University of British Columbia, Vancouver

Department of Computer Science

CPSC 304 Project Cover Page

Milestone	#:	2	2

Date: 02/27/23

Group Number: __34____

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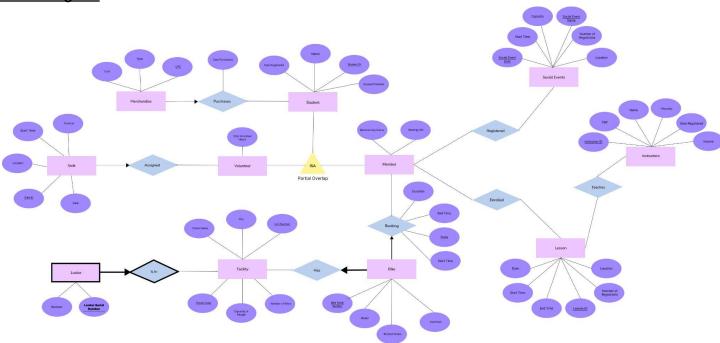
By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone O, the main purpose of this page is for you to let us know your e-mail address,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

2. Brief Summary

An on campus bike sharing club/program for university students. Students can pay an annual membership fee to become a member which will allow them to book the club's bicycles and facilities. Students can also volunteer at the club while members can attend member-only social events or lessons.

3. ER Diagram



New Changes Implemented:

- Bolded IsIn relationship and added bolded arrow to better illustrate Locker as a weak entity
- Added a new Merchandise entity and a new many-to-one relationship Purchases between Merchandise and Student so that we have 7 relationships (had 6 before)
- Changed the Member-Booking-Bike relationship from many-to-many to one-to-one
- Added PhoneNo attribute to Student entity
- Added PhoneNo attribute to Instructor entity
- Added Duration attribute to Booking
- Replaced Address attribute with street name, postal code, unit number, city in Facility entity
- Added Date attribute to Shift
- Changed the Shift-Assigned-Volunteer relationship from many-to-many to many-to-one

4. The schema derived from your ER diagram (above).

```
LockerIsIn(
     Booked: BOOL,
     LockerNumber: INT,
     PostalCode: CHAR(6),
     UnitNumber: INT)
Volunteer(
     TotalVolunteerHours: INT,
     DateRegistered: DATE,
     Name: CHAR(20),
     StudentID: CHAR(8))
Member(
     MembershipStatus: CHAR(12),
     BankingInfo: CHAR(19),
     DateRegistered: DATE,
     Name: CHAR(20),
     StudentID: CHAR(8))
Student (
     DateRegistered: DATE,
     StudentName: CHAR(20),
     StudentID: CHAR(8),
     StudentPhoneNo: INT)
BikeHas(
     BikeSerialNumber: INT,
     Model: CHAR(20),
     BookedStatus: BOOL,
     Condition: CHAR(8),
     PostalCode: CHAR(6),
     UnitNumber: INT)
Booking (
     StudentID: CHAR(8),
     BikeSerialNumber: INT,
     EndTime: INT,
     StartTime: INT,
     Duration: TIME,
     Date: DATE)
SocialEvents(
     SocialEventName: CHAR(20),
```

```
SocialEventDate: DATE,
     StartTime: INT,
     Capacity: INT,
     NumberOfRegistrants: INT,
     Location: CHAR(20))
Instructors(
     ID: CHAR(8),
     Age: INT,
     Name: CHAR(20),
     DateRegistered: DATE,
     Income: INT)
Facility(
     PostalCode: CHAR(6),
     UnitNumber: CHAR(8),
     StreetName: CHAR(20),
     City: CHAR(20),
     CapacityOfPeople: INT,
     NumberOfBikes: INT)
Shift(
     ShiftID: CHAR(8),
     Date: DATE,
     Duration: INT,
     StartTime: INT,
     Location: CHAR(20))
Lesson(
     Date: DATE,
     StartTime: INT,
     EndTime: INT,
     LessonID: CHAR(8),
     NumberOfRegistrants: INT,
     Location: CHAR(20))
MerchandisePurchased(
     Cost: FLOAT,
     Type:CHAR(20),
     <u>UPC:</u> CHAR (12),
     DatePurchased: DATE,
     StudentId: CHAR(8))
Registered(
```

```
StudentID: CHAR(8),
SocialEventDate: DATE,
SocialEventName: CHAR(20))

Enrolled(
    StudentID: CHAR(8),
    LessonID: CHAR(8))
Teaches(
    InstructorID: CHAR(8),
LessonID: CHAR(8))
```

