Unit 7 Normalization Task

Student Number	Student Name	Exam Score	Support	Date of Birth	Course Name	Exam Boards	Teacher Name
1001	Bob Baker	78	No	8/25/2001	Computer Science	BCS	Mr Jones
					Maths	EdExcel	Ms Parker
					Physics	OCR	Mr Peters
1002	Sally Davies	55	Yes	10/2/1999	Maths	AQA	Ms Parker
					Biology	WJEC	Mrs Patel
					Music	AQA	Ms Daniels
1003	Mark Hanmill	90	No	6/5/1995	Computer Science	BCS	Mr Jones
					Maths	EdExcel	Ms Parker
					Physics	OCR	Mr Peters
1004	Anas Ali	70	No	8/3/1980	Maths	AQA	Ms Parker
					Physics	OCR	Mr Peters
					Biology	WJEC	Mrs Patel
1005	Cheuk Yin	45	Yes	5/1/2002	Computer Science	BCS	Mr Jones
					Maths	EdExcel	Ms Parker
					Music	AQA	Ms Daniels

1NF Making the data ATOMIC

Student Number	Student Name	Exam Score	Support	Date of Birth	Course Name	Exam Boards	Teacher Name
1001	Bob Baker	78	No	25/08/2001	Computer Science	BCS	Mr Jones
1001	Bob Baker	78	No	25/08/2001	Maths	EdExcel	Ms Parker
1001	Bob Baker	78	No	25/08/2001	Physics	OCR	Mr Peters
1002	Sally Davies	55	Yes	2/10/1999	Maths	AQA	Ms Parker
1002	Sally Davies	55	Yes	2/10/1999	Biology	WJEC	Mrs Patel
1002	Sally Davies	55	Yes	2/10/1999	Music	AQA	Ms Daniels
1003	Mark Hanmill	90	No	5/6/1995	Computer Science	BCS	Mr Jones
1003	Mark Hanmill	90	No	5/6/1995	Maths	EdExcel	Ms Parker
1003	Mark Hanmill	90	No	5/6/1995	Physics	OCR	Mr Peters
1004	Anas Ali	70	No	3/8/1980	Maths	AQA	Ms Parker
1004	Anas Ali	70	No	3/8/1980	Physics	OCR	Mr Peters
1004	Anas Ali	70	No	3/8/1980	Biology	WJEC	Mrs Patel
1005	Cheuk Yin	45	Yes	1/5/2002	Computer Science	BCS	Mr Jones
1005	Cheuk Yin	45	Yes	1/5/2002	Maths	EdExcel	Ms Parker
1005	Cheuk Yin	45	Yes	1/5/2002	Music	AQA	Ms Daniels

2NF Fully Funcational Dependency

Teacher_ID	Teacher Name
1	Mr Jones
2	Mr Peters
3	Mrs Patel
4	Ms Daniels
5	Ms Parker

Subject_ID	Subject	Exam Boards
1	Biology	WJEC
2	Computer Science	BCS
3	Maths	EdExcel
4	Music	AQA
5	Physics	OCR

Student Number	Student Name	Support	Date of Birth
1001	Bob Baker	No	25/08/2001
1002	Sally Davies	Yes	2/10/1999
1003	Mark Hanmill	No	5/6/1995
1004	Anas Ali	No	3/8/1980
1005	Cheuk Yin	Yes	1/5/2002

3NF Functionally dependent on Primary Key (PK)

Student Number	Student Name	Exam Score	Support	Date of Birth	Subject_ID	Teacher_ID
1001	Bob Baker	78	No	25/08/2001	2	1
1001	Bob Baker	78	No	25/08/2001	3	5
1001	Bob Baker	78	No	25/08/2001	5	2
1002	Sally Davies	55	Yes	2/10/1999	3	5
1002	Sally Davies	55	Yes	2/10/1999	1	3
1002	Sally Davies	55	Yes	2/10/1999	4	4
1003	Mark Hanmill	90	No	5/6/1995	2	1
1003	Mark Hanmill	90	No	5/6/1995	3	5
1003	Mark Hanmill	90	No	5/6/1995	5	2
1004	Anas Ali	70	No	3/8/1980	3	5
1004	Anas Ali	70	No	3/8/1980	5	2
1004	Anas Ali	70	No	3/8/1980	1	3
1005	Cheuk Yin	45	Yes	1/5/2002	2	1
1005	Cheuk Yin	45	Yes	1/5/2002	3	5
1005	Cheuk Yin	45	Yes	1/5/2002	4	4