

Outbound Ontario Database Report

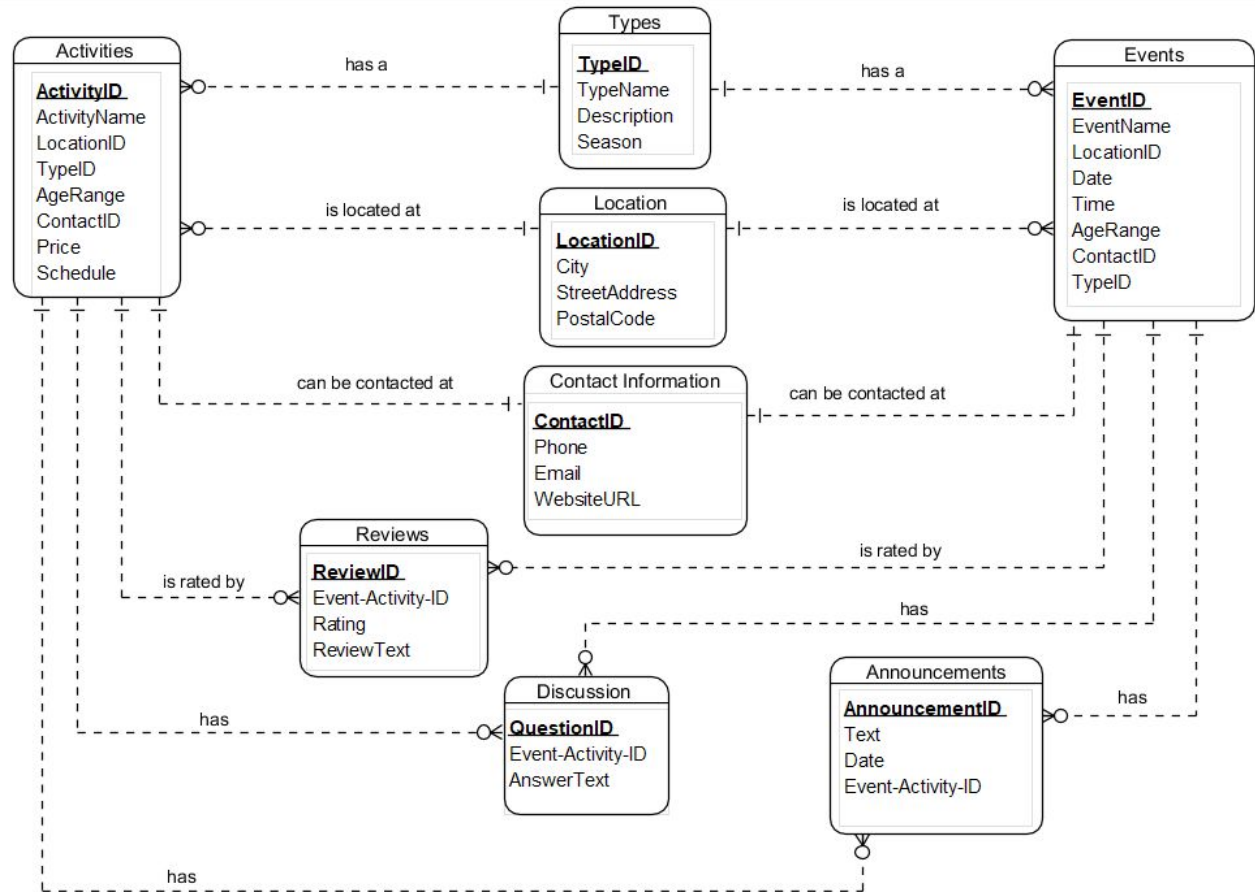
DBAS 27198

For Prof. Peter Riis

Group Member Names:

Laura Stewart, Clinton Tee, Sebnem Sevinc

ER Diagram (Laura Stewart)

