CSCI-585: Assignment # 3

Due on Friday, July 10, 2015

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1 Question # 1

1.1 Part1 Functional Dependencies

Primary Key: ($\underline{TID}, \underline{StatusCode}$)
   Partial Dependencies:
$\underline{StatusCode} \longrightarrow TaskStatusText$

   Transitive Dependencies:
$ReqDept \longrightarrow Charge$

1.2 Part2

Part2 Satisfies 1NF but not 2NF or 3NF All the rows are unique considering all the attributes(which are atomic). However it is not 2NF. since there is a partial dependency involved: $\underline{StatusCode} \longrightarrow TaskStatusText$

1.3 Part3

Part3 3NF Form:

$TaskStatus$

TID	StatusCode	ReqDept	TaskStatusTime

$Dept\_Charge$

ReqDept	Charge

$Code\_Text$

StatusCode	TaskStatusText

2 Question #2

2.1 Part 1 Functional Dependencies

Primary Key: $\underline{EID}$
   Functional Dependencies: None

2.2 Part 2

This is in neither of 1NF,2NF,3NF. The last column 'Especialities' is not atomic, and hence it is not even 1NF.

2.3 Part 3

$Employees$

EID	Ename	EDeskNum

$EID\_ESpecialities$

EID	ESpecialities

3 Question #3

3.1 Part 1 Functional Dependencies

Primary Key: ($\underline{CustID}, \underline{EID}$)
    Partial Dependencies:
$\underline{CustID} \longrightarrow CustDept$

    Transitive Dependencies:
None

3.2 Part 2

This is 1NF, but not 2NF or 3NF. All columns are atomic, no two rows contain repeating data. It is not 2NF because of the presence of partial dependency: $CustID \longrightarrow CustDept$
(A customer is an employee first, and hence is connected to one department('CustDept'))(It's not really clear what CustDept is, I am assuming it is the dept that the employee who is a customer belongs to)

3.3 Part 3

Review:

CustID	EID	Rating	Comments

CustID_Dept:

CustID	CustDept