

Lecture 2 – Database schema, normalization and MySQL Workbench

Extra exercises

Exercises

- Normalisation
 - Describe and illustrate the process of normalizing the following data to first (1NF), second (2NF), third (3NF), and BCNF.

Patient No → Full Name

Ward No → Ward Name

Drug No → Name, Description, Dosage,
Method of Admin

Patient No, Drug No, Start Date → Units per Day,
Finish date

Wellmeadows Hospital Patient Medication Form							
Patient Number: <u>P10034</u>							
Full Name: <u>Robert MacDonald</u>				Ward Number: <u>Ward 11</u>			
Bed Number: <u>84</u>				Ward Name: <u>Orthopaedic</u>			
Drug Number	Name	Description	Dosage	Method of Admin	Units per Day	Start Date	Finish Date
10223	Morphine	Pain Killer	10mg/ml	Oral	50	24/03/01	24/04/02
10334	Tetracycline	Antibiotic	0.5mg/ml	IV	10	24/03/01	17/04/01
10223	Morphine	Pain Killer	10mg/ml	Oral	10	25/04/02	02/05/03

Relational databases with MySQL

Rehearsal exercises – a second try

- Create a new database model for your lab and include following data
 - All trainings
 - Subject, duration
 - All lab members
 - Name, lastname, birth_date, training
 - All equipment
 - Name, manufacturer, purchase_date
 - All experiments
 - Name, performed_by, equipment_used, date
 - All results
 - Directory, experiment, status
- Forward engineer your model

*Be sure not to use the same
names as before if you want to
keep both databases*