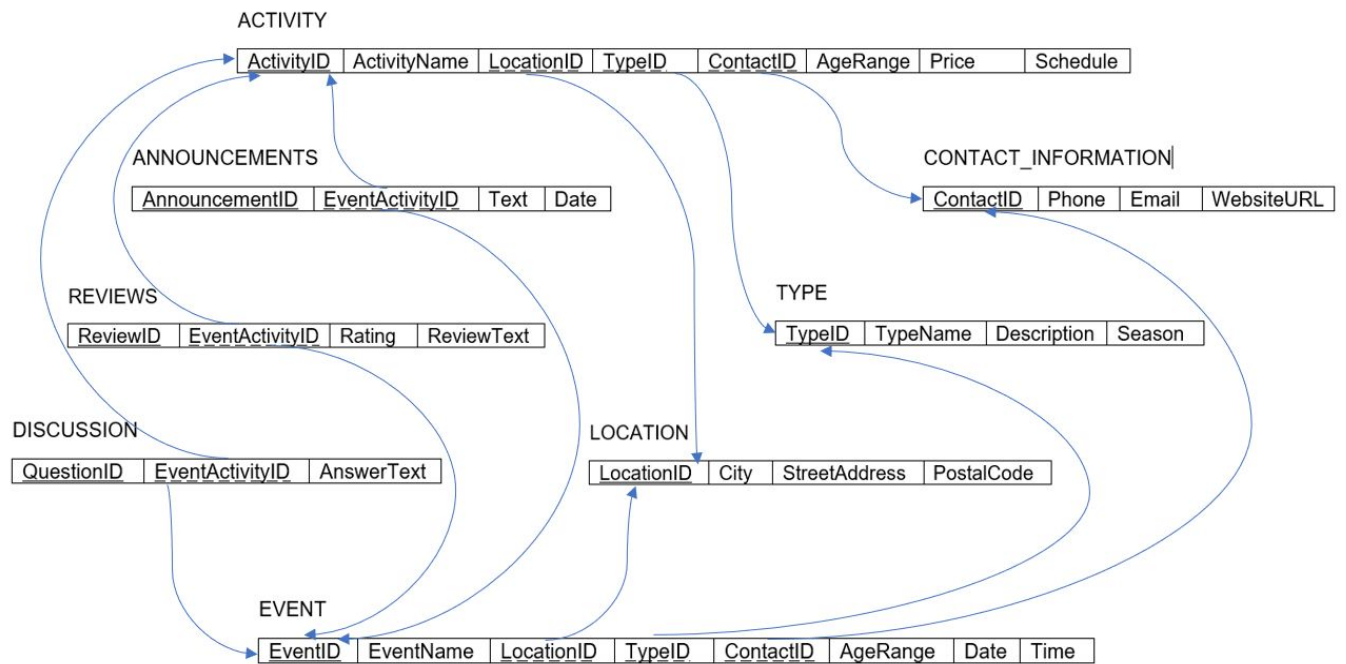


Description:

An Event is something that is only happening on a specific day or set of days, like a race. An Activity is something that can be done at any time, such as going to an amusement park. Every Event and Activity has a Type, Location, Contact Information (someone to contact for more information about it), Reviews, a Discussion page, and an Announcements page. Announcements would be for announcing things like an event cancellation, schedule update, or any other important information about an Event or Activity.

