Tatiana Sutulova, 30806151

1. Class staffing report Normalization

	UNF	1NF	2NF	3NF
FITNESS_CLASS	FITNESS_CLASS (centre_id, centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode, class_no, class_duration, fac_room_no, class_start_datetime, class_sess_no, (staff_id, staff_name, class_staff_leader, staff_first_aid_certified))	FITNESS_CLASS (centre_id, centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode, class_no, class_duration, fac_room_no, class_start_datetime, class_sess_no) CLASS_STAFF (staff_id, centre_id, class_no, staff_name, class_staff_leader, staff_first_aid_certified)	FITNESS_CLASS (centre_id, class_no, class_duration, fac_room_no, class_start_datetime, class_sess_no) CLASS_STAFF (staff_id, centre_id, class_no, class_staff_leader) STAFF (staff_id, staff_name, staff_first_aid_certified) CENTRE (centre_id, centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode)	FITNESS_CLASS(centre_id, class_no, class_duration, fac_room_no, class_start_datetime, class_sess_no) CLASS_STAFF (staff_id, centre_id, class_no, class_staff_leader) STAFF (staff_id, staff_name, staff_first_aid_certified) CENTRE (centre_id, centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode)
		Partial dependency: 1) centre_id->, centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode 2) staff_id-> staff_name, staff_first_aid_certified	**Transitive dependency:** none	**Full dependency:** 1) centre_id, class_no-> class_duration, class_start_datetime, class_sess_no , fac_room_no

				2) staff_id-> staff_name, staff_class_leader, staff_first_aid_certified 3) centre_id-> centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode 4) staff_id, centre_id, class_no-> class_staff_leader

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2. Class attendance report Normalization				
	UNF	**1NF**	**2NF**	**3NF**
FITNESS_CLASS	FITNESS_CLASS(centre_id, centre_name, class_no, class_type, class_descr, fac_room_no, class_datetime , class_sess_no, (mem_no, sign_up_pay_date, (sess_date, mem_sess_attend), sign_up_total_attend))	FITNESS_CLASS(centre_id, centre_name, class_no, class_type, class_descr, fac_room_no, class_datetime, class_sess_no) SIGN_UP (centre_id, class_no, mem_no, sign_up_pay_date, sign_up_total_attend) MEMBER_SESSION_ATTENDANCE (centre_id, class_no, mem_no, sess_date, mem_sess_attend)	FITNESS_CLASS(centre_id, class_no, class_type, class_descr, fac_room_no class_datetime, class_sess_no) SIGN_UP (centre_id, class_no, mem_no, sign_up_pay_date, sign_up_total_attend) MEMBER_SESSION_ATTENDANCE (centre_id, class_no, mem_no, sess_date, mem_sess_attend) CENTRE (centre_id, centre_name)	FITNESS_CLASS(centre_id, class_no, class_type, class_descr, fac_room_no class_datetime, class_sess_no) SIGN_UP (centre_id, class_no, mem_no, sign_up_pay_date, sign_up_total_attend) MEMBER_SESSION_ATTENDANCE (centre_id, class_no, mem_no, sess_date, mem_sess_attend) CENTRE (centre_id, centre_name)
		Partial dependency: 3) Centre_id-> centre_name	**Transitive dependency:** none	Full dependency: 1) centre_id, class_no-> class_type, class_descr , fac_room_no, class_datetime, class_sess_no 2) centre_id, class_no, mem_no->

				sign_up_pay_date, sign_up_total_attend 3) centre_id, class_no, mem_no, sess_date->mem_sess_attend 4) centre_id->centre_name

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3. Collected 3NF relations:

1. FITNESS_CLASS (<u>centre_id</u>, <u>class_no</u>, class_duration, fac_room_no, class_start_datetime, class_sess_no)

2. CLASS_STAFF (<u>staff_id, centre_id</u>, <u>class_no,</u> class_staff_leader)

3. STAFF (<u>staff_id</u>, staff_name, staff_first_aid_certified)

4. CENTRE (<u>centre_id</u>, centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode)

5. FITNESS_CLASS (<u>centre_id</u>, <u>class_no,</u> class_type, class_descr, fac_room_no class_datetime, class_sess_no)

6. SIGN_UP (<u>centre_id</u>, <u>class_no, mem_no</u>, sign_up_pay_date, sign_up_total_attend)

7. MEMBER_SESSION_ATTENDANCE (<u>centre_id</u>, <u>class_no, mem_no, sess_date,</u> mem_sess_attend)

8. CENTRE (<u>centre_id</u>, centre_name)

4. Attribute synthesis:

- 1 and 5 -> FITNESS_CLASS (<u>centre_id</u>, <u>class_no</u>, class_duration, fac_room_no, class_start_datetime, class_sess_no, class_type, class_descr)
- CLASS_STAFF (<u>staff_id, centre_id</u>, <u>class_no</u>, class_staff_leader)
- STAFF (<u>staff_id</u>, staff_name, staff_first_aid_certified)
- 4 and 8 -> CENTRE (<u>centre_id</u>, centre_name, centre_addr_street, centre_addr_town, centre_addr_postcode)
- SIGN_UP (<u>centre_id</u>, <u>class_no, mem_no</u>, sign_up_pay_date, sign_up_total_attend)
- MEMBER_SESSION_ATTENDANCE (<u>centre_id</u>, <u>class_no, mem_no, sess_date,</u> mem_sess_attend)