

Slashing Pow Ski School

Team Potato (Team 15)

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<http://flip3.engr.oregonstate.edu:22998/index>

Executive Summary

The initial product remained largely consistent with the final product, with only minor variations based on the feedback we received through each review. Early on, the changes consisted primarily of addressing issues such as ensuring all entities were plural and attributes were singular and consistent casing and style was used for all naming conventions.

During the project, we made some changes to improve the readability and consistency of our code. Specifically, we modified the names of certain attributes for students and instructors. The attribute "waiver_signed" for students and "first_aid_certified" for instructors were initially set as TINYINT, but we later changed them to BOOLEAN after discussing which data type would be more appropriate for our application.

We received some feedback suggesting that we should establish a many-to-many relationship between Lessons and Instructors, but we ultimately decided against this since the brief duration of a ski lesson does not typically require multiple instructors.

Additionally, another piece of feedback related to the "student_phone_number" attribute. Some suggested that we remove the UNIQUE constraint, as some students at Slashing Pow Ski School may be children who are using their parents' phone numbers. After considering this feedback, we adjusted the attribute accordingly and removed the UNIQUE constraint.

During the front-end development phase of our project, we received feedback from multiple students regarding the unintuitive naming of columns, which we addressed by renaming the columns using aliases to improve readability. This made it much easier for users to understand the purpose and function of each column, which in turn helped them to more effectively navigate our site.

Project Outline

In a given ski season, Slashing Pow Ski School provides courses to nearly 500 students of all skill levels of which there are currently 9 divisions. The school currently offers 20 different lessons which cater to different skill levels and taught by one of the 8 instructors. As part of their information collection and recordkeeping, the school would like to gather some basic liability information.

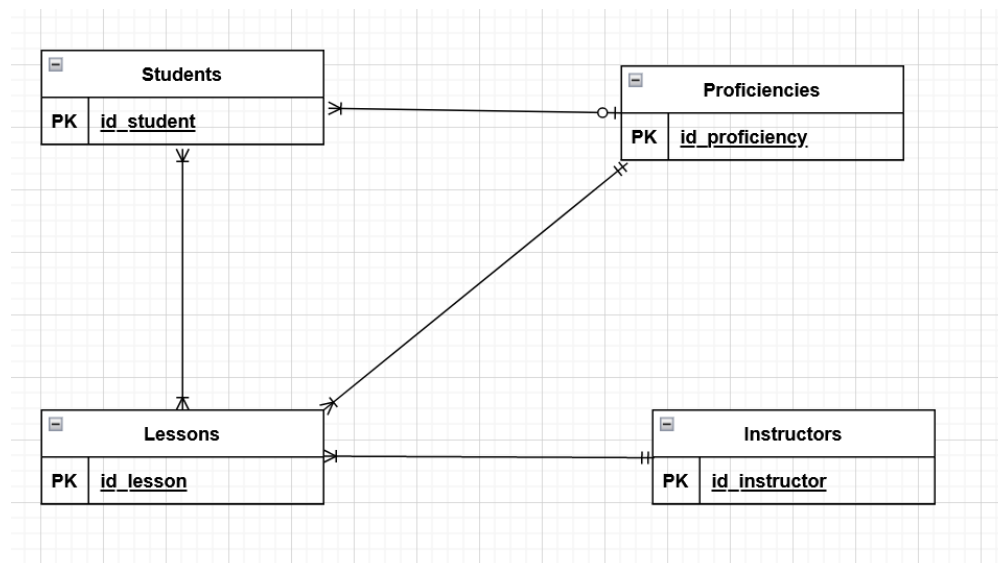
The ski school wants to electronically record emergency contacts for each student when they are registered. Additionally, the school is assigning a recommended proficiency level to each of their lessons (all are group lessons), tracking the years of experience of their instructors, and tracking if an instructor is first aid certified. New students are allowed to self-evaluate their skill levels, get evaluated by instructors at a later date, or, while not recommended by the school, can leave it off (i.e. proficiency is optional for students). They are not restricted to courses at their skill level but do so at their own risk as per the waiver they'll sign. Lastly, students may sign up for as many lessons as they'd like.