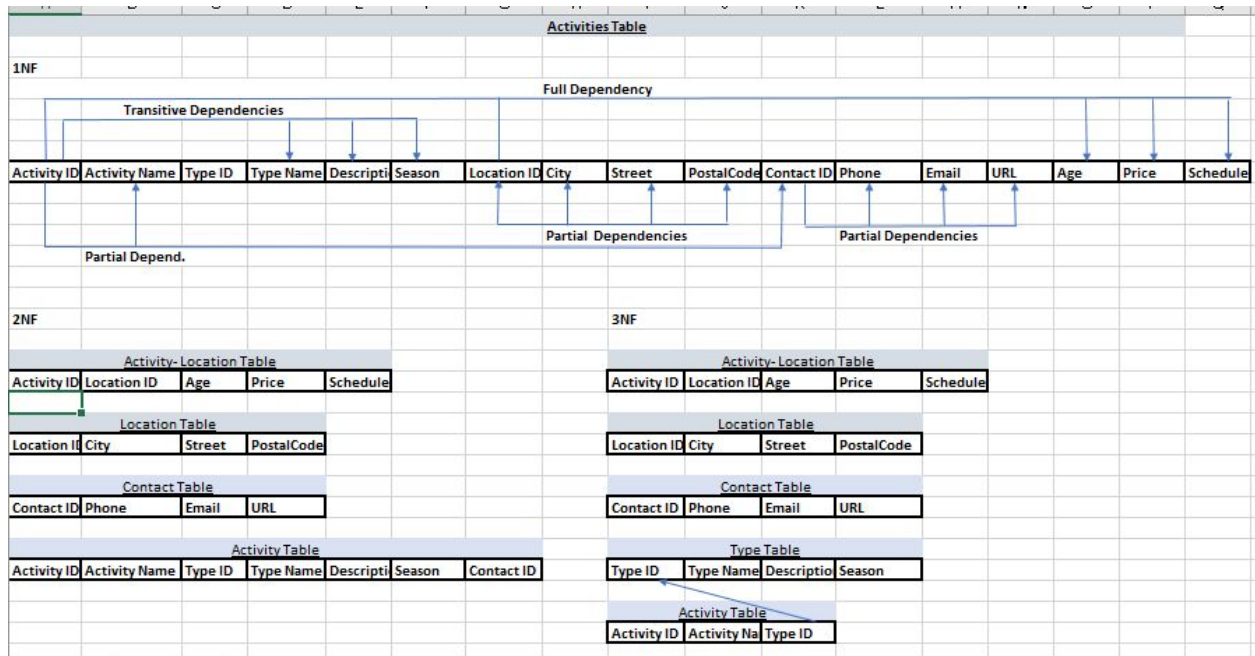
An Event or Activity would be created when the company or location hosting it decides to post it on the Outbound Ontario website. An Event would be deleted once the date has passed, and an Activity would be deleted if the company or location hosting it decides to no longer offer that Activity.

Data Structure Diagram (Laura)

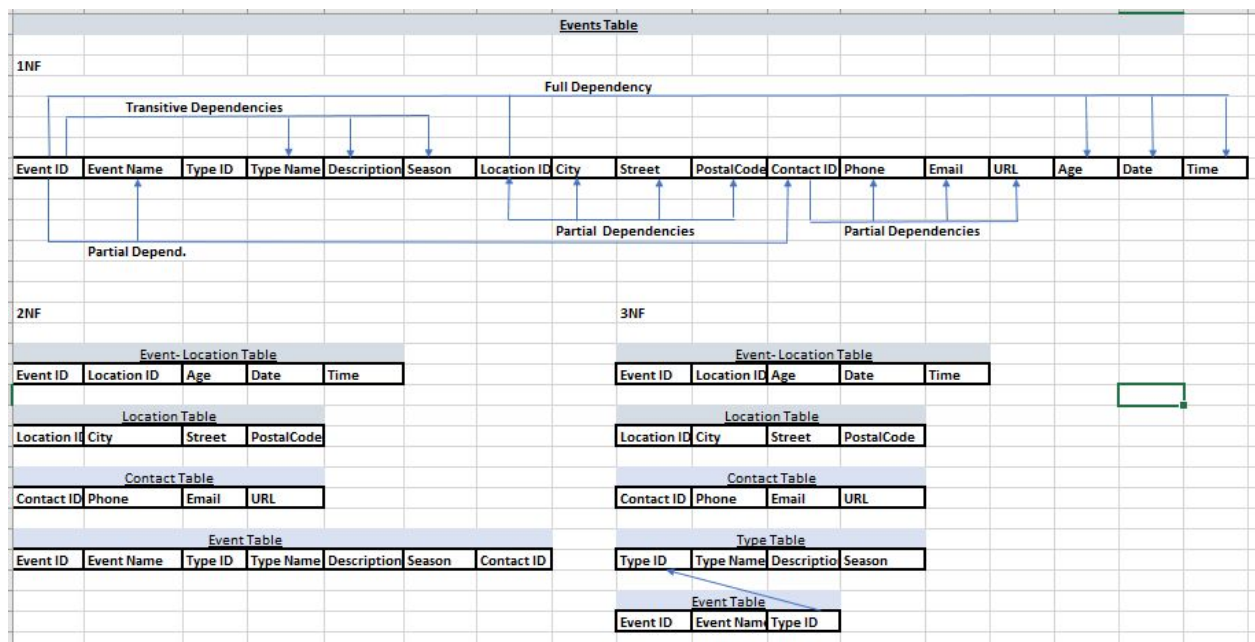


Normalization Report (Sebnem Sevinc)

Activities Table



Events Table



Reviews/Discussion/Announcement Tables

<u>Reviews Table</u>			
Review ID	Event-Activity-Id	Rating	Reviw Text
<u>Discussion Table</u>			
Question ID	Event-Activity-Id	Answer Text	
<u>Announcement Table</u>			
Announcement ID	Text	Date	Event-Activity-Id

The database was already normalized, so no changes were made to the ER Diagram or the Data Structure Diagram.

