

NORMALIZATION EXERCISE

AthID	Name	Surname	Email	DOB	Gender	Age	Club	Address	Workout Number	Start Date	Points	Level
1	Kara	Webb	me@gmail.com	1990-05-26	F	24	Crossfit Brooklyn	67 Totius St, Groenkloof, Gauteng	15.1	2015-02-19	221	Scaled
									15.2	2015-02-26	234	Scaled
									15.3	2015-03-05	416	Scaled
									15.4	2015-03-12	612	Scaled
									15.5	2015-03-19	148	Scaled
2	James	Dudley	me2@gmail.com	1980-03-07	M	35	Crossfit Hatfield	186 Jan Shoba St, Hatfield, Gauteng	16.1	2016-02-25	229	RX
									16.2	2016-03-04	306	RX
									16.3	2016-03-11	409	RX
									16.4	2016-03-18	628	RX
									16.5	2016-03-25	127	RX
3	Scott	Panchic	m3@gmail.com	1982-05-29	M	35	Crossfit Ballito	11 Putney Rd, Ballito, KZN	Repeating Groups multiple empty fields			
1	Kara	Webb	me@gmail.com	1990-05-26	F	24	Crossfit Brooklyn	67 Totius St, Groenkloof, Gauteng	17.1	2017-02-23	152	RX
									17.2	2017-03-02	245	RX
									17.3	2017-03-09	331	RX
									17.4	2017-03-16	125	Scaled
									17.5	2017-03-23	459	Scaled
4	Fiona	Masimula	m4@gmail.com	1992-04-15	F	25	Crossfit Alberton	36 Mulbarton Rd, Alberton, Gauteng	Insert Anomaly. Need an athlete before a new club can be added			
5	Danny	Shaw	m5@gmail.com	1970-01-21	M	47	Crossfit Alberton	36 Mulbarton Rd, Alberton, Gauteng	17.1	2017-02-23	192	RX

Repeating Groups
Multiple values stored
next to a single record

Redundant data :: update anomaly

Deletion anomaly.
Delete club-loose data

Redundant Data