Database Outline

- Students - records the details of students at Slashing Pow Ski School
 - id_student: INT, Not NULL, Unique, Auto-increment, PK
 - id_proficiency: INT, FK
 - student_fname: VARCHAR(45), Not NULL
 - student_lname: VARCHAR(45), Not NULL
 - student_phone_number: VARCHAR(15)
 - emergency_fname: VARCHAR(45), Not NULL
 - emergency_lname: VARCHAR(45), Not NULL
 - emergency_phone: VARCHAR(45), Not NULL
 - waiver_signed: BOOLEAN, Not NULL, Default 0
 - Relationship:
 - M:N relationship between students and lessons - implemented with an intersection table 'student_has_course'
 - M:1 between Student and Proficiency
- Proficiencies - captures proficiency of each student
 - id_proficiency: VARCHAR(2), Not NULL, Unique, PK
 - proficiency_name: VARCHAR(45), Not NULL, Unique
 - Relationship:
 - 1:M between Student and Proficiency
 - 1:M between Proficiency and Lesson
- Lessons - information about each lesson offered
 - id_lesson: INT, Not NULL, Unique, Auto-increment, PK
 - lesson_name: VARCHAR(45), Not NULL
 - id_instructor: VARCHAR(45), Not NULL, FK
 - id_proficiency: VARCHAR(45), Not NULL, FK
 - Relationship:

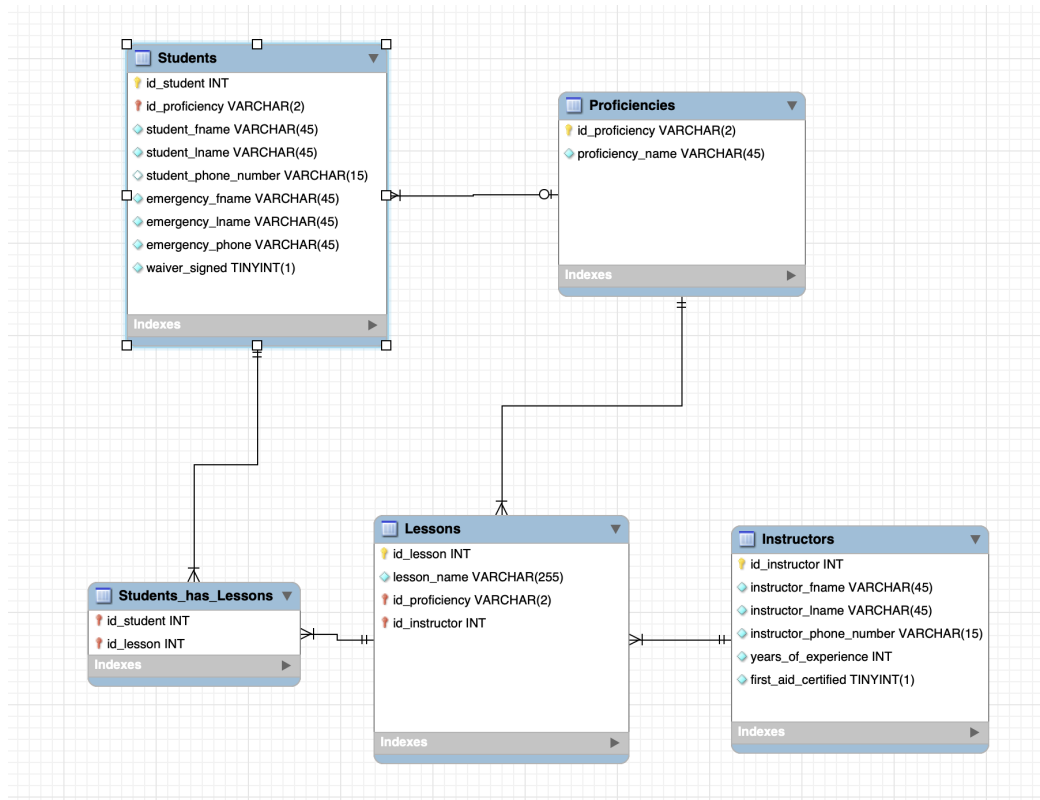
- N:M between Lesson and Student - implemented with an intersection table, 'Student_has_course'
 - M:1 between Lesson and Proficiency
 - M:1 relationship between Lesson and Instructor
- Instructors - information about each instructor
 - id_instructor: INT, Not NULL, Unique, Auto-increment, PK
 - instructor_fname: VARCHAR(45), Not NULL
 - instructor_lname: VARCHAR(45), Not NULL
 - instructor_phone_number: VARCHAR(15), Not NULL, Unique
 - years_of_experience: INT, Not NULL
 - first_aid_certified: BOOLEAN, Not NULL
 - Relationship:
 - 1:M relationship between Instructor and Lesson

ER Diagram



Schema

Note: MySQL Workbench converts BOOLEAN Data Types to TINYINT automatically. They're effectively the same thing.