Create Tables & Insert Rows (Sebnem Sevinc)

Query Part:

```
use section18  
go
```

```
drop table Reviews;  
drop table Discussion;  
drop table Announcements;  
drop table Activities;  
drop table Events;  
drop table Types;  
drop table location;  
drop table ContactInformation;
```

```
create table Types(  
    type_id varchar(5),  
    typeName varchar(50),  
    description varchar(100),  
    season varchar(50),  
    constraint PK_Types primary key(type_id)  
);
```

```
create table Location(  
    location_id varchar(5),  
    city varchar(30),  
    street_address varchar(50),  
    postal_code varchar(10),  
    constraint PK_Location primary key(location_id)  
);
```

```
create table ContactInformation(  
    contact_id varchar(5),  
    phone varchar(20),  
    email varchar(50),  
    websiteUrl varchar(50),  
    constraint PK_ContactInformation primary key(contact_id)  
);
```

```

create table Events(
    event_id varchar(5),
    event_name varchar(50),
    location_id varchar(5),
    type_id varchar(5),
    age_range varchar(30),
    contact_id varchar(5),
    price float,
    event_date DATE,
    event_time TIME,
    constraint PK_Events primary key(event_id),
    constraint FK_events foreign key (type_id) references Types (type_id),
    constraint FK_ev_loc foreign key (location_id) references Location (location_id),
    constraint FK_ev_con foreign key (contact_id) references ContactInformation
(contact_id)
);

```

```

create table Activities(
    activity_id varchar(5),
    activity_name varchar(50),
    location_id varchar(5),
    type_id varchar(5),
    age_range varchar(30),
    contact_id varchar(5),
    price float,
    schedule varchar(100),
    constraint PK_ACTIVITIES primary key (activity_id),
    constraint FK_typeid foreign key (type_id) references Types (type_id),
    constraint FK_loc foreign key (location_id) references Location (location_id),
    constraint FK_con foreign key (contact_id) references ContactInformation (contact_id)
);

```

```

create table Reviews(
    review_id varchar(5),
    event_activity_id varchar(5),
    rating float,
    reviewText varchar(225),
    constraint PK_Reviews primary key(review_id),
    constraint fk_rev_evact1 foreign key(event_activity_id) references Activities(activity_id),
    constraint fk_rev_evact2 foreign key(event_activity_id) references Events(event_id)
);

```

```
create table Discussion(  
    question_id varchar(100),  
    event_activity_id varchar(5),  
    answerText varchar(100),  
    constraint PK_Discussion primary key(question_id),  
    constraint fk_dis_evact1 foreign key(event_activity_id) references Activities(activity_id),  
    constraint fk_dis_evact2 foreign key(event_activity_id) references Events(event_id)  
);
```

```
create table Announcements(  
    announcement_id varchar(100),  
    event_activity_id varchar(5),  
    date datetime,  
    text varchar(100),  
    constraint PK_Announcements primary key(announcement_id),  
    constraint fk_ann_evact1 foreign key(event_activity_id) references Activities(activity_id),  
    constraint fk_ann_evact2 foreign key(event_activity_id) references Events(event_id)  
);
```

```
insert into Types  
values ('1', 'Camping', 'Enjoy camping with family and friends', 'Summer'),  
('2', 'Children's Competitive', 'Fun and competitive events for children', 'Fall');
```

```
insert into Location  
values ('1','Oakville','1219 Burloak Dr','L6M 4J7'),  
('2','Oakville','123 Fake Rd','L6M 3G5');
```

```
insert into ContactInformation  
values ('1','555-778-9889','contact@brontecreek.ca','www.brontecreek.org');
```

```
insert into Activities  
values ('1','Camping at Bronte Creek','1','1','All ages','1',100,'www.brontecreek.org/schedule');
```

```
insert into Events  
values ('1','Children's boat race','1','2','5-12','1',10, CAST('2018-09-12' AS DATE),  
CAST('13:00:00' AS TIME));
```

```
insert into Reviews  
values ('1','1',4,'My family and I had fun camping, but unfortunately it was a little more crowded  
than we would have liked.')
```



```
,('2','1',5,'It was fun.');
```

```
insert into Discussion
```

```
values ('Are boat rentals available?','1','Yes, boat rentals are available in the summer months.');
```

```
insert into Announcements
```

```
values ('1','1','2018-06-19','The park will be closed until 06-25-2018 due to flooding.');
```

```
select * from Types; /* view everything in table */
```

```
select * from Location; /* view everything in table */
```

```
select * from ContactInformation; /* view everything in table */
```

```
select * from Activities; /* view everything in table */
```

```
select * from Events; /* view everything in table */
```

```
select * from Reviews; /* view everything in table */
```

```
select * from Discussion; /* view everything in table */
```

```
select * from Announcements; /* view everything in table */
```