5. Functional Dependencies (FDs)

LockerlsIn

 $\label{lockerNumber UnitNumber PostalCode} LockerNumber UnitNumber PostalCode \rightarrow City StreetName CapacityOfPeople NumberOfBikes UnitNumber PostalCode \rightarrow City StreetName CapacityOfPeople NumberOfBikes$

BikeHas

BikeSerialNumber → UnitNumber PostalCode
BikeSerialNumber → Model BookedStatus Condition
UnitNumber PostalCode → City StreetName CapacityOfPeople NumberOfBikes

Booking

StudentId BikeSerialNumber \rightarrow EndTime Date StartTime Duration StartTime EndTime \rightarrow Duration EndTime Duration \rightarrow StartTime StartTime Duration \rightarrow EndTime

MerchandisePurchased

$$\label{eq:UPC} \begin{split} \mathsf{UPC} &\to \mathsf{Type}\;\mathsf{Cost} \\ \mathsf{UPC} &\to\;\mathsf{StudentID} \\ \mathsf{UPC} &\to\;\mathsf{DatePurchased} \\ \mathsf{StudentID} &\to\;\mathsf{StudentName}\;\mathsf{DateRegistered}\;\mathsf{StudentPhoneNo} \end{split}$$

Teaches

InstructorID → Age Name DateRegistered Income InstructorPhoneNo InstructorPhoneNo → InstructorID LessonID → Date StartTime EndTime Location NumberOfRegistrants

Enrolled

 $StudentID \to StudentName\ DateRegistered\ StudentPhoneNo\ MembershipStatus\ BankingInfo\ StudentPhoneNo \to StudentID$

StudentPhoneNo → StudentName

LessonID → Date StartTime EndTime Location NumberOfRegistrants

Registered

SocialEventName Date → StartTime Capacity NumberOfRegistrants Location StudentID → Name DateRegistered StudentPhoneNo MembershipStatus BankingInfo

Assigned

ShiftID → Duration StartTime Location Date
StudentID → Name DateRegistered PhoneNo TotalVolunteerHours

6. Normalization

R1: LockerIsIn

LockerNumber UnitNumber PostalCode → Booked

LockerNumber UnitNumber PostalCode → City StreetName CapacityOfPeople NumberOfBikes UnitNumber PostalCode → City StreetName CapacityOfPeople NumberOfBikes

Primary Key: LockerNumber UnitNumber PostalCode

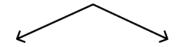
{UnitNumber PostalCode} + = {UnitNumber PostalCode City StreetName CapacityOfPeople NumberOfBikes}

∴ LockerlsIn is NOT in BCNF form since for UnitNumber PostalCode → City StreetName CapacityOfPeople NumberOfBikes, UnitNumber PostalCode is not the superkey

We can simplify the attributes as follows and perform decomposition:

UN PC \rightarrow C SN COP NOB LN UN PC \rightarrow B C SN COP NOB

LN B UN PC C SN COP NOB



UN PC C SN COP NOB

LN B UN PC

R2(UN,PC, C, SN, COP, NOB)

R3(LN, B, UN, PC)

R2 (

UnitNumber: INT,
PostalCode: CHAR(6),

City: CHAR(20),

StreetName: CHAR(20),
CapacityOfPeople: INT,
NumberOfBikes: INT)

Facility

R3 (

LockerNumber: INT,
Booked: BOOLEAN,
UnitNumber: INT,
PostalCode: CHAR(6))

LockerIsIn

R4: BikeHas

BikeSerialNumber → UnitNumber PostalCode
BikeSerialNumber → Model BookedStatus Condition
UnitNumber PostalCode → City StreetName CapacityOfPeople NumberOfBikes

Primary Key: BikeSerialNumber

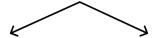
{BikeSerialNumber UnitNumber PostalCode } + = {BikeSerialNumber UnitNumber PostalCode Model BookedStatus Condition City StreetName CapacityOfPeople NumberOfBikes}

 \therefore **BikeHas** is NOT in BCNF form because for BikeSerialNumber \rightarrow UnitNumber PostalCode, BikeSerialNumber is not a superkey