Sample Data

Instructors Table:

	id_instructor	instructor_fname	instructor_lname	instructor_phone_number	years_of_experience	first_aid_certified
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	Jason	Wood	440-652-7456	5	1
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	Jerold	Wehmeyer	207-490-5451	4	1
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	Adrienne	Sweitzer	843-226-9311	3	1
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	4	Janita	Steele	907-340-8998	2	0
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	5	Maxine	Smalls	509-528-3827	1	0

Students Table:

	id_student	id_proficiency	student_fname	student_lname	student_phone_number	emergency_fname	emergency_lname	emergency_phone	waiver_signed
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	1A	Aaron	Miller	646-620-2601	Araceli	Barfield	415-606-0643	0
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	1B	Anette	Adams	361-484-7727	Sara	Carrera	920-702-7461	0
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	1C	Gary	Hollingsworth	573-300-3971	Lavonne	Jordan	916-862-9093	1
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	4	2B	Robert	Thompson	678-914-6782	Camelia	Sullivan	971-506-9292	0
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	5	NULL	Linda	Durant	603-866-4438	Robert	Mason	318-914-1704	1






























Lessons Table:

<div><div><div></div><div></div><div></div></div></div>				id_lesson	lesson_name	id_proficiency	id_instructor
<div><div><div></div></div></div>	<div><div><div></div></div><div>Edit</div></div>	<div><div><div></div></div><div>Copy</div></div>	<div><div><div></div></div><div>Delete</div></div>	1	Ski Gear Essentials	1A	5
<div><div><div></div></div></div>	<div><div><div></div></div><div>Edit</div></div>	<div><div><div></div></div><div>Copy</div></div>	<div><div><div></div></div><div>Delete</div></div>	2	French fries and pizza and other beginning movemen...	1B	4
<div><div><div></div></div></div>	<div><div><div></div></div><div>Edit</div></div>	<div><div><div></div></div><div>Copy</div></div>	<div><div><div></div></div><div>Delete</div></div>	3	Keeping Skis Parallel and Being Mindful of Arm and...	2A	3
<div><div><div></div></div></div>	<div><div><div></div></div><div>Edit</div></div>	<div><div><div></div></div><div>Copy</div></div>	<div><div><div></div></div><div>Delete</div></div>	4	Your First Ski Lesson	1A	1
<div><div><div></div></div></div>	<div><div><div></div></div><div>Edit</div></div>	<div><div><div></div></div><div>Copy</div></div>	<div><div><div></div></div><div>Delete</div></div>	5	Your Second Ski Lesson	1B	1

Student_has_Lessons Intersection Table:

<div><div><div></div><div></div><div></div></div></div>				id_student	id_lesson
<div><div><div></div></div></div>	<div><div><div></div></div></div> Edit	<div><div><div></div></div></div> Copy	<div><div><div></div></div></div> Delete	1	1
<div><div><div></div></div></div>	<div><div><div></div></div></div> Edit	<div><div><div></div></div></div> Copy	<div><div><div></div></div></div> Delete	2	1
<div><div><div></div></div></div>	<div><div><div></div></div></div> Edit	<div><div><div></div></div></div> Copy	<div><div><div></div></div></div> Delete	2	2

Proficiencies Table:

		 id_proficiency		proficiency_name
<input type="checkbox"/>	 Edit	 Copy	 Delete	3C Advanced
<input type="checkbox"/>	 Edit	 Copy	 Delete	1C Advanced Beginner
<input type="checkbox"/>	 Edit	 Copy	 Delete	2C Advanced Intermediate
<input type="checkbox"/>	 Edit	 Copy	 Delete	3A Early Advanced
<input type="checkbox"/>	 Edit	 Copy	 Delete	1A Early Beginner
<input type="checkbox"/>	 Edit	 Copy	 Delete	2A Early Intermediate
<input type="checkbox"/>	 Edit	 Copy	 Delete	3B Mid Advanced
<input type="checkbox"/>	 Edit	 Copy	 Delete	1B Mid Beginner
<input type="checkbox"/>	 Edit	 Copy	 Delete	2B Mid Intermediate

Screen Captures

Home Page (No CRUD, BROWSE other pages)

HomeStudentsInstructorsStudent RegistrationsLessonsProficiencies

Slashing Pow Ski School

Welcome to Slashing Pow Ski School

Click on the above buttons to navigate the website and to access different tables in the database. You can view the tables for Instructors, Students, Lessons, Proficiencies, and the intersection table for Students and Lessons.