Tables and Rows

Types:

100 %				
Results Messages				
	type_id	typeName	description	season
1	1	Camping	Enjoy camping with family and friends	Summer
2	2	Children's Competitive	Fun and competitive events for children	Fall

Locations:

Results Messages				
	location_id	city	street_address	postal_code
1	1	Oakville	1219 Burloak Dr	L6M 4J7
2	2	Oakville	123 Fake Rd	L6M 3G5

ContactInformation:

Results Messages				
	contact_id	phone	email	websiteUrl
1	1	555-778-9889	contact@brontecreek.ca	www.brontecreek.org

Activities:

	activity_id	activity_name	location_id	type_id	age_range	contact_id	price	schedule
1	1	Camping at Bronte Creek	1	1	All ages	1	100	www.brontecreek.org/schedule

Events:

Reviews:

Results Messages				
	review_id	event_activity_id	rating	reviewText
1	1	1	4	My family and I had fun camping, but unfortunat...
2	2	1	5	It was fun.

Discussion:

Results Messages

	question_id	event_activity_id	answerText
1	Are boat rentals available?	1	Yes, boat rentals are available in the summer mo...

Announcement:

Results Messages				
	announcement_id	event_activity_id	date	text
1	1	1	2018-06-19 00:00:00.000	The park will be closed until 06-25-2018 due to...

All Tables and Rows:

Results

Messages

	type_id	typeName	description		season				
1	1	Camping	Enjoy camping with family and friends		Summer				
2	2	Children's Competitive	Fun and competitive events for children		Fall				

	location_id	city	street_address	postal_code				
1	1	Oakville	1219 Burloak Dr	L6M 4J7				
2	2	Oakville	123 Fake Rd	L6M 3G5				

	contact_id	phone	email	websiteUrl				
1	1	555-778-9889	contact@brontecreek.ca	www.brontecreek.org				

	activity_id	activity_name	location_id	type_id	age_range	contact_id	price	schedule
1	1	Camping at Bronte Creek	1	1	All ages	1	100	www.brontecreek.org/schedule

	event_id	event_name	location_id	type_id	age_range	contact_id	price	event_date	event_time
1	1	Children's boat race	1	2	5-12	1	10	2018-09-12	13:00:00.0000000

	review_id	event_activity_id	rating	reviewText					
1	1	1	4	My family and I had fun camping, but unfortunat...					
2	2	1	5	It was fun.					

	question_id	event_activity_id	answerText					
1	Are boat rentals available?	1	Yes, boat rentals are available in the summer mo...					

	announcement_id	event_activity_id	date	text					
1	1	1	2018-06-19 00:00:00.000	The park will be closed until 06-25-2018 due to...					

NoSQL

The Activity, Event, and Announcements tables were turned into MongoDB Collections. Activity and Event were chosen because they are the two largest tables, and in the SQL database they contain many foreign keys relating to other tables. MongoDB is not a relational database, so arrays containing all the necessary data were used in place of keys. For examples, the “location” field in the document in the Activity is an array with the city, street address, and postal code.