We can simplify the attributes as follows and perform decomposition:

UN PC \rightarrow Ci SN COP NOB BSN \rightarrow UN PC M BS Co

BSN UN PC M BS Co Ci SN COP NOB



UN PC Ci SN COP NOB

UN PC BSN UN PC M BS Co

R5(UN, PC, Ci, SN, COP, NOB) R6(UN PC BSN UN PC M BS Co)

R5(

PostalCode: CHAR(6),
UnitNumber: CHAR(8),
City: CHAR(20),

StreetName: CHAR(20),

```
CapacityOfPeople: INT,
     NumberOfBikes: INT)
Facility
R6(
     PostalCode: CHAR(6),
     UnitNumber: CHAR(8),
     BikeSerialNumber: INT,
     Model: CHAR(20),
     BookedStatus: BOOL,
     Condition: CHAR (8)
     )
```

BikeHas

While the BCNF decomposition requires us to split BikeHas into 2 Relations - Facility and BikeHas, given that R5 is an exact copy of R2 (both are Facility relations), we will take R5 as a duplicate relation and will not be creating 2 duplicate Facility tables subsequently.

R7: Booking

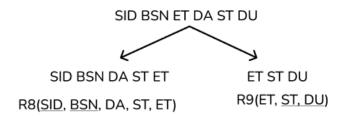
StudentId BikeSerialNumber → EndTime Date StartTime Duration StartTime EndTime → Duration EndTime Duration → StartTime StartTime Duration → EndTime

Primary Key: Studentld, BikeSerialNumber

{StudentId BikeSerialNumber} → {StudentId BikeSerialNumber EndTime Date StartTime Duration} ∴ Booking is NOT in BCNF form because for StartTime EndTime → Duration, StartTime and Duration is not a superkey

We can simplify the attributes as follows and perform decomposition:

```
SID BSN -> ET DA ST DU
ET DU → ST
ST DU \rightarrow ET
```



```
R8(

StudentID: CHAR(8),

BikeSerialNumber: INT,

EndTime: INT,

StartTime: INT,

Date: DATE)

BikeBooked

R9(

EndTime: INT,

StartTime: INT,

StartTime: INT,
```

Duration: TIME)

Booking

R10: MerchandisePurchased

StudentID → StudentName DateRegistered StudentPhoneNo

UPC → Type Cost

UPC → StudentID

UPC → DatePurchased

Primary Key: UPC

{StudentID} + = {StudentID StudentName DateRegistered StudentPhoneNo}

: StudentID is NOT in BCNF form since StudentID StudentName DateRegistered StudentPhoneNo is not a superkey

We can simplify the attributes as follows and perform decomposition:

 $SID \rightarrow SN DR SPN$ $UPC \rightarrow T C SID DP$

SID SN DR SPN UPC T C DP



SID SN DR SPN

SID UPC T C DP

R11(SID, SN, DR, SPN) R12(SID, UPC, T, C, DP)

R11(

StudentID: CHAR(8)
StudentName: CHAR(20),
DateRegistered: DATE,
StudentPhoneNo: INT)

Student

R12(

StudentID: CHAR(8),
UPC: CHAR(12),
Type:CHAR(20),
Cost: FLOAT,
DatePurchased: DATE)

MerchandisePurchased

R13: Teaches

InstructorID → Age Name DateRegistered Income InstructorPhoneNo
InstructorPhoneNo → InstructorID
LessonID → Date StartTime EndTime Location NumberOfRegistrants LessonID

Primary Key: InstructorID, LessonID

{InstructorID} = {InstructorID Age Name DateRegistered Income InstructorPhoneNo}

 \therefore **Teaches** is NOT in BCNF form because for InstructorPhoneNo \rightarrow InstructorID, InstructorPhoneNo is not a superkey

We can simply the attributes as follows and perform decomposition:

$$\begin{split} &\text{IID} \ \rightarrow \ \text{A} \ \text{N} \ \text{DR} \ \text{I} \ \text{IPN} \\ &\text{IPN} \ \rightarrow \ \text{IID} \\ &\text{LID} \ \rightarrow \ \text{D} \ \text{ST} \ \text{ET} \ \text{L} \ \text{NOR} \end{split}$$

