

Assignment - 3

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Sec - 3

(1)

(a) It is in 1NF, because no multivalued or composite attribute are present in the schema.

(b) It is not in 2NF, Let it normalize to 2NF.

P1:

<u>Project_ID</u>	Project_title
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2NF

P2:

<u>Student_ID</u>	Student_Name	Semester
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P3:

<u>Project_ID</u>	<u>Student_ID</u>	course	section	Grades	Submission	Bonus
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(c) The above schema is not in 3NF because there are transitive dependencies due to FD3 and FD4.

P1:

<u>Project-ID</u>	<u>Project-Title</u>
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P2:

<u>Student-ID</u>	<u>Student-Name</u>	<u>Semester</u>
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P3(a)

<u>Project-ID</u>	<u>Student-ID</u>	<u>submission</u>	<u>course</u>	<u>section</u>
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P3(b)

<u>Submission</u>	<u>Bonus</u>
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P3(c):

<u>Course</u>	<u>Section</u>	<u>Grades</u>
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(2)

It is in 1NF, because there are no composite or multivalued attributes in the schema.

But it is not in 2NF because there are partial dependencies due to FD1 and FD2.
Normalizing it to 2NF:

P1:

<u>AuthorName</u>	AuthorAffiliation
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P2:

<u>BookTitle</u>	Publisher	Price	Type
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P3:

<u>AuthorName</u>	<u>BookTitle</u>	Type	Category
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Finally, in the above schema there are no transitive dependency so it is in 3NF.