In the next section, the collections were created by inserting one document with a few fields into the collection. The fields that were inserted initially were fields with a single value, like the name, age range, and price. The documents were then updated with the fields that contained arrays, such as the location and contact information.

Create Collection and Insert Documents Scripts

(Clinton Tee)

Create Activity Collection:

```
db.Activity.insert(
  { "ActivityID" : 1,
    "ActivityName" : "Camping at Bronte Creek",
    "Age_Range" : "All ages",
    "Price" : "$100",
    "Schedule" : "www/brontecreek.org/schedule" }
)
```

Update Activity Document:

```
db.Activity.update(
  {},
  { $set : "LocationID" : [
    { "City" : "Oakville"},
    { "Street_Address" : "1219 Burloak Dr"},
    { "Postal_Code" : "L6M 4J7" }
  ]
},
```

```
"TypeID" : [
  { "TypeName" : "Camping"},

```

```

    { "Description" : "Enjoy Camping with family and friends." },
    { "Season" : "Summer" }
  ],

```

```

    "ContactID" : [
      { "Phone" : "555-778-9889" },
      { "Email" : "contact@brontecreek.ca" },
      { "WebsiteURL" : "www.brontecreek.org" }
    ]
  }
)

```

Activities Collection:

```

{
  "_id" : ObjectId("5c0001611d2e560606a61aa4"),
  "ActivityID" : 1.0,
  "ActivityName" : "Camping at Bronte Creek",
  "Age_Range" : "All ages",
  "LocationID" : [
    {
      "City" : "Oakville",
      "Street_Address" : "1219 Burloak Dr",
      "Postal_Code" : "L6M 4J7"
    }
  ],
  "Price" : "$100",
  "Schedule" : "www.brontecreek.org/schedule",
  "TypeID" : [
    {
      "TypeName" : "Camping",
      "Description" : "Enjoy Camping with family and friends.",
      "Season" : "Summer"
    }
  ],
  "ContactID" : [
    {
      "Phone" : "555-778-9889",
      "Email" : "contact@brontecreek.ca",
      "WebsiteURL" : "www.brontecreek.org"
    }
  ]
}

```

Create Event Collection:

```
db.Event.insert(
{ "Event_ID" : 2,
  "Event_Name" : "Children's boat race",
  "Age_Range" : "5-12",
  "Price" : "$10" }
)
```

Update Event Document:

```
db.Event.updateMany(
{ },
{ $set : { "LocationID" : [
  { "City" : "Oakville" },
  { "Street_Address" : "1219 Burloak Dr" },
  { "Postal_Code" : "L6M 4J7" }
] },
{ "TypeID" : [
  { "TypeName" : "Children's Competitive" },
  { "Description" : "Fun and competitive events for children." },
  { "Season" : "Spring, Summer, Fall" }
]
}
)
```

Event Collection:

```
{
  "_id" : ObjectId("5c00047c1d2e560606a61aa5"),
  "EventID" : 2.0,
  "EventName" : "Children's boat race",
  "Age_Range" : "5-12",
  "Price" : "$10",
  "LocationID" : [
    {
      "City" : "Oakville",
      "Street_Address" : "1219 Burloak Dr",
      "Postal_Code" : "L6M 4J7"
    }
  ],
  "TypeID" : [
    {
      "TypeName" : "Children's Competitive",
      "Description" : "Fun and competitive events for children.",
      "Season" : "Spring, Summer, Fall"
    }
  ]
}
```

Create Announcements collection:

```
db.Announcements.insert(
{ "AnnouncementsID" : 1,
  "Date" : "06-19-2018",
  "Text" : "The park will be closed until 06-25-2018 due to flooding." }
)
```

Update Announcements document:

```
db.Announcements.updateOne(
{ },
{$set : { "Event-ActivityID" : { "ActivityID" : 1,
  "ActivityName" : "Camping at Bronte Creek" } },
})
```

Announcements Collection:

```
{
  "_id" : ObjectId("5c019cb9902d9234426c8622"),
  "AnnouncementID" : 1.0,
  "Date" : "06-19-2018",
  "Text" : "The park will be closed until 06-25-2018 due to flooding.",
  "Event-ActivityID" : {
    "ActivityID" : 1.0,
    "ActivityName" : "Camping at Bronte Creek"
  }
}
```