IID A N DR I IPN LID D ST ET L NOR



IID A N DR I IPN

IID LID D ST ET L NOR

R14(<u>IID</u>, A, N, DR, I, IPN)

R15 (IID, LID, D, ST, ET, L, NOR)

R14(

InstructorID: CHAR(8),

Age: INT,

Name: CHAR(20),

DateRegistered: DATE,

Income: INT,

InstructorPhoneNo: INT)

Instructor

```
R15(
```

InstructorID: CHAR(8), LessonID: CHAR(8)

Date: DATE, StartTime: INT, EndTime: INT,

Location: CHAR(20),

NumberOfRegistrants: INT)

Teaches

R16: Registered

SocialEventName Date → StartTime Capacity NumberOfRegistrants Location StudentID → StudentName DateRegistered StudentPhoneNo MembershipStatus BankingInfo

Primary Key: SocialEventName, Date, StudentID

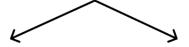
{SocialEventName Date} = { SocialEventName Date StartTime Capacity NumberOfRegistrants Location}

∴ SocialEventName, Date, StudentID is not in BCNF because for StudentID → Name DateRegistered StudentPhoneNo MembershipStatus BankingInfo, StudentID is not a superkey

We can simply the attributes as follows and perform decomposition:

SEN D \rightarrow ST C NOR L SID → SN DR SPN MS BI

SEN D ST C NOR L SID SN DR SPN MS BI



SEN D ST C NOR L

SEN D SID SN DR SPN MS BI

R17(SEN, D, ST, C, NOR, L) R18(SEN, D, SID, SN, DR, SPN, MS, BI)

```
R17(
     SocialEventName: CHAR(20),
     Date: DATE,
```

```
StartTime: INT,
Capacity: INT,
NumberOfRegistrants: INT,
Location: CHAR(20))

SocialEvent

R18(

SocialEventName: CHAR(20),
Date: DATE,
StudentID: CHAR(8)
StudentName: CHAR(20),
DateRegistered: DATE,
StudentPhoneNo: INT,
MembershipStatus: CHAR(12),
BankingInfo: CHAR(19))

Registered
```

R19: Enrolled

StudentID \rightarrow StudentName DateRegistered StudentPhoneNo MembershipStatus BankingInfo StudentPhoneNo \rightarrow StudentID StudentPhoneNo \rightarrow StudentName LessonID \rightarrow Date StartTime EndTime Location NumberOfRegistrants

Primary Key: StudentID, LessonID

{StudentID}⁺ = {StudentID StudentName DateRegistered StudentPhoneNo MembershipStatus BankingInfo}

∴ **Enrolled** is NOT in BCNF form because StudentID → StudentName DateRegistered StudentPhoneNo MembershipStatus BankingInfo is not a superkey

We can simply the attributes as follows and perform decomposition:

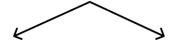
```
SID \rightarrow SN DR SPN MS BI

SPN \rightarrow SID

SPH \rightarrow SN

LID \rightarrow D ST ET L NOR
```

SID SN DR SPN MS BI LID D ST ET L NOR



SID SN DR SPN MS BI

SID LID D ST ET L NOR

R20(SID, SN, DR, SPN, MS, BI) R21(SID, LID, D, ST, ET, L, NOR)

```
R20(
     StudentID: CHAR(8)
     StudentName: CHAR(20),
     DateRegistered: DATE,
     StudentPhoneNo: INT,
     MembershipStatus: CHAR(12),
     BankingInfo: CHAR(19))
Member
R21(
     StudentID: CHAR(8),
     LessonID: CHAR(8),
     Date: DATE,
     StartTime: INT,
     EndTime: INT,
     Location: CHAR(20),
     NumberOfRegistrants: INT)
Enrolled
```

R22: Assigned

StudentID → StudentName DateRegistered PhoneNo TotalVolunteerHours ShiftID → Duration StartTime Location Date

Primary Key: StudentID, ShiftID

{StudentID} + = {StudentID StudentName DateRegistered PhoneNo TotalVolunteerHours }

 \therefore **Assigned** is NOT in BCNF form because for StudentID \rightarrow StudentName DateRegistered PhoneNo TotalVolunteerHours, StudentID is not a superkey

We can simply the attributes as follows and perform decomposition:

 $STID \rightarrow SN DR PN TVH$

Date: DATE)

