

# Report

Data Project #3: Opportunities in Halifax

*Abstract:*

**The data regarding future investment is provided to help investors fund in Halifax seeing opportunities like Shopping, Education and less crime rate.**

## *A. Relationship Model*

In the attachment Real\_Estate\_Image.png, various entities and attributes are linked with the help of Relationship. Entities are Halifax, Crime, Geography, Shopping and Education.

- Halifax city can have many educational institutes setup. Each institute may be present in many Geographical Location. So, there is one-to-many relationship between Halifax and Education and also between Education and Geography.
- Crime rates may vary in the city, there is also a possibility to not have any crime in the Halifax city. However, there is a 0 to many relationship between Halifax and Crime.
- One geography area can have many shopping places. Example: open fare, shopping mall, retail shops, etc. Therefore, we have one-to-many relationship from Geography to crime.

In the attachment, Real\_Estate\_Normalised\_Image.png, new entities have been added and relationships are redefined in order to get normalised tables.

- Here the Education table is further divided into Early Education Table so that opportunities present can be analysed deeply in this domain
- The city might provide with Visitor Survey in order to get feedback from the people visiting Halifax. The relationship here is one-to-many from Halifax to Visitor Survey non-identifying as the Visitor Survey is not dependent on the city.
- Shopping has separate table now for mall, each mall information can be stored individually, and mall internally consists of various gaming opportunities. So, mall to Gaming relationship is one-to-many.
- The many-to-many relationship exists between Geography and Crime. One crime can happen in many locations, one location can also have many crimes simultaneously.