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Students (CREATE/READ/UPDATE/DELETE)

HomeStudentsInstructorsStudent RegistrationsLessonsProficiencies

Students at Slashing Pow Ski School

Student ID	Proficiency ID	First Name	Last Name	Phone Number	Emergency Contact First Name	Emergency Contact Last Name	Emergency Contact Number	Waiver Signed	Delete
177	2B	Aaron	Miller	646-620-2601	Araceli	Barfield	415-606-0643	No	Delete
178	1C	Anette	Adams	361-484-7727	Sara	Carrera	920-702-7461	No	Delete
179	1C	Gary	Hollingsworth	573-300-3971	Lavonne	Jordan	916-862-9093	Yes	Delete
180	2B	Robert	Thompson	678-914-6782	Camelia	Sullivan	971-506-9292	No	Delete
181		Linda	Durant	603-866-4438	Robert	Mason	318-914-1704	Yes	Delete
231	3A	Gargoyle	Gary	222-555-4444	Pizza	Ball	202-999-5055	Yes	Delete

Add a Student

To add a new student, please enter their information below and click 'Submit'!

Proficiency Level:

First Name:

Last Name:

Phone Number:

Emergency Contact First Name:

Emergency Contact Last Name:

Emergency Contact Number:

Waiver Signed:

Yes

Updating a Student

To update a student's proficiency, select the student from the drop down and the new proficiency. You can select blank for null.

Full name:

Select a Student

 Proficiency:

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Instructors (CREATE/READ/DELETE)

Home

Students

Instructors

Student Registrations

Lessons

Proficiencies

Instructors at Slashing Pow Ski School

Instructor ID	First Name	Last Name	Phone Number	Years of Experience	First Aid Certified	Delete
1	Jason	Wood	440-652-7456	5	Yes	Delete
2	Jerold	Wehmeyer	207-490-5451	4	Yes	Delete
3	Adrienne	Sweitzer	843-226-9311	3	Yes	Delete
4	Janita	Steele	907-340-8998	2	No	Delete
5	Maxine	Smalls	509-528-3827	1	No	Delete

Add an Instructor

To add an Instructor, please enter their information below and click 'Submit'!

First Name:

Last Name:

Phone Number:

Years of Experience:

First Aid Certified:

Yes

Submit

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Student Lesson Registrations (CREATE/READ/UPDATE/DELETE)

Home

Students

Instructors

Student Registrations

Lessons

Proficiencies

Student Lesson Registrations

Student ID	Student	Lesson ID	Lesson	Delete
177	Aaron Miller	3	Keeping Skis Parallel and Being Mindful of Arm and Body Position	Delete
231	Gargoyle Gary	3	Keeping Skis Parallel and Being Mindful of Arm and Body Position	Delete
237	James Car	3	Keeping Skis Parallel and Being Mindful of Arm and Body Position	Delete
177	Aaron Miller	93	TestLesson	Delete
180	Robert Thompson	95	skiing ice	Delete

Add a Student Lesson Registration

To add a Registration, please enter the information below and click 'Submit'!

Student:

Aaron Miller

Lesson:

Keeping Skis Parallel and Being Mindful of Arm and Body Position

Submit

Update a Student Lesson Registration

Update a student registration pair. Select a row by the picking the Student and Lesson pair. You can change the Student and Lesson pair by selecting a new Student and Lesson from the dropdowns. Click 'Submit' to update the registration pair.

Note: This isn't optimally set up. If we have time we'll change it so that only active registrations show up in the first pair.
As of now, invalid input just redirects you back to this page without any feedback.

UPDATE:
Student:

Aaron Miller

Lesson:

Keeping Skis Parallel and Being Mindful of Arm and Body Position

TO:
Student:

Aaron Miller

Lesson:

Keeping Skis Parallel and Being Mindful of Arm and Body Position

Submit

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Lessons (CREATE/READ/DELETE)

Home

Students

Instructors

Student Registrations

Lessons

Proficiencies

Lessons Available

Lesson ID	Lesson Name	Proficiency Level	Instructor	Delete
3	Keeping Skis Parallel and Being Mindful of Arm and Body Position	2A	Adrienne Sweitzer	Delete
93	TestLesson	3C	Jason Wood	Delete
95	skiing ice	3C	Janita Steele	Delete

Add a Lesson

To add a Lesson, please enter the information below and click 'Submit'!

Lesson Name:

Proficiency Level:

Advanced

Instructor:

Jason Wood

Submit

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Proficiencies (CREATE/READ)

Home

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Proficiencies

Proficiencies

Proficiency ID	Proficiency Name
1A	Early Beginner
1B	Mid Beginner
1C	Advanced Beginner
2A	Early Intermediate
2B	Mid Intermediate
2C	Advanced Intermediate
3A	Early Advanced
3B	Mid Advanced
3C	Advanced
AA	Last Test
ff	test2
zz	Test

Add a Proficiency Level

To add a new proficiency, please enter its information below and click 'Submit'! Note: If you enter duplicate or null data, you will be redirected to this page and no additions will be made.

Proficiency Code:

Proficiency Name:

Submit

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