CSC343 Worksheet 12 Solution

June 30, 2020

1. **<u>Notes:</u>**

   - Function Dependencies
     - *Functional Dependency* is a relationship between two attributes typically between the key and other non-key attributes within a table.

       <u>Example:</u>

       SIN → Name, Address, Birthdate

       <u>Example 2:</u>

       ISBN → Title

     <u>References:</u>

     1) OpenTextBC, Chapter 11 Functional Dependencies, link
   - Key of Relations
     - One or more attributes $\{A_1, A_2, ..., A_n\}$ is a key for a relation R if
       1. Those attributes functionally determine all other attributes of the relation
       2. No proper subset of $\{A_1, A_2, ...A_n\}$ functionally determines all other attributes of R

       <u>Example:</u>

       Given relation

       $R =$ Movies1(title, year, length, genre, studioName, starName)
       i. {title, year, starName } form a key for the relation **Movies1**
       ii. { year, starName } is not a key. Same star can be in multiple movies per year