Shift

7. The SQL DDL statements required to create all the tables from item #6. The statements should use the appropriate foreign keys, primary keys, UNIQUE constraints, etc.

```
CREATE TABLE LockersIn(

Booked NOT NULL BOOLEAN,

LockerNumber INT,

PostalCode CHAR(6),

UnitNumber INT,

PRIMARY KEY (LockerNumber, PostalCode, UnitNumber),

FOREIGN KEY (PostalCode, UnitNumber) REFERENCES Facility

ON DELETE CASCADE

ON UPDATE CASCADE

)

CREATE TABLE BikeHas(

BikeSerialNumber INT,
```

```
Model CHAR(20),
     BookedStatus NOT NULL BOOLEAN,
     Condition CHAR(8),
     PostalCode CHAR(6),
     UnitNumber INT,
     PRIMARY KEY (BikeSerialNumber),
     FOREIGN KEY (PostalCode, UnitNumber) REFERENCES Facility
)
CREATE TABLE Booking (
     StudentID CHAR(8),
     BikeSerialNumber INT,
     StartTime INT,
     EndTime INT,
     Date DATE,
     PRIMARY KEY (StudentID, BikeSerialNumber),
     FOREIGN KEY (StudentID) REFERENCES Member,
     FOREIGN KEY (BikeSerialNumber) REFERENCES BikeHas
           ON DELETE CASCADE
           ON UPDATE CASCADE
)
CREATE TABLE Duration (
     EndTime INT,
     StartTime INT,
     Duration TIME,
     PRIMARY KEY (StartTime, Duration)
)
CREATE TABLE MerchandisePurchased(
     Cost FLOAT,
     Type CHAR(20),
     UPC CHAR (12),
     DatePurchased DATE,
     StudentID CHAR(8),
     PRIMARY KEY (UPC),
     FOREIGN KEY (StudentID) REFERENCES Student
)
CREATE TABLE Instructor (
     InstructorID CHAR(8),
     Age INT,
```

```
Name CHAR(20),
     DateRegistered DATE,
     Income INT,
     InstructorPhoneNo INT,
     PRIMARY KEY (InstructorID)
)
CREATE TABLE Teaches (
     InstructorID CHAR(8),
     LessonID CHAR(8))
     Date DATE,
     StartTime INT,
     EndTime INT,
     Location CHAR(20),
     NumberOfRegistrants INT,
     PRIMARY KEY (InstructorID, LessonID),
     FOREIGN KEY (InstructorID) REFERENCES Instructor,
           ON DELETE CASCADE
           ON UPDATE CASCADE
     FOREIGN KEY (LessonID) REFERENCES Lesson
           ON DELETE CASCADE
           ON UPDATE CASCADE
)
CREATE TABLE Member (
     StudentID CHAR(8)
     StudentName CHAR(20),
     DateRegistered DATE,
     StudentPhoneNo INT,
     MembershipStatus CHAR(12),
     BankingInfo CHAR(19),
     PRIMARY KEY (StudentID),
     )
CREATE TABLE Enrolled(
     StudentID CHAR(8),
     LessonID CHAR(8),
     Date DATE,
     StartTime INT,
     EndTime INT,
     Location CHAR(20),
     NumberOfRegistrants INT,
     PRIMARY KEY (StudentID, LessonID),
     FOREIGN KEY (LessonID) REFERENCES Lesson,
```

```
ON DELETE CASCADE
          ON UPDATE CASCADE
     )
CREATE TABLE SocialEvents(
     SocialEventName CHAR(20),
     Date DATE,
     StartTime INT,
     Capacity INT,
     NumberOfRegistrants INT,
     Location CHAR(20),
     PRIMARY KEY (SocialEventName, Date)
     )
CREATE TABLE Registered(
     SocialEventName CHAR(20),
     Date DATE,
     StudentID CHAR(8),
     StudentName CHAR(20),
     DateRegistered DATE,
     StudentPhoneNo INT,
     MembershipStatus CHAR(12),
     BankingInfo CHAR (19),
     PRIMARY KEY (SocialEventName, Date),
     FOREIGN KEY (SocialEventName) REFERENCES SocialEvents,
     FOREIGN KEY (StudentID) REFERENCES Member,
     )
CREATE TABLE Volunteer (
     StudentID CHAR(8),
     StudentName CHAR(8),
     DateRegistered DATE,
     StudentPhoneNo INT,
     TotalVolunteerHours INT,
     PRIMARY KEY (StudentID),
     FOREIGN KEY (StudentID) REFERENCES Student,
     )
CREATE TABLE Shift(
     StudentID CHAR(8),
     ShiftID CHAR(8),
     Duration INT,
     StartTime INT,
     Location CHAR(20),
```

```
Date DATE,
     PRIMARY KEY (ShiftID),
     FOREIGN KEY (StudentID) REFERENCES Volunteer,
CREATE TABLE Student (
     DateRegistered DATE,
     StudentName CHAR(20),
     StudentID CHAR(8),
     StudentPhoneNo UNIQUE INT,
     PRIMARY KEY (StudentID),
     )
CREATE TABLE Lesson (
     LessonID CHAR(8),
     Date DATE,
     StartTime INT,
     EndTime INT,
     NumberOfRegistrants INT,
     Location CHAR(20),
     PRIMARY KEY (LessonID),
CREATE TABLE Facility(
     UnitNumber INT,
     PostalCode CHAR(6),
     City CHAR(20),
     StreetName CHAR(20),
     CapacityOfPeople INT,
     NumberOfBikes INT,
     PRIMARY KEY (UnitNumber, PostalCode)
     )
```

8. INSERT statements to populate each table with at least 5 tuples.

```
INSERT INTO LockersIn
VALUES (True, 00000000, V2W4T5, 0),
(True, 00000001, V6Y7K4, 1),
(False, 00000002, V4K7N3, 2),
(True, 00000003, V8J3N5, 3),
(False, 00000004, V9N2L2, 4),
(False, 00000005, V7N3K6, 5)
```

```
INSERT INTO BikeHas
VALUES (11111111, Basso, Good, V2W4T5, 0),
(11111112, Electra, Superb, V9N2L2, 4),
(11111113, Giordano, Good, V6Y7K4, 1),
(11111114, Kuota, Bad, V4K7N3, 2),
(11111115, Nicolai, Repair, V2W4T5, 6)
INSERT INTO Booking
VALUES (00000000, 111111111, 1230, 130, 2023-03-01),
(00000000, 111111112, 1230, 130, 2023-04-01),
(00000001, 111111113, 1930, 2130, 2023-05-01),
(00000000, 111111114, 1630, 1730, 2022-06-01),
(00000003, 111111115, 1130, 130, 2023-05-11)
INSERT INTO Duration
VALUES (1230, 130, 60),
(1100, 1130, 30),
(1500, 1630, 90),
(1000, 1100, 60),
(1400, 1600, 120)
INSERT INTO MerchandisePurchased
VALUES (10.30, 'Helmet', 123456789012, 2023-02-28, 00000000),
(112.45, 'Bike', 123456789011, 2023-02-28, 00000000),
(10.35, 'Helmet', 123456789013, 2023-01-28, 00000001),
(400.40', 'Bike', 123456789014, 2022-04-20, 00000002),
(20.45, 'Helmet', 123456789015, 2020-06-06, 00000002)
INSERT INTO Instructor
VALUES (55555555, 24, 'Laila', 2022-05-03, 45000, 7781111111),
(55555551, 25, 'Sheila', 2022-05-06, 55000, 7782222222),
(55555552, 21, 'Joe', 2022-05-12, 65000, 7783333333),
(5555553, 34, 'Bob', 2020-06-07, 30000, 7784444444),
(55555554, 32, 'Carson', 2021-08-12, 60000, 7785555555),
INSERT INTO Teaches
VALUES (55555555, 44444444, 2022-05-03, 1230, 1330, Dance St, 12),
(55555551, 44444441, 2023-04-22, 0140, 0340, Cron St, 30),
(55555552, 44444442, 2022-06-03, 0930, 1030, Bumble Rd, 11),
(55555553, 44444443, 2023-05-30, 1500, 1600, Chocolate St, 45),
(55555554, 44444444, 2023-10-13, 1215, 1315, Renfrew Ave, 32)
INSERT INTO Member
```

VALUES

```
(00000000, 'Bella', 2021-05-04, 6041234567, Gold, 1234567890123456789),
(00000001, 'Johnny', 2023-01-04, 6047654321, Gold, 1234567890123456781),
(00000002, 'Maple', 2021-05-04, 6041111111, Silver, 1234567890123456782),
(00000003, 'Jennie', 2020-06-013, 6042222222, Bronze,
1234567890123456783),
(00000004, 'Han', 2021-05-04, 6043333333, Gold, 1234567890123456784),
INSERT INTO Enrolled
VALUES (00000000, 444444444, 2022-05-03, 1230, 1330, Dance St, 12),
(00000001, 44444444, 2022-05-03, 1230, 1330, Dance St, 12),
(00000002, 44444444, 2022-05-03, 1230, 1330, Dance St, 12),
(00000003, 44444444, 2022-05-03, 1230, 1330, Dance St, 12),
(00000004, 44444444, 2022-05-03, 1230, 1330, Dance St, 12)
INSERT INTO SocialEvents
VALUES ('HappyLand Day', 2023-04-05, 1230, 15, 5, Hastings Ave),
('Bike Day', 2023-04-15, 1330, 25, 4, Hastings Ave),
('Wonderworld', 2023-04-25, 1230, 35, 20, Bern St),
('Practicing biking', 2023-05-05, 1230, 20, 9, Hastings Ave),
('Watch and learn', 2023-05-15, 1130, 30, 12, Bern St)
INSERT INTO Registered
VALUES ('HappyLand Day', 2023-04-05, 00000000, 'Bella', 6041234567, Gold,
1234567890123456789),
('HappyLand Day', 2023-04-05, 00000001, 'Johnny', 6047654321, Gold,
1234567890123456781),
('HappyLand Day', 2023-04-05, 00000002, 'Maple', 6041111111, Silver,
1234567890123456782),
('HappyLand Day', 2023-04-05, 00000003, 'Jennie', 6042222222, Bronze,
1234567890123456783),
('HappyLand Day', 2023-04-05, 00000004, 'Han', 6043333333, Gold,
1234567890123456784)
INSERT INTO Volunteer
VALUES (00000000, 'Bella', 2021-05-04, 6041234567, 120),
(00000002, 'Maple', 2021-05-04, 6041111111, 100),
(00000003, 'Jennie', 2020-06-13, 6042222222, 320),
(00000005, 'Joelle', 2019-12-01, 6044444444, 400),
(00000001, 'Johnny', 2023-01-04, 6047654321, 120)
INSERT INTO Shift
VALUES (00000000, 33333333, 60, 1230, Hastings Ave, 2023-03-04),
(00000001, 33333331, 60, 1130, Henria St, 2023-03-05),
(00000002, 33333332, 120, 1030, Honeysuckle Ave, 2023-03-06),
```

```
(00000003, 33333334, 360, 1600, Hastings Ave, 2023-03-07), (00000004, 33333335, 60, 1500, Bern St, 2023-03-08)

INSERT INTO Student

VALUES (2021-05-04, 'Bella', 00000000, 6041234567), (2023-01-04, 'Johnny', 00000001, 6047654321), (2021-05-04, 'Maple', 00000002, 6041111111), (2020-06-13, 'Jennie', 00000003, 6042222222), (2015-11-21, 'Han', 00000004, 6043333333), (2019-12-01, 'Joelle', 00000005, 6044444444)

INSERT INTO Lesson

VALUES (44444444, 2022-05-03, 1230, 1330, 12, Dance St), (44444441, 2023-04-22, 0140, 0340, 30, Bella St), (44444444, 2022-06-03, 0930, 1030, 11, Bumble Rd), (444444443, 2023-05-30, 1500, 1600, 45, Chocolate St),
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INSERT INTO Facility

VALUES (0, V2W4T5, Burnaby, Hastings Ave, 100, 12), (1, V6Y7K4, Vancouver, Renford St, 80, 47), (2, V4K7N3, Richmond, Bern St, 40, 7),

(44444445, 2023-10-13, 1215, 1315, 32, Renfrew Ave)

- /3 V9 T3N5 Coquitlam Honovauaklo Avonuo
- (3, V8J3N5, Coquitlam, Honeysuckle Avenue, 28),
- (4, V9N2L2, Vancouver, Henria St, 5, 12),
- (5, V7N3K6, Vancouver, Camelia Ave, 20, 8),
- (6, V2W4T5, Vancouver, Bumblebee St, 8, 0)