagram.com/duffduff	Delete	Edit
1	Duffy Du	10	Toronto	www.google.com	Delete	Edit
2	May	1	New Zealand	www.ubc.com	Delete	Edit
3	Jonachan	1	Hong Kong	www.Jonathan.com	Delete	Edit
4	Yifan	15	sydney	www.reddit1Yifan.com	Delete	Edit

Skater with ID 5 is deleted successfully

Update Operation - Skater display page

The skater table before update:

All talented skaters!

Add						
ID	Name	Years Of Skating	Hometown	Social Media	Delete Option	Update Option
1243	Duffduff	5	Shanghai	www.instagram.com/duffduff	Delete	Edit
1	Duffy Du	10	Toronto	www.google.com	Delete	Edit
2	May	1	New Zealand	www.ubc.com	Delete	Edit
3	Jonachan	1	Hong Kong	www.Jonathan.com	Delete	Edit
4	Yifan	15	sydney	www.reddit1Yifan.com	Delete	Edit

When click update on first entry, it shows update page:

Update Values in Skater Table

SkaterID:

SkaterName:

YearOfSkating:

Hometown:

SocialMedia:

After change the HomeTown from Shanghai to Toronto and click submit:

All talented skaters!

<button>Add</button>						
ID	Name	Years Of Skating	Hometown	Social Media	Delete Option	Update Option
1243	Duffduff	5	Toronto	www.instagram.com/duffduff	<button>Delete</button>	<button>Edit</button>
1	Duffy Du	10	Toronto	www.google.com	<button>Delete</button>	<button>Edit</button>
2	May	1	New Zealand	www.ubc.com	<button>Delete</button>	<button>Edit</button>
3	Jonachan	1	Hong Kong	www.Jonathan.com	<button>Delete</button>	<button>Edit</button>
4	Yifan	15	sydney	www.reddit1Yifan.com	<button>Delete</button>	<button>Edit</button>

Selection - View Data

SKATEYAY [Home](#) [Skater Display Page](#) [Boards Display Page](#) [Trick Help Center](#) [View Data](#) [Join](#) [Skater Experience](#) [Keeners Corner](#)

Select the table to display data

Table Name:

-- Choose Table --

Search by

-- Choose Attribute --

Submit

Table Name:

✓ -- Choose Table --

Skater
Organization
Events
Skate Location
Brands
Board Shop
Tricks

User can choose table name using the dropdown button to display data from one of: Skater, Organization, Events, SkateLocation, Brands, BoardShop, Tricks.

Search by

✓ -- Choose Attribute --

Name

Hometown

Then they can choose attribute to search for key words. There are two attributes for their selection: Name and Hometown.

In our schema, every table (except SkateLocation) has a name attribute. So we designed a query that allows users to search for the data with a specified name.

Hometown is applied only to skater table. Users can search for skaters from the same hometown, so they can find the people to skate with by contacting them with the displayed social media.

If the user didn't type in search word, all the data from the selected table will be displayed.

EVENTNAME	CAPACITY
Skate to Toronto	999
Skate to Stanley park	100
Vancouver International Skate Competition	9999
Toronto International Skate Competition	8888
Montreal International Skate Competition	7777

Choose "Events" and click on submit

BRANDNAME	WEBSITE
Loaded	https://loadedboards.com/

Choose "Brands" and search by name "Loaded"

SKATERID	SKATERNAME	YEAROFSKATING	HOMETOWN	SOCIALMEDIA
1243	Duffduff	5	Shanghai	www.instagram.com/duffduff

Choose "Skater" and search by hometown "Shanghai"

If the user selected a table and chose to filter by Name, and also typed an input in the search bar, the data with input name from the selected table will be displayed.

If the user selected Skater table and Hometown and also typed an input in the search bar, the skater data from the input hometown will be displayed

Projection - Boards display page

When choosing the boards page, it only shows a part of the all information.

Boards

[View all details](#)

ProductNum	BrandName	BoardName	BoardType
100	Landyatchz	Butter White Oak Lines	Surfskate
200	Loaded	Mata Hari	Longboard
300	Zenit	Jig 3.0 All-Around	Longboard
400	Arbor	Tyler Warren Shaper	Surfskate
500	Moonshine	Eclipse Firm Flex Complete	Longboard
600	Santa Cruz	Asp Slither Pro	Skateboard

Join - Trick Help Center

Choose the trick kickflip from the dropdown list and input familiarity rating of 10:

Find Skaters that can do certain tricks with a specified familiarity:

Trick Name:

Kickflip

Familiarity equal to:

10

Submit

Output of two skaters who can do kickflip with a familiarity rating of 10:

Find Skaters that can do certain tricks with a specified familiarity:

Trick Name:

-- Choose option --

Familiarity equal to:

Submit

SkaterID	SkaterName	YearOfSkating	Hometown	SocialMedia	TrickName	Familiarity
2	May	1	New Zealand	www.ubc.com	Kickflip	10
4	Yifan	15	sydney	www.reddit1Yifan.com	Kickflip	10

Aggregation with Group By - Skater Experience

Find the city you want to go and skate

Show average year of skating of skaters from each hometown:

Submit

After hitting submit, the page shows a list of towns and the average skating years for all the skaters in that town:

HomeTown	Average Year of Skating
Shanghai	5
Toronto	10
Hong Kong	1
Jamaica	100
New Zealand	1
sydney	15

Aggregation with Having - Skater Experience(Organization)

Find the organization that you want to join

For each organization with more than one affiliated skaters, show the average year of skating of those skaters:

Submit

If users want to find the organization with more than one skaters and see the average year of skating, they can click on submit and the organization info will be displayed:

Organization Name	Average Year of Skating
UBC Skate	11
SkateBurnaby	4
SkaterinCad	13
SkaterVan	6

As shown, there are currently four organizations with more than one skaters affiliated in our database.

Nested Aggregation with Group By - Trick Help Center (regional master)

When click navigation button Trick Help Center,

Find the masters of certain trick in your region to consult

Pick the trick you want to learn:

-- Choose option --

Submit

You can select which trick you want to find person in your region to consult

Find the masters of certain trick in your region to consult

Pick the trick you want to learn:

✓ -- Choose option --

Pivot 180

Kickflip

Shovit

Ghostride Kickflip

No Comply

Trick Name:

urity:

It shows skaters that most familiar with the trick you choosed in different regions.

Find the masters of certain trick in your region to consult

Pick the trick you want to learn:

-- Choose option --

Submit

Find Skaters that can do certain tricks with a specified familiarity:

Trick Name:

-- Choose option --

Familiarity no less than:

Submit

HomeTown	SkaterName	SocialMedia	Familiarity
sydney	Yifan	www.reddit1Yifan.com	10
Toronto	Duffy Du	www.google.com	8
New Zealand	May	www.ubc.com	10
Hong Kong	Jonachan	www.Jonathan.com	1

DIVISION Query - Skater Leadership Board

Show the most active skaters

Show information about skaters who participated in all events:

Submit

after clicking submit:

Show the most active skaters

Show information about skaters who participated in all events:

Submit

SkaterID	SkaterName	YearOfSkating	Hometown	SocialMedia
5	Mary	9	Jamaica	www.jam.com
4	Yifan	15	sydney	www.reddit1Yifan.com

a list of skaters who have participated in all events in the database is shown.