

PK and NF justification

Instructions

The next table should state the normal form, primary key, and justifications for primary key choices for all tables of your final relational model (after normalization and resolving m:n relationships). The justification for primary key choices should include considered alternatives (if any, e.g., composite natural key versus artificial key).

If you decide to either decompose tables or merge tables due to normalization or other design decisions, you should provide a justification, too.

Table name	NF	PK	Justification
Student	BCNF	student_id	For the Student table, I did choose student_id as added as artificial key and was made primary key because it is unique when compared to student username and student access code
Student_feedback	BCNF	feedback_id	For student_feedback table, I have added feedback_id as artificial key and chosen to be primary key, as the other attributes in the table like feedback datetime, feedback given to may not be considered and as primary key
Skill	BCNF	skill_id	For the Skill Table, I have chosen skill_id as the primary key and even skill id was added as artificial key where the other attributes like skill name and skill weight would not be unique
Shared_teaching	BCNF	class_id, teacher_id	Shared teaching is associative entity between class_dojo_class and teacher and would represent identifying relationship between shared_teaching and teacher.
Teacher	BCNF	teacher_id	For the teacher table I chose teacher_id was added as artificial key and considered to be unique and primary when compared to teacher last name

Class_Story	BCNF	story_id	As class story is subtype entity it will inherit the primary key from the super type.
Student_Story	BCNF	story_id	As student story is subtype entity it will inherit the primary key from the super type.
Story	BCNF	story_id	In the story table I would consider story_id as artificial key and considered to be unique and primary when compared to other attributes in Story table
Student_Parent	BCNF	parent_id,student_id	It is considered as associative entity between student and parent, where the primary key of parent and student entity would be considered as combination of primary and foreign key defining in identifying relationship.
Dojo_Parent_likes	BCNF	parent_id, story_id	It is considered as associative entity between parent of student and story, where the primary key of parent and student entity would be considered as combination of primary and foreign key defining in identifying relationship.
Parent_of_student	BCNF	parent_id	In this entity I have chosen parent_id as been added as an artificial key and parent_id is considered to be more unique when compared to .
Student_Parent	BCNF	student_id, parent_id	It is a composite entity often involve identifying relationship, and I decided to give a composite primary key for this table, we can also satisfy the table by giving an artificial key also.
Student Enrollment	BCNF	class_id, student_id	Student_Story is a subtype entity which gets its primary key from the super type entity Story, which is story_id.
Story comment	BCNF	comment_datetime, parent_id, story_id	Story comment table is associative entity, where it

			creates identifying relationship between parent_of_student and class_story where comment datetime is considered to be primary key when compared to parent id and story id as there could be different parent and story id.
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Decomposing Attributes

Table name	Attribute	Decomposed Attributes	Justification
Student	student_name	student_first_name student_last_name	Student name is multivalued attribute where you could see that it can be decomposed into student first name and student last name.