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COP4710 Database Systems

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**Chapter 2**

**Checkpoint 2.1**

1) Unique field values in databases mean that information in that field for a record must not be identical to any other record.

2) The key is the field that sorts and allows for search of information inside of the database, it is advantageous to have it be unique because then the search for an item using the key will yield a single result.

3) The database has to be sorted somehow and can only be sorted by one field so it makes sense to order it by the only field that is assured to be unique.

**Checkpoint 2.3**

1) The three models that were discussed are the Hierarchical, Network and Relational models.

2) The Relational model is the model that is mostly used nowadays. The reason is that all of the data in this model relates in some way to each other and specially the key element.

3) Most of the disadvantages of the Hierarchical model stem from its nature; in the sense that the data is only assured to be related to the parent element instead of related as a whole.

4) The Network model suffered from big overhead in terms of data and computation complexity due to its pointer based algorithmic structure.