

Third Normal Form



Third Normal Form

- Problems can still exist in a 2NF table - not the primary key

Student Number	Student Name	Coordinator ID	Coordinator
2001	Clark Kent	1001	Peter Nikita
2002	Bruce Wayne	1002	Andrew Steele
2003	Diana Prince	1001	Peter Nikita

Repetition

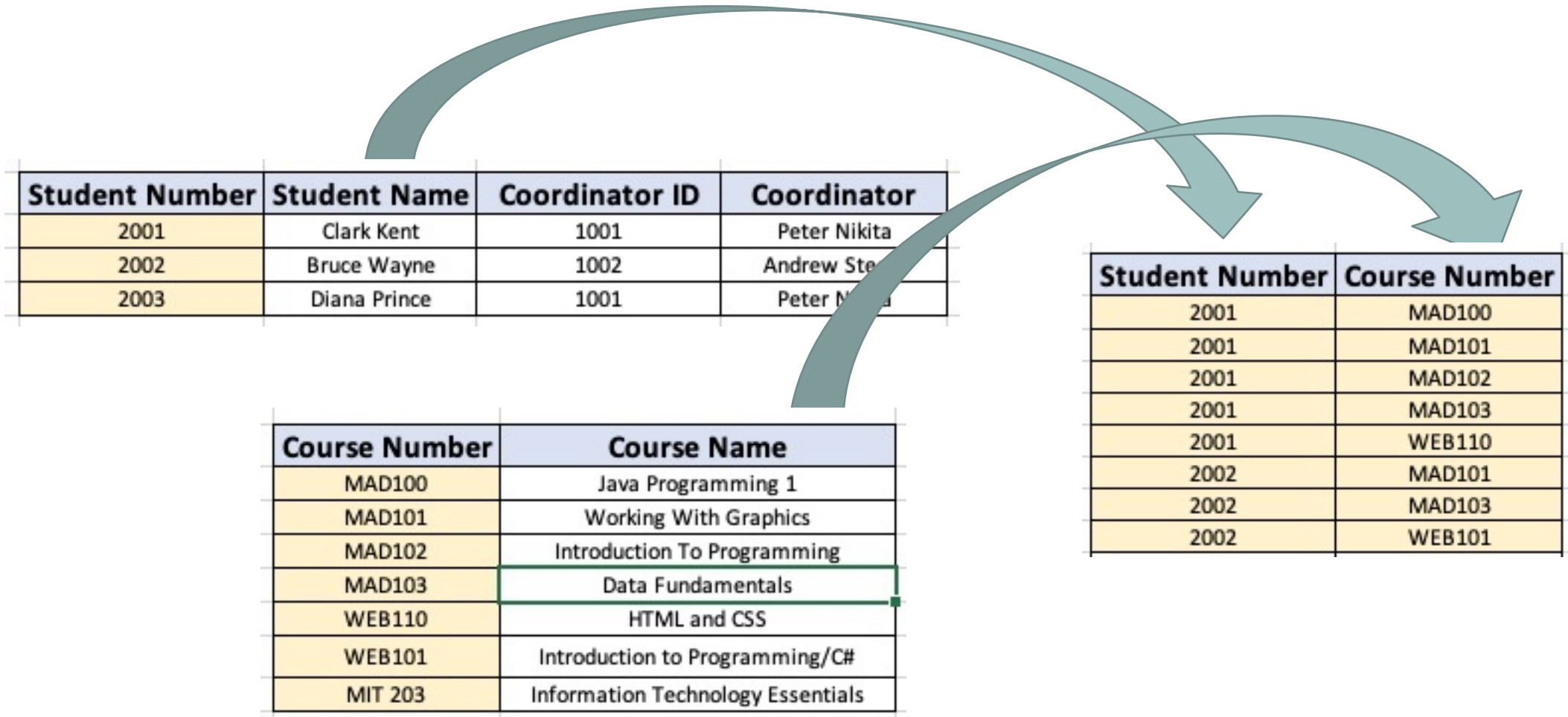


Third normal form

- Determinant – any field or collection of fields that determines another field. Primary key is a determinant field
- Candidate key – a field or collection of fields that could function as primary keys
- A table is consider in Third Normal Form if it is in second normal form and if the only determinants it contains are candidate keys



Convert to 3NF



Convert to 3NF



Student Number	Student Name	Coordinator ID	Coordinator
2001	Clark Kent	1001	Peter Nikita
2002	Bruce Wayne	1002	Andrew Steele
2003	Diana Prince	1001	Peter Nikita



3NF

Coordinator Table

Coordinator ID	Coordinator
1001	Peter Nikita
1002	Andrew Steele
1001	Peter Nikita

Student Table

Student Number	Student Name	Coordinator ID
2001	Clark Kent	1001
2002	Bruce Wayne	1002
2003	Diana Prince	1001

Course Table

Course Number	Course Name
MAD100	Java Programming 1
MAD101	Working With Graphics
MAD102	Introduction To Programming
MAD103	Data Fundamentals
WEB110	HTML and CSS
WEB101	Introduction to Programming/C#
MIT 203	Information Technology Essentials

Student Number	Course Number
2001	MAD100
2001	MAD101
2001	MAD102
2001	MAD103
2001	WEB110
2002	MAD101
2002	MAD103
2002	WEB101

Junction Table

