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Database Management

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Different types of Keys in Database

Keys are a very important aspect of databases. A *key* is a field or combination of fields that uniquely identifies a row in a database table. The purpose of the key is to access or retrieve data rows from a table. They also are used to create links and relations between different tables. Not all keys are the same though - there are several types of keys: primary keys, candidate keys, and a superkey. A *primary key* is an attribute or combination of attributes that uniquely identifies a row or record in a relation or table. This could be something like an order number – there are no repeated order numbers so this would be a great primary key to uniquely identify the row associated with that order number. A relation can only have one primary key. A *candidate key* contains the many fields or combination of fields that can possibly be used as primary keys but are not the primary key itself. For an example, if an order number has other uniquely identifiable attributes like a product number or customer information that uniquely identifies that customer, those fields would be considered candidate keys. Lastly, we have superkeys. A *superkey* is a combination of attributes that can be uniquely used to identify a database record. A table might have many superkeys. For example, let's say a table has fields *name*, *age*, *SSN*, and *phone extension*. *SSN*, *Phone Extension*, and both *SSN* and *Name* are possible superkeys.