Data Analysis and Design

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Section A

* Created Tables
  * Created all tables specified in the ERD

* Created Attributes
  * Created all attributes specified in the ERD

* Created Foreign Keys
  * Created all foreign keys to depict all relationships specified in the ERD

* Created Constraints
  * Created a mixture of constraints specified in the ERD
    * Table Level
    * Column Level

Section B | Part 1

* Solved Anomalies
    * Full Name was split into, First Name and Last Name
    * Town Name was removed from the Person Table and shifted into the Town Table

* Analysed Different Design Approaches
    * Relationship Arcs
    * Subtypes

* Created Subtypes
    * Removed Person Type, Employment Date and Registration Date from Person
    * Created the Employee and Client Subtypes
    * Referred to the Employee and Client Subtypes in the Person table, by adding Foreign Keys and a Check Constraint, which were also set Unique.
    * Added a Foreign Key to the Employee Subtype which refers to a Person, being a manager
    * Added check constraint

Section B | Part 2

* Documented Improvement Description
  * Anomaly build up mainly caused from the same streets contained in the Person Table
  * Store location could not be pinpointed accurately

* Implemented Improvement
  * Removed the Street attribute from the Person Table
  * Created the Street Table composed of Street ID, Street Name, Postcode and Town FK

Section C

* Created Views
  * Guest Accounts
    * To View Accounts with the Guest Role
    * Used WITH CHECK OPTION Constraint
  * Person Details
    * To view Person Details including Name, Surname, Date of Birth, Contact Number, Residence, Street, Town, Country
    * Used WITH READ ONLY Constraint

* Documented Benefits of User Views

Section D

* Created Sequences
  * Created Appropriate Caching

* Created Insert Statements

* Tested Constraints
  * Not Null Constraint
  * Unique Constraint
  * Check Constraint

* Tested Integrity Rules
  * Entity Integrity Rule
  * Referential Integrity Rule

Section E

* Created User Manual with Relation to
  * Person Inserts
  * Person Updates
  * Person Deletes
  * Described Adding and Omitting
  * Described Constraints

* Documented Each and Every Schema Object

Section F

* Modified three Foreign Keys
  * Added on Delete Set Null
  * Removed Not Null Constraint

* Created Script to Remove Every Schema Object

* Created Script to Flashback all deleted tables and Data

* Re-Created Views

* Re-